INVESTOR CHARACTERISTICS AND THEIR EFFECT ON INVESTMENT DECISIONS AMONG PUBLIC UNIVERSITY WORKERS IN KENYA

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DECLARATION AND RECOMMENDATION

Declaration

This Research Project is my original work and has not, wholly or in part, been presented in any other University for an academic award.

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DEDICATION

This Research Project is dedicated to my wife Mary Musembi, and my daughters; Ashleigh Neema Mwaka and Lydia Mueni Mwaka, for their understanding, resolute support, and encouragement throughout the project.

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ABSTRACT

Investment decision has become part of individuals' lives in recent days. People invest in insurance policies, fixed deposits, shares, equities, real estate, mutual funds, and government securities among others. Universities are the peak of knowledge hence the community expects that workers in such institutions be on the frontline in making informed investment decisions. Although university staff work in the same environment, different investor characteristics affect their investment decisions differently. However, there is limited information on the moderating effect of mobile borrowing on the relationship between investors' risk attitude, demographic profile, and socio-economic status on investment decisions. This study investigated investor characteristics and their effect on investment decisions among public university workers in Kenya. The objectives of the study were to; assess the effect of investor risk attitude on investment decisions among public university workers in Kenya, test the effect of the investor demographic profile on investment decisions among public university workers in Kenya, and determine the effect of socio-economic status on investment decision among public university workers in Kenya. The study also examined the moderating effect of mobile borrowing on the effect of investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya. Capital Asset Pricing Model, Efficient Markets Hypothesis, Prospect Theory and Behavioural Finance Theory guided the study. The study adopted a descriptive survey research design with a target population of 2069 workers from the sampled Public Universities in Kenya. A stratified random sampling technique was employed from which a sample of 335 was used. Further, data was collected using a structured questionnaire. The questionnaires were administered using google forms. Data was analysed using regression analysis with the aid of SPSS version 26 software, and Microsoft excel. Charts, tables, graphs, and figures were used to present the results. The results of the study indicated that risk attitude had the biggest effect on investment decision-making since it explained 41.7 percent while socio-economic status explained only 27.5 percent variation in investment decision-making. Compared with other variables, risk attitude had the highest effect on investment decisions as it led to 0.630 units rise in investment decisions for every unit change. In addition, all the demographic factors influenced the choice of investment. However, gender, age and marital status had a negative effect on investment decision-making. The results also showed that investors between the age of 31-40 were willing to diversify their investments, unlike the other age groups. Mobile borrowing was found to moderate the relationship between investment decisions and its predictors. The study concluded that risk attitude was the leading predictor of investment decisions. Since workers between 31-40 years were found to have a much higher affinity for risk and investment, the study recommends that the government consider targeting civil servants and other professionals in this age group by providing them with investment incentives. Further, a similar study could be conducted to assess how mobile borrowing will moderate investment decision-making once the government operationalizes the new law governing mobile lending in the country. The findings of this research are significant in that they will benefit lenders in understanding how various categories of borrowers behave in the investment of the borrowed funds. This will lead to economic growth as most credit facilities will be granted to those likely to invest.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of variance
CAPM	Capital Asset Pricing Model
CML	Capital Market Line
EMH	Efficient Markets Hypothesis
ID	Investment Decision
KNBS	Kenya National Bureau of Statistics
MB	Mobile Borrowing
NACOSTI	National Commission for Science, Technology, and Innovation
RA	Risk Attitude
SES	Socio-Economic Status
SPSS	Statistical Package for Social Science
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Behavioural Finance: This term refers to the behavioural aspect of finance, explaining the effect of irrational or emotional investors' behaviour on asset price.

Demographic Profile: This is refers to the general characteristics of an individual as measured by age, gender, and marital status of public university workers.

Diversification: This refers to division of investments among different kinds of assets, such as stocks and bonds with different risks and rewards, to minimize the potential harm from any given asset.

Employment Category: This refers to the specified area in a Kenyan University in which employees offer their service, and commonly classified into either teaching or non-teaching.

Investment Decisions: This refers to choices by an investor on where an investor is willing to invest, when to invest, and how much money to spend in the pursuit of making a profit. The expected return and risk majorly determine investment decisions.

Investor Characteristics: "Investor Characteristics" are the traits that influence an investor in making an investment decision. These may include demographic characteristics, socio-economic factors, and risk attitude.

Mobile Loan: This term is used in reference to a digital loan or loan accessed using mobile applications.

Risk Attitude: As used in this study the term "Risk Attitude" refers to the financial risk level that an investor is willing to take on an investment opportunity, as different investors require different safety assurance for their ventures.

Socio-economic Status: This term is used in this study to refer to the social and economic factors of individuals concerning investment decision-making ranging from family size, income levels, education level, and employment category.

Worker: This term "worker" in this study is an employee whose terms of engagement with an organisation is either permanent or contractual.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Investment and savings are inseparable. An investor requires savings to make investment decisions. In recent days, investment decision has become part of individuals' lives. Some of the investment opportunities include; fixed deposits, shares, equities, real estate, mutual funds, and government securities among others. This wide pool of investment avenues put investors in a dilemma whether once they invest; they will get maximum satisfaction as per the law of utility; whether investors should spend their money on investments that will maximize their wealth. Investors need to decide on the combination of investment assets from the available pool of investment opportunities.

Virtually, everyone makes investment decisions. An investor may fail to select specific assets such as stocks. Although investments are still made through participation in mutual funds, pension plans, and employee saving programmes or the purchase of life assurance products or a home, each of these investments has common characteristics such as the potential return and the associated risk (Divanoğlu & Bağci, 2018). An investor must first specify the investment goals. Based on these predetermined goals, an investor should be aware of the mechanics of investing and the environment in which investment decisions are made. Some investment mechanics important for a successful investment include the selection of securities, time horizon, regulations and tax laws, and the sources of information concerning an investment that are available to the investor. In their research on Determining the Factors Affecting Individual Investors' Behaviours, Divanoğlu and Bağci (2018) found out that investors needed a well-diversified portfolio for them to earn good returns.

When investors are faced with the option of choosing among different investment opportunities, he/ she takes into consideration his/ her income and loss in the first step and later the value attached to each investment (Gill, Khurshid, Mahmood & Ali, 2018). A study by Senthil (2019) on the demographics and investment preferences among retail investors, found that home loans, income, security for income, children's education, safety, risk protection, purchasing of new assets, debt-free life, luxury lifestyle, vacation planning, parental care, retirement plan, tax benefits, future return

and children marriage influenced the investment decision. However, age and gender had no influence on the investment decision among retail investors. According to Divanoğlu and Bağci (2018), individual investment preferences, investors' personal and social situations and levels of knowledge and general factors such as; income levels, economic stability, experience, and state policies affect investment decisions. Divanoğlu and Bağci (2018) further state that minimising the risk exposure, risk of return and diversification was the most important variable in choosing investment instruments.

The decision to invest largely depends on the investor's behaviour. In the recent past, behavioural finance has become more popular as a study area that examines human actions affecting investment performance. Empirical studies have revealed that overconfident investors trade too much, though with poor performance. With the dynamics in the employment sector and fluctuating inflation rates in Kenya, there is a need for increased awareness of the importance of financial savings and wise investing (Joseph & Ali, 2015). Investment decisions are directly proportional to normal human behaviour and can have a devastating impact on long-term wealth accumulation. Behavioural finance is a rapidly growing area of study that examines a wide variety of human actions that affect investment performance. It was relevant for the study in understanding how investor characteristics affect the investment decision. Empirical studies have revealed that income level, information, and education level greatly affect employee investment decision-making (Joseph & Ali, 2015).

In recent years, mobile-based lending in the country has exponentially grown without a regulatory framework. Some estimates show that the number of mobile lending platforms in the country had risen to over 49 (Financial Sector Deepening Kenya (FSD Kenya), 2018). The study also showed that 35 per cent of the borrowers used the funds for day-to-day household needs while 37 per cent used the borrowed funds in their businesses. When credit access is not safeguarded, debt stress kicks in hard, and this might influence the relationship between investment decisions and its determinants such as risk attitude, demographic, and socio-economic profiles. According to Muneeswaran et al. (2019) in a study on the investors' behaviour on investment avenues found that technology advancement and use could add more knowledge to the investors about their investment decisions and their risk attitude towards making an informed

investment decision. At the time of this study, no existing previous research had been done where mobile borrowing is used as a moderating variable.

Kenya has 31 public universities and all have established business faculties and with the highest number of 1,527 (10%) teaching staff (Mukhwana, Oure, Kiptoo, Kande, Njue, Too, & Some, 2016). It is in universities where one can achieve the highest academic excellence. Most of the individuals in the investment arena are believed to have passed through universities. In this regard, therefore, the community expects university workers to be at the forefront in making informed investment decisions. However, investment decisions might differ on university workers based on the individual's background. Although university staff work in the same environment, their different backgrounds in terms of marital status, age groups, gender, monthly earnings, family size, education level, employment category, and risk attitude affect their investment decision-making. It is also not known whether by interacting with each other, more so, with investment experts, university workers share investment ideas, and if they do, whether the ideas translate into practice. In addition, it is yet to be established if the current trend of mobile-based lending in Kenya influences University staff investment decision-making. Therefore, this study endeavoured to explore how investor characteristics affect investment decision-making.

1.2 Statement of the Problem

Investment decision making is a day-to-day life practice. Therefore, it is essential that individuals understand the importance of making wise and informed investment decisions. With universities being the peak of knowledge, it is expected that the workers in such institutions make informed investment decisions. University workers from different institutions interact and as a result they may be able to borrow investment ideas from either within themselves or from elsewhere, even without an established business school. University workers just like other investors. can be affected by age, gender, marital status, income, risk appetite, and other socioeconomic factors in making investment decisions. However, information on the moderating effect of mobile borrowing on the relationship between investors' risk attitude, demographic profile, and socio-economic status on investment decisions remains unclear. Therefore, this study investigated the effect of the investor characteristics namely: risk attitude,

demographic, and socio-economic profiles on investment decisions among public university workers in Kenya.

1.3 The General Objective

The general objective of the study was to investigate the effect of investor characteristics on investment decisions among public university workers in Kenya.

1.3.1 Specific Objectives

The specific objectives that guided this study were;

(i) To assess the effect of investor risk attitude on investment decisions among public university workers in Kenya.

(ii) To test the effect of the investor demographic profile on investment decisions among public university workers in Kenya.

(iii) To determine the effect of socio-economic status on investment decisions among public university workers in Kenya.

(iv) To examine the moderating effect of mobile borrowing on the effect of the investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya.

1.4 Research Hypotheses

This study was guided by four hypotheses to achieve the above objectives. These include;

H_{01}: There is no statistically significant effect of risk attitude on investment decisions among public university workers in Kenya.

H_{02}: There is no statistically significant effect of demographic factors on investment decisions among public university workers in Kenya

H_{03}: There is no statistically significant effect of socio-economic status on investment decisions among public university workers in Kenya.

H_{04}: There is no statistically significant moderating effect of mobile borrowing on the effect of investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya.

1.5 Significance of the Study

The study was significant in several ways. In Kenya, there has been a significant advancement in technology and innovations in lending via digital channels, especially through mobile phones. However, there have been concerns by the public about the predatory behaviour of unregulated digital credit providers. The concerns include the high-interest rates of the loans, personal information abuse and unethical way of debt collection in cases of default, whereby the lender reach the contacts of the borrower and harass people who were not a party to the contract. Moreover, the challenges of COVID-19 pandemic led to the urgency of utilizing financial technology. It was important to keep financial systems functioning and at the same time ensure people's safety during the social distancing times. For these reasons, therefore, it is critical that the Central Bank of Kenya monitor and regulate digital lending in the country since the use of financial technology is the way to go.

It was projected that the findings of this study would provide investors with information relating to various investment avenues available and how interaction with investment specialists influence their investment decision-making. This study aimed at analysing how mobile borrowing influenced the relationship between investor characteristics and investment decisions. This research will benefit academicians as it brings new knowledge to understanding the role of mobile borrowing in investment decision-making. The findings will also be useful to university workers and other investors in understanding their investment decision behaviour.

The findings of this research will also be of benefit to lenders in understanding the investment behaviour of various categories of borrowers. This will help in identifying the market for their loan facilities hence economic growth as most of the loan facilities will be granted to those individuals who are likely to invest.

1.6 Scope of the Study

This study focused on investigating the effect of investor characteristics and their effect on investment decisions. In addition, the study investigated how mobile borrowing affects the investment decision of investors with different characteristics. The focus of the study was on how risk attitude, demographic profile, and socio-economic status affect investment decisions among public university workers in Kenya. There are 49 chartered universities in Kenya out of which 31 are public universities (CUE, 2017). Out of the 31 public universities, 4 were selected using the sampling technique for this study. These included Dedan Kimathi University of Technology, Karatina University, Chuka University, and Laikipia University. This was relevant as all public universities in the country were found to have an established faculty of business studies. The respondents were the salaried workers who comprised both the teaching and the non-teaching staff.

1.7 Limitations of the Study

The limitation of the study was the effect of COVID-19, and the use of hard copies for the questionnaires was not possible due to the Ministry of Health guidelines on the prevention of infections. The guidelines only allowed minimal movement and coming to contact with surfaces to reduce the spread of the virus. The effect of this limitation was mitigated by the adoption of technology where Google Forms were used to administer the research questionnaires.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter comprises a literature review related to the variables under study to aid in the understanding of investor investment decision-making. The chapter brings forth the theoretical framework, empirical review, and critique of the existing literature, and concludes with a conceptual framework to guide the study.

2.2 Theoretical Review of Literature

A theory is a set of systematic and interrelated concepts, propositions and definitions, advanced to explain or predict phenomena (Cooper & Schindler, 2014). An investment decision can be influenced by several variables. In the current study, investor risk attitude, demographic profile, and socio-economic status were used as the determinants of investment decisions. These determinants were reviewed and guided by the following theoretical framework and model: capital asset pricing model, prospect theory, efficient market theory, and behavioural finance theory. The study looked at the theory content and its relation to the current study.

2.2.1 Capital Asset Pricing Model

This model can be traced back to 1952 when Harry Markowitz established the modern portfolio theory (MPT). The theory applied mathematical concepts to finance. It showed how risk-averse investors could construct portfolios to maximize expected returns based on a given level of market risk, emphasizing that risk is an inherent part of higher reward. A decade later, the capital asset pricing model (CAPM) was developed.

CAPM is one of the models that explain investment under uncertainty. It was formulated in the seminal work of Markowitz (1952) and Tobin (1958). Later, Sharpe (1963; 1964), Lintner (1965; 1969), Mossin (1966) simplified the model. They considered that expected returns were determined by the expected market risk premium adjusted by the beta coefficient added to the risk-free rate. This broadened the understanding of the total asset risk, which comprises both systematic and non-systematic risk. In the presence of a risk-free interest rate for investing or obtaining resources, there exists a particular point on the efficient frontier whose corresponding

portfolio is held by all investors irrespective of their risk profiles (Sharpe, 1964). There is a super-efficient portfolio obtained through the combination of risk-free and risky assets, which is located at the point of tangency between the efficient frontier and Capital Market Line (CML). All investors consider this point of tangency since it represents a set of combinations of risk-free and risky assets. The CAPM also introduced the concept of beta, which is used to measure the covariance between the return of an asset and the market and represents the contribution of systematic (non-diversifiable) risk of an asset towards the risk of a diversified portfolio. Evans and Archer (1968) and Tole (1982) calculated the standard deviation of up to 20 asset portfolios. The results showed that the maximum benefit of diversification was derived from portfolios of between 12 to 18 stocks. However, this finding has been modified by subsequent studies. Statman (1987) recommended that a well-diversified portfolio must have at least 30 to 40 assets. Further, Campbell, Lettau, Malkiel, and Xu (2001) in their empirical exploration of idiosyncratic risk demonstrated how it took more assets in a portfolio to achieve the same level of diversification. For example, they revealed how the level of diversification that was possible with only 20 assets in the 1960s required around 50 assets by the late 1990s.

Investors aim to maximise their single-period utility of wealth. CAPM is greatly used by professionals faced with the challenge of estimating capital costs. This theory aids in understanding the development of investment, particularly in the stock market. However, according to Roll (1977), the market portfolio is not made up of stocks or financial assets only, but of all assets that can be acquired. In this regard, it is therefore impossible, in practice, to have a true market portfolio, especially from an international point of view.

The above assertions make CAPM essential for this study as it makes us understand how investors with different risk attitudes make an investment decision in a bid to maximise their expected returns and reduce uncertainty. The theory also makes us understand that systematic risk is one of the most relevant risks and it could not be reduced through diversification of the portfolio assets. Universities comprise professionals in different fields including investment finance. Previous studies show that these professionals use CAPM when faced with the challenge of estimating the cost of capital. One of the assumptions of CAPM is the perfect capital market. This

assumption means that the valuation of all securities is correct. This ignores the effect of moderating and other intervening variables that may influence investment decision-making. This study used mobile borrowing as the moderating variable to find out how it influenced investment decision-making.

2.2.2 Efficient Market Hypothesis

According to economist Eugene Fama in the 1960s in his PhD dissertation, in any market that has several agents who were well informed, the current price in such markets reflected all the available information. This idea evolved into the first of three papers published by Eugene Fama on the Efficient Market Hypothesis by the 1970s. This theory dominated investment finance from the early 60s to the mid-90s.

EMH is anchored on three tenets: the weak, the semi-strong, and the strong. The weak form assumes that the current stock prices put into consideration all available information. All past prices are integrated into the current prices of the stocks. Thus, past prices cannot be used for predicting future price movements and therefore, an investor cannot benefit from historical information. The semi-strong form of the EMH contends that stock prices are because of all publicly available information. Therefore, no investors can use fundamental analysis to beat the market and make significant gains. In the strong form of the theory, all information (public and private) is already factored into the stock prices. It assumes that no one can benefit from insider information since the market was perfect.

According to Malkiel (2003), the accepted view was that when information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Moreover, new information is directly available to markets and is easily reflected in stock prices, therefore it does not provide any extra gain or abnormal profit to investors. EMH postulates that stock prices take a random walk and thus no one can predict them. Further, Lo and Hasanhodzic (2011) stated that stock prices were commonly perceived as random and unpredictable.

Therefore, EMH assumes that all investors are rational. In a study by Spyrou (2003), investors who are not rational choose overpriced or under-priced investments; hence achieve lower returns than rational investors. According to Jones (1993) and Shleifer (2000), an efficient market exists only if costless information is widely available to

market participants at the approximately same time. Investors respond promptly to new information, leading stock prices to adjust accordingly. Rational valuation of securities by a large number of rational profit-maximising investors exists, who actively participate in the market, and the case of irrational trades in the market, rational arbitrageurs cancel their influence without affecting stock prices.

EMH has been largely used in the securities market and the theory assisted this study in understanding that investors have equal chances for investments. However, its assertion that financial markets are efficient, leave investors with questions about whether there is any efficient investment market. EMH helped the current study in understanding the security market where shares can be purchased as this was in objective two of the study.

