THE EFFECT OF FINANCIAL LITERACY ON INVESTMENT DECISION MAKING BY PENSION FUND MANAGERS IN KENYA

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DECLARATION

This management project is my original work and has not been presented for a degree in any other university.

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DEDICATION

For dad and mum. You are the best. To my adorable nephews Bagaka, little Alubala and nieces Shirleen and Natasha. You are my inspiration.

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ABSTRACT

This study assesses the financial literacy of the pension fund managers who invest in the pension's scheme funds in local financial markets. In addition, it examines the relationship between financial literacy and the influence of the factors that affect the investment decision. The objective of the study is to establish the effect of financial literacy on investment decision making by pension fund managers. A modified likert scale questionnaire has been developed divided into three parts. The first part covers demographic variables. The second part identifies several financial literacy factors affecting the investment decision by pension fund managers in Kenya. The third part is devoted to factors of behavioral finance. A target population of all 16 fund managers in Kenya was used. The results indicated that the financial literacy of the is far from the needed level. The financial literacy level was found have a significant effect on investment decision making by fund managers.

Since these decisions are ongoing, requiring members to periodically monitor and evaluate the performance of their chosen fund and investment option, and decide whether to switch to another fund and/or investment option. To achieve optimal outcomes in this complex decision-making environment requires decision-makers to have adequate levels of financial knowledge and skills. The call for enhanced financial literacy amongst consumers is a global phenomenon, driven by the growing complexity of financial markets and products, and government concerns about the affordability of supporting an ageing population.

ABBREVIATIONS

NSSF	National Social Security Funds
GDP	Gross Domestic Product
PAYG	Pay As You Go
KPMG	Klynveld Peat Marinnk Goerdeler
SPPS	Statistical Package for Social Scientist

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CHAPTER ONE

INTRODUCTION

1.1 Background of study

Financial literacy is an understanding of money and financial products that people can apply to financial choices in order to make informed decisions about how to handle their finances. Many individual nations have recognized the importance of financial literacy and created task forces to study their populations with the goal of offering education and outreach. A common place to see classes is in high schools, where students may be offered the opportunity to take some brief courses to prepare them for managing their finances after graduation. Financial literacy involves a number of different areas of understanding. Learning about money and how it works is an important aspect, as understands products like credit, loans, and insurance. The ability to understand and work with interest and exchange rates is also important; with interest being of particular concern since many consumers take advantage of the credit market. Other topics of interest include understanding risks, learning how to evaluate potential investments, and identifying scams or dubious financial practices. Balancing checkbooks and accounts and being able to read account statements is also an important skill.

Financial planning is another key aspect of financial literacy, as Simulation of financial events is often used in classroom settings to help people internalize important concepts in financial literacy. People are presented with hypothetical situations and asked to demonstrate how they would decide and why, as for example when people are asked whether they would take a lump sump payment or a series of smaller payments with interest. If people cannot correctly break down and calculate the problem, they may make a hypothetical choice that would be against their interests if it was made in the real world it is important for people to recognize how financial planning can help them prepare for life events. Levels of financial literacy are highly variable. Some surveys suggest that people feel more literate with financial matters than they really are, claiming to understand financial concepts but not demonstrating that understanding on examinations and tests. Identifying areas where a population may be falling short on their understanding of financial topics is an important aspect of developing fiscal policy.

Financial literacy is important because as the world becomes more and more complex with increasing financial products informed decision need to be made Greenspan (2001) a former chairman for the united states Federal Reserve Bureau maintain that as market forces continue to expand the range of providers of financial services, consumer will have much more choices and flexibility on how to manage their financial matters. He further suggests technologies and how to make financial decisions in an appropriate manner. Kefela (2010) revealed that financial knowledge is directly correlated with self beneficial financial behavior and so financial education should take a wholesome perspective to include the fundamentals of finance since without understanding the basic finance principles, pension education would be ineffective. In the words of Kefela (2010) stated that participants who are less financially literate are more likely to have problems with debt, are less likely to save, are more likely to engage in high cost mortgages and are less likely to plan for retirement" and by extension are less likely to make better choices for their investments. Basu,(2005:2) define financial literacy as the ability to make informed judgment and to take effective action regarding the current and future use and management of money. This include the ability to understand financial choices plan for the future ,spend wisely and manage and be ready for life events such as job loss or saving for retirement.

1.1.1 Pension Funds

A pension fund is a legally separated pool of assets bought with contributions to a pension fund for the exclusive purpose of financing pension fund retirement benefits (OECD 2008; Yermo 2002). A distinction is however often made between a pension fund and a pension plan OECD (2008). A pension plan has a legally binding contract with a clear retirement objective that may be part of the employment contract or may be required by law. A pension fund can be incorporated to manage pension assets of various pension plans. In Kenya however each pension plan is allowed to manage only pension asset of all their own RBA (2008). Thus pension plan are also called pension funds or retirement income schemes in Kenya. The pension fund members have a legal or contracted claim on the assets of the fund Yermo (2002). Pension funds are therefore trusts with legal capacity to invest and manage beneficiary funds with diligence and stewardship. Pension funds collect and accumulate contributions from employees and their sponsors (employees who establish the pension schemes), invest the contributions and hold the proceeds in stewardship for the benefits of the members on retirement (OECD 2004,EABL 2004),OECD further shows that although both the employee and the employer contribute to the pension fund, the contribution rates by the sponsor and the employee are listed in the pension fund constitution and they differ from one employer to another.

A pension fund is a legally separate pool of assets bought with contributions to a pension fund for the exclusive purpose of financing pension fund retirement benefits OECD(2000),Yermo (2002).Pension funds are the principal sources of retirement income for millions of people in the world. Pension fund are also important contributors to the gross domestic product (GDP) of Kenya. Retirement income account for 68% of the total income of retirees in Kenya,45% in Australia ,45% in Asia and 80% in France while South Africa 75% f the elderly population relay on pension income Alliance Global Investments (2007).In Kenya, pension assets account for 30% of countries GDP. It is therefore important that financial pension funds be managed effectively, not only in Kenya but also in other countries .The global pension has threatened to erode contributions that the pension funds make to the world economies OECD (2008).The crisis manifests in countries that cater for the retirement income for ageing population as a result of depressed financial markets Kukwani,sun Hin (2006). Pensions funds are the principal sources of retirement income for millions of people in the world Sze (2008).The retirement benefits sector in Kenya is regulated by retirement benefits authority (RBA), a regulatory authority formed under the retirement benefits Act no.3 of 1997 with the mandate to first, supervise management and establishment of retirement benefits schemes and secondly to ensure that the interest of members and sponsors of these schemes are protected. The Authority also has a role to develop the retirement benefits industry and advise the government on matters relating to retirement benefit. In addition to the safety provided by the regulations of retirement benefits schemes enjoy various tax incentives advanced at both the contributions and withdrawal of benefits stage.

1.1.2 Financial Literacy and Investment Decision on Pension Funds

Pension fund trustees are bestowed with various responsibilities including the power to produce income by means of proper investment (Trustee Act Cap 167) and to have a prudent investment policy Retirement Benefit Act (1997). To achieve a good investment performance, pension trustees who are more often than not, not investment gurus, will delegate this responsibility to professional finance experts both fund managers or insurance companies and therefore need for financial literacy. One key aspect in the management of pension funds is investment decision. Pension trustees are in dilemmas to which way to go in investing pension on funds to optimize returns without taking a lot of risk. The question that is frequently asked by trustees of pension funds whether it is better to invest with fund managers or insurance companies.

Laibson and Madrian (2005) found out that effective participation and quality decision making can only be achieved if pension scheme members, understand how pension schemes operate. While Lusardi (2006) concluded that finance literacy programs should include identifying; assets and debt, cost saving strategies, setting personal financial goals and saving avenues. Kenya's Vision 2030 (strategic plan to achieve key economic milestones by 2030) agreed that pension provision is an important pillar to achieving economic growth and faster development of the financial markets. Therefore in the long term, the population should be empowered to make financial decisions which will in turn contribute to reduction in old age poverty as the population will be empowered to make rational financial decisions for their interests in both the short term and the long term Kafele, (2010).

1.2 Statement of Problem

Numbers of studies have linked between financial literacy and the quality of investment decisions. Beal and Delpachitra (2003) argued that having financial literacy skills enable individuals to make informed decisions about their money and minimizes the chances of being misled on financial matters. Rooij et al. (2007) found that financial literacy affects financial decision-making because individuals with low literacy are more likely to rely on family and friends as their main source of financial advice and are less likely to invest in stocks. Improving financial literacy contributes positively to the financial markets and the economy. Financially educated investors help financial markets to operate efficiently, as they take better trading decisions based on fundamental and or technical analysis instead of acting irrationally. In addition, those people are in better position to protect themselves from financial frauds (Volpe et al., 2002; OECD 2005). Furthermore, financially educated customers demand more customized products, which increases competition between businesses, encourages' innovation and improves products quality. On the other hand, the principles of behavioral finance suggest that individuals often do not make decisions in rational, well-informed and unbiased manner Byrne, (2007). Irrational factors depend on investor attitude, behavior and characteristics. Therefore they is no consensus on the impact of financial literacy on investment decision making hence they exists a gap. The study seeks to establish the impact of financial literacy on investment decision making.

Study done by Akwimbi W,(2011) concluded that firms conduct pension schemes where employer contributes a certain percentage together with the employee contribution and the funds be invested and trustees should control the fund. The increasing importance of pension funds performance means that it is important that careful consideration should be given to the likely benefits that members can expect from them. Another study done by Njuguna A,(2010) show that there has been an increase in the types of instruments available for investment and some relaxation of the regulatory investments guidelines with more of a focus on scheme based investment strategies. Consequently financial troubles of a significant number of pension schemes have triggered an urgent need for formulation and implementation of solutions to the problem. Therefore the need of having the right investment decisions in place is important.

While Mugweru, (2001) in his study on National Social Security Fund (NSSF) recommended that Investment department at NSSF should consist of professionals who adhere to proper investment policies and procedures.

Onyimbo, (2009) in his epic on the dilemma faced by fund managers towards investment function in Kenya observed that investment decision are subject to direct investments in companies , public dept., bank deposits investments in real estate and foreign assets. The study gave investment option as dilemma void of investment strategies that are arrived at from a risk management prospective.

Gathua, (2008) observed that pension fund institutions have the responsibility to select an investment strategy that balances risk and returns appropriately for plan members. His study emphasized on investment policy the key driver in managing risk through the main components setting parameters for short term asset allocation.

Kihunyu, (2005) related his study on the RBA Act of 2000 on compliance with portfolio investments since then more guidelines have been issued by RBA amending some previous regulation thus controlling investments of pension funds while Lydia (2006) concentrated on investment risk borne by fund managers only since this study new regulations have been put in place making Trustees responsible for investment of pension fund by way of an investment policy in liaison with fund managers.