2.2.3 Prospect Theory

The theory was established by Kahneman and Tversky (1979). It stipulates that investors do not value gains and losses at par but rather differently. It also contends that utility depends on deviations from moving reference points rather than absolute wealth. Decisions are made based on perceived gains rather than perceived losses. Prospect theory sees people as violators of the principles of expected utility theory. Investors are influenced by some fallacies and hence take incorrect decisions. The fallacies include; Investors being risk-averse when it comes to losses rather than gains. According to Kahneman and Tversky (1984), losses are perceived to be larger than gains. This is known as loss aversion. Mental accounting asserts that investors create different mental accounts and register events in those separate accounts. On the other hand, regret aversion investors tend to postpone stock selling to avoid losses as they have a strong desire to avoid pain, which could be incurred by a poor investment decision.

Investors anticipate emotions like regretting a decision that was made and resulted in a loss rather than a gain because they compare possible outcomes of a choice with what the outcomes would have been, had a different choice been made (Zeelenberg & Pieters, 2004). While making decisions under risk, investors are presented with two alternative actions associated with specific probabilities and gambles.

This theory underpinned the study in understanding how investors make an investment decision based on perceived gains rather than perceived losses. It was to guide in

finding out to what extent university workers fear making losses at the expense of perceived gains. Investors anticipate emotions like regretting a decision that was made and resulted in a loss rather than a gain. However, despite all these considerations in decision-making, investments are affected by the cognitive biases of investors. This depends on personality, culture, and socio-economic environment. Thus, Behavioural Finance has emerged as a new dominant model to explain investment decision-making.

2.2.4 Behavioural Finance

Behavioural Finance deals with the internal and external behavioural factors affecting investors' financial decisions (Gill et al., 2018). Behavioural finance is a field of study, which suggests that investment decisions are influenced by psychological and emotional factors largely. According to Budhiraja, Raman and Bhrdwaj (2018) in their research on the impact of behavioural finance in investment decision-making, behavioural finance challenges traditional financial theory. It suggests that multiple biases influence individual investment decisions. These biases include heuristic biases such as gamblers' fallacy, anchoring and representativeness; regret aversion, framing and disposition effect as explained in the prospect theory. Shiller (2003) and Budhiraja et al. (2018) have largely offered a great overview of the way behavioural finance has evolved over the decades.

The Efficient Markets Model consistency started being challenged in the 1980s. One issue that troubled the efficient markets' complete acceptance was the problem of excess volatility, which may be caused by psychological factors. As a result, several researchers came up with theories to describe the wide swings in stock prices. However, it proved challenging to reconcile the idea that stock prices, commodities or real estate resulted from all current and future intrinsic and external factors. This can mean two things; either finance was wrong about what composed the value for a stock, or investors were not fully rational. After this revelation, Shiller (2003) brought inefficient markets at the micro-level (individual) and inefficient markets at the macro level.

In the 1990s, more research presented results contrary to efficient markets and behavioural finance gained grounds as a legitimate field to explain investors' behaviour. It is assumed that in the Efficient Markets Hypothesis, smart money can fully offset any noise caused by sub-optimal decision-making. Notwithstanding, Shiller (2003) notes that this is not the case in the application. Heukelom (2014) agrees with

what Shiller (2003) observed and provides a detailed account of how behavioural economics and finance were founded on a personal level.

Gill et al. (2018) stipulate that the Prospect Theory is a behavioural economic theory that describes making investment decisions in a risky environment. The theory states that when investors face the option of choosing among different investment opportunities, he or she takes into consideration his/her income and loss in the first step and later the value attached to each investment. After combining the two steps, the investor chooses the simplified option, which has more value than all the others. From the above review, this theory will influence the current study because investment decisions are found to be highly informed by the behaviour of investors towards risk, demographic, and socio-economic profiles of investors.

2.3 Empirical Review of Literature

This study investigated investor characteristics and their effect on investment decisions. It also endeavoured to find out moderating effect of mobile borrowing on the effect of the investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya. To achieve this, the section reviewed the empirical literature on risk attitude and investment decisions, investor demographics and investment decisions, socio-economic characteristics and investment decisions, and mobile borrowing and the relationship between investor characteristics and investment decisions.

2.3.1 Investor Risk Attitude and Investment Decision

Investment is the act of giving one's money to a company or enterprise hoping the venture shall be successful and give you more returns with minimal risks. In classical portfolio theory, Markowitz (1952) states that the decision about how much risk an individual should accept in an investment portfolio remains a trade-off between the expected return of the investment and the variance determined by the risk attitudes of the individual. In recent years, behavioural studies have taken the centre stage in the risk-taking behaviour of an individual. Every person thinks of a good life in the future hence the need for investment. Each investment comes with riskiness and therefore investors must understand and be ready to take risks to create wealth. Several investment avenues are available for investments.

Individuals are risk-averse, at least for decisions with outcomes in the domain of grains and with mixed outcomes that include both gains and losses. The research literature on behavioural decision-making suggests several potential reasons for this observed risk aversion (Cordell, 2011). However, if individuals are generally risk-averse, it is also clear that they have a varying degree of financial risk that they are willing to incur. In Bernoulli's early version of the expected utility theory, these differences in risk propensity are ascribed to differences in the wealth of investors, with wealthier investors being willing to incur more risk (Cordell, 2011).

Various explanations have been advanced for these individual differences in risk attitude. For example, it has been proposed that the trait of risk-seeking in the investment domain may be related to a general personality trait, specifically a generalized disposition to tolerate anxiety or seek excitement (Zuckerman, 2011). Another situational factor or mental disposition that can affect risk aversion is the tendency to aggregate outcomes over occasions, situations, and asset classes among others. Whatever their cause, it is important to be able to assess individual differences in risk attitudes, if financial advisors and financial institutions are to properly serve individual investors. It is more and more widely accepted that individuals' risk attitudes predict their comfort level with different investment strategies, and perhaps the level of their unhappiness with unfavourable investment outcomes. In a study conducted by Hallahan, Faff and Mckenzie (2004), modern portfolio theory holds that optimal asset allocation in an investment portfolio must take into account the trade-off between expected return and risk, and accept that individual investors have risk preferences that affect this optimization. Shinde and Zanvar (2015) in their study on investment patterns based on demographic traits postulate that the level of risk tolerance by investors influences their investment decisions. High-risk taking affects both the fund managers as well as the individual investor (Olweny, Namusonge & Onyango, 2013). The risk tolerance determines the investor's investment portfolio.

More recently, it has been evident that people have attitudes towards risk, thus affecting investment behaviour. Tchouadep, Elodie, Mburu, and Githui (2018) researched the attitude toward the risk of credit managers and the efficiency of credit management in real estate investment trusts in Kenya. They found out that risk attitude was one of the most important behaviours of managers in any company that affects decisions regarding

consumption, saving and investing. In another study on the relationship between risk aversion of individual investors and stock market participation decisions among secondary school teachers from Nakuru County, Langat and Rop (2019) found that risk aversion of individual investors had a significant relationship with stock market participation decisions among secondary school teachers from the county of Nakuru. Further, Individuals invest their surplus money in any of the investment avenues based on their risk-taking capacity. This shows that individuals' financial decision-making depends on their attitude and behaviour (Hemalatha, 2019).

2.3.2 Investor Demographics and Investment Decision

Jain and Mandot (2012) did a study on various demographic factors that affected the investment decision of investors in Rajasthan and found that age, gender, and marital status, had a major impact on investment decision-making. Another study by Ramanujam and Chitra (2012)' on age and gender and how they influence investment decisions of salaried and business people in Coimbatore City found that persons in different age groups and gender had different investment patterns. In addition, a study by Geetha and Ramesh (2012) on the relevance of demographic factors on investment decisions found that an investor's annual income, family size and annual savings had a significant effect on investment decisions. However, variables like age, gender, occupation, and education had no significant effect on investment decisions. A study by Das and Jain (2014) on the influence of demographical variables on the factors of investment, found that demographic variables such as gender and age played a very important role in an investment decision.

Other recent studies show that most of the individuals who invest are males aged between 31 and 60 years (Lan, Xiong, He & Ma, 2018). A study on the factors influencing the investment decision of the individual related to selected individual investors in Chennai City, (Hemalatha, 2019) found that investment decisions varied with age and gender. In a study on investment patterns based on demographic traits, Shinde and Zanvar (2015) found that demographic factors of investors affect the investor's level of risk tolerance hence affecting the overall investment decision. In a similar study on the influence of demographic factors on the investment behaviour of individual investors in Edo State, Nigeria, Agbo and Abu (2020) postulates that age and gender had a strong influence on individual investors' behaviour.

Contrary to the above studies, a study by Senthil (2019) on the demographics and investment preferences among retail investors, found that both age and gender did not influence investment. The author found that income and security for income influenced investors' investment decision-making. Also, a study by Patel and Modi (2017) on the influence of demographic variables affecting investment decisions found that gender had very little impact on investment decisions. This study used gender, age, and marital status to explain the demographic profile of the investor as the majority of the previous studies have been having different results on how they affect investment decisions.

2.3.3 Socio-Economic Characteristics and Investment Decision

Investing behaviour of individual investors depends on various factors, which include their profile too. Several studies have been reviewed in this area. Ramanujam and Chitra (2012) found that socio-economic variables like education level, income, and occupation make a significant impact when making an investment decision. Also, other studies found that socio-economic variables such as occupation, income level, market knowledge, and qualifications have a major impact on investment decision-making (Das & Jain, 2014); Jain & Mandot, 2012).

Several studies have shown that the socio-economic characteristics of investors greatly affect their investment decisions. Shinde and Zanvar (2015) observed that the socio-economic of investors such as educational qualification and income levels affect the investor's level of risk tolerance and influence an individual's investment decision. In another study, Joseph and Ali (2015) observed that income level to a great extent influenced employee investment decision-making. Investors in the high-income category have a lot of excess money, which they opt to invest even in risk avenues. This is evident in the results of research conducted by Chattopadhyay and Dasgupta (2015), in their study on how socio-economic factors impact risk altitude. In their study, Chattopadhyay and Dasgupta (2015) found that investors in the high-income category had a fear of risk and invested most of their income. Family size and education level were also found to influence investment decision-making where the bigger the family, the low the investment and the high the education level, the higher the appetite for investing. According to Senthil (2019), income and security for income influence investors' investment decision-making. In a more recent on the moderating role of perceived risks in the relationship between financial knowledge and the intention to

invest in the Saudi Arabian stock market, Shehata, Abdeljawad, Mazouz, Aldossary, Alsaeed, and Sayed (2021) found out that, financial knowledge influenced investment decision. This study used, monthly income, family size, education level, and employment category as the indicators of the socio-economic status of the investors as most of the studies reviewed used the same.

2.3.4 Mobile Borrowing and Investment Decision

Mobile loaning is dominating the lending sector as it is without a regulatory framework. This means that anyone can loan. Banks may be celebrating now but in future, it might hit on them. Credit reference bureaus (CRB) may list the majority of Kenyans. When credit access is not safeguarded, debt stress is inevitable. Individuals borrow to have the finance to undertake different activities. Finance helps society in various ways: payment for goods and services, matching lenders and borrowers and risk mitigation for both individuals and businesses (Kay, 2015).

M-Shwari is one of the digital lending platforms in Kenya where credit is instant, remote and automated (Chen & Mazer, 2016). A study by Gwer, Odero, and Totolo (2019) on digital credit audit reports evaluating the conduct and practice of digital lending in Kenya found that digital lending was rapidly growing with almost 70 per cent of adults (18+) borrowing from the facilities. Mobile borrowing has been on the rise in the country. The introduction of mobile lending applications has led to easy access to credit without collateral (*Importance of Mobile Loan Apps to Kenyans. Why Are They Important?* n.d.). Approximately 37 per cent of Kenyans get digital loans for business reasons while 35 per cent of them get digital credit for the day-to-day needs of their households (Financial Sector Deepening Kenya (FSD Kenya), 2018). Moreover, some people borrow from one platform to pay the other. This has made many people live a debt life. The Central Bank of Kenya ACT (CAP 491) came up with an amendment to regulate digital lending. This shall protect digital borrowers on sharing of their credit information and combat the financing of terrorism. Little research has been done on mobile borrowing using mobile apps and how this influences investment decision making.

2.4 Conceptual Framework

According to Kombo and Tromp (2009), a conceptual framework is a set of broad ideas and principles which are from related fields of enquiry and are used to build a

subsequent presentation. Mugenda (2008) adds that it is a concise description of the phenomena under study accompanied by a graphic or visual depiction of the major variables of the study. Another study by Kitchel and Ball (2014) sees a conceptual framework as being a model to describe variables of a study and the way they relate to each other. A conceptual framework was thus developed for this study as shown in Figure 2.1 below.

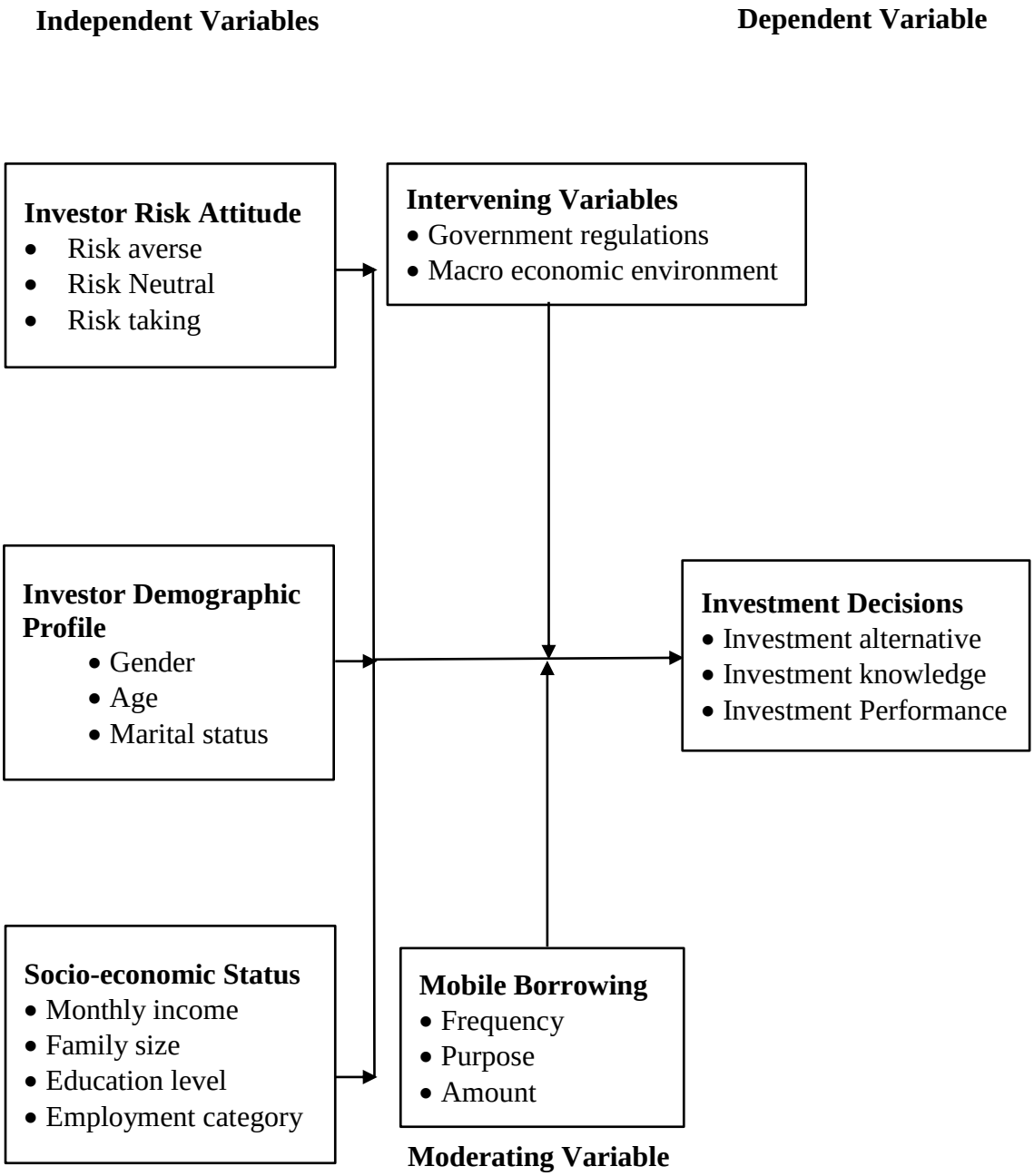

Figure 2.1: Conceptual Framework

Source: Author's Conceptualization from Literature

The conceptual framework summarises the objectives of the study. The study sought to address one broad research objective, which was to investigate the effect of investor characteristics and their effect on investment decisions among public university workers in Kenya. Specific variables were selected for this study. These included; investor risk attitude, investor demographic profile, and the investor socio-economic status. Mobile borrowing was used as a moderating variable. The interaction between the dependent variable and the independent variables could also have been affected by intervening variables like government regulations and the macroeconomic environment.

Individuals have different risk attitudes and therefore, their investment choices differ. Various investor behaviours such as risk aversion, risk-neutral and risk-taking were used to measure investor risk attitude. Risk-averse individuals are more likely to avoid investing just because a particular asset is attributed to some level of risk. On the other hand, risk-taking individuals are more likely to invest in assets with a certain percentage of risk. Mostly, these investors are likely to earn more returns. Risk-neutral individuals are not decided whether to invest or not.

In the demographic profile, the study investigated how gender affected investment decisions. It also sought to find out whether different marital statuses and age groups had anything to do with an investment decision. The investor's demographic profile was expected to have the highest effect on the investment decision, as it is the backbone of all other factors. Middle-aged employees are likely to invest as compared to the almost retiring employees. On the other hand, young employees are not likely to invest as they are starting life and have more responsibilities and low income. Married female employees are also likely to invest as compared to their male counterparts. This is because married men have more responsibilities like catering for the family, as it is perceived that it is the man who should provide for the family. Married females are left with little to take care of hence having excess money, which they could invest.

Social-economic factors are the social and economic factors of individuals and the way they influence investment decision-making. The study sought to establish what an employee gets as a monthly income, how big or small their family size is, their education level and whether terms of employment affect investment decision-making. An employee may have many mouths to feed hence low investment. Further, the higher

the level of an employee's education, the higher the chances of investment. Employees who earn more monthly income and have a small family are likely to venture into investment.

Mobile borrowing was adopted as the moderating variable. Frequency, purpose, and the amount of money borrowed were used to measure this variable. Individuals who take mobile loans frequently are more likely to invest and pay back the cash. However, this might depend on the purpose and the amount of the borrowed money.

The investment alternative, investment knowledge, and investment performance were the constructs of investment decisions. When the choices for investment are many, investors are faced with a variety of avenues to choose from leading to increased chances of investment. Investors who got knowledge of investment avenues available and the performance of various stocks in the market are also likely to make an informed investment decision. Apart from the named variable, this study could also have been affected by other variables (Intervening Variables) like government regulations and the macro-economic environment though they were not measured.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

A research methodology is the basic conceptual framework or road map to the entire research. This chapter presents the research design, target population, sample and sampling procedure, research instrument, data collection procedure, data analysis and presentation, and ethical considerations.

3.2 Research Design

A research design is a roadmap or blueprint that a researcher uses to guide or direct his or her study (Cooper & Schindler, 2014). There are several research designs, which include; descriptive, experimental, correlation, diagnostic, and exploratory research designs (Cooper & Schindler, 2014). However, this study adopted a descriptive survey research design as it describes the characteristics of a particular phenomenon in a situation (Kothari & Garg, 2016).

Descriptive research is a process whereby data is collected to answer questions regarding the status of the study subjects (Mugenda & Mugenda, 2009). According to Cooper and Schindler (2014), quantitative research helps in measuring investor knowledge, behaviour, opinions, and also attitudes, hence making the design most suitable for this research. This is because helped in understanding how investor characteristics affect investment decision-making among public university workers in Kenya. In a study, Senthil (2019) used a descriptive research design to establish how demographics affected investment preference among retail investors.

3.3 Target Population

A population is the universe of events, objects or individuals with a common observable characteristic (Gall, M. D., Gall, J. P., & Borg, 2007). According to Kothari and Garg (2016), population comprise all the items of any field of enquiry. Lavrakas (2008) defined the target population as all the units from which the survey data was used to make inferences and generalise the study findings. The target population for this study was the workers in the 31 chattered public universities in Kenya.

3.4 Sample and Sampling Procedure

Mugenda and Mugenda (2009) define a sample as a smaller group from the population, obtained for study. The sample size is the smallest set that represents the entire population (Cooper & Schindler, 2014). The physical representation of the entire elements in the population from which a sample is drawn is the sampling frame (Kothari & Garg, 2016). According to Upagade and Shende (2012), a sampling frame is a source list that includes all names of the universe. It is important to specify the sample frame in research as it gives all items in the targeted population. In this study, the sampling frame comprised all the employees of the selected public universities in Kenya.

The sampling technique is the method used by a researcher in selecting a sample from the main population to be used in a study (Kothari & Garg, 2016). Sampling techniques are grouped into probability or random sampling (simple random, stratified random, cluster sampling, systematic sampling, and multi-stage sampling) and non-probability or non-random sampling (quota sampling, snowball sampling, judgment sampling, and convenience sampling) (Taherdoost, 2016). A sample is used to generalize a view about the population (Cooper & Schindler, 2014). In descriptive surveys, a minimum sample size of 20 per cent for small populations or 10 per cent for large populations is considered adequate (Gay & Diehl, 1992). A sample size of between 10 per cent and 30 per cent was adequate (Mugenda & Mugenda, 2009). Based on the above knowledge, a sample of 13 per cent was picked which was within the range of 10 and 30 per cent. Therefore, out of the 31 public universities, four of them were purposively selected. These included Dedan Kimathi University of Technology, Karatina University, Chuka University, and Laikipia University. The study targeted all the salaried employees of the selected public universities, which included both teaching and non-teaching staff, who were either on a contract or permanently employed. The information on the number of teaching and non-teaching staff was obtained from the respective universities as presented in Table 3.1. The respondents in this study were believed to be capable of making informed investment decisions.

Table 3.1: Target Population

University	Teaching	Non-teaching	Total
Dedan Kimathi University of Technology	214	307	521
Karatina University	158	238	396
Chuka University	205	400	605
Laikipia University	100	447	547
Total	**677**	**1392**	**2069**

Source: The Office of Registrars of Individual Universities

The study used a sample from the selected Universities' staff population. The selected sample represented the other employees as they all worked in the same setting. The sample size was statistically calculated at a 5 per cent significance level and 95 per cent confidence level.

$$n = \frac{N}{(1 + Nd^2)}$$

Where:

n- Sample size

N -Population size

d –Margin of error (0.05^2)

$$n = \frac{2069}{(1 + 2069X0.05^2)} = 335.2$$

This study used 335 respondents. Stratified random sampling technique to select the subset of the universities' staff under the study. This sampling technique was suitable for this study, as it ensured no bias in selecting the sample. The population was grouped into different strata of teaching and non-teaching employees as shown in Table 3.2. This sampling ensured a fair representation of the whole population. Stratified random sampling was used in sample allocation, proportionate to the size of the strata (Kothari & Garg, 2016). Strata were purposively formed to represent teaching and non-teaching employees. The sample size of each stratum was computed using the following equation.

The sample size for each stratum

$$\text{Pn} = \text{n}\frac{\text{B}}{\text{N}} \quad \text{.....Equation 1}$$

Where;

n -the desired Sample Size

N -Target Population

B - Population in each stratum

Pn - The proportion of the sample selected in each stratum

Table 3.2: Sample Size Distribution

Strata	**B**	**Pn**
Teaching	677	110
Non-teaching	1392	225
Total	**2069**	**335**

Source: Author, (2022)

3.5 Research Instrument

Two types of data can be used in scientific research for social sciences; primary and secondary data. According to Cooper and Schindler (2014), primary data is usually collected to solve a specific research problem at hand. Once the data is collected, it becomes an addition to the social knowledge store. This in now referred to as secondary data.

Primary data was used for this study. A questionnaire was used to collect data since questionnaires have regularly been used to collect important information about a population (Orodho, 2003). In addition, the required data was from a large population and this could lead to a high response rate as compared to the other instruments of data collection. A questionnaire is a research instrument consisting of a list of questions, with the choice of answers to select from, either typed or printed on a form to acquire the required information from the respondents (Cooper & Schindler, 2014). The use of a questionnaire was the most suitable for this study as it easily gets the required information.

The sections of the questionnaire were developed to address a specific objective. The questionnaire comprised ten questions, divided into three sections. The first section contained seven questions relating to the demographic characteristics of the respondents. These included gender, age, marital status, education level, category of employment and income level. The second section comprised two questions relating to investment preference and the reason for the preference while the last section measured

respondents' views on various investment indicators using a five-level Likert scale. The section was subdivided into four sub-sections: risk attitude, socio-economic status, mobile borrowing, and investment decision. A questionnaire was the most appropriate data collection tool for this study. In an empirical study, Chattopadhyay and Dasgupta (2015) used a questionnaire to find out the demographic and socio-economic impact on the risk attitudes of Indian Investors. A pilot study was conducted to test the validity and reliability of the questionnaire. The pilot study involved 10 employees from Egerton University comprising 5 from the teaching staff and the other five from the non-teaching staff. The pre-test study findings were used to make any necessary adjustments in the questionnaire either for clarity or simplicity hence ensuring the validity and reliability of data.

Validity tries to ensure the researcher can derive useful and meaningful inferences from the tool (Creswell & Plano-Clark, 2014). In descriptive studies, two methods can be used to establish the validity of a research instrument. One of the methods is the use of a factor analysis where the Kaiser-Meyer-Olkin (KMO) is computed. The other method is the use of the Content Validity Index (CVI) whereby two experts are selected to respond to the questionnaires, and by using the CVI formula, the validity index is computed. This study used the KMO to examine the validity of the entire research instrument and each research objective. A factor loading above 0.4 was considered (Neuman, 2013).

Reliability is the extent to which the research instrument will yield consistent findings (Orodho, 2003). Various methods can be used in testing the reliability of a research instrument. A researcher may use the split-half method, the internal consistency, or the test-retest method. This study used Cronbach's Alpha coefficient to measure internal consistency since the questionnaire had multiple Likert Scale questions. This aided in finding out if the scales were reliable. The coefficients measure; $\alpha < 0.5$, Unacceptable, $\alpha > 0.5$, Poor, $\alpha > 0.6$, Questionable, $\alpha > 0.7$, Acceptable, $\alpha > 0.8$, Good, and $\alpha > 0.9$, Excellent. A small or low alpha of the measures denotes a bad internal consistency while a higher alpha signifies a good internal consistency. All the variables in this study that used the Likert scale had a Cronbach alpha score of between 0.755 and 0.821 as shown in Table 3.3. A Cronbach alpha score of over 0.7 is an appropriate and effective measure of the internal reliability of a questionnaire (Mugenda & Mugenda, 2009).

Table 3.3: Reliability Statistics

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Investor Risk Attitude	.755	.781	4
Socio-Economic Status	.758	.798	4
Mobile Borrowing	.821	.820	3
Investment Decision	.818	.811	4

3.6 Data Collection Procedure

The objective of this study was to establish the effect of investor characteristics on investment decisions among public university workers in Kenya. This section presents how the research instrument was administered. Despite the research having been conducted during the tight COVID-19 regulations by the Ministry of Health in Kenya, the advancement in technology ensured a smooth collection of data with minimal physical interaction with the respondents. To ensure a high response rate and embrace technology in data collection, Google Forms were employed and most of the questions were set as required. Google Form is a survey administration tool or software, contained in Google Docs Editor (Olajide, 2019). It can be administered in various ways including adding to the body of an email and allowing a respondent to give their responses. It also allows the generation of a link that can be shared via social media. This will allow respondents to use the web-based form to answer the questions.

A link was given to research assistants from all the universities except Laikipia University with clear instructions on how many teaching and non-teaching staff were required to fill out the questionnaire. The research assistants were members of staff from the universities under study. This helped in sharing the questionnaire link. A duration of one week was allowed for the respondents to fill out the questionnaire with a constant reminder throughout the data collection period. Vasantha and Harinarayana (2016) postulate that, once the web questionnaires in Google Forms are filled, the data is automatically recorded in a Google spreadsheet in a format that is analysable and allows an easy tabulation and graphical representation of the data. Fleming and Bowden (2009) in research on web-based surveys as an alternative to traditional mail methods found that the response rates and socio-demographic character of respondents to the alternate survey modes were not statistically different. Similarly, a study by Evans and

Mathur (2005) postulates that online data collection has significant advantages over other formats if conducted properly.

3.7 Data Analysis and Presentation

Data analysis refers to analysing the collected data and making deductions and interferences (Kombo & Tromp, 2009). The study used both descriptive and inferential data analysis methods. According to Kothari and Garg (2016), data analysis comprises data transformation through editing, coding, tabulation and classifying the data for informed decision-making and interpretation. The collected data was cleaned to ensure completeness and consistency. Later, the data was coded with each question in the questionnaire assigned a code. The coded data was analysed using SPSS version 26 software.

Hypotheses testing was conducted using regression analysis and the model as presented in Equation 2 (P=0.05) to achieve objectives (i) and (iii). However, the model was influenced by other intervening variables that were not considered in the current study. To achieve the objective (ii), the chi-square test was used to give the relationship between gender, age marital status, education level, employment category, job category and the various investment avenues. Further, mobile borrowing was used as the moderating variable in the study hence the emergence of the interaction variable. This helped in achieving the objective (iv) of the study as shown in Equation 3. The interaction terms were obtained from the multiplication of the mobile borrowing with the independent variables (investor risk attitude and socio-economic status).

$Y = \beta_0 + \beta_i X_i + \varepsilon$ ……...……..……...…...……Equation 2

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 * M) + \beta_4 (X_2 * M) + \varepsilon$…….…….……..……Equation 3

Where:

Y -Investment decision

B_0 -Constant

β_i - Coefficients of the independent variable

X_i - Independent variable

X_1 - Risk attitude

X_2 - Socio-economic status

β_1 -Regression coefficient of risk attitude

β_2 -Regression coefficient of socio-economic status

β_3 -Regression coefficient of the interaction variable of risk attitude

β_4 -Regression coefficient of the interaction variable of socio-economic status

M -Mobile borrowing

X_1*M - Interaction term for risk attitude

X_2*M - Interaction terms socio-economic status

ε -Error Term or the disturbance variable

3.8 Data Diagnostic Tests

Diagnostic tests are used to assess the model assumptions and examine whether there existed a large and undue influence of observations on the analysis. According to Cooper and Schindler (2014), it is essential to dragonize the dataset before regression is conducted. This helps in ensuring that not many outlier items that might result in wrong conclusions on the study subject. Hair, Black, Babin, and Anderson (2010) postulate that there are several assumptions regarding the use of a multivariate analysis method. Therefore, data diagnostic tests like normality, multicollinearity, and heteroscedasticity tests were applied before performing any multivariate analysis.

3.8.1 Normality

This test is essential as it checks the distribution of the error terms. Non-normally distributed errors may lead to wide or narrow confidence intervals (Avcontentteam, n.d.). An unstable confidence interval makes it difficult to estimate coefficients based on the minimization of least squares. The non-normal distribution suggests the presence of a few uncommon data points. These points require to be studied closely to ensure a better model. Normality can be measured using Q-Q plots or through statistical tests

like the Kolmogorov-Smirnov test and the Shapiro-Wilk test (Keith, 2019). This study used Q-Q plots to test normality.

3.8.2 Multicollinearity

Multicollinearity is a scenario whereby the independent variables are moderately or highly interrelated (Keith, 2019). In such a case, it is very difficult to find out the true relationship between the predictor variables with the depended variable. To test multicollinearity, you can use either a scatter plot or a Variance Inflation Factor (VIF). VIF = 1 means not correlated, 1<VIF<5 moderate correlation and VIF>5 means highly correlated. This study adopted VIF to check whether multicollinearity existed.

3.8.3 Heteroscedasticity

Heteroscedasticity is the presence of non-constant variance in the error terms. This leads to an unrealistically wide or narrow prediction of the sample. There are various ways for testing heteroscedasticity. One of the methods is the use of a scatter plot that shows the distribution of residuals vs the fitted values (predicted values). The other ways are to use the simple Breusch-Pagan test for normally distributed data and the White general test. This study used a simple Breusch-Pagan test. A P-value less than 0.05 shows the presence of heteroscedasticity in the regression model.

3.9 Ethical Consideration

Ethical consideration is ensuring good morals are adhered to in research. Ethics deals with beliefs, opinions, principles, and philosophies about what is perceived to be proper or improper, right, or wrong and, good or bad. Research ethics issues that should be observed in a study include; informed consent, confidentiality, objectivity and honesty in data handling and storage (Waweru, Onyuma &Murumba, 2021). The principle of informed consent requires that participants in the research be made fully aware that they are taking part in the research and what the research requires of them. The respondents were informed of their rights in research and the aim of this study. All the participants took part in this study voluntarily and without any coercion, inducement or deception and were free to opt-out of the research if they so wished.

A researcher should ensure that he/ she does not interfere with the respondents' integrity. To ensure confidentiality, participants were assured that the information obtained from them would not be used for any other purpose apart from academic work

and research. They were also informed of their right to remain anonymous and their identities would not be revealed to unauthorized parties. Concerning honesty and objectivity, all the data and information was obtained from authentic sources. All the data from primary respondents was reported as it was without any fabrication or manipulation by the researcher.

Once the research proposal was approved by Graduate School and an introductory letter issued (Appendix I), a research permit from National Commission for Science, Technology, and Innovation (NACOSTI) was then sought (Appendix II). This was to ensure that research ethical issues were observed throughout the study.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

The current study investigated the effect of investor characteristics on investment decisions among public university workers in Kenya. The chapter presents the response rate of the respondents, descriptive results, data diagnostics and hypotheses testing based on the four objectives of the study. The data was subjected to various statistical approaches to determine the effect of investor characteristics and their effect on investment decisions among public university workers.

4.2 Response Rate

The current study relied on data collected from the selected public universities in Kenya, with a target population of 335 respondents out of which, 278 questionnaires were filled. All the filled questionnaires were considered for analysis. The response rate was 82.7 per cent. A response rate of 50 per cent is adequate, 60 per cent good, and above 70 per cent is rated as very well (Mugenda & Mugenda, 2009).

4.3 Demographic Descriptive Results

The demographics of the respondents and a summary of the responses were obtained from various predictors of each variable in the study. In investigating the objectives of the study, the study collected information on the demographic characteristics of the respondents based on gender, age set, marital status, level of education, employment category, job category, and monthly earnings. The results on demographic factors are presented in graphs and pie charts.

4.3.1 Gender of the respondents

The gender distribution of the respondents was explored and the results are presented in Figure 4.1.

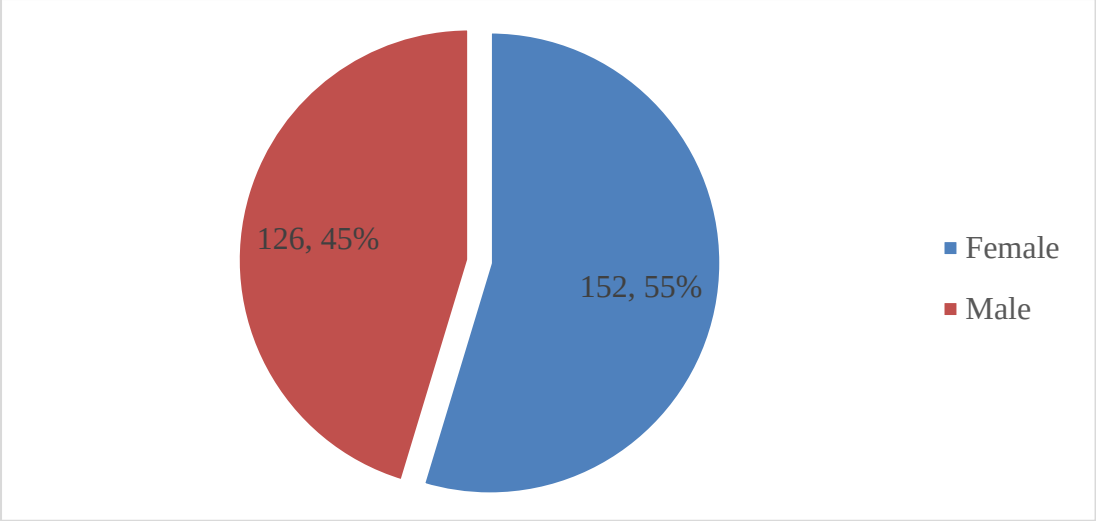

Figure 4.1: Gender Distribution of the Respondents

Figure 4.1 indicates that, out of the total respondents, about 55 per cent (n=152) of respondents were female while the rest 45 per cent (n=126) were male. This means that females invest more than men.

4.3.2 Age of the Respondents

The study also enquired about the respondents' age distribution and results presented in Figure 4.2.