Another study done by Njuguna A, (2010) shows that there has been an increase in the types of instruments available for investment and some relaxation of the regulatory investment strategies. Consequently financial troubles of significant number of pension scheme have triggered an urgent need for formulation and implementation of solutions to the problem. No sufficient investigation has been done to determine the key variables such as governance, investment practices, legal and regulatory framework, administration costs, mode of financing, macroeconomic factors and demographic profiles, that influence the financial viability of pension systems in developing countries.

1.3 Objective of the study

The objective of the study is to establish the effect of financial literacy on investment decisions making by pension funds in Kenya.

1.4 Importance of the study

The results of this study will enable Insurance Companies and fund managers to formulate appropriate strategies in the investment of pension schemes in order to tap the their full potential in growing the pension market in a liberalized economy. This will in turn create a competitive edge.

This study will give insight into the government and its policy role especially in ministry of finance and central Bank on the impacts of financial education as part of the school curriculum. The result of the study will inform the ongoing financial sector reforms in the country.

Most important the result of the study will be relevant to all pension fund managers will be able to implement changes that will lead to improved portfolio returns. Trustees of pension funds who make direct investment decisions on behalf of the members and beneficiaries within the investment guidelines will find the results a resource and hence discharge their duties more efficiently

This study will also contribute to knowledge in the academic fields, research institutions, learning institutions and individuals. The findings will also be beneficial to pension administrators in advising pension trustees to make informed decisions on investment of pension funds.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature relating to financial literacy and pension investment decision. The literature review has been organized into sections. The first section gives the theories guiding the study and the second section gives the empirical studies. The last section gives the conclusions drawn from the empirical studies in the second section.

2.1 Theoretical Framework

These are theories used to illustrate the financial and pension investment decisions. The most common ones are classical portfolio theory, role theory and life cycle consumption theory.

2.1.1 Classical Portfolio Theory

Classical portfolio theory suggests that investors would shun away from unfamiliar financial products. This familiarity bias holds especially for unsophisticated household investors. However, the rapid growth of the credit derivatives market indicates that other factors may have played important role in such investment process. Using unique household investment data from Hong Kong, we show that investors' demand of structured financial products largely depends on their financial literacy. Important determinants according to mean-variance analysis, such as product premium, have little explanatory power to investor's allocation decisions. More financially literate investors who can form reasonable expectations about stock returns bought less. Education, intelligence, and relationship with the distributing banks are statistically significant explanatory variables. Our finding supports asset allocation model based on investor background.

2.1.2 Role Theory

According to role theory, retirement is an adjustment of one's principal role usually as a paid worker, a role that is central to a person's identity Kim & Moen, (2001). Roles give people sense of worth and achievement Choi, (2001) and help shape their behavior and self-concept Hooyman & Kiyak, (2000). Further, role theory suggests that retirement can be a stressful event for individuals due to the loss of a fundamental social role. Learning to deal with role loss may cause individuals to feel a sense of vulnerability. For instance, some retired individuals may experience feelings of disconnect and anxiety that may lead to low levels of life satisfaction during retirement (Kim & Moen, 2001; Richardson & Kilty, 1991; Quick &Moen, 1998).

Ryan (2001) conducted a survey of 700 retired people and the results revealed that men and women adjust differently to retirement. She stated that there was no clear reason associated with man having most of their identity tied to their working environment. This is consistent with McPherson (1991) who indicated that work is a primary concern as it influences life, chances, income, social status, lifestyle, and even friendship. Similarly, Butters (2002) indicated that people retire differently. Some men behave differently from woman in view of the men involvement of work and value of work to men.

2.1.3 Prospect Theory

Prospect Theory describes decisions between alternatives that involve risk (i.e., alternatives with uncertain outcomes) where the probabilities are known. The model is descriptive: it tries to model real-life choices, rather than optimal decisions.8Prospect theory, which was developed by Kahneman and Tversky (1979), is one of the most often quoted and best-documented phenomena in economic psychology. The theory states that we have an irrational tendency to be less willing to gamble with profits than with losses. It allows one to describe how people make choices in situations where they have to decide between alternatives that involve risk in financial decisions.

2.1.4 The Life Cycle Model

In theory, as long as people are earning more than is required to meet basic needs, they may choose to transfer funds from periods of high income to periods of low income. This so called smoothing of lifetime income is probably the most commonly understood reason for contributing to a pension during employment. It is based on the idea that it is easier to save when there is more money from which a contribution may be put aside. This idea is important because there is a less than perfect correlation between people's expenditure and their income. At both ends of the adult life cycle, comparatively low incomes are topped up through borrowing in younger years, and by drawing on savings, pensions and investments in retirement. The life cycle model is built on several assumptions about human behavior: 'The lifecycle model hypothesizes that individuals are forward looking in choosing how much of the resources that they will receive over their lifetime they will consume in each period of their life.' This brief statement incorporates four powerful assumptions about people: they are forward-looking across the span of their lifetimes; they can predict the financial resources they will have over their lifetime (i.e. lifetime income); they understand something about the financial resources they will need in successive periods of their lives; they make informed choices about the use of their financial resource. The simplest life cycle consumption theory posits that consumers save so as to transfer resources life stages where the marginal utility of consumption is highest. Given concavity of the utility function, consumers will seek to transfer resources from periods of their lives where they earn substantial income, to periods where they earn less. These income paths are estimated separately for workers prior to age 65 and retirees age 65+; education groups refer to household heads having completed less than a high-school education, high-school graduates, and those with at least some college

2.1.5 Systems theory view of pension funds

Pension funds like other organisations, can be viewed as open systems since they collect and accumulate contributions from employees (members) and their sponsors (employers who establish the pension fund), invest the contributions and hold the proceeds in stewardship for the benefit of the members upon retirement (Davis 2005:5). Davis (2005) thus suggests that pension funds have definite inputs that they convert to outputs. Following this systems theory approach (inputs – conversion – outputs), efficiency in the present study is conceptualized as the pension fund's ability to maximise financial outputs (pension fund value and retirement benefits) from the scarce financial resources (contributions, investment funds, other inputs) available to it. According to Chansarn (2005:2), a financially efficient system ensures distribution of limited funds to the most beneficial uses in the most effective manner.

2.1.6 Theory on optimal Investment in financial literacy

Recent studies show that financial literacy is strongly positively related to household wealth, but there is also substantial cross-sectional variation in both financial literacy and wealth levels. To explore these patterns, we develop a calibrated stochastic life cycle model which features endogeneous financial literacy accumulation. Our model generates substantial wealth inequality, over and above what standard lifecycle models produce. This is due to the fact that higher earners typically have more hump-shaped labor income profiles and lower retirement benefits which, when interacted with the precautionary saving motive, boosts their need for private wealth accumulation and thus financial literacy. We show that the fraction of the population which is rationally “financially ignorant” depends on the level of labor income uncertainty as well as the generosity of the retirement system.

2.2 Empirical Studies

Wealth levels have been shown to vary considerably over the life cycle and across the population of workers on the verge of retirement. There is also much dispersion in observed levels of consumer financial sophistication, and this heterogeneity in financial literacy is positively associated with retirement wealth. Accordingly, analysts and policymakers interested in retirement system reforms seek to understand what drives these correlations, particularly in an environment where consumers are increasingly required to save for their own retirement.

A handful of prior studies suggests that financial literacy itself is an endogenous variable and that individuals can increase their human capital by investing in financial literacy. Yet these analyses have not devised an explicit multiperiod theoretical model that can be used to generate cross-sectional differences in wealth-to-income profiles, which is necessary to assess which types of consumers would benefit the most by early investment in financial literacy and sophisticated investment products. The mechanism we propose is that financial literacy enables individuals to better allocate resources over the life cycle. Accordingly, our model explores two important questions first, what forces shape financial literacy accumulation over the life cycle and secondly, how much of the life cycle and cross-sectional variation in wealth might be attributable to differences in financial literacy?

Extending the life cycle model to include financial literacy is useful and indeed imperative for three reasons. First, many consumers appear not to “know” as much as economists often assume in theoretical models. Accordingly, specifying how literacy is acquired in a life cycle setting should be of keen interest to those seeking to explain wealth dispersion. Second, existing economic models of saving often have a difficult time explaining several stylized facts without appealing to exogenous preference differences or heterogeneity in large fixed costs for investing in financial products. For this reason, economists have not been able to readily explain why a significant fraction of the population reaches retirement with little or no wealth, without assuming either that some subset of consumers is extremely impatient, that they face high replacement rates from government programs and pensions, and other reasons.

In this vein, Venti and Wise (2000) show that permanent income differences and chance alone can explain only 30-40% of observed differences in retirement wealth, implying that other factors should be taken into account. Those seeking to replicate observed heterogeneity in wealth across education and permanent income groups have invoked a range of factors including means-testing programs (Hubbard, Skinner and Zeldes, 1994) and impatience in the form of hyperbolic discounting (Angeletos, Laibson, Repetto, Tobacman, and Weinberg, 2001). Still others assume that consumers use rule-of-thumb in saving decisions Campbell and Mankiw, (1989). In contrast, our analysis builds on Yitzhaki's (1987) work showing that expected returns from financial products differ accross income groups.

In what follows, we build and calibrate a stochastic life cycle utility maximization model featuring uncertainty in income, capital market returns, and medical expenditures, and we include an endogenous literacy accumulation process and a sophisticated saving technology. In the model, financial literacy allows consumers to potentially raise the rate of return earned on financial assets, and it also permits them to use more sophisticated financial products. Individuals who wish to transfer resources over time by saving will benefit the most from financial literacy. Moreover, because of how the U.S. social insurance system works, more educated individuals have the most to gain from investing in financial literacy. As a result, allowing for endogenous financial literacy accumulation allows for an amplification of differences in accumulated retirement wealth. Thus our approach departs from traditional saving/consumption models in that it allows for a choice of a saving technology with returns and costs that depend on each consumer's level of financial literacy. The fact that returns depend on the consumer's level of financial literacy can also be viewed as an extension of models in the portfolio choice literature (e.g. Cocco, Gomes, and Maenhout, 2005) where returns are exogeneous and the consumer only decides how much he will invest in risky assets.

If individuals have insufficient knowledge concerning the retirement savings process, they are unlikely to be able to make optimal retirement savings\ decisions. A lack of financial education may result in workers starting to save too late in life and saving too little to achieve their stated retirement goals. In addition, a lack of information concerning the risk-return distribution of various investments might lead workers to misallocate their retirement portfolios. Bernheim (1998) presents evidence that questions whether the typical household has enough financial literacy to make appropriate savings decisions for their employer-provided pension plans. Recognizing this lack of financial knowledge, many employers now provide financial education programs for their workers. Employer-provided financial information consists of written communications that explain company retirement savings options, general information about financial markets and economic conditions, and financial education or retirement seminars led by pension providers or in-house staff. Other firms provide monies so that their employees can purchase a financial plan. Some of the programs are provided with the specific goal of increasing participation and contribution levels to help the company meet nondiscrimination standards. Relatively few studies have attempted to estimate the effectiveness of these programs in altering retirement goals or retirement savings behavior.