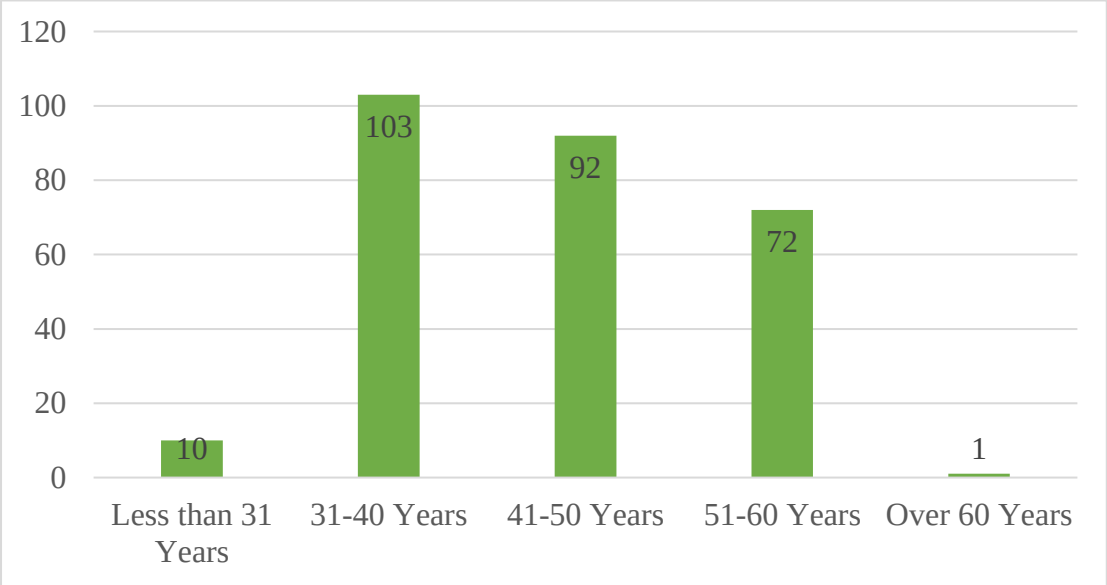

Figure 4.2: Age Distribution of the Respondents

As shown in Figure 4.2, Age was categorized into five groups. Most of the respondents, 37 per cent (n=103) were between 31-40 years old. Only 0.4 per cent (n=1) of the respondents was over 60 years old. About 4 per cent (n=10) of the respondents were

less than 31 years old. Approximately 26 per cent (n=72) of the respondents were between 51-60 years old while 33 per cent (n=92) were between 41-50 years old. This shows that the majority of individuals invest at the age of 31-40.

4.3.3 Marital Status of the Respondents

The study also questioned the respondents on their marital status and the results are presented in Figure 4.3.

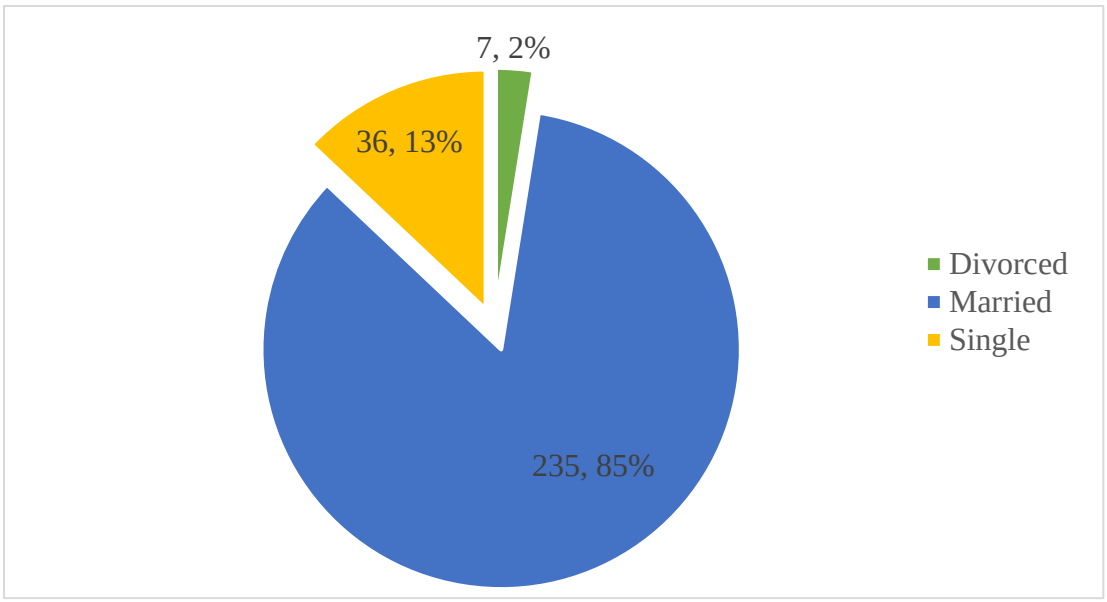

Figure 4.3: Marital Status of the Respondents

From Figure 4.3, approximately 85 per cent (n=235) of the respondents were married while the remaining 15 per cent (n=43) were not married. Married individuals have family responsibilities and therefore, they are likely to invest to create wealth for their families.

4.3.4 Education Level of the Respondents

In addition, the study enquired about the highest education qualification of the respondents. Education level was categorized into five categories as shown in Figure 4.4; certificate, undergraduate, masters, PhD, and post-graduate diploma.

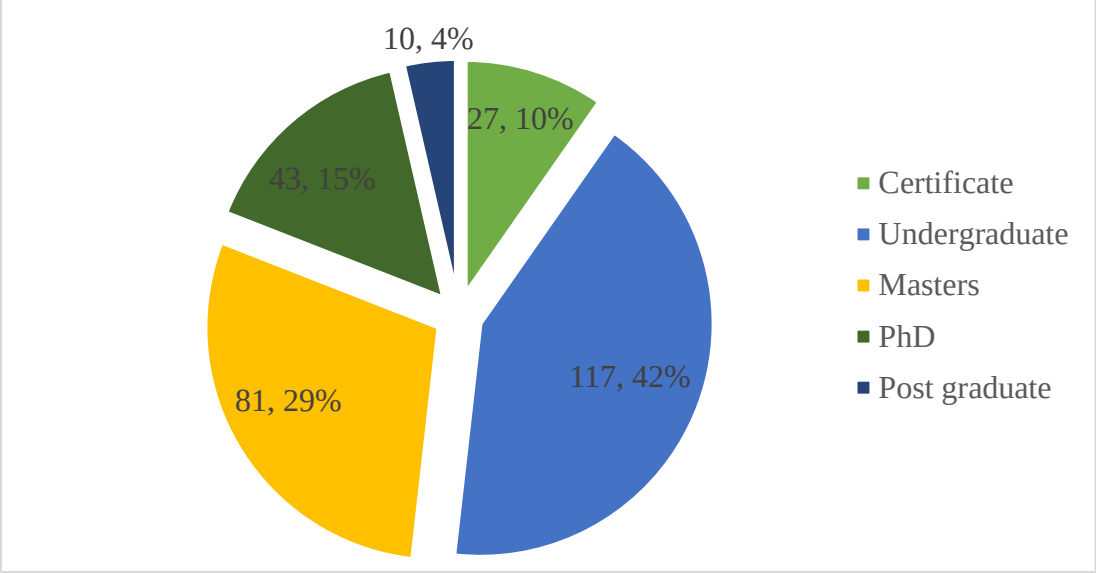

Figure 4.4: Respondents' Education Level Distribution of the Respondents

Many of the respondents, 42 per cent (n=117) had an undergraduate as their highest level of education. Approximately 4 per cent (n=10) had a postgraduate diploma, 10 per cent (n=27) of the respondents were certificate holders and 15 per cent (n=43) were PhD holders. About 29 per cent (n=81) were masters holders. Employees with a first degree are likely to invest as compared to other categories with different academic qualifications.

4.3.5 Employment category of the respondents

The study categorised the respondents under two employment categories, permanent and contractual employment as shown in Figure 4.5. Permanently employed individuals are likely to invest as they enjoy job security.

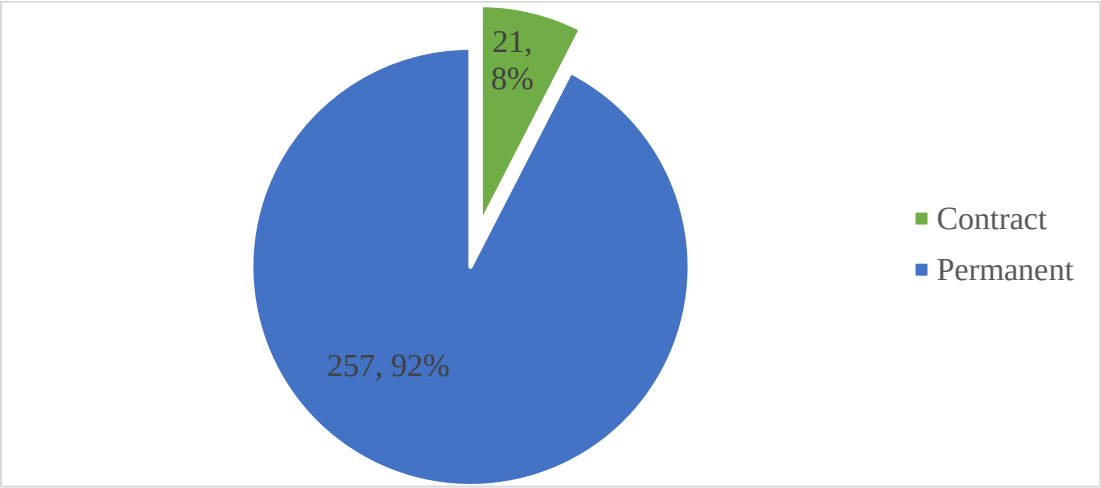

Figure 4.5: Employment Category Distribution of the Respondents

Most of the respondents, 92 per cent (n=257) were permanently employed while those on the contract were 8 per cent (n=21).

4.3.6 Job Category of the Respondents

The study categorised the respondents under two job categories, teaching staff and non-teaching staff as shown in Figure 4.6. Teaching staff get so busy with teaching and forget about investment. The majority of those who are likely to invest is the non-teaching staff members.

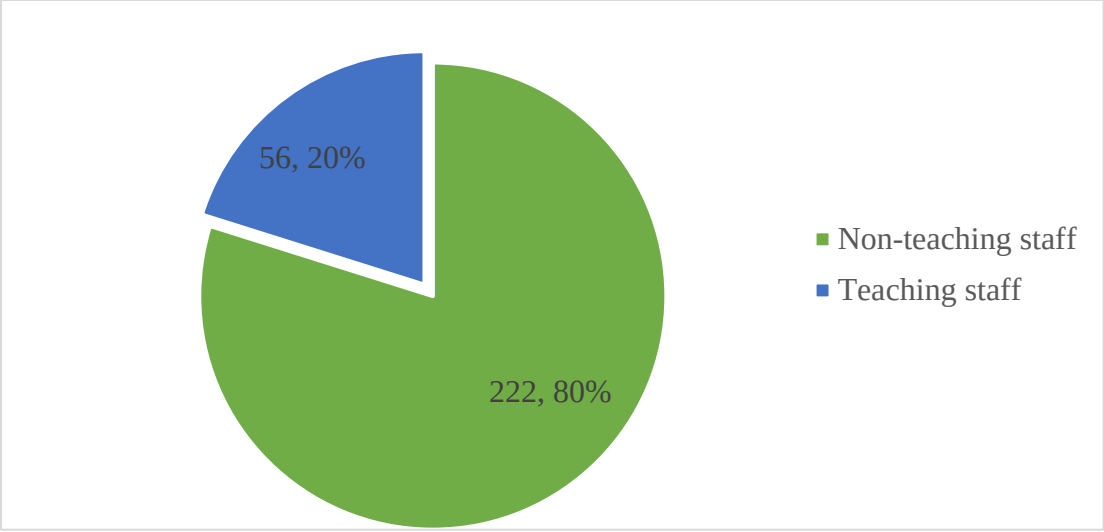

Figure 4.6: Job Category Distribution of the Respondents

Non-teaching staff were the majority of the respondents, 80 per cent (n=222) while the teaching staff constituted 20 per cent (56) of the total respondents.

4.3.7 Average Monthly Income of the Respondents

The respondents were requested to select their earning brackets and results summarised in Figure 4.7.

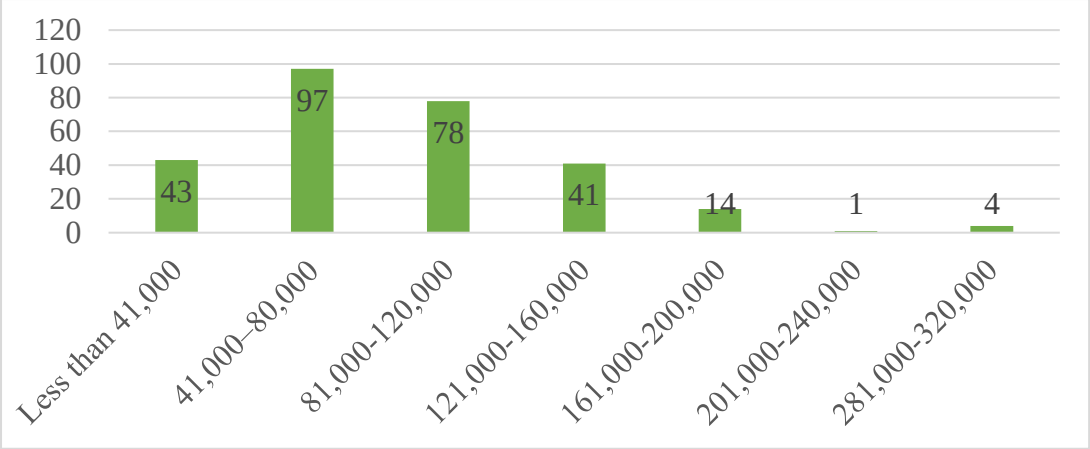

Figure 4.7: Average Monthly Income Distribution of the Respondents

Over 60 percent (n=175) of the respondents earned 41,000-120,000. Those who earned a monthly income of less than 41,000 were 16 per cent (n=43). The respondents who earned between 121,000-160,000 were 15 percent (n=41). Less than 2 per cent (n=5) earned a monthly income of 201,000-320,000. The middle-earning individuals invested more than even those who earned high salaries.

4.3.8 Investment Preference

The respondents were required to respond on which investment avenue they preferred and the reason for preference. Table 4.1 shows that the majority of investors preferred certain investment avenues due to their low-risk levels. Shares and real estate were the highly preferred investment avenues due to their low risk and high expected rate of return.

Table 4.1: Preferred Investment Avenue

		Reason for preference				
		Can easily be converted to cash	**Has low risk**	**The profits are high**	**Others**	**Total**
Preferred investment avenue	IP	2	9	10	10	31
	FD	2	6	1	0	9
	S	12	16	29	8	65
	RE	0	76	54	8	138
	MF	1	6	0	0	7
	GS	0	0	11	0	11
	Others	0	17	0	0	17
Total		**17**	**130**	**105**	**26**	**278**

IP-Insurance policies, FD- Fixed deposits, S-Shares, RE-Real estate, MF-Mutual fund, GS- Government securities

4.4 Investment Decision-Making Analysis Results

The respondents were required to respond on a 5-point Likert Scale to state whether they strongly agree, agree, neutral, disagree or strongly disagree with the given statements about each variable.

4.4.1 Risk Attitude of the Respondents

As shown in Table 4.2, most of the respondents agreed that they considered the risk associated with a particular investment before investing in it with a mean of 4.38 and a standard deviation of 0.886. Similarly, respondents agreed with a mean of 3.93 and a standard deviation of 0.922 that income level had an overall influence on investment decisions. In addition, the respondents agreed with a mean of 3.59 and standard deviation of 0.818 that education level affected their investment decision. The respondents also agreed with a mean of 3.87 and a standard deviation of 0.714 that investment in stocks had a high degree of safety. The average mean of 3.94 means that the majority of the respondents agreed that investor risk attitude affected investment decision-making.

The results of the current study are in line with other recent studies whereby, it has been evident that people have attitudes towards risk, thus affecting their investment behaviour. Individuals invest their surplus money in any of the investment avenues depending on their risk-taking capacity. Therefore, individuals' financial decision-making depends on their attitude and behaviour (Hemalatha, 2019). Shinde and Zanvar (2015) in their study on investment patterns based on demographic traits postulates that the level of risk tolerance by investors influenced their investment decisions. In a similar study by Zuckerman (2011), the trait of seeking risk in the investment domain may be related to a general personality trait, specifically a generalized disposition to tolerate anxiety or seek excitement. According to Langat and Rop (2019) in their study on the relationship between the risk aversion of individual investors and stock market participation decisions among secondary school teachers from Nakuru County, Kenya, found that risk aversion of individual investors had a significant relationship with stock market participation decision among secondary school teachers. Advancements in technology and its use could add more knowledge to the investors about their investment decisions and their risk attitude towards making an informed investment decision (Muneeswaran et al., 2019).

Table 4.2: Perception of the Respondents on Risk Attitude

Statement	N	$\bar{x}$	Σ
I consider levels of risk associated with a particular investment before investing in it	278	4.38	.886
I only invest where I am sure of returns	278	3.93	.922
In my opinion, it is safe to invest in local stocks rather than buy international stocks	278	3.59	.818
I make sure that my investment in stocks has a high degree of safety investment decision making	278	3.87	.714
Average mean		**3.94**	

4.4.2 Socio-Economic Status of the Respondents

Table 4.3 summarises the respondents' perception of socio-economic status. They agreed that the size of the family affected their investment decision with a mean of 3.45 and a standard deviation of 1.350. In addition, the respondents agreed with a mean of 4.29 and a standard deviation of 0.797 that income level had an overall influence on investment decisions. The respondents also agreed with a mean of 3.28 and standard deviation of 1.217 that it was safe to invest in local stocks rather than to buy international stocks meaning they were not willing to take more risk. However, the respondents disagreed with a mean of 2.78 and a standard deviation of 1.324 that the employment category influenced their investment decision. An average mean of 3.45 meant that majority of the respondents agreed that socio-economic status affected investment decision-making. Similarly, the results of the current study are like several earlier studies. Shinde and Zanvar (2015) observed that the socio-economic of investors like educational qualification and income levels affect an individual's investment decision. In another study, Joseph and Ali (2015) observed that income level largely influenced employee investment decision-making. Investors in the high-income category have a lot of excess money, which they opt to invest even in risk avenues. This is consistent with the results of research conducted by Chattopadhyay and Dasgupta (2015) on how socio-economic factors affect risk altitude. Chattopadhyay and Dasgupta (2015) also found that investors in the high-income category had a fear of risk and invested most of their income.

Table 4.3: Perception of the Respondents on Socio-Economic Status

Statement	N	$\bar{x}$	Σ
The size of the family affects my investment decision	278	3.45	1.350
Income level has an overall influence on my investment decision making	278	4.29	.797
Education level affects my investment decision making	278	3.28	1.217
Employment category influences investment decision	278	2.78	1.324
Average mean		**3.45**	

4.4.3 Perception of the Respondents on Mobile Borrowing

A summary of respondents' perceptions of mobile borrowing is shown in Table 4.4. The respondents disagreed that they take mobile loans like TALA, Branch, and others to invest with a mean of 1.012 and standard deviation of 1.012. Respondents also disagreed with a mean of 1.82 and a standard deviation of 0.938 that they invested much of the money gotten from mobile loans. The respondents further disagreed with a mean of 1.94 and a standard deviation of 0.931 that the more they got access to mobile loans the more the investment. The average mean of 1.91 is a clear indication that most of the individuals who obtain mobile loans do not use them to invest.

Table 4.4: Perception of the Respondents on Mobile Borrowing

Statement	N	$\bar{x}$	Σ
I take mobile loans like TALA, Branch, and others to invest	278	1.96	1.012
I invest much of the money gotten from the mobile loans	278	1.82	.938
The more I get access to mobile loans the more the investment	278	1.94	.931
Average mean		**1.91**	

4.4.4 Perception of the Respondents on Investment Decision Making

Table 4.5 is a summary of respondents' perceptions of investment decision-making. The respondents agreed that they invested based on the expected return with a mean of 4.09 and a standard deviation of 1.051. Respondents also disagreed with a mean of 2.67 and a standard deviation of 1.269 that they mostly invested if they had excess cash. In addition, the respondents agreed with a mean of 3.92 and standard deviation of 0.885 that their investment decision was attributed to knowledge of investment avenues available. The respondents further agreed with a mean of 4.00 and a standard deviation

of 0.873 that the past performance of the firm's stock affected their investment decision-making. An average mean of 3.67 means that the majority of the respondents agreed that expected returns, investment knowledge, and the presence of excess cash influence their investment decision-making.

Table 4.5: Perception of the Respondents on Investment Decision Making

Statement	N	$\bar{x}$	Σ
I invest based on the expected return	278	4.09	1.051
I mostly invest if I have excess cash	278	2.67	1.269
My investment decision is attributed to my knowledge of investment avenues available	278	3.92	.885
Past performance of the firm's stock affects my investment decision-making	278	4.00	.873
Average mean		**3.67**	

4.5 Data Diagnostic Results

Normality, multicollinearity, and heteroscedasticity tests were conducted to ensure the data set does not violate the assumptions of regression analysis.

4.5.1 Normality

The study used Normal Q-Q for the normality test to establish whether to perform parametric statistics or nonparametric statistics as shown in Figures 4.1 to 4.4.

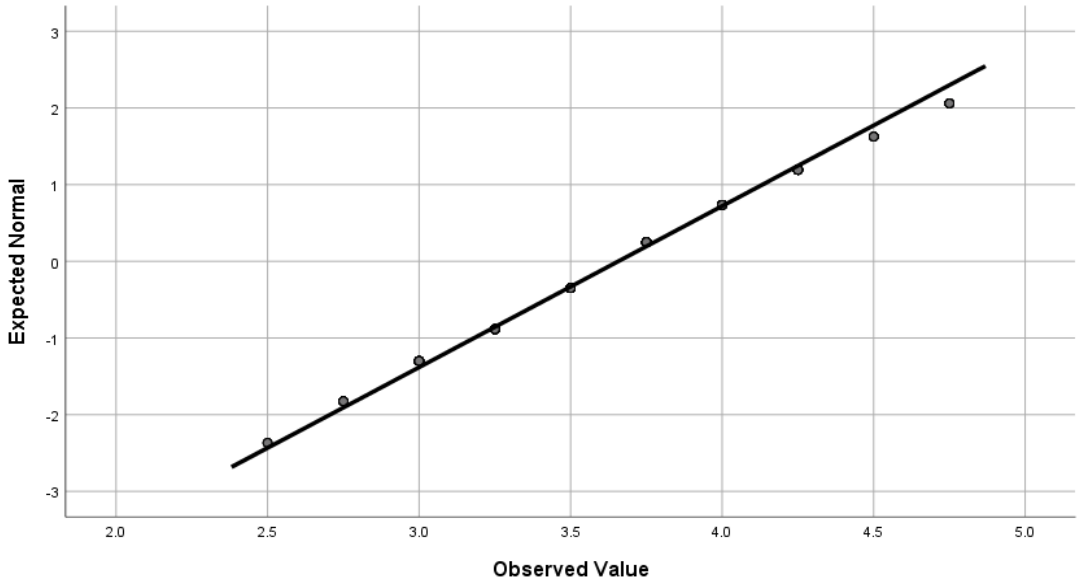

Figure 4.8: Normal Q-Q Plot of Risk Attitude

As shown in Figure 4.1, most of the observed values in the risk attitude variable lay along the line of best fit. This is an indication that the data set was normally distributed.

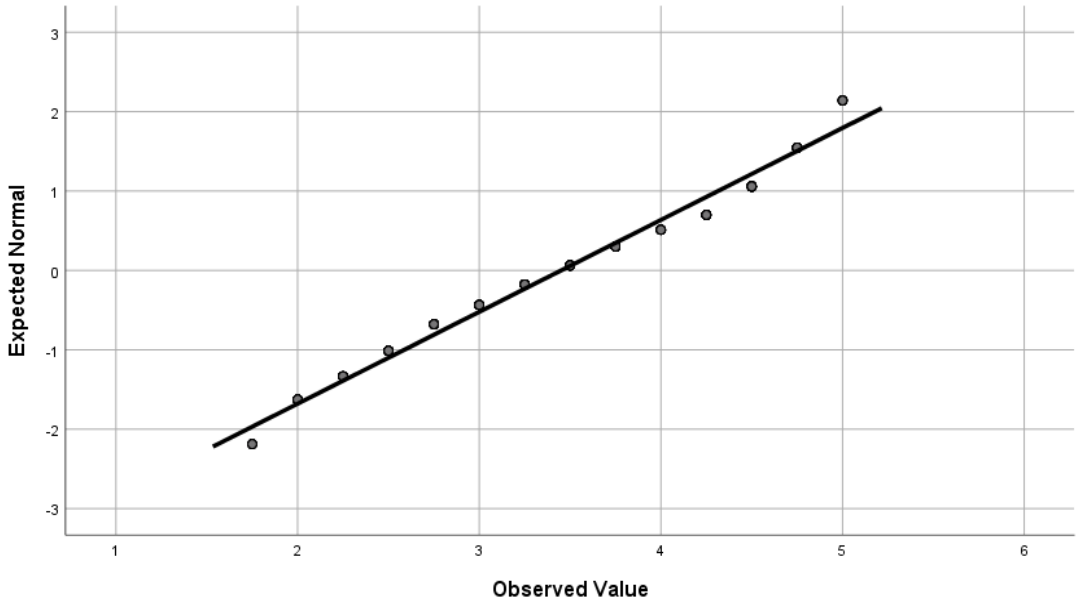

Figure 4.9: Normal Q-Q Plot of Socio-Economic Status

Figures 4.2 has most of the observed values in the Socio-economic status variable lying along the line of best-fit meaning that the data set was normally distributed.

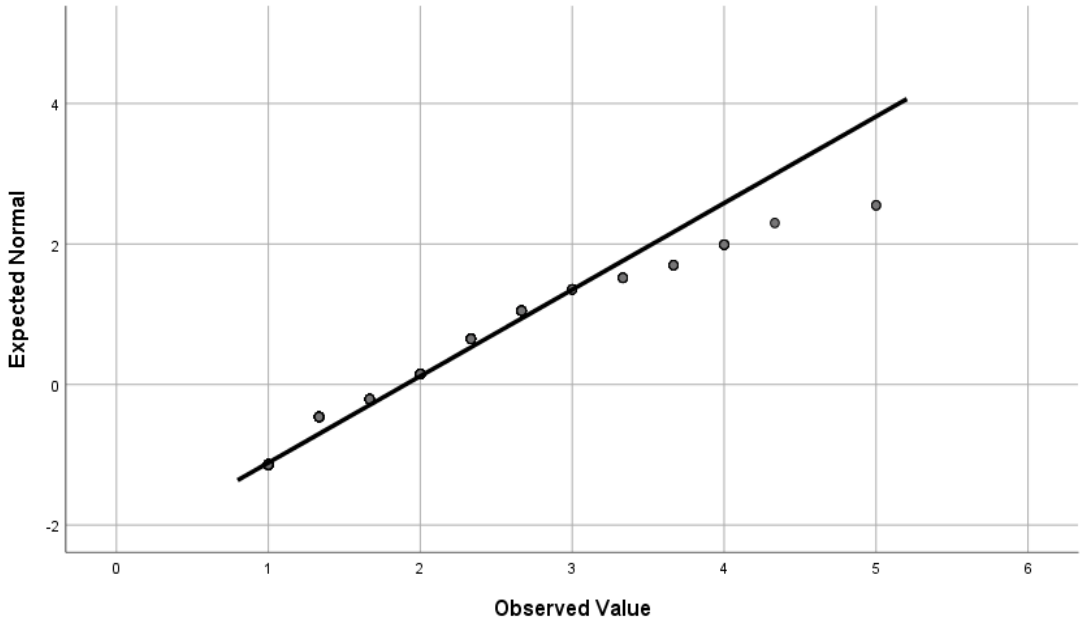

Figure 4.10: Normal Q-Q Plot of Mobile Borrowing

A Normal Q-Q Plot of mobile borrowing was also generated as shown in Figure 4.3. Most of the observed values in the mobile borrowing variable lay along the line of best fit. This is an indication that the data was normally distributed.

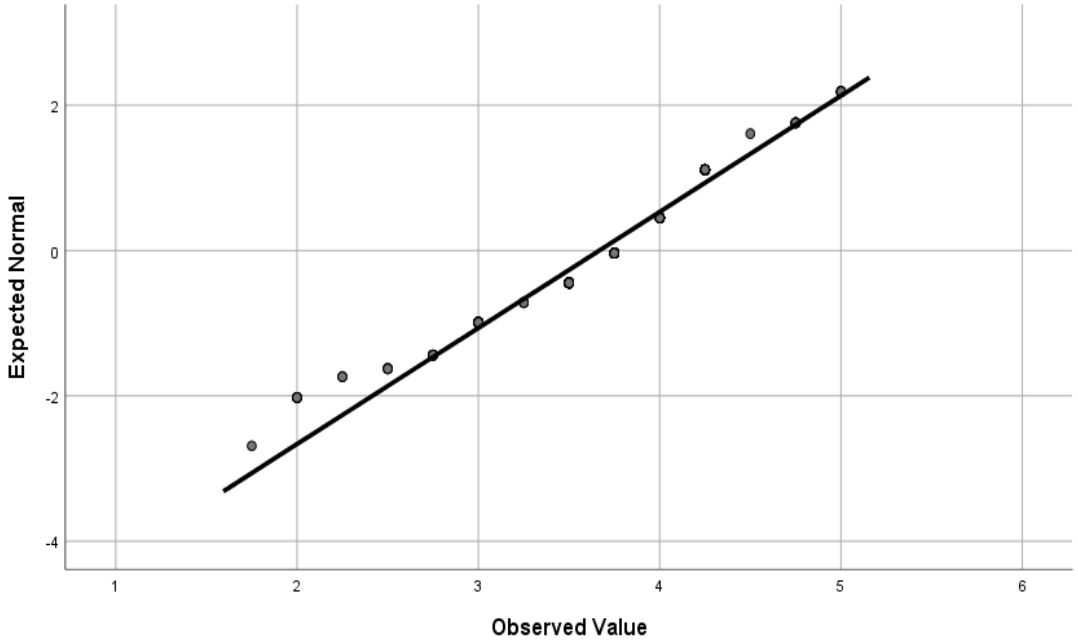

Figure 4.11: Normal Q-Q Plot of Investment Decision

Like the other variables above, the generated normal Q-Q Plot of the investment decision had most of the values lying along the line of best fit meaning the data set was also normally distributed as shown in Figure 4.4.

4.5.2 Multicollinearity

To detect multicollinearity, Variance Inflation Factor (VIF) was used. This was to determine whether the variables were highly correlated. The results are shown in Table 4.6. The results show a VIF of approximately 1 for all the variables. This means that there was no multicollinearity in the data set.

Table 4.6: Multicollinearity Test Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		β	Std. Error	β	*t*	*P*	Tolerance	VIF
1	(Constant)	.365	.212		1.724	.086		
	Risk attitude	.710	.059	.540	12.059	.000	.860	1.163
	Socio-economic status	.237	.033	.327	7.220	.000	.841	1.189
	Mobile borrowing	-.058	.033	-.075	-1.767	.078	.950	1.052

a. Dependent Variable: Investment decision

4.5.3 Heteroscedasticity

The simple Breusch-Pagan test was used to detect heteroscedasticity. The idea is that an increase in the values of independent variables does not lead to an increase in the value of residual values. The squares of residual values were regressed against the independent variables (investor risk attitude and socio-economic status). This is to check from the ANOVA if any of the independent variables had a significant effect on the dependent variable (square of residual values) as shown in Table 4.7.

The null hypothesis was that homoscedasticity was present and the alternative hypothesis was heteroscedasticity was present. The results show a P-value of 0.000 which is less than 0.05. Therefore, the null hypothesis was rejected and the conclusion was made that there was heteroscedasticity in the regression model. This meant that investor risk attitude and socio-economic status do not affect the residual values.

Table 4.7: Breusch-Pagan Test of Heteroscedasticity ANOVA[a]

Model		Sum of Squares	df	$\bar{x}^2$	*F*	*P*
1	Regression	1.536	2	.768	9.003	.000b
	Residual	23.466	275	.085		
	Total	**25.002**	**277**			

a. Dependent Variable: square of residual values

b. Predictors: (Constant), Socio-economic status, Risk attitude

4.6 Hypotheses Testing

According to Gujarati (2003), hypothesis testing is a process by which the researcher deduces the result of sample data on a larger population. This is usually based on a presumption made before the commencement of the research. The current study

performed hypotheses testing as guided by the objectives of the study. The significance level for testing the hypotheses in this study was P≤0.05.

4.6.1 Effect of Risk Attitude on Investment Decision

The first null hypothesis was that there was no statistically significant effect of risk attitude on investment decisions among public university workers in Kenya. Regression analysis was conducted to assess the effect of investor risk attitude on investment decisions among public university workers in Kenya. The prediction of the investment decision (dependent variable) was 0.647 as shown by the value of R in Table 4.8. The R^2 value (coefficient of determination) of 0.419 is the proportion of variance in the investment decision that was explained by the risk attitude. The model summary shows a value of the adjusted R^2 of 0.417, implying that there was a positive correlation between risk attitude and investment decisions among public university workers in Kenya. This meant that 41.7 per cent of investment decision-making was attributed to the risk attitude of the investors.

The findings of the study are in line with other earlier studies. A study by Tchouadep, et al. (2018) on the risk attitude of credit managers and the efficiency of credit management in real estate investment trusts in Kenya found that risk attitude was one of the most important behaviours of managers in any company that influenced their investment decisions. Similarly, in a study on the relationship between the risk aversion of individual investors and stock market participation decisions among secondary school teachers from Nakuru County, Kenya, Langat and Rop (2019) found that the risk aversion of individual investors also had a significant influence on investment decision among secondary school teachers from the county of Nakuru.

Table 4.8: Model Summary of Risk Attitude Effect on Investment Decision[a]

				Change Statistics	
Model	**R**	**R^2**	**Adjusted R^2**	**R^2 Change**	***P***
1	.647[a]	.419	.417	.419	.000

a. Predictors: (Constant), Risk attitude

The ANOVA results of the effect of investor risk attitude on investment decisions are shown in Table 4.9. The model fit was appropriate for the research data at F (1, 276) =199.031, *P* (.000) < .05. This implied that risk attitude statistically significant predicts investment decisions. Therefore, the null hypothesis was not accepted and the alternative hypothesis that investor risk attitude affects investment decisions was

accepted. The results are similar to those of Shinde and Zanvar (2015) postulate that the level of risk tolerance by investors influences their investment decisions.

Table 4.9: ANOVA of the Effect of Risk Attitude on Investment Decision[a]

Model		Sum of Squares	df	$\bar{x}^2$	*F*	*P*
1	Regression	45.405	1	45.405	199.031	.000[b]
	Residual	62.963	276	.228		
	Total	**108.368**	**277**			

a. Dependent Variable: ID
b. Predictors: (Constant), Risk attitude

Table 4.10 shows the coefficient results from the regression analysis. The fitted model demonstrates that any unit change in risk attitude led to 0.851 units variation in investment decisions. Even if risk attitude were non-existent, investment decision would be at positive 0.553. This means that other factors affected investment decisions other than risk attitude.

Table 4.10: Coefficients of the Effect of Risk Attitude on Investment Decision[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		**β**	**Std. Error**	**β**	***t***	***P***
1	(Constant)	.553	.223		2.488	.013
	Risk attitude	.851	.060	.647	14.108	.000

a. Dependent Variable: ID

4.6.2 Chi-Square Test of the Investor Demographics against the Choice of Investment

The second null hypothesis was that there was no statistically significant relationship between demographic factors and the choice of investment avenues among public university workers in Kenya. Crosstab analysis was conducted between the demographic factors and the preferred investment avenue. Crosstab is used whereby the researcher has nominal or categorical scale data. The tabulated data was presented in graphs for easy interpretation.

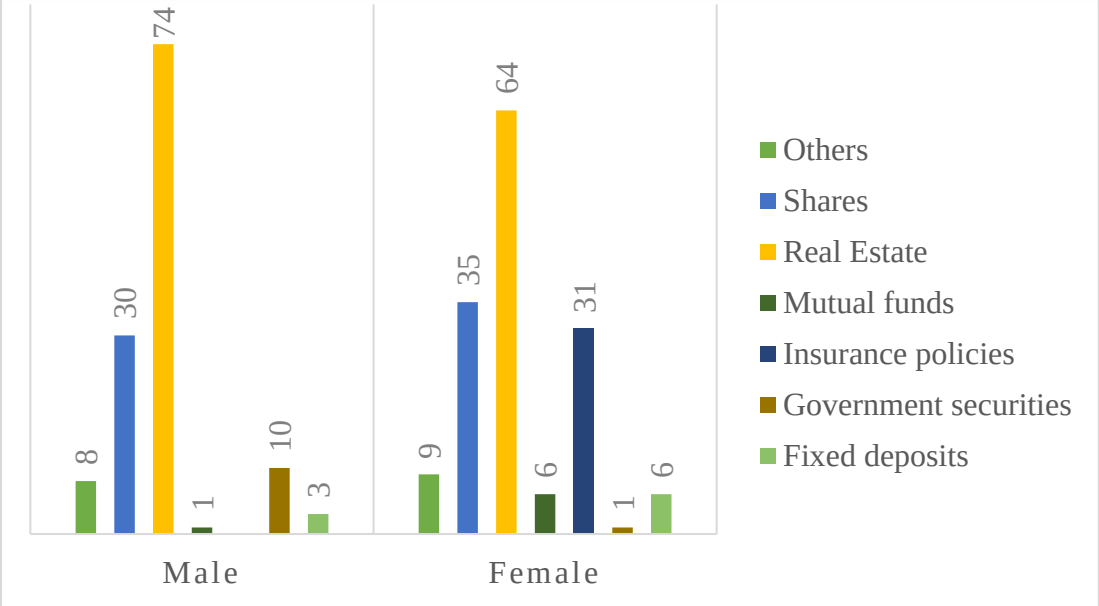

Figure 4.12: Investment Preference by Gender

A cross-tabulation investigation was done to find out the relationship between the choice of investment avenue and the respondents' gender. The majority of the respondents; male 59 per cent (n=74), female 42 per cent (n=64) preferred investing in real estate. The majority of females preferred shares and insurance policies as opposed to their male counterparts.

A chi-square test was done to find out if gender had a significant relationship with the choice of investment avenues. Table 4.11 show that the relationship between these variables was significant, $\chi 2(6, N=278) = 42.039$, $P=0.000$, implying that there was enough evidence to suggest that gender influenced the choice of the investment avenue.