Using the KPMG Peat Marwick Retirement Benefits Survey, Bayer, Bernheim, and Scholz (1996) estimated that workers employed by firms that offered financial education programs had higher participation rates in and contribution rates to 401(k) plans compared to firms that did not provide this type of program. Their analysis indicated that seminars were the most effective type of communication. Sponsorship of financial education seminars was associated with a 12 percentage point increase in the participation rate of non-highly compensated workers and a 6 percentage point increase among highly compensated employees. Company-sponsored retirement seminars produced a 1percentage point increase in the contribution rate of the non-highly compensated and no significant increase among highly compensated employees. This increase in the contribution for non-highly compensated is quite large given that the average contribution rate for these employees is only 3 percent. Clark and Schieber (1998) examined employment records gathered by Watson Wyatt Worldwide from 19 firms.

2.2.1 Historical Development of Pension Funds

Langley (2006), Newmann (2005),cluster and Johnson (2004), Guinan (2003), Lindert (1994) and trace the earliest pension fund system to Germany. These authors credit former German Chancellor Olto Von Bismarck for enacting a compulsory savings programme for workers in large firms who we exposed to the socialism ideologies in 1889 Perrolti and Schwien Bacher (2008) state that the Bismarck pension fund system was financed through worker and employer contributions attracted taxation incentives and paid retirement benefits once the worker reached the age of 65. According to Lindert (1994), pension fund contributions under this system were invested in financial securities. This system however had no provision for pension entitlement to personal representatives in case of death, it was mainly restricted to the civil servants and war veteran and many workers did not live to enjoy the retirement benefits as life expectancy was 60years Lindert (1994).

Perotti and Schwein Bacher (2005) describe the Bismarck pension fund system as a social security programmer defined as a comprehensive retirement programme covering may production workers. The Bismarck programme was replicated at varying time periods in different countries, for example, Japan 1575, United States 1896, New Zealand 1895, Belgium 1900,Australia 1941,Belgium 1967, Canada 1966, Denmark 1964, Greece 1975 and United Kingdom in 1948 amongst others Perotti and Schwein (2008). The development of pension fund systems was a reaction to the political and economic shocks affecting the world (Perotti and Schwien bacher 2008; Clark 2003; Ambatchscheer 2007) during the Victorian period (five decades prior to the First World War). During this period, prices were reasonably stable, with long term rental contracts and general stability in the financial and political systems in the west and hence there was no need for social or retirement security. The First World War caused an inflationary shock, which acted as a catalyst to the changes that were later affected in the financial system. The resultant loss of jobs, suspension of various currencies and the stock market crisis of 1929 prompted government to create policies to cater further working populations which consequently led to the formation of the modern pension fund system Perrolti and Schwien Batcher (2008).

As pension fund system developed economic and political shocks affected their sustainability in different countries (Meyer 2004; Newman 2005) and so the only institutions that could be trusted to secure retirement funds were the governments. In Germany, the Bismarck system was transformed to a pay as you go (PAYG) scheme in 1957 funded by the state with France and Finland following suit Meyer, (2004). In Africa, pension fund systems were developed after independence and the pension fund models that were being used by their colonial master were adopted Ahmad (2008). According to well-known studies by Briwson and colleagues more than 90% of the variability in a typical plan sponsors performance returns overtime is as a result of asset allocation policy, the study would establish to what extent all his risks impacting on the returns.

2.2.2 Pension Funds in Kenya

Pension is a benefit promised to an employee by an employer during employment and is payable on leaving or retirement from the employers service. In the developed countries, pension plans are established and managed through creation of trust. In many cases the fund is invested by employer and pension is payable from the recurrent revenue of the employer. In case which are semi-independent, pensions are managed by the insurance companies under the concept of guaranteed fund, employees lately prefer the later kind of pension because of its independence from the employer. Following the historic case of Enron in the United States of America (2001) where the pension fund was invested substantially in employers stock, it become more necessary to have independent pension fund management and custodial services away from employers. In the case the employer had unlimited access to the pension fund and was totally invested in the group of companies owned by the employer thus pension fund were lost in this cases due to lack of independence from the employer. To achieve the independent management of pension schemes away from employers it became necessary for legislation, which devolves the responsibities of pension fund management to trustees from that of employees.

In Kenya, employers or trust corporations set up pension funds under irrevocable trusts. This is done in accordance with following act of parliament. Trustees (perpetual succession) act cap 164. Trustees act cap 167; public trustee act 148, Perpetual and Accumulation act 1984; income tax cap 487 and retirement Benefit act 1984; gave rise to the development of retirement benefits regulation for occupational schemes 2005. This become operational on 8th October 2001, The regulations are intended to achieve separation of pension funds from the employees fund. This is because in the past employers had unlimited access to the pension funds and would use it to improve their cash flow in the company some of the cases.

The investment of the pension fund is the responsibility of the pension trustees. The retirement Benefit regulations 2001 provides an investment guideline under section 38 prudent investment of pension fund is absolutely necessary in order to safeguard the pension fund members interests. This should also enable trustees to achieve their role in discharging their responsibilities to members leaving the employers service and/or retiring at old age.The fund managers investing in pension plans are governed by the retirement benefits Act (1997). This act has specific guidelines on the limits of exposures for each asset class it trades in when the retirement benefit Act (1997) was set up, it required all pension schemes to have a prudent investment policy in line with the investment guidelines provided there in and to appoint a fund manager to direct and assure trustees in investing pension funds/ the question is how a fund invested by an insurance company is to be treated.

2.3 Conclusions from Literature Review

The general conclusion of this limited literature is that financial education provided by employers can increase retirement savings and potentially alter the investment of assets in retirement accounts. The mechanism for how education alters retirement savings and investment decisions is unclear. Maki (2001) provided three possibilities. First, financial education could increase household savings by causing the family to reduce its discount rate. Second, increased knowledge could lead the household to become less risk-averse and thus increase investment in assets with a greater level of risk and expected return.Finally, financial education programs could change the household's knowledge of its investment choice set. For example, the information may reveal to workers that it is impossible to achieve the current goal of retiring at a specific age with a certain level of income using the existing saving and investment strategy. Maki dismissed the first two possibilities and argued that greater knowledge of what is possible is the primary mechanism through which these programs alter household decision making.

These decisions are ongoing, requiring members to periodically monitor and evaluate the performance of their chosen fund and investment option, and decide whether to switch to another fund and/or investment option. To achieve optimal outcomes in this complex decision-making environment requires decision-makers to have adequate levels of financial knowledge and skills. The call for enhanced financial literacy amongst consumers is a global phenomenon, driven by the growing complexity of financial markets and products, and government concerns about the affordability of supporting an ageing population. Worldwide, defined benefit pensions are giving way to the risk and uncertainty of defined contribution superannuation/pension funds where fund members now make choices and decisions that were once made on their behalf. An important prerequisite for informed financial decision-making is adequate financial knowledge and skills to make competent investment decisions. Furthermore, the expansion of financial services in Kenya creates not only great opportunities, but also more potential for the general population to take wrong financial decisions hence the need to enhance financial literacy initiatives.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the research methodology used for the study. Research Methodology gives details regarding the procedures used in conducting the study. The research design, population, data collection and analysis methods are elaborated.

3.1 Research Design

The study used descriptive research design in collecting the data from the respondent Bhalta Chargy (2003) defines descriptive research as a fact finding approach generating across sectional study of the present situation. It ascertains and describes these characteristics of the variables of interest in a situation. It is restricted to a fact finding and may result in the formation of important principle of knowledge and solutions to significant problems. It goes beyond data collection and involves, measures, classification, analysis and interpretation Kothari (2004).

3.2 Population of study

The target population covered all the 16 fund managers in Kenya registered with Retirement Benefit Authority (RBA) in the year 2012.

3.3 The sample technique

The researcher approached all of the funds managers in Kenya by census survey.

3.4 Data Collection

A structured questionnaire was administered to the investment managers of pension funds. The investment consisted of closed questions. The likert scale questionnaire helped to standardize and quantify responses from the research.

3.5 Data Analysis

After all primary data has been collected; the researcher classified it in accordance with variables. Statistical package for social scientist (SPSS) data analysis program was utilized to generate inferential and descriptive statistics; charts and percentages from the respondents to establish the relative importance and weight for each variable. MS excel spread sheet tools was utilized in presenting the quantitative data. The researcher used Simple Regression Model, whereby the variables of the interest here are financial literacy which is the independent variable and investment decisions the dependent variable. Thus the tentative hypothesis is that the higher the level of financial literacy results in better investment decision other things held constant.

$Y=a+bxi$

Where a=a constant

xi=Financial Literacy

Y=Investment decision.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

In this chapter data obtained from the questionnaires was examined analyzed and a presentation of the finding done.

4.2 Data Presentation

4.2.1 Analysis of the Response Rate

Table 4.1 Analysis of the response rate

	Frequency	**Percentage**
Returned	11	69%
Not returned	5	31%
TOTAL	**16**	**100**

Source: Author, 2012

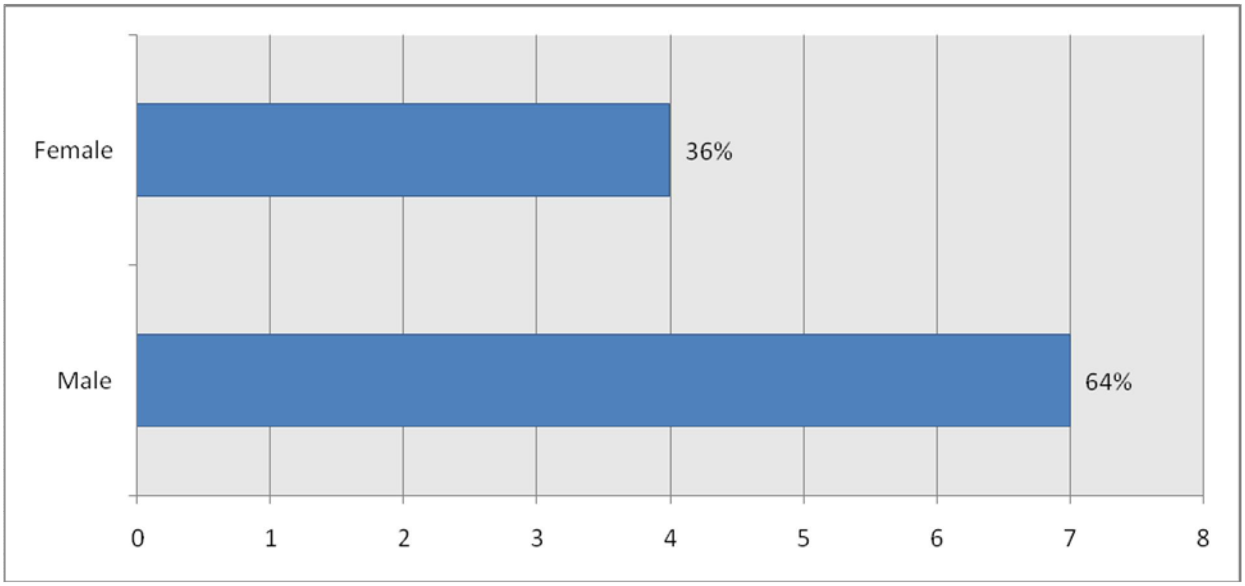
4.2.2 Gender of the Respondents

Table 4.2 Gender of respondents

Gender	**Frequency**	**Percentage**
Male	7	64
Female	4	36
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.1 Gender of respondents



The gender of the respondents was distributed as indicated in the above figure whereby 64% were male respondents while 36% were female.

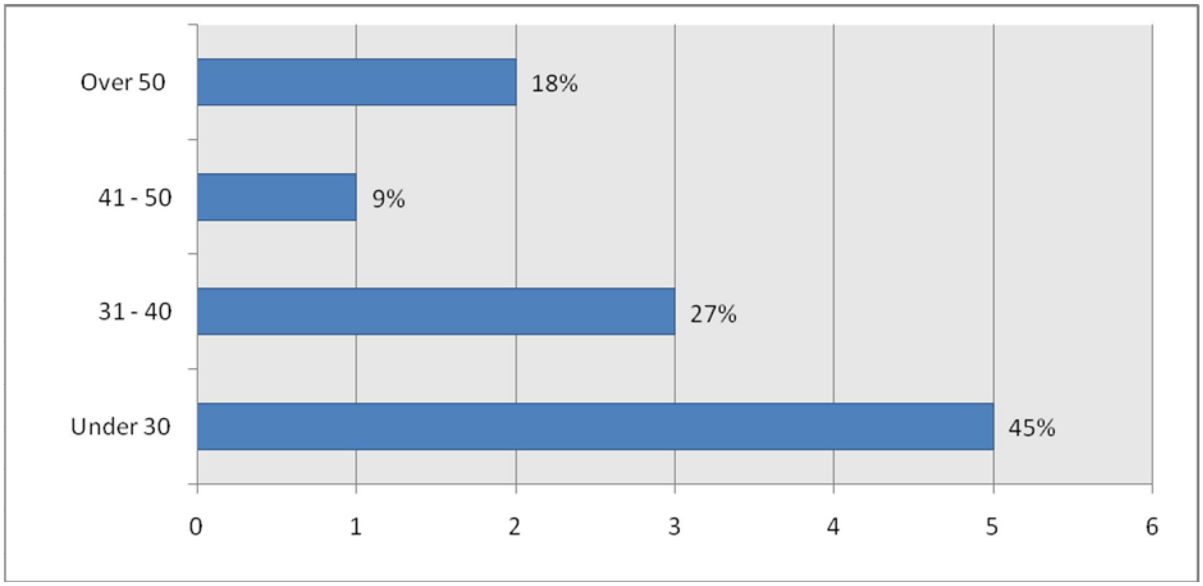
4.2.3 Age of Respondents

Table 4.3 Age of respondents

Age in years	**Frequency**	**Percentage**
Under 30	5	45
31 – 40	3	27
41 – 50	1	9
Over 50	2	18
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.2 Age of respondents



The age distribution of the respondents was that 45% were under 30 years and made up the majority, 27% of the respondents were between the age of 31 and 40 years, 18% were over 50 while the remaining 9% were between 41 to 50 years of age.

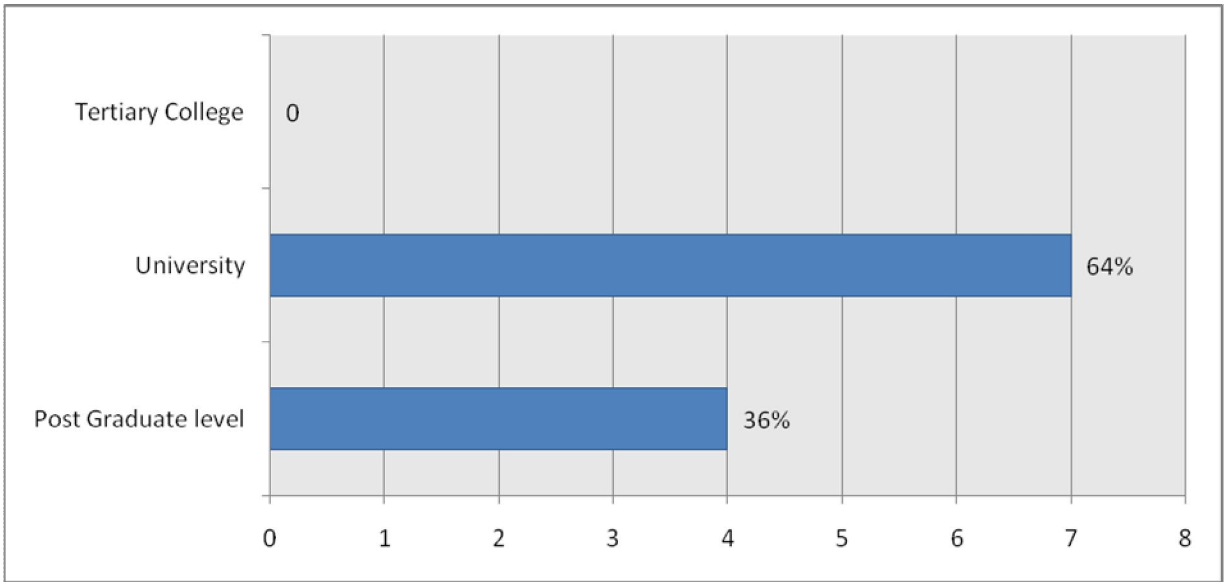
4.2.4 Education Level of the Respondents

Table 4.4 Education levels

Level of Education	**Frequency**	**Percentage**
Post Graduate level	4	36
University	7	64
Tertiary College	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.3 Education levels



The data collected showed that the levels of education in the organization were divided into university level and post graduate level whereby 64% being the majority had attained university level while 36% had undergone post graduate education. This shows that the sector is a skilled labour sector.

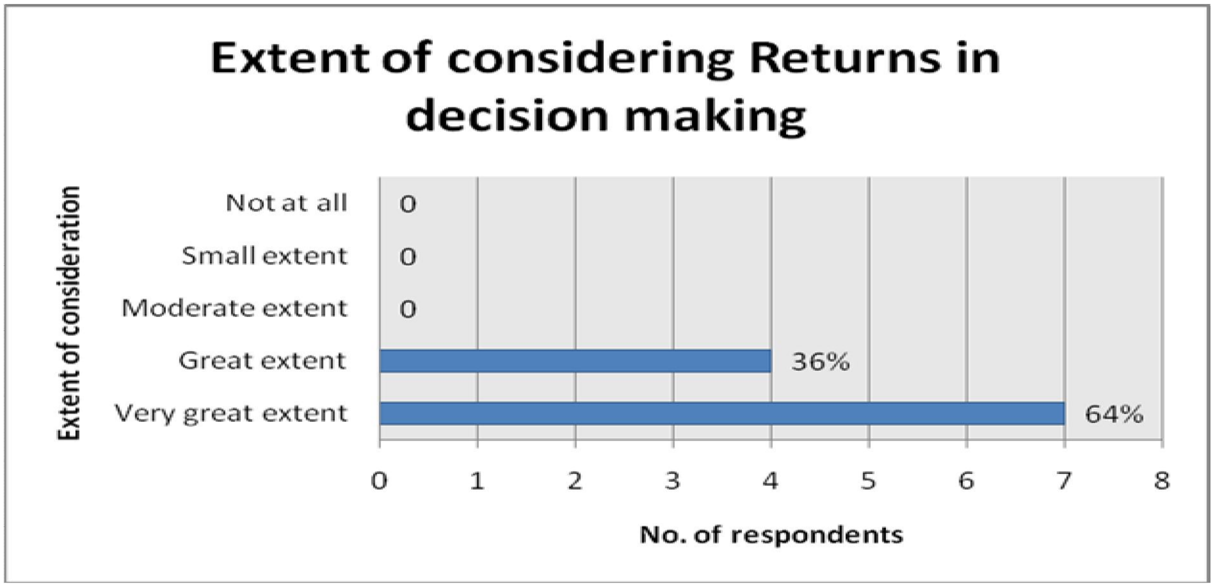
4.2.5 Extent of considering returns in investment decision making by fund managers it being a financial concept factor

Table 4.4 Extent of considering returns in decision making

Extent of consideration	**Frequency**	**Percentage**
Very great extent	7	64
Great extent	4	36
Moderate extent	0	0
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.4 Extent of considering returns in decision making it being a financial concept factor



The data collected above indicates a situation where 64% of the fund managers indicate that they do consider returns as a financial factor when making investment decisions. Out of this 34% do not factor in the returns made by the organization while making decisions.

4.2.6 Extent of considering investment risks in investment decision making by fund managers it being a financial concept factor

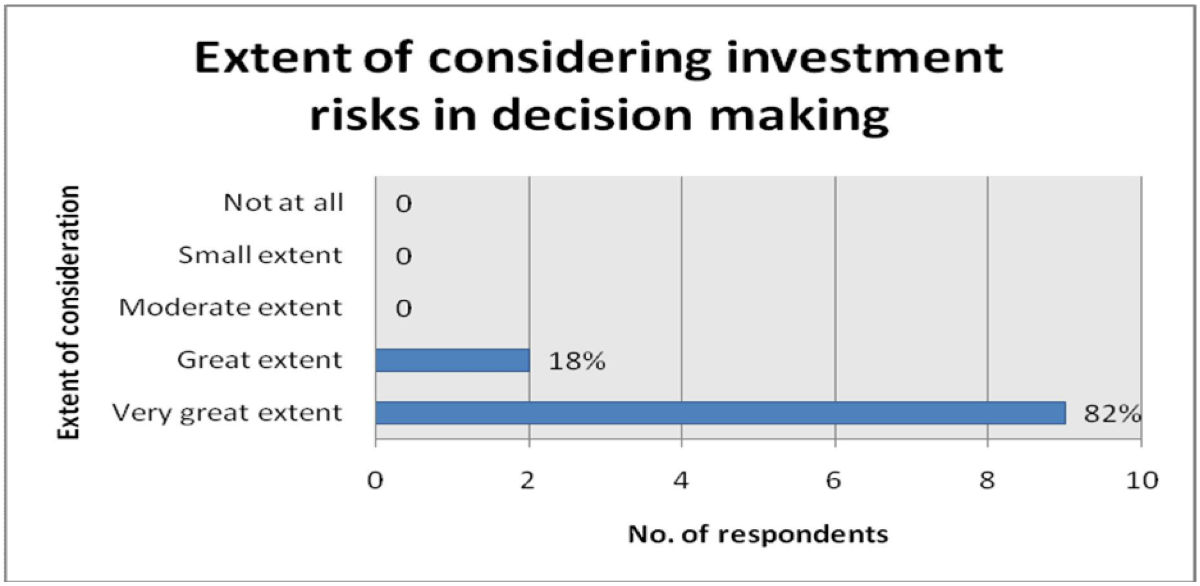
Table 4.5 Extent of considering investment risks in decision making

Extent of consideration	**Frequency**	**Percentage**
Very great extent	9	82
Great extent	2	18
Moderate extent	0	0
Small extent	0	0
Not at all	0	0

TOTAL	11	100

Source: Author, 2012

Figure 4.5 Extent of considering investment risks in decision making it being a financial concept factor



The data presented above shows that investment risks are considered during investment decisions as indicated by 82% of the respondents saying to a very great extent and 18% indicating to a not to be great factor.