Table 4.11: Investment Preference by Gender Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Gender	Pearson χ2	42.039[a]	6	.000
	Likelihood Ratio	55.238	6	.000
	Linear-by-Linear Association	20.212	1	.000
	N of Valid Cases	**278**		

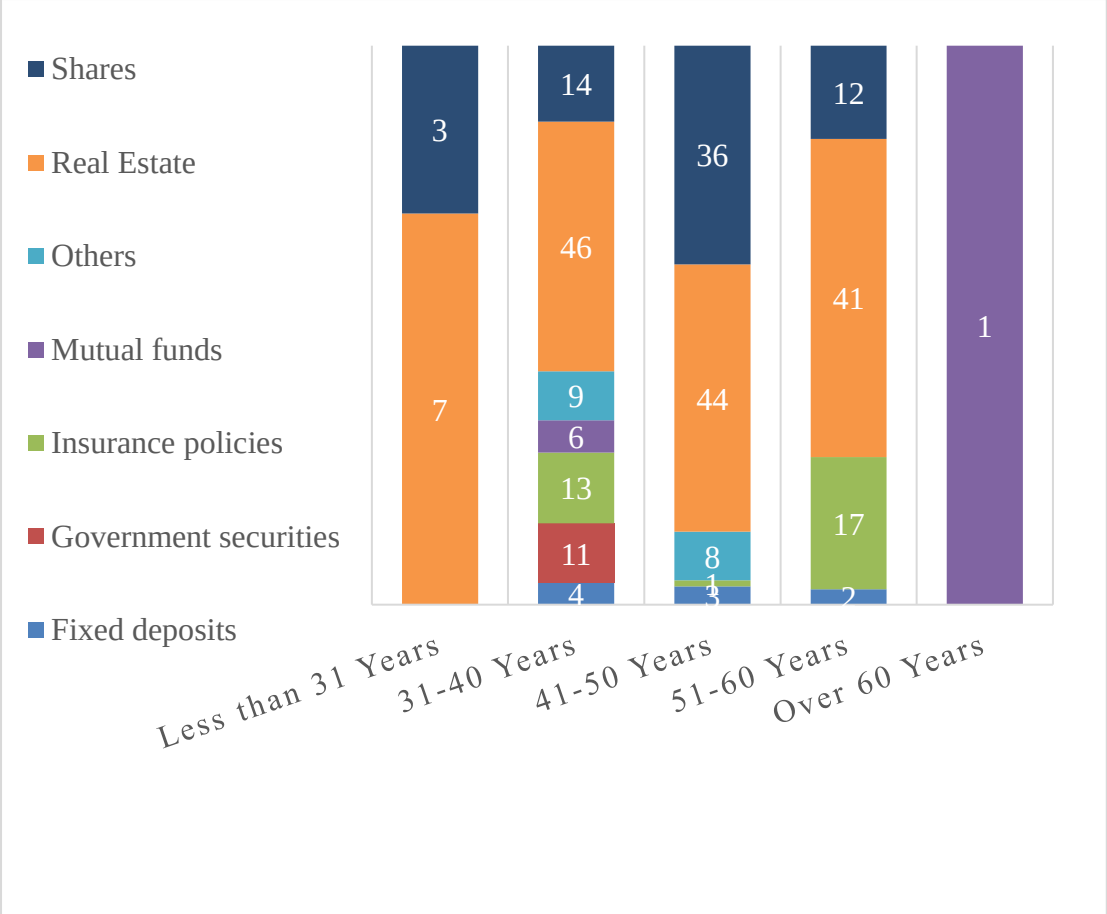

Figure 4.13: Investment Preference by Age

Around 50 per cent (n=138) of the respondents preferred investing in real estate. This was similar to a study where most of the individuals who invest were aged between 31 and 60 years (Lan et al., 2018). This age group (31-40) and diversified their investment across all investment avenues available. The respondents below 31 years, preferred investment in only shares and real estate. The order of investment preference was; real estate, shares, insurance policies, government securities, fixed deposits, and mutual funds being the least preferred.

A chi-square test was also done to find out if age had a significant relationship on the choice of investment avenues. Table 4.12 show that the relationship between these variables was significant, $\chi 2(24, N=278) = 111.335$, $P=0.000$, implying that there was enough evidence to suggest that age influenced the choice of the investment avenue.

Table 4.12: Investment Preference by Age Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Age	Pearson χ2	111.335[a]	24	.000
	Likelihood Ratio	94.611	24	.000
	Linear-by-Linear Association	9.989	1	.002
	N of Valid Cases	**278**		

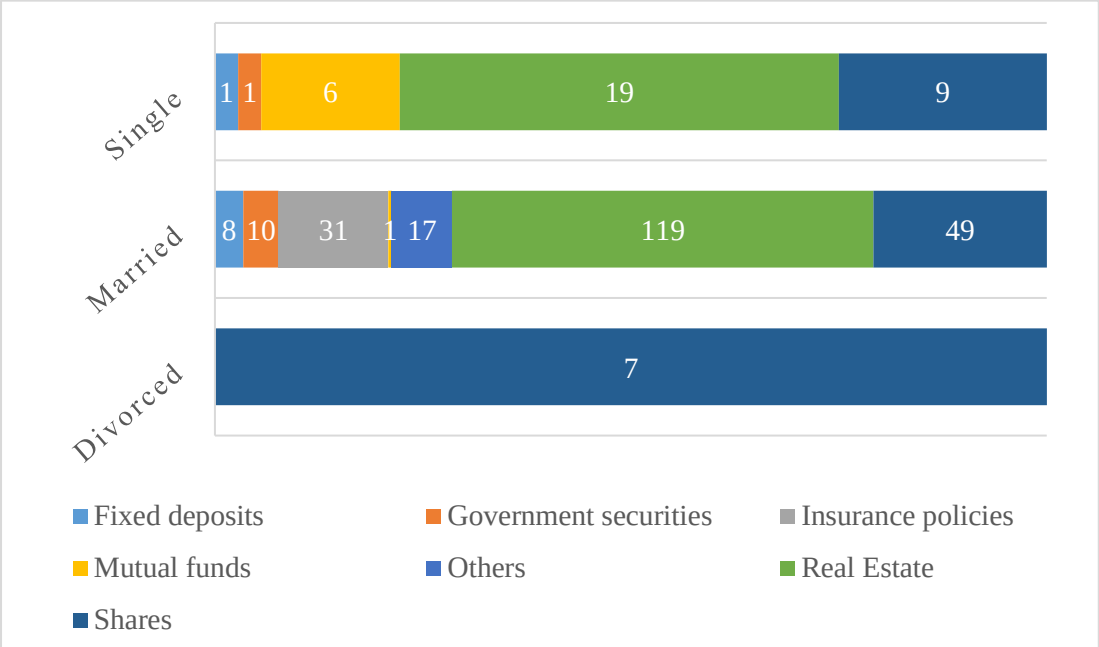

Figure 4.14: Investment Preference by Marital Status

The results in Figure 4.14 show that married employees are more likely to diversify their investment as compared to single employees. Most employees preferred real estate and shares as their investment avenues.

Similarly, a chi-square test was also done to find out if marital status had a significant relationship with the choice of investment avenues. Table 4.13 show that the relationship between these variables was significant, $\chi2(12, N=278) = 64.245$, $P=0.000$, implying that there was enough evidence to suggest that marital status influenced the choice of the investment avenue.

Table 4.13: Investment Preference by Marital Status Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Marital Status	Pearson χ2	64.245[a]	12	.000
	Likelihood Ratio	53.892	12	.000
	Linear-by-Linear Association	3.733	1	.053
	N of Valid Cases	**278**		

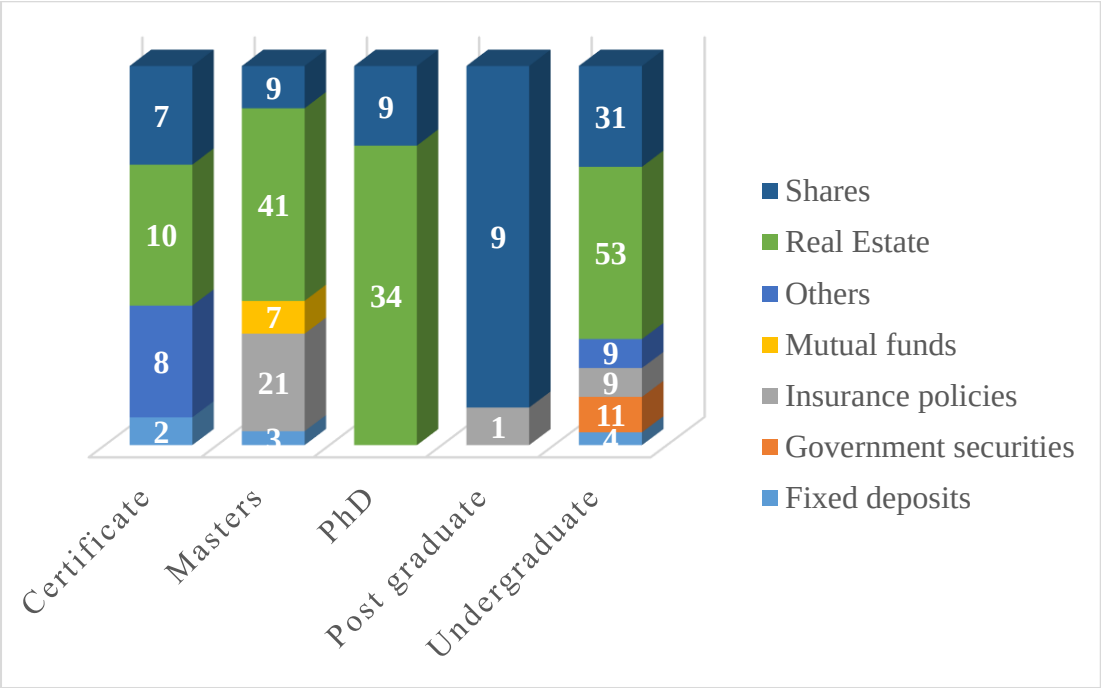

Figure 4.15: Investment Preference by Education Level

Only those who had their first degree invested in government securities. The majority of those who invested in insurance policies were workers with masters as their highest education level. Real estate was the most preferred investment avenue across all levels of educational qualifications.

To find out if education level had a significant relationship with the choice of investment avenues, a chi-square test was conducted. Table 4.14 show that the relationship between these variables was significant, $\chi2(24, N=278) = 132.065$, $P=0.000$, implying that there was enough evidence to suggest that education level influenced the choice of the investment avenue.

Table 4.14: Investment Preference by Education Level Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Highest Education Level	Pearson χ2	132.065[a]	24	.000
	Likelihood Ratio	134.543	24	.000
	Linear-by-Linear Association	8.816	1	.003
	N of Valid Cases	**278**		

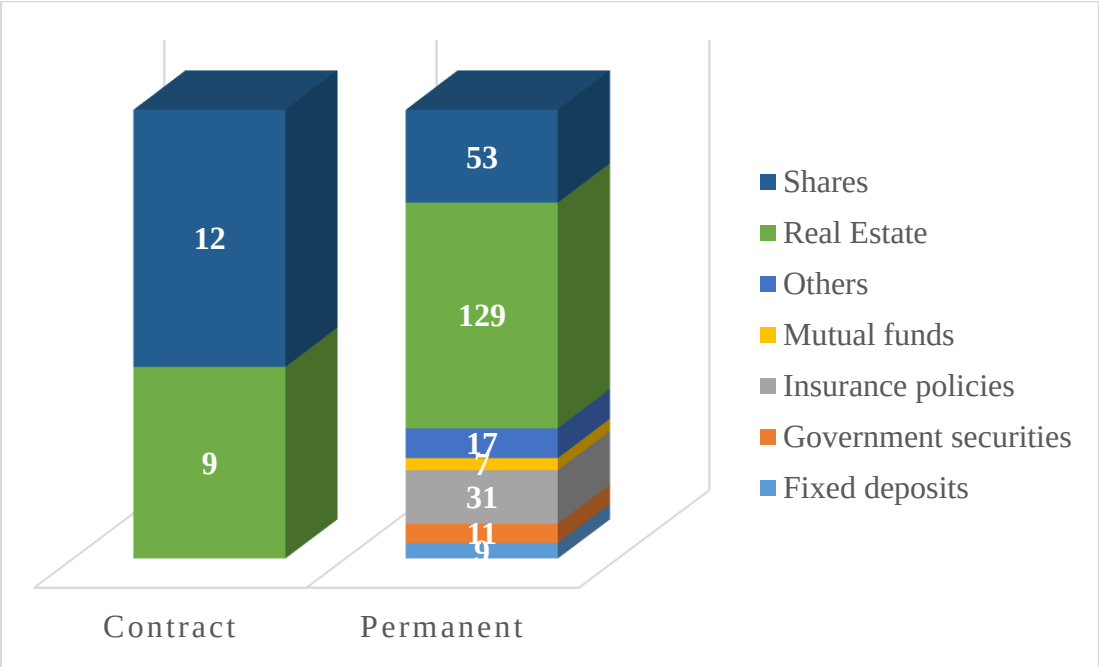

Figure 4.16: Investment Preference by Employment Category

Workers on contract preferred investing in only real estate and shares while those who were permanently employed diversified across all the investment avenues under study. This shows that permanently employed individuals are more likely to take more risk as opposed to those on contract.

A chi-square test was conducted to find out if the employment category had a significant relationship with the choice of investment avenues. Table 4.15 show that the relationship between these variables was significant, $\chi2(6, N=278) = 17.413$, $P=0.008$, implying that there was enough evidence to suggest that the employment category influenced the choice of the investment avenue.

Table 4.15: Investment Preference by Employment Category Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Employment	Pearson χ2	17.413[a]	6	.008
Category	Likelihood Ratio	20.140	6	.003
	Linear-by-Linear Association	1.238	1	.266
	N of Valid Cases	**278**		

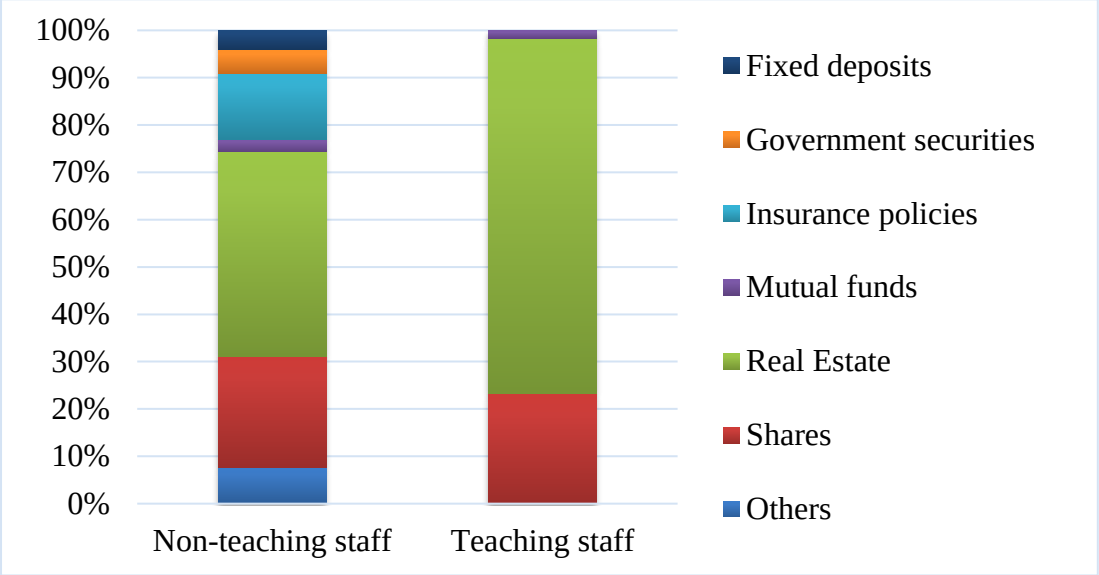

Figure 4.17: Investment Preference by Job Category

As shown in Figure 4.17, the most preferred investment avenues were real estate and shares. Non-teaching staff diversified across all the available investment avenues as opposed to teaching staff who preferred only real estate, shares, and mutual funds.

Additionally, a chi-square test was done to find out if the job category had a significant relationship with the choice of investment avenues. Table 4.16 show that the relationship between these variables was significant, $\chi2(6, N=278) = 26.389$, $P=0.000$, implying there was enough evidence to suggest that, job category influenced the choice of the investment avenue.

Table 4.16: Investment Preference by Job Category Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Job Category	Pearson χ2	26.389[a]	6	.000
	Likelihood Ratio	38.932	6	.000
	Linear-by-Linear Association	1.659	1	.198
	N of Valid Cases	**278**		

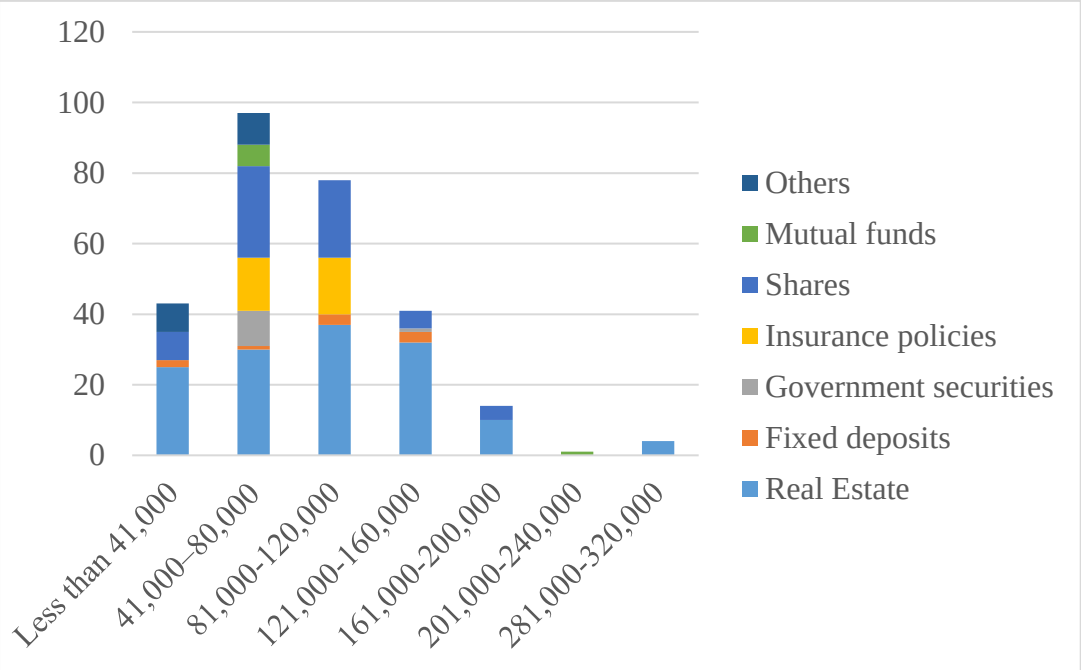

Figure 4.18: Investment Preference by Income Level

Those who earned an average monthly income of 41,000-80,000 invested on all the investment avenues as opposed to other workers in different monthly income groups. As income grows above Ksh. 80,000, the investment appetite decreases.

A chi-square test was done to find out if the monthly income had a significant relationship with the choice of investment avenues. Table 4.17 show that the relationship between these variables was significant, $\chi2(36, N=278) = 131.185$, P=0.000, implying that there was enough evidence to suggest that monthly income influenced the choice of the investment avenue. The results agreed with Shinde and Zanvar (2015) who postulate that the level of risk tolerance by investors influences their investment decisions. Contrary to the current study, Senthil (2019) on the demographics and investment preference among retail investors, found that both age and gender did

not influence investment. This means that different geographical settings might interfere with the way different age groups and gender affect investment decision-making.

Table 4.17: Investment Preference by Income Level Chi-Square (χ2) Test

Factor	Tests	Value	df	*P* (2-sided)
Average Monthly Income	Pearson χ2	131.185[a]	36	.000
	Likelihood Ratio	120.831	36	.000
	Linear-by-Linear Association	.992	1	.319
	N of Valid Cases	**278**		

The majority of the university staff had at least a first degree. Therefore, they had been exposed to technology and to individuals who had knowledge of investment. The results show that investors' demographic profile affects an investment decision. The results were in line with several research findings by different researchers. Muneeswaran et al. (2019) in a study on the investors' behaviour on investment avenues found that technological advancement and use could add more knowledge to the investors about their investment decisions and their risk attitude towards making an informed investment decision. A study on the factors influencing the investment decision of the individual related to selected individual investors in Chennai City, (Hemalatha, 2019) found that investment decisions varied with age and gender. In a study on investment patterns based on demographic traits, Shinde and Zanvar (2015) found that demographic factors of investors affect the investor's level of risk tolerance hence affecting the overall investment decision. In a similar study on the influence of demographic factors on the investment behaviour of individual investors in Edo State, Nigeria, Agbo and Abu (2020) found that age and gender had a strong influence on individual investors' behaviour.

From the above results, there was enough evidence to show that there was a statistically significant relationship between all the demographic factors and the choice of investment avenues among public university workers in Kenya. This is shown by a P-Value less than 0.05 in all the chi-square tests. Therefore, the null hypothesis that there was no statistically significant relationship between demographic factors and choice of investment avenues among public university workers in Kenya was not accepted and the alternative hypothesis that there was a statistically significant relationship between

demographic factors and choice of investment avenues among public university workers in Kenya accepted.

4.6.3 Effect of Socio-Economic Status on Investment Decision

The third null hypothesis of the study was that there was no statistically significant effect of socio-economic status on investment decisions among public university workers in Kenya. Regression analysis was conducted to assess the effect of investor socio-economic status on investment decisions among public university workers in Kenya. The prediction of the investment decision was 0.527 as shown by the value of R in Table 4.18. The R2 value 0.278 is the proportion of variance in the investment decision that was explained by the socio-economic status of the investors. The model summary shows a value of the adjusted R2 of 0.275, implying that there was a positive correlation between socio-economic status and investment decisions among public university workers in Kenya. This meant that a 27.5 per cent variation in investment decision-making was attributed to the change in the socio-economic statuses of the investors. This variation is lower than that which was explained by investors' risk attitude.

The results are in tandem with those of Ramanujam and Chitra (2012) who found those socio-economic variables like education level, income, and occupation make a significant impact while making an investment decision. In addition, other studies such as Das and Jain, (2014); Jain and Mandot (2012) found that socio-economic variables such as occupation, income level, market knowledge, and qualifications had a major impact on investment decision-making. Further, Senthil (2019) in a study on the demographics and investment preference among retail investors found that income and security for income influenced investors' investment decision-making. In a more recent study, Shehata, Abdeljawad, Mazouz, Aldossary, Alsaeed, and Sayed (2021) in their study on the moderating role of perceived risks in the relationship between financial knowledge and the intention to invest in the Saudi Arabian stock market found that, financial knowledge influenced investment decision.

Table 4.18: Model Summary of Socio-Economic Status Effect on Investment Decision[a]

				Change Statistics				
Model	**R**	**R^2**	**Adjusted R^2**	**R^2 Change**	**F Change**	**df1**	**df2**	***P***
1	.527[a]	.278	.275	.278	106.088	1	276	.000

a. Predictors: (Constant), Socio-economic status

The ANOVA results of the investor's socio-economic status on investment decisions are shown in Table 4.19. The model fit was appropriate for the research data at F (1, 276) =106.088, *P* (.000) < .05. This implied a statistically significant effect of socio-economic status on investment decisions. Therefore, the null hypothesis was not accepted.

Table 4.19: ANOVA of the Effect of Socio-Economic Status on Investment Decision[a]

Model		**Sum of Squares**	**df**	$\bar{x}^2$	***F***	***P***
1	Regression	30.089	1	30.089	106.088	.000[b]
	Residual	78.279	276	.284		
	Total	**108.368**	**277**			

a. Dependent Variable: ID
b. Predictors: (Constant), Socio-economic status

The results in Table 4.20 shows that the fitted model demonstrates that any unit change in socio-economic status, led to an increase in investment decision by 0.382 units, and that, even if socio-economic status were non-existent, investment decision would be at positive 2.350 units. This means that other factors affected investment decisions other than socio-economic status hence the need for regressing all the independent variables against the dependent variable to establish their combined effect.

Table 4.20: Coefficients of the Effect of Socio-Economic Status on Investment Decision[a]

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	*P*
		β	Std. Error	β		
1	(Constant)	2.350	.132		17.832	.000
	Socio-economic status	.382	.037	.527	10.300	.000

a. Dependent Variable: Investment decision

4.6.4 Composite Effect of Risk Attitude and Socio-Economic Status on Investment Decision

Regression analysis was conducted to determine the combined effect of risk attitude and socio-economic status of the investors on investment decisions. As shown in Table 4.21, combined risk attitude and the socio-economic status of the investors explained 51.9 per cent of the variation in the investment decision.

Table 4.21: Model Summary of the Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[c]

Model	R	R^2	Adjusted R^2	E
1	.723[a]	.523	.519	.43367

a. Predictors: (Constant), Socio-economic status, Risk attitude

Table 4.22 presents the ANOVA results. According to the results, the model had a significant combined effect of risk attitude and socio-economic status on investment decision F (2, 275) =150.601. This is an implication that there was a positive and significant combined effect of risk attitude and socio-economic status on investment decision-making among public university workers in Kenya.

Table 4.22: ANOVA of Combined Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[a]

Model		Sum of Squares	df	$\bar{x}^2$	*F*	*P*
1	Regression	56.648	2	28.324	150.601	.000[b]
	Residual	51.720	275	.188		
	Total	**108.368**	**277**			

a. Dependent Variable: Investment decision
b. Predictors: (Constant), Socio-economic status, Risk attitude

Table 4.23 gives the coefficients of the combined effect of the investor risk attitude and socio-economic status on investment decisions. The fitted model demonstrates that when combined, any unit change in the investor risk attitude led to an increase in investment decisions by 0.694 units while socio-economic status influenced investment decisions by 0.249 units.

Table 4.23: Coefficients of the Combined Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[a]

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	*P*
		β	Std. Error	β		
1	(Constant)	.269	.205		1.310	.191
	Risk attitude	.694	.058	.528	11.883	.000
	Socio-economic status	.249	.032	.344	7.732	.000

a. Dependent Variable: Investment decision

4.6.5 Composite Effect of the Investor Risk Attitude, Socio-Economic Status, and Demographic Profile on Investment Decision

An individual will be influenced by risk attitude, socio-economic status as well as demographic profile. In this regard, therefore, demographic profile predictors were brought in the composite regression to find out what kind of effect they had on investment decisions. As shown in Table 4.24, combined average monthly income, risk attitude, marital status, gender, employment category, age, socio-economic status, highest education level, and job category of the investors explained 62.1 per cent of the variation in the investment decision.

Table 4.24: Model Summary of the Effect of the Investor Risk Attitude, Socio-Economic Status, and Demographic Profile on Investment Decision[a]

Model	R	R^2	Adjusted R^2	E
1	.796[a]	.634	.621	.38485

a. Predictors: (Constant), Risk attitude, Socio-economic status, Average Monthly income, Marital status, Gender, Employment category, Age, Highest education level, Job category

Table 4.25 presents the ANOVA results of the composite effect of the investor risk attitude, socio-economic status, and demographic profile on investment decisions. According to the results, the model had a significant combined effect of risk attitude,

socio-economic status, and demographic profile on investment decision F (9, 268) =51.519. This is an implication that there was a positive and significant combined effect of investor risk attitude, socio-economic status, and demographic profile on investment decision-making among public university workers in Kenya.

Table 4.25: ANOVA of Combined Effect of the Investor Risk Attitude, Socio-Economic Status, and Demographic Profile on Investment Decision[a]

Model		Sum of Squares	df	$\bar{x}^2$	*F*	*P*
1	Regression	68.674	9	7.630	51.519	.000[b]
	Residual	39.694	268	.148		
	Total	**108.368**	**277**			

a. Dependent Variable: Investment decision

b. Predictors: (Constant), Risk attitude, Socio-economic status, Average Monthly income, Marital status, Gender, Employment category, Age, Highest education level, Job category

Table 4.26 summarises the coefficients combined effect of the investor risk attitude, socio-economic status, and demographic profile on investment decisions. Constant=1.229 shows that if risk attitude, socio-economic status, average monthly income, marital status, gender, employment category, age, highest education level, and job category were all rated as zero, investment decision would be 1.229. Most of the variables had a significant effect on investment decisions. Socio-economic status (β1 =0.260), indicating that a unit change in socio-economic status led to 0.260 units rise in the investment decision. Risk attitude (β2 =0.630), indicating that a unit change in risk attitude led to 0.630 units rise in the investment decision. Gender (β3=-0.193), means that a unit change in gender resulted in a 0.193 unit decrease in the investment decision. Age (β4=-0.097), means that a unit change in age resulted in a 0.097 unit decrease in the investment decision. Marital status (β5=-0.409), means that a unit change in marital status resulted in a 0.409 unit decrease in the investment decision. Highest education level (β6 =0.076), indicating that a unit change in education level led to 0.076 units rise in the investment decision. Employment Category (β7 =0.329), indicating that a unit change in socio-economic status led to 0.329 units rise in the investment decision. Job category and average monthly income had an insignificant negative and positive effect respectively, on investment decisions.

Table 4.26: Coefficients of the Combined Effect of the Investor Risk Attitude, Socio-Economic Status, and Demographic Profile on Investment Decision[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	β	*t*	*P*
1	(Constant)	1.229	.305		4.026	.000
	Socio-economic status	.260	.033	.359	7.976	.000
	Risk attitude	.630	.056	.479	11.154	.000
	Gender	-.193	.050	-.154	-3.873	.000
	Age	-.097	.032	-.135	-2.995	.003
	Marital status	-.409	.062	-.249	-6.609	.000
	Highest education level	.076	.030	.119	2.509	.013
	Employment Category	.329	.128	.139	2.570	.011
	Job category	-.140	.101	-.090	-1.388	.166
	Average Monthly Income	.004	.025	.009	.173	.862

a. Dependent Variable: Investment decision

4.6.6 The Moderating Effect of Mobile Borrowing on the Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision

The fourth and last null hypothesis of this study was that there was no statistically significant moderating effect of mobile borrowing on the effect of the investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya. As shown in Table 4.27, the introduction of the intervening variables led to 0.549 adjusted R^2. Model 2 indicates an improvement of the initial model because it had a significant positive change in R^2 of 0.037 (P=0.000). This was in line with the results of (Kay, 2015) who found that finance helped individuals and businesses to make their investment decision.

Table 4.27: Model Summary of the Moderating Effect of Mobile Borrowing on the Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[c]

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2	*F* Change	df1	df2	*P*
1	.723[a]	.523	.519	.43367	.523	150.601	2	275	.000
2	.746[b]	.556	.549	.41983	.033	10.216	2	273	.000

a. Predictors: (Constant), Risk attitude, Socio-economic status
b. Predictors: (Constant), Risk attitude, Socio-economic status, X_1*M, X_2*M
c. Dependent Variable: Investment decision

Table 4.28 presents the ANOVA results. According to the results, the two models had a significant combined effect of risk attitude and socio-economic status on investment decisions in Model 1, F (2, 275) =150.601, P<0.05. Further, in Model 2, risk attitude and socio-economic status had a significant combined (F (4, 273) =85.455, P<0.05) effect on investment decisions with the interacting variables. This is an implication that there was a positive and significant moderating effect of mobile borrowing on the relationship between investor characteristics and investment decision-making among public university workers in Kenya.

Table 4.28: ANOVA of the Moderating Effect of Mobile Borrowing on the Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[a]

Model		Sum of Squares	df	$\bar{x}^2$	*F*	*P*
1	Regression	56.648	2	28.324	150.601	.000[b]
	Residual	51.720	275	.188		
	Total	108.368	277			
2	Regression	60.249	4	15.062	85.455	.000[c]
	Residual	48.119	273	.176		
	Total	**108.368**	**277**			

a. Dependent Variable: Investment decision

b. Predictors: (Constant), Risk attitude, Socio-economic status

c. Predictors: (Constant), Risk attitude, Socio-economic status, X_1*M, X_2*M

Table 4.29 gives the coefficients of the two models. In Model 1, the results illustrate that investor risk attitude and socio-economic status had a significant influence on investment decisions. The results of model 1 were fitted in an expression as demonstrated in the results. In model 2, the results indicate that the addition of the interaction variables significantly improved model 1 on the influence of the determinants of investment decisions (P=0.00). The coefficient results can be explained as: Constant=0.423, which shows that if socio-economic status, risk attitude, and the intervening variables (X1*M and X2*M) were all rated as zero, the investment decision would be 0.423; X1(β1 =0.982), indicating that a unit change in Risk attitude led to 0.982 units increase in investment decision; X2(β2 =-0.083), indicating that a unit change in Socio-economic status led to an insignificant (P=0.311) 0.083 units decrease in investment decision; X1*M(β3=-0.161), means that a unit change in intervening variable (Risk attitude*Mobile borrowing) resulted in -0.161 units decrease in investment decision; and X2*M(β4=0.165) means that a unit change in intervening

variable (Socio-economic status*Mobile borrowing) resulted in 0.165 units increase in the investment decision.

Table 4.29: Coefficients of the Moderating Effect of Mobile Borrowing on the Effect of the Investor Risk Attitude and Socio-Economic Status on Investment Decision[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	β	*t*	*P*
1	(Constant)	.269	.205		1.310	.191
	Risk attitude	.694	.058	.528	11.883	.000
	Socio-economic status	.249	.032	.344	7.732	.000
2	(Constant)	.423	.203		2.083	.038
	Risk attitude	.982	.085	.747	11.513	.000
	Socio-economic status	-.083	.082	-.115	-1.016	.311
	X1*M	-.161	.036	-.859	-4.505	.000
	X2*M	.165	.038	.844	4.300	.000

a. Dependent Variable: Investment decision

After establishing that interaction existed between mobile borrowing and both the risk attitude and socio-economic status of the investors, interaction graphs were plotted as shown in Figure 4.19 and Figure 4.20.

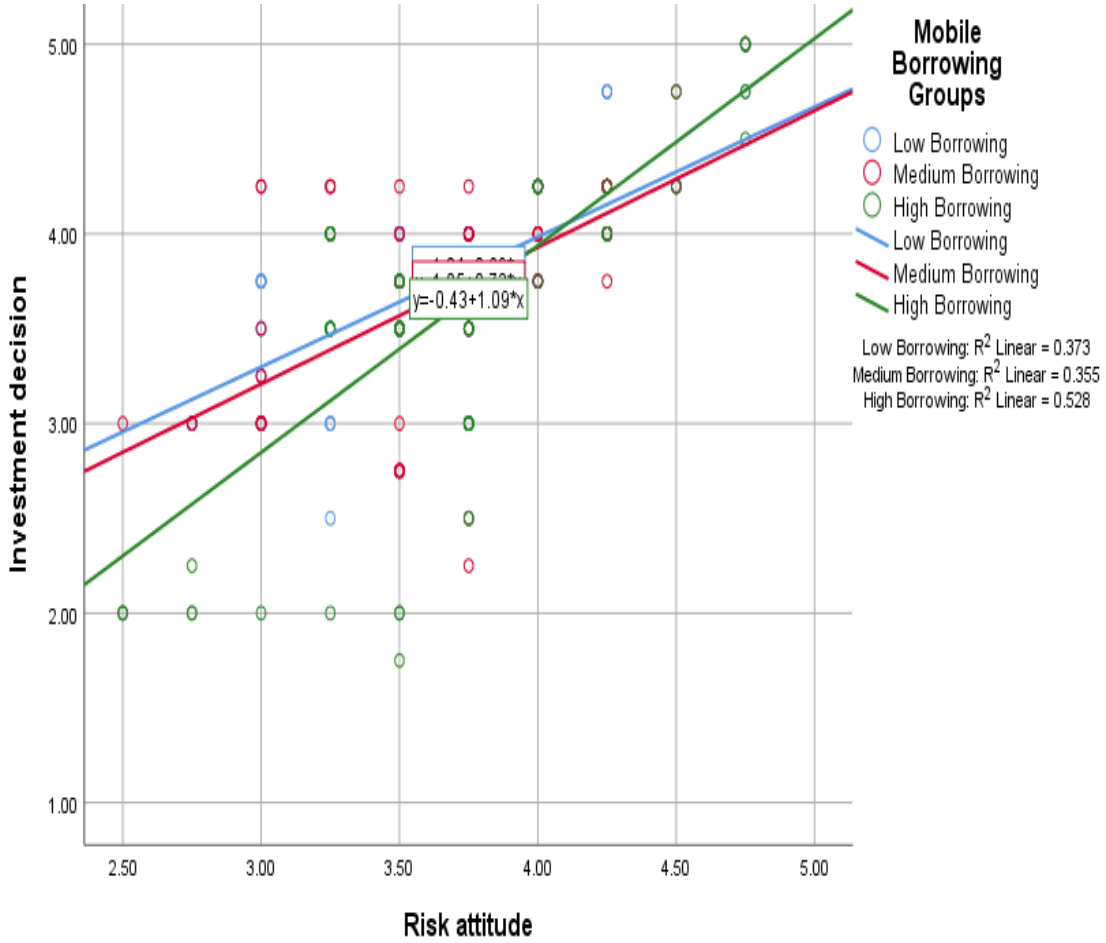

Figure 4.19: Interaction Between Mobile Borrowing and Investor Risk Attitude

From Figure 4.19, risk attitude significantly (P=0.000) increases investment decisions under high mobile borrowing. In low and medium borrowing, the investment behaviour is at a decreasing rate.