4.2.7 Extent of trends in interest rates as a financial factor on investment decision it being a financial concept factor

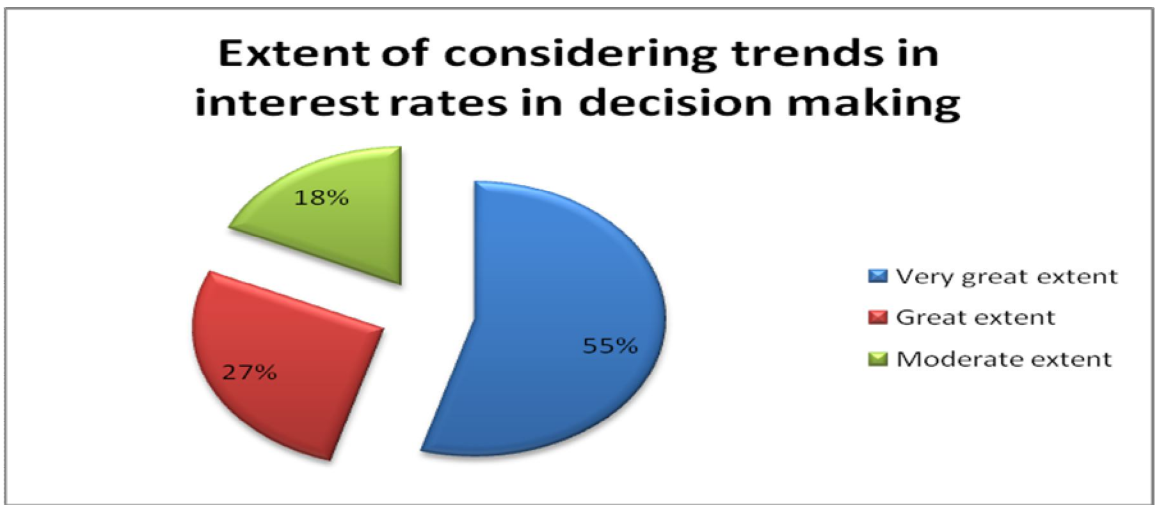
Table 4.6 Extent of considering tends in interest rates in decision making

Extent of consideration	Frequency	Percentage

Very great extent	6	55
Great extent	3	27
Moderate extent	2	18
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.6 Extent of considering tends in interest rates in decision making



The data presented above shows that 55% of the respondents do consider trends in interest rates in investment decisions to a very great extent, 27% consider it to a great extent while 18% consider the trends to a moderate extent.

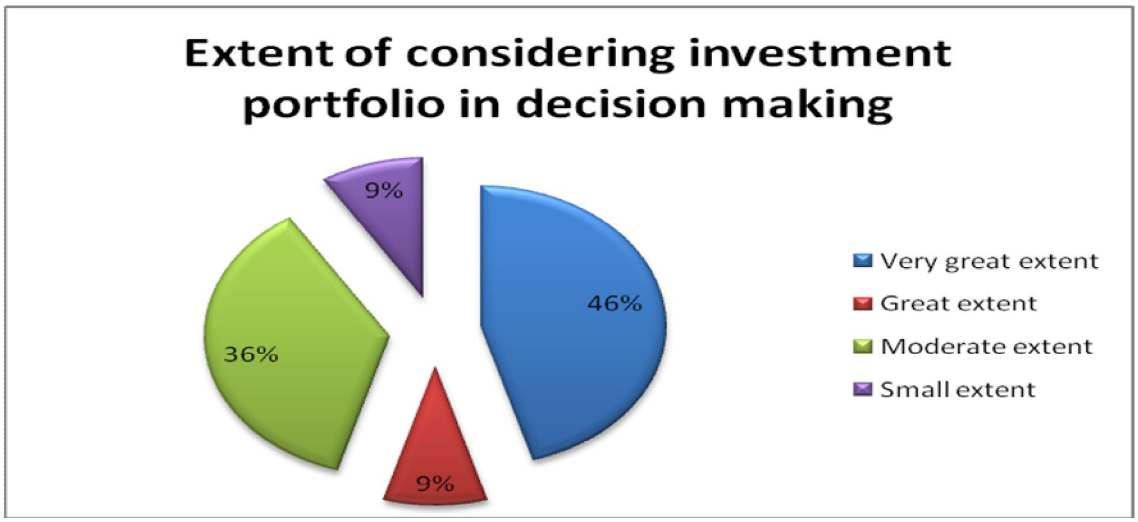
4.2.8 Extent of Investment portfolio as financial factor on investment decisions it being a financial concept factor

Table 4.7 Extent of considering investment portfolio

Extent of consideration	Frequency	Percentage
Very great extent	5	45
Great extent	1	9
Moderate extent	4	36
Small extent	1	9
Not at all	0	0
TOTAL	**11**	**100**

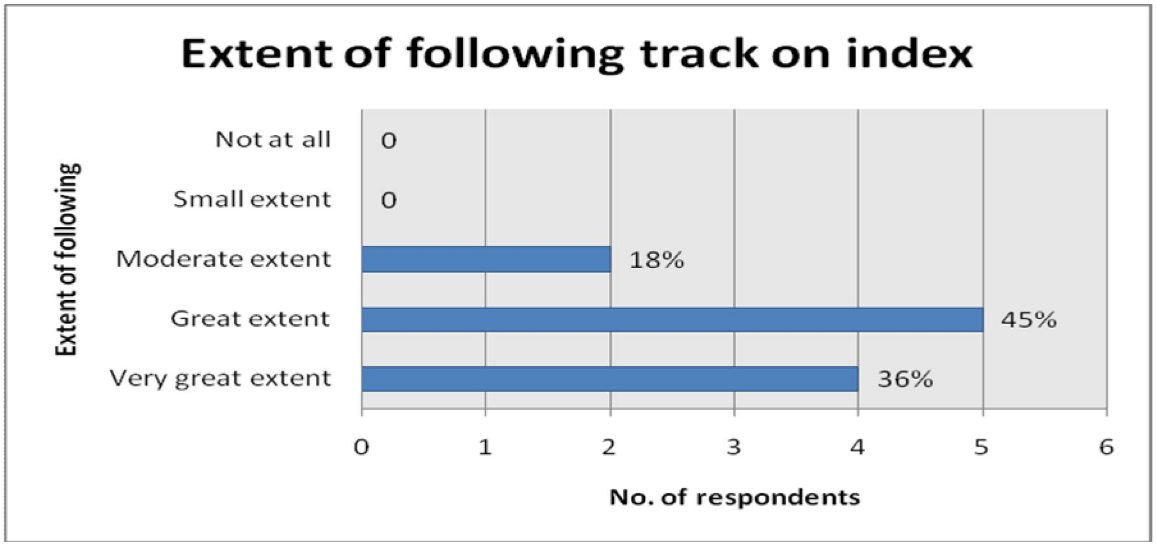
Source: Author, 2012

Figure 4.7 Extent of considering investment portfolio



The data presented above indicates that 46% of the respondents consider investment portfolio to a very great extent when making investment decisions, 36% to a moderate extent, 9% to a great extent and the remaining 9% to a small extent.

Figure 4.8 Extent of following track on index



The data above shows that 45% of the respondents follow track on index to a great extent, 36% follow it to a very great extent while the remaining 18% of the respondents follow track on index to a moderate extent.

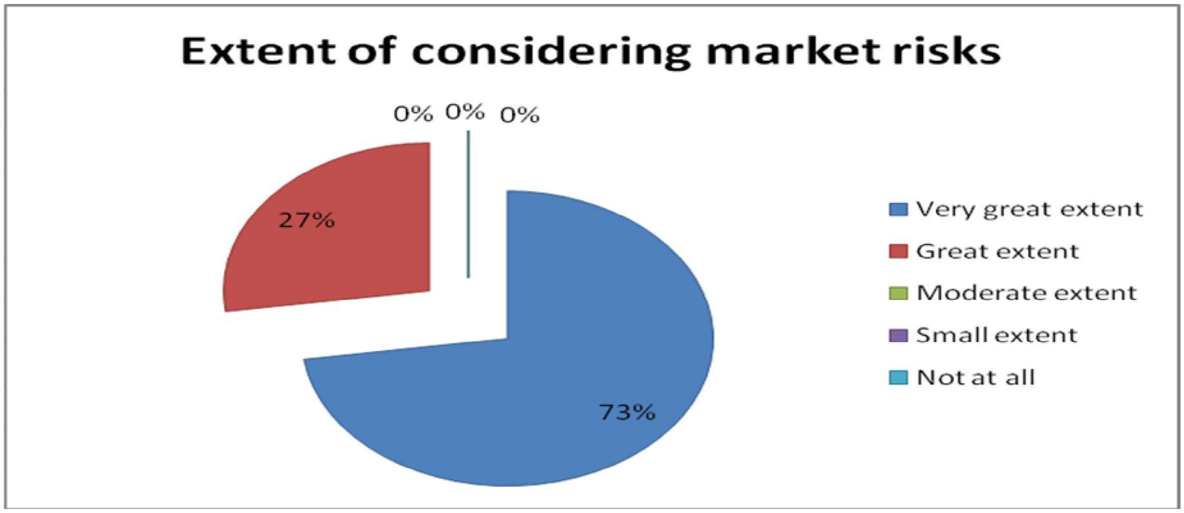
4.2.9Extent of considering market risks in investment decision making it being a financial concept factor

Table 4.8 Extent of considering market risks

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	8	73
Great extent	3	27
Moderate extent	0	0
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.9 Extent of considering market risks



The above data indicates that 73% of the respondents consider market risks to a very great extent while 27% consider market risks to a great extent.

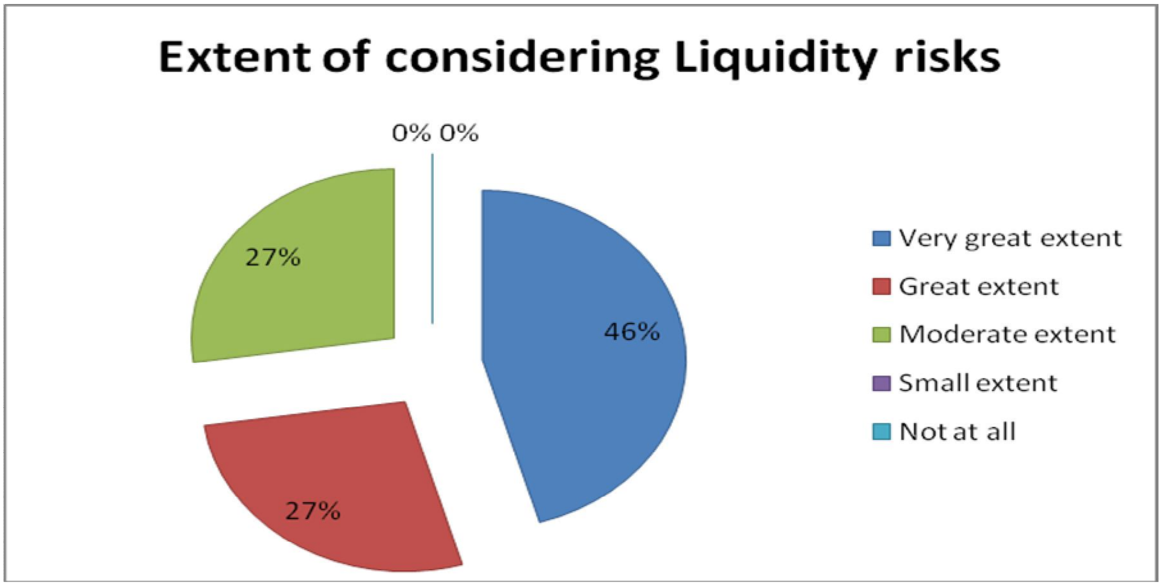
4.2.10 Extent of considering liquidity risks in investment decision making it being a financial concept factor

Table 4.8 Extent of considering liquidity risks

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	5	45
Great extent	3	27
Moderate extent	3	27
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.10Extent of considering liquidity risks it being a financial concept factor



The data presented above shows that 46% of the respondents consider liquidity risks to a very great extent, 27% consider it to a great extent and another 27% to a moderate extent.

4.2.11 Extent of considering valuation risks in investment decision making it being a financial concept factor

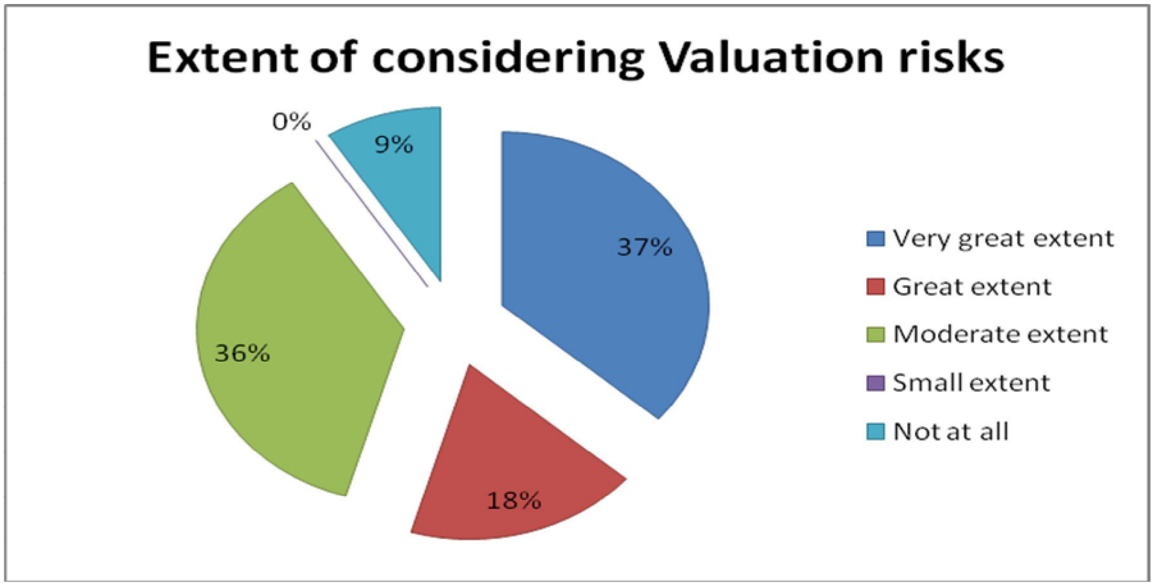
Table 4.9 Extent of considering valuation risks

Extent of considering risk	Frequency	Percentage
Very great extent	4	36
Great extent	2	18
Moderate extent	4	36
Small extent	0	0
Not at all	1	9

TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.11 Extent of considering valuation risks



The data presented above indicates that 37% of the respondents consider valuation risks to a very great extent when making investment decisions, 36% follow by indicating they consider the risk to a moderate extent, 18% consider the risk to a great extent while the remaining 9% do not consider valuation risks at all while making investment decisions.

4.2.12 Extent of considering operational risks in investment decision making it being a financial concept factor

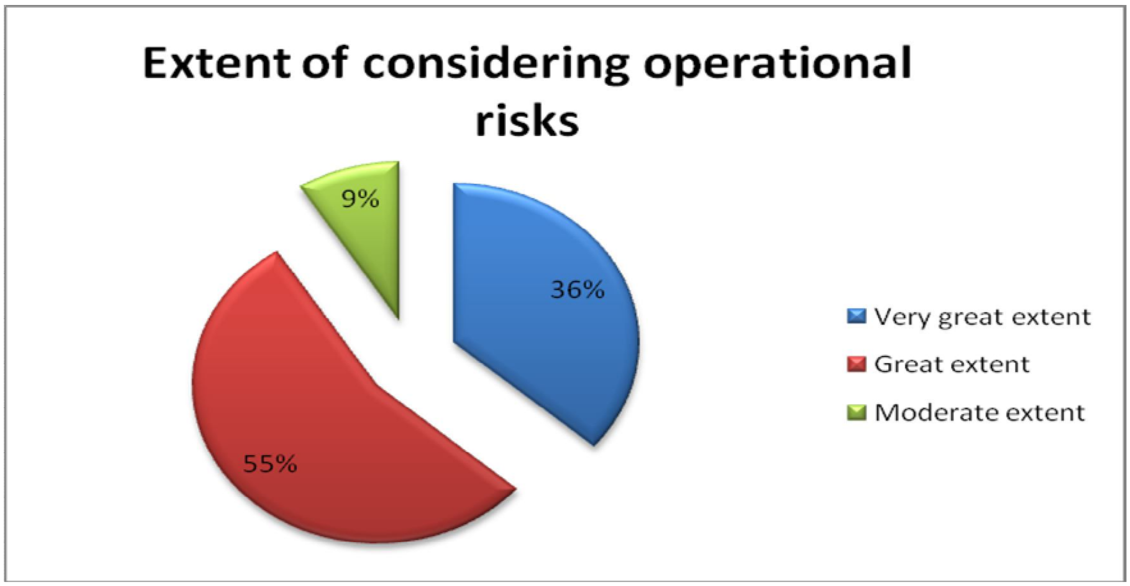
Table 4.10 Extent of considering operational risks

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	4	36

Great extent	6	55
Moderate extent	1	9
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.12 Extent of considering operational risks



The data collected above shows 55% of the respondents considering operational risks to a great extent when making investment decisions, 36% considering the risk to a very great extent and 9% considering the risk to a moderate extent when making investment decisions.

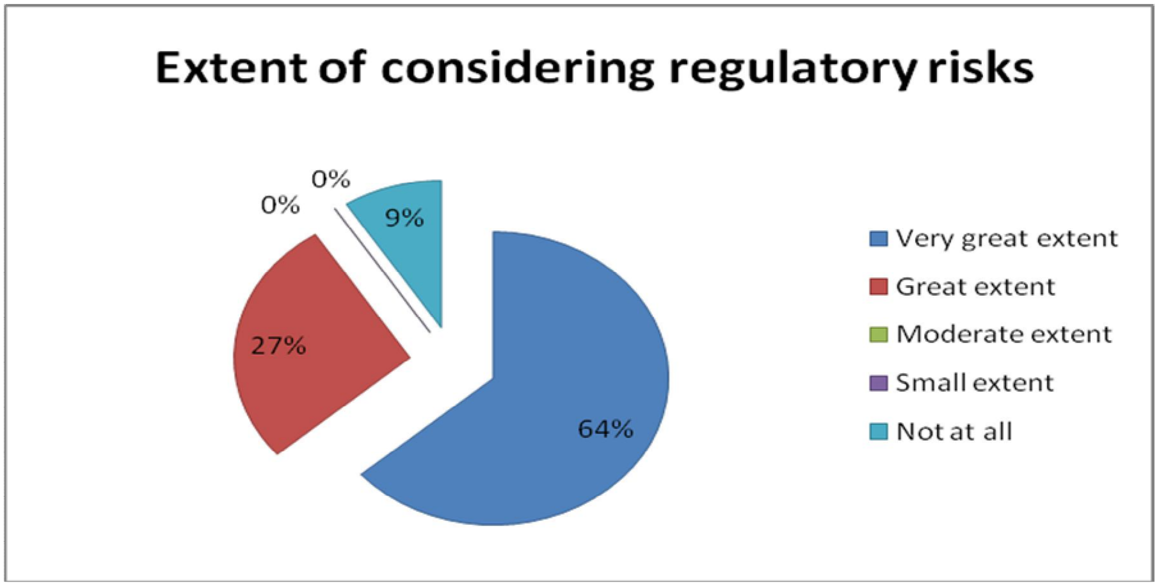
4.2.13 Extent of considering regulatory risks in investment decision making it being a financial concept factor

Table 4.11 Extent of considering regulatory risks

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	7	64
Great extent	3	27
Moderate extent	0	0
Small extent	0	0
Not at all	1	9
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.14 Extent of considering regulatory risks



The data presented above indicates that 64% of the respondents consider regulatory risks to a very great extent, 27% to a great extent and 9% do not consider regulatory risks when making investment decisions.

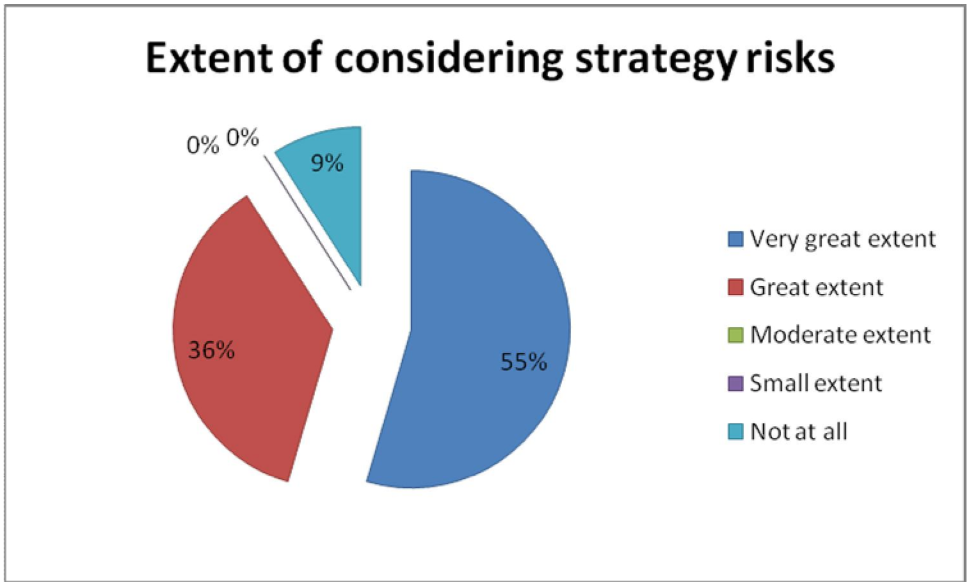
4.2.14 Extent of considering strategy risks in investment decision making it being a financial concept factor

Table 4.12Extent of considering strategy risks

Extent of considering risk	Frequency	Percentage
Very great extent	6	55
Great extent	4	36
Moderate extent	0	0
Small extent	0	0
Not at all	1	9
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.14 Extent of considering strategy risks



The above data indicates that the majority of respondents in this case represented by 55% consider strategy risks to a very great extent while 36% consider it to a great extent and 9% do not consider the risk at all when making their investment decisions.