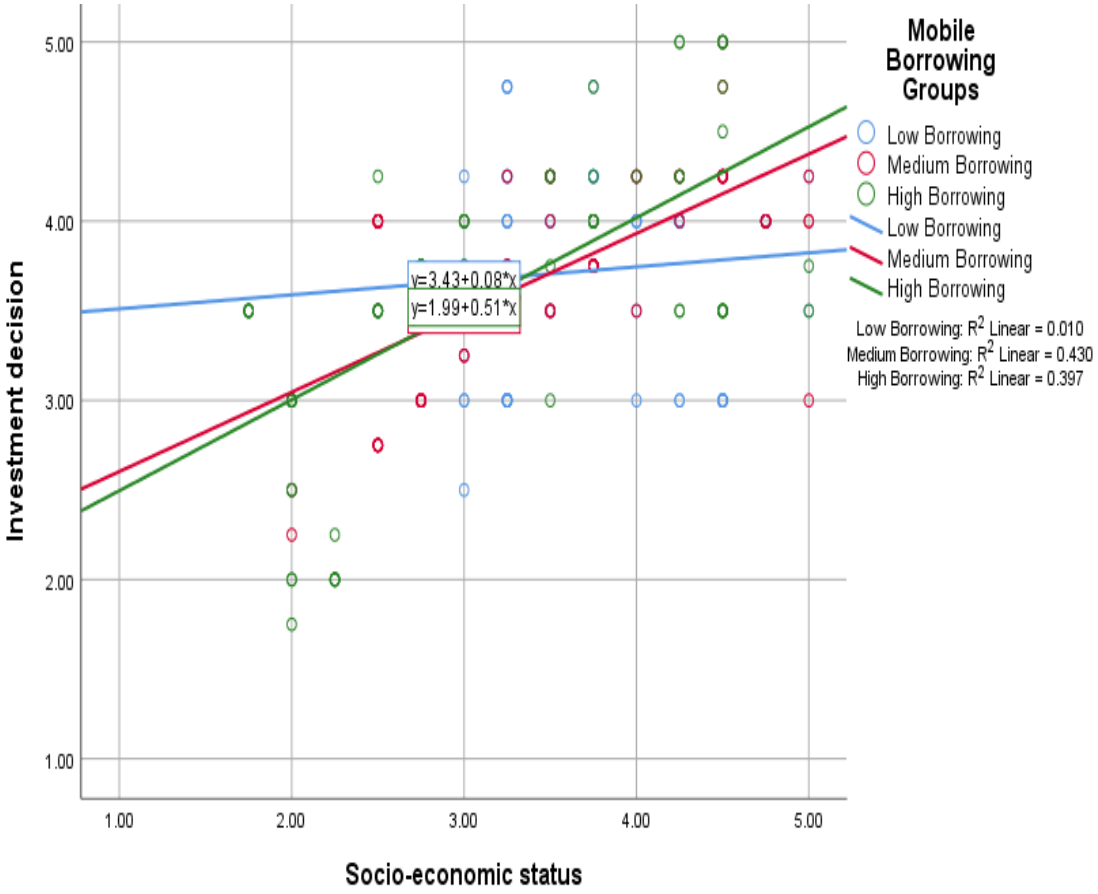

Figure 4.20: Interaction between Mobile Borrowing and Investor Socio-Economic Status

Investor socio-economic status hardly affects investment decisions under low mobile borrowing. However, high investor borrowing behaviours lead to an increasing rate of investment decision-making as shown in Figure 4.20.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The general objective of the study was to investigate the effect of investor characteristics on investment decisions among public university workers in Kenya. This chapter first provides a summary of the major findings of the study as guided by the specific objectives outlined in Chapter 1 of this study. Secondly, conclusions are drawn from the major findings and thirdly recommendations are made. Lastly, suggestions on areas for further research are provided.

5.2 Summary of the Findings

This summary was derived from the findings derived from the regression analysis on hypotheses 1, 3, and 4, and the Chi-Square test for hypothesis 2. The hypotheses are derived from the specific objectives of the study.

The first objective of this study was to assess the effect of investor risk attitude on investment decisions among public university workers in Kenya. Investors can either be risk-takers, risk-neutral or rather risk-averse. This study measured risk using four aspects, which included; the levels of risk associated with a particular investment before investing in it, expected returns, local and international investment, and the safety of the investment.

The study found that most university workers considered the level of risk associated with a particular investment before its uptake ($\overline{x}$=4.38±0.886) and invested where they were assured of returns ($\overline{x}$=3.93±0.922). The university workers felt safe investing in local rather than in international stocks ($\overline{x}$=3.59±0.818) and considered the safety of the investment before making the investment decision ($\overline{x}$=3.87±0.714).

The overall model testing the effect of the investor risk attitude on investment decisions revealed that there was a statistically significant effect of investor risk attitude on investment decisions. About 41.7 per cent of investment decision-making was attributed to the risk attitude of the investors. Risk attitude was the leading effect on decision-making. This means risk tolerance determines the investor's investment portfolio.

The second objective of this study was to examine the effect of investor demographic profiles on the choice of investment avenues among public university workers in Kenya. The demographic profile comprised seven aspects, namely; gender, age, marital status, education level, employment category, job category, and average monthly income. The study found that most university workers 50 per cent (n=138) preferred investing in real estate. Workers in the age group 31-40 years were found to diversify their investment as compared to other age groups irrespective of the fact that they earned an average monthly income of 41,000-80,000. There was enough evidence to show that there was a statistically significant relationship between demographic factors and choice of investment avenues among public university workers in Kenya as all the factors had a P-Value less than 0.05. The results show that risk was an important factor in investment decision-making as the people in this income bracket were willing to take various investment avenues.

The third objective of this study was to determine the effect of socio-economic status on investment decisions among public university workers in Kenya. Socio-economic status was measured using four aspects, which included; the size of the family affected investment decision, income level had an overall influence on the respondent's investment decision-making, education level affected investment decision-making, and employment category influenced investment decision.

The results showed that most university workers agreed that; the size of the family affected their investment decision ($\overline{x}$=3.45±1.350), and income level had an overall influence on investment decisions ($\overline{x}$=4.29±0.797). In addition, the respondents agreed ($\overline{x}$=3.28±1.217) that it was safe to invest in local stocks rather than to buy international stocks. Family size and education level were also found to influence investment decision-making where the bigger the family, the low the investment and the high the education level, the higher the appetite for investing. However, the respondents disagreed ($\overline{x}$=2.78±1.324) that the employment category influenced their investment decision.

The overall model testing the effect of socio-economic status on investment decisions revealed that there was a statistically significant effect of the investor's socio-economic status on investment decisions. Approximately, 27.5 per cent of investment decision-making was attributed to the socio-economic statuses of the investors.

This study also examined the moderating effect of mobile borrowing on the composite effect of the investor risk attitude and socio-economic status on investment decisions among public university workers in Kenya. Most of the workers who took mobile loans like TALA, Branch, and others to invest ($\overline{x}$=1.96±1.012), invested much of the money gotten from the mobile loans ($\overline{x}$=1.82±0.938), and the more they got access to mobile loans the more they invested ($\overline{x}$=1.94±0.931).

Investor risk attitude and socio-economic status were combined to get the combined effect they had on investment decisions. When risk attitude was combined with investor socio-economic status, they explained 51.9 per cent of investment decisions. The effect on investment decisions without the interacting variables was F (2, 275) =150.601, P<0.05. Later, the moderating variable (mobile borrowing) was introduced. The addition of the moderating variable improved the model from R=0.723 of variation in investment decision to R=0.746, with a significant positive change in the R^2 of 0.033 (F-change=10.216; P≤0.05). Approximately 54.9 per cent of the variation in investment decisions was explained by the combined effect of risk attitude, investor socio-economic status and intervening variables. Further, a unit change in Risk attitude led to a 0.982 unit increase in the investment decision.

Risk attitude significantly (P=0.000) increases investment decision when investors obtain many mobile loans as opposed to when the investor borrowing behaviours is low. On the other hand, investor socio-economic status hardly affects investment decision under low mobile borrowing as opposed to when the investor borrowing behaviours is high. This shows that mobile borrowing positively and significantly influences the effect of risk attitude on investment decision-making.

5.3 Conclusions

The conclusions were arrived at based on the independent variables investigated, that is, investor risk attitude, investor demographics, socio-economic characteristics, and the moderating effect of mobile borrowing on investor characteristics on investment decision-making.

Investor risk attitude is an important factor to consider in investment decision-making since it explained 41.7 per cent of investment decision-making. The positive correlation between investor risk attitude and investment decision was due to university workers

considering the level of risk associated with a particular investment, and investing where they were assured of returns. In addition, the university workers were comfortable investing in local stocks rather than in international stocks and considering the safety of the investment before making the investment decision.

The demographic profile of the investor influences investors on the choice of Investment Avenue. More income does not necessarily mean more investment as evidenced by the results of the study where those who invested more were earning an average monthly income of 41,000-80,000. Many of these investors were of the age of 31-40 years. This is a clear indication that youth are risk-takers. They invest in various avenues to maximise returns. Most investors have focused only on real estate investment leaving the other avenues unexplored.

Socio-economic status explained around 28 per cent of investment decision-making. The positive correlation between investor socio-economic and investment decisions was due to most university workers agreeing that; the size of the family and income level affected their investment decision-making. In addition, education level and employment category affected investment decision-making. Mobile borrowing had a moderating effect on investor characteristics in investment decision-making. The addition of the moderating variable to the model improved it significantly to 54.9 per cent of the variation in the investment decision. Therefore, it was concluded that the majority of those who take mobile loans like TALA, Branch, and others do not invest such monies. In addition, the more individuals access such funds, the lesser the investment.

5.4 Recommendations

The recommendations from this study are made regarding the effect of the independent variables, that is, investor risk attitude, investor demographic profile, socio-economic status, and mobile borrowing.

Universities in Kenya should consider educating staff on different levels of risk in different investment avenues as investor risk attitude was found to be the most important factor to consider in investment decision-making. Investors should always consider the level of risk associated with a particular investment and look at the expected returns before advancing to any investment. This will help resolve the problem

of this study as risk attitude was found to be the leading variable that explained investment decision-making. The low-risk investment avenues were real estate and shares.

The demographic profile of the investor was key in choosing an investment. Therefore, the institutions that offer investment avenues should highly consider this to know whom to target for what type of Investment Avenue. These institutions could consider selling shares, insurance policies and fixed deposits to those who were over 50 years as this is what they preferred. These institutions could also consider offering all kinds of investments to investors between the age of 31-40 years as they were found to invest in all kinds of investment avenues. Since these categories of persons were found to have a much higher affinity for risk and investment, the government should consider targeting civil servants and other professionals in this age group by providing them with investment incentives.

Individuals should invest in their youth before the family is big and with many responsibilities. The study also recommends that individuals develop an investment culture at an early age no matter the size of their income, as money will never be enough. Universities should encourage their staff to invest wisely, to act as an example to the community.

Lastly, once the new law that regulates digital lending by Central Bank of Kenya is operationalized, a similar study should be conducted to find out how digital lending moderates investment decision-making.

5.5 Suggestion for Further Research

The study recommends a further study to find out why investors preferred investing locally rather than internationally. Since the current study used mobile borrowing as a moderating variable, further study can be conducted whereby mobile borrowing is a predictor variable to find out to what extent it affects investment decision-making. Lastly, the same study could be conducted after the implementation of the Central Bank of Kenya digital lending regulation to find out the impact of the regulation on both the borrower and the lenders.

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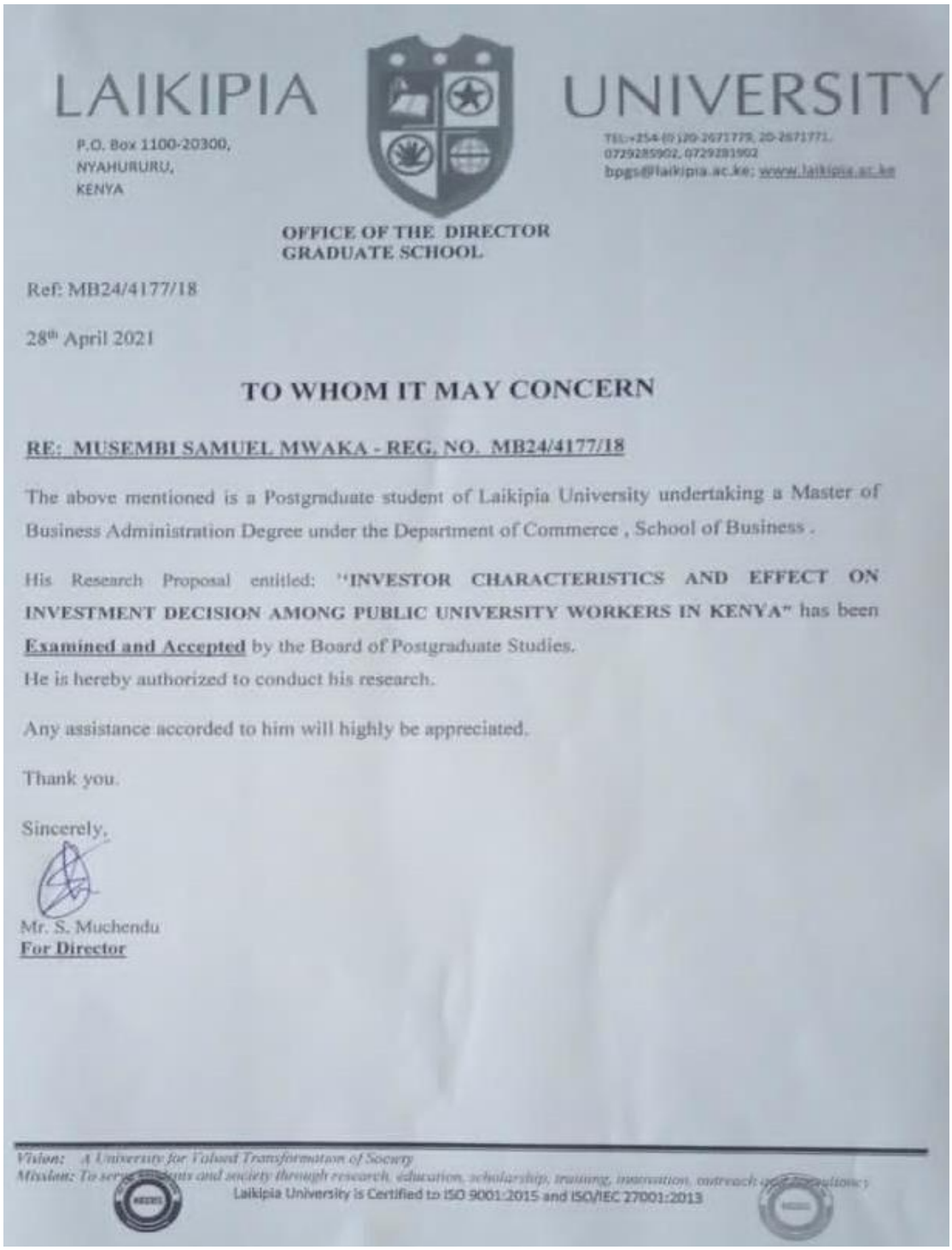
APPENDICES

Appendix I: Graduate School Introductory Letter



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OFFICE OF THE DIRECTOR
GRADUATE SCHOOL

Ref: MB24/4177/18

28th April 2021

TO WHOM IT MAY CONCERN

RE: MUSEMBI SAMUEL MWAKA - REG. NO. MB24/4177/18

The above mentioned is a Postgraduate student of Laikipia University undertaking a Master of Business Administration Degree under the Department of Commerce , School of Business .

His Research Proposal entitled: **"INVESTOR CHARACTERISTICS AND EFFECT ON INVESTMENT DECISION AMONG PUBLIC UNIVERSITY WORKERS IN KENYA"** has been **Examined and Accepted** by the Board of Postgraduate Studies.
He is hereby authorized to conduct his research.

Any assistance accorded to him will highly be appreciated.

Thank you.

Sincerely,

Mr. S. Muchendu
For Director

Vision: A University for Valued Transformation of Society
Mission: To serve students and society through research, education, scholarship, training, innovation, outreach and consultancy
Laikipia University is Certified to ISO 9001:2015 and ISO/IEC 27001:2013

Appendix II: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 270726

Date of Issue: 02/July/2021

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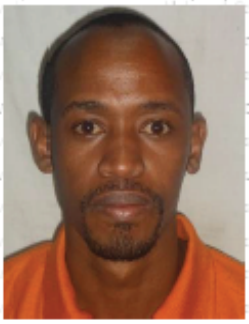

This is to Certify that Mr.. Mwaka Samuel Musembi of Laikipia University, has been licensed to conduct research in Laikipia, Nakuru, Nyeri, Tharaka-Nithi on the topic: INVESTOR CHARACTERISTICS AND THEIR EFFECT ON INVESTMENT DECISIONS AMONG PUBLIC UNIVERSITY WORKERS IN KENYA for the period ending : 02/July/2022.

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Appendix III: Questionnaire

I am a student at Laikipia University writing my MBA research project on "**Investor Characteristics and their Effect on Investment Decisions among Public University Workers in Kenya"**. I hereby humbly request you to spare some of your time to complete this questionnaire. It is my assurance that the information you shall provide shall solely be used for this study and be treated with high confidentiality. Kindly respond to each question provided as per your own experiences. Your cooperation is of great help to the success of this study.

In case you need any further clarification on the questions provided, kindly get in touch with me through phone number 0721315210 or send an email to mwakamusembi@gmail.com.

Section A: Background of the Respondent

1. Gender : Male [] Female []
2. Age : Less than 31 Years []

   : 31-40 Years []

   : 41-50 years []

   : 51-60 years []

   : More than 60 Years []

3. Marital Status:

a) Single [] b) Married [] c) Divorced []

4. What is your highest education qualification?

a) Certificate [] b) Undergraduate []

c) Masters [] d) PhD [] e) Post-graduate diploma []

5. What is your employment category?

Contract [] b) Permanent []

6. What is your job category?

Teaching staff []

Non-teaching Staff []

7. What is your average monthly net income in (Ksh)?

a) Less than 41,000[] b) 41,000 –80,000 []

c) 81,000-120,000 [] d) 121,000-160,000 []

e) 161,000-200,000 [] f) 201,000-240,000 []

g) 241,000-280,000 [] h) 281,000-320,000 []

i) 321,000-360,000 [] j) Over 360,000 []

Section B: Investment Preference

8. Which is your most preferred avenue of investment? (Tick only one)

a) Insurance policies [] b) Fixed deposits [] c) Shares [] d) Equities []

e) Real Estate [] f) Mutual funds g) Government securities

h) Others specify_____

9. Reason for preferring the above selected investment avenue

a) Can easily be converted to cash [] b) Has low risk []

c) The profits are high []

d) Others specify_____

Section C: Investment Perception

Kindly indicate to what extent you agree to the statement in question 10-13. (1-Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, and 5-Strongly-Agree)

10. Risk attitude

Qn.	Items	1	2	3	4	5
RA1	I consider levels of risk associated with a particular investment before investing in it					
RA2	I only invest where I am sure of returns					
RA3	In my opinion, it is safe to invest in local stocks rather than buy international stocks					
RA4	I make sure that my investment in stocks has a high degree of safety investment decision-making.					

11. Socio-economic status

Qn.	Items	1	2	3	4	5
SES1	The size of the family affects my investment decision					
SES2	Income level has an overall influence on my investment decision making					
SES3	Education level affects my investment decision making					
SES4	Employment category (teaching/ non-teaching) influences investment decision					

12. Mobile borrowing

Qn.	Items	1	2	3	4	5
MB1	I take mobile loans like TALA, Branch, and others to invest because of the frequency of lending					
MB2	I invest much of the money gotten from the mobile loans					
MB3	The more I get access to mobile loans the more the investment					

13. Investment decision

Qn.	Items	1	2	3	4	5
ID1	I invest based on the expected return on available investment opportunities					
ID2	I mostly invest if I have excess cash					
ID3	My investment decision is attributed to my knowledge of investment avenues available					
ID4	Past performance of investments affects my investment decision-making					