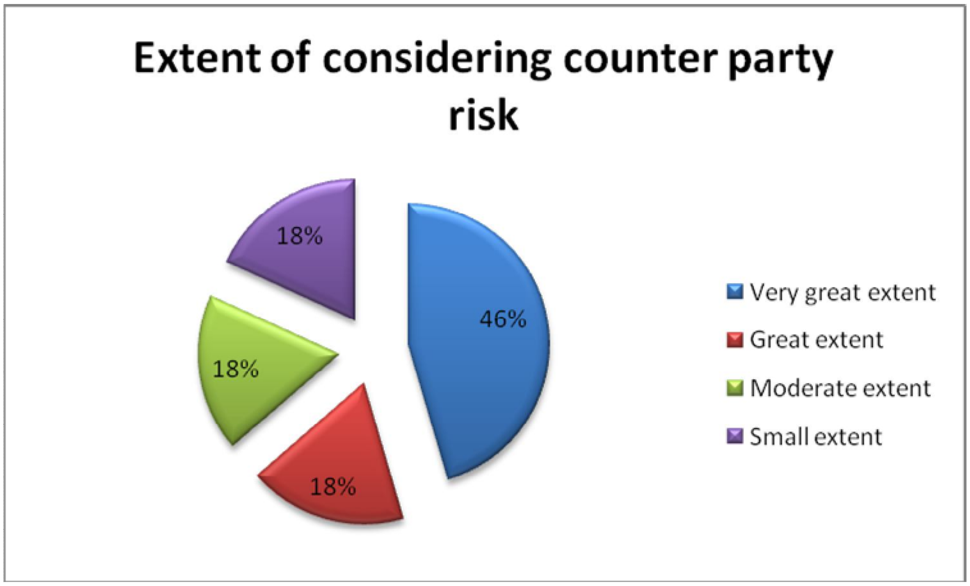
4.2.15 Extent of considering counter party risks in investment decision making it being a financial concept factor

Table 4.13 Extent of considering counter party risk

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	5	45
Great extent	2	18
Moderate extent	2	18
Small extent	2	18
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.15 Extent of considering counter party risk



The data presented above shows that 46% of the respondents consider counter party risks to a very great extent, 18% each consider the risk to a great extent, moderate extent and small extent while making decisions on investment.

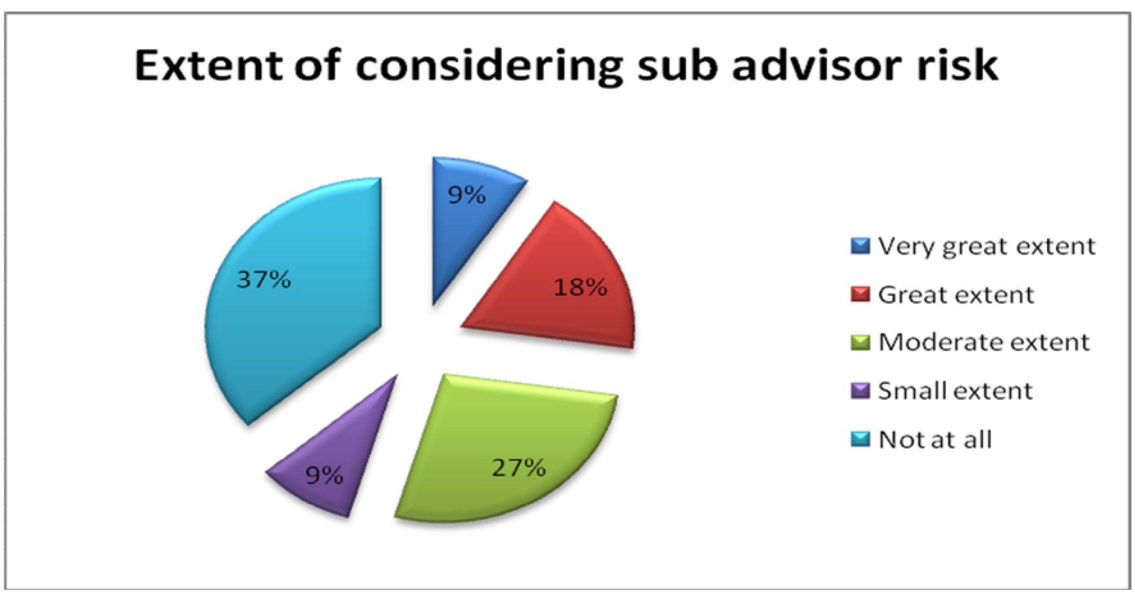
4.2.16 Extent of considering sub advisor risks in investment decision making it being a financial concept factor

Table 4.14 Extent of considering sub advisor risks

Extent of considering risk	Frequency	Percentage
Very great extent	1	9
Great extent	2	18
Moderate extent	3	27
Small extent	1	9
Not at all	4	36
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.16 Extent of considering sub advisor risks



The data above shows a divergence of opinion whereby 37% being the majority indicate that they do not consider sub advisor risks at all when making decisions, 27% indicate to a moderate extent, 18% to a great extent, 9% to a very great exent and the other 9% to a small extent.

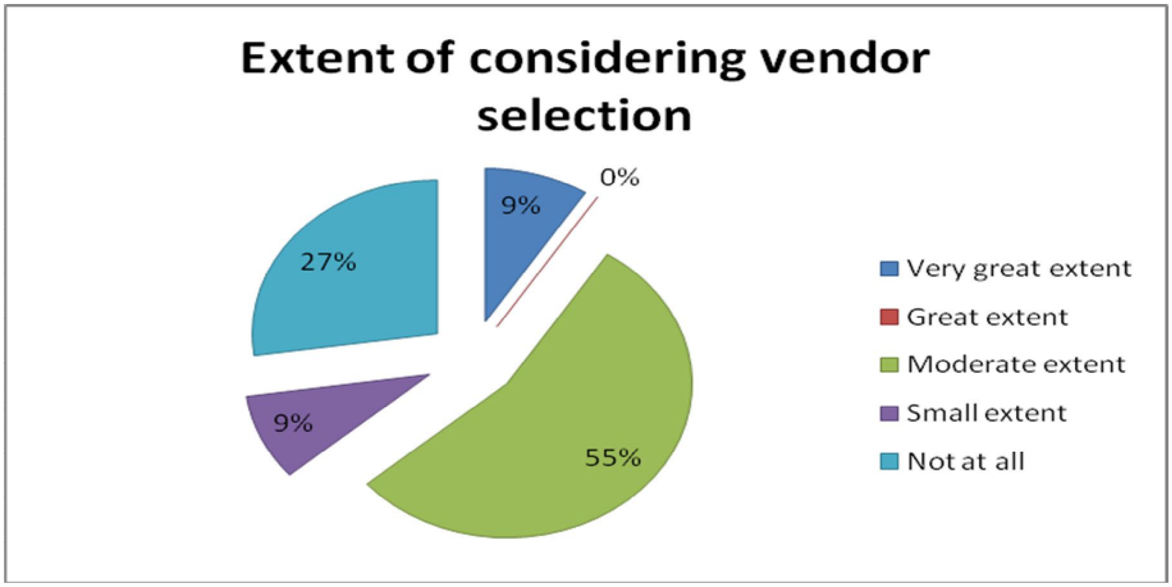
4.2.17 Extent of considering vendor selection in investment decision making it being a financial concept factor

Table 4.19 Extent of considering vendor selection

Extent of considering risk	**Frequency**	**Percentage**
Very great extent	1	9
Great extent	0	0
Moderate extent	6	55
Small extent	1	9
Not at all	3	27
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.17 Extent of considering vendor selection



The above data shows the majority represented by 55% considering vendor selection to a moderate extent when making decisions, 27% not considering vendor selection at all, 9% considering it to a small extent and another 9% to a very great extent.

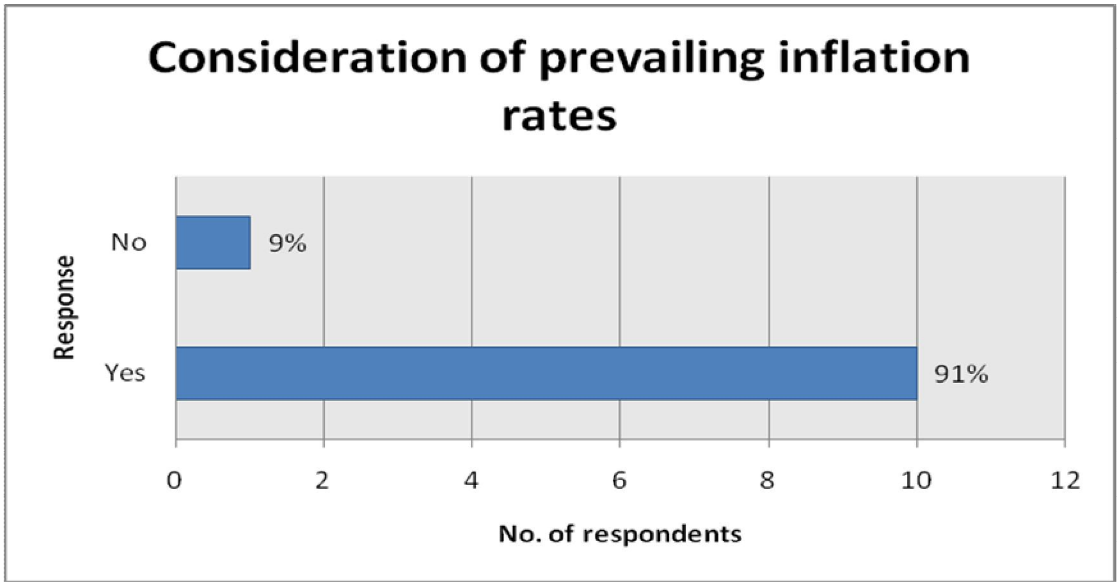
4.2.18 Prevailing inflation rates influence on decision making it being a financial concept factor

Table 4.16 Consideration of prevailing inflation rates in decisions

Consideration of prevailing inflation rates	**Frequency**	**Percentage**
Yes	10	91
No	1	9
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.18 Consideration of prevailing inflation rates in decisions it being a financial concept factor



The data presented above shows that the majority of the respondents represented by 91% in figure 4.19 say that they do consider the prevailing inflation rate as a factor during investment decision making. 9% however do not consider the inflation rate.

4.2.19Extent of considering past perfomance in decision making which is an irrational factor

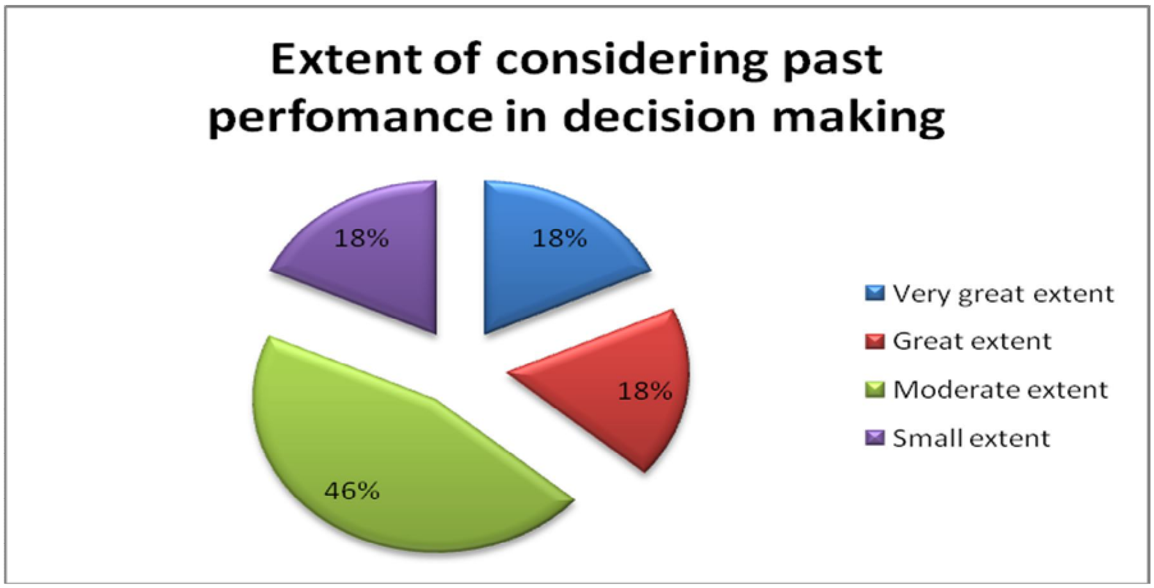
Table 4.17 Extent of considering past perfomance

Extent of consideration	Frequency	Percentage
Very great extent	2	18
Great extent	2	18

Moderate extent	5	45
Small extent	2	18
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.19 Extent of considering past perfomance



The data presented above is on the extend of considering past perfomance of investments on present decisions regarding investments. 46% of the respondents indicate that they do consider past perfomance but only to a moderate extent, 18% each consider past perfomance to a great extent, very great extent and small extent respectively. Which indactes that its not a major factor when making investment decisions.

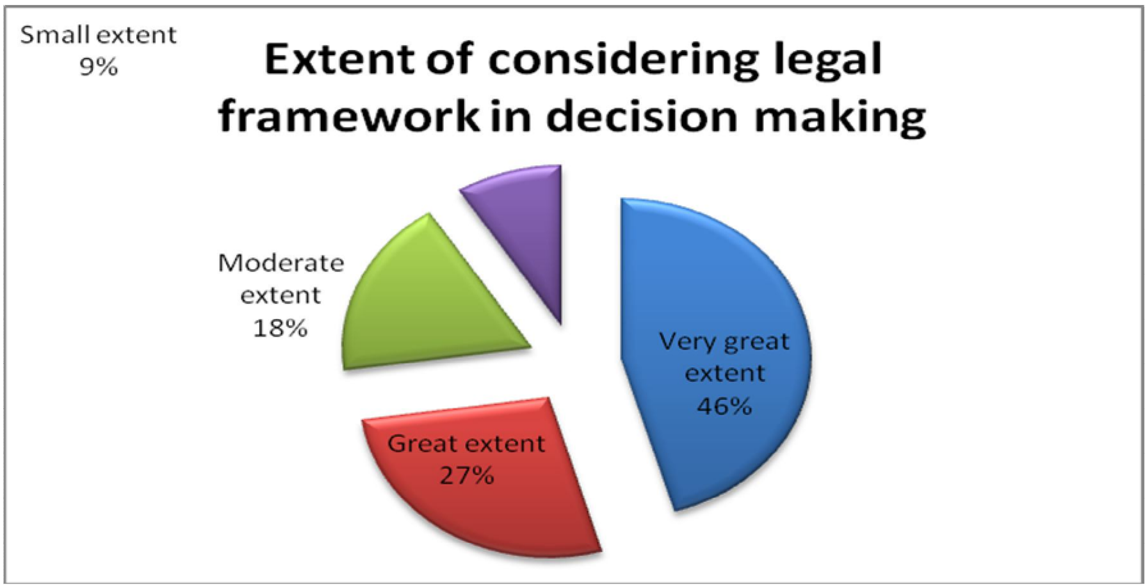
4.2.20 Extent of considering legal framework in decision making which is an irrational factor

Table 4.18 Extent of considering legal framework

Extent of consideration	Frequency	Percentage
Very great extent	5	45
Great extent	3	27
Moderate extent	2	18
Small extent	1	9
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.20 Extent of considering legal framework



The data presented above shows that 46% consider the legal framework to a very great extent while making decisions, and 54% consider it to be moderate and small extend.

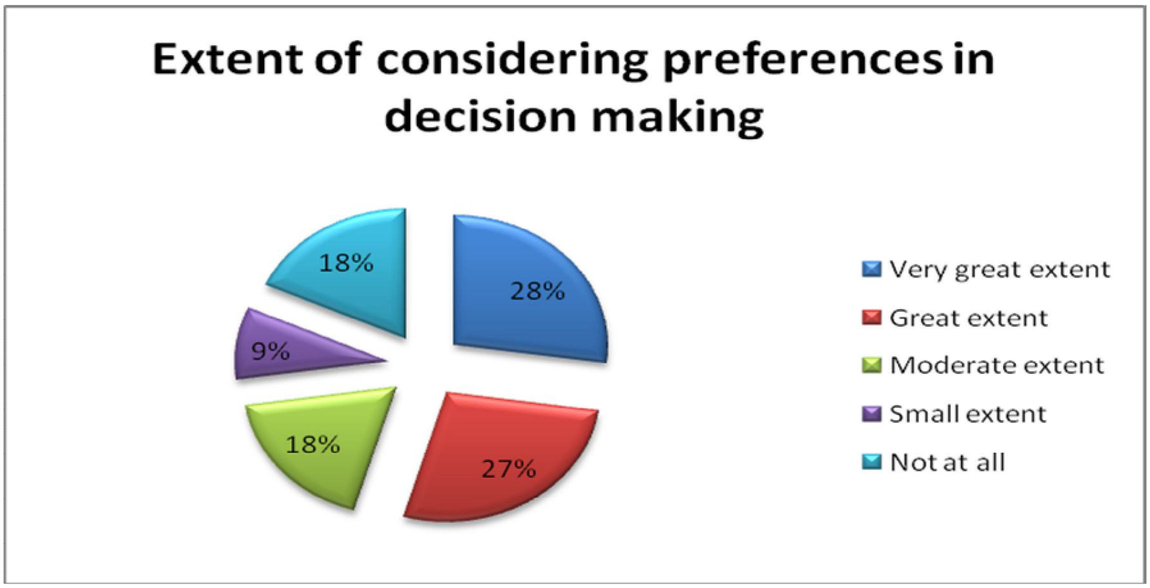
4.2.21 Extent of considering preferences in decision making which is an irrational factor

Table 4.19 Extent of considering preferences

Extent of consideration	Frequency	Percentage
Very great extent	3	27
Great extent	3	27
Moderate extent	2	18
Small extent	1	9
Not at all	2	18
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.21 Extent of considering preferences



The presented data above indicates the consideration of preference during investment decision making. The data shows that 28% consider preferences to a very great extent, 27% consider preferences to a great extent, 18% to a moderate extent, 9% to a small extent while 18% do not consider preferences at all.

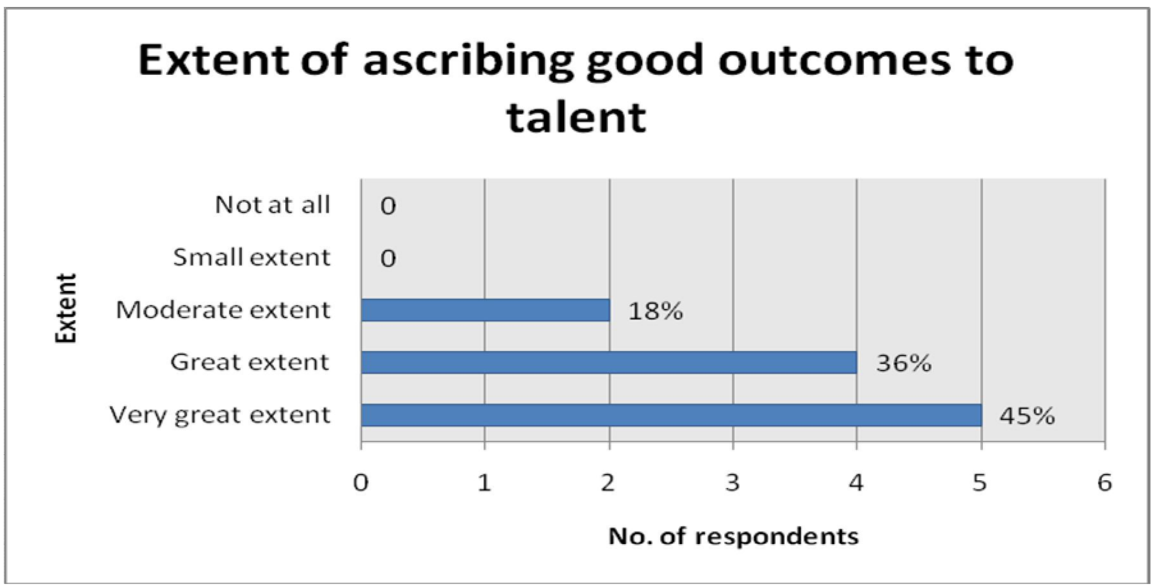
4.2.22 Extent of ascribing good outcomes on individual talent which is an irrational factor

Table 4.20 Extent of ascribing good outcome to talent

Extent of ascribing	Frequency	Percentage
Very great extent	5	45
Great extent	4	36
Moderate extent	2	18
Small extent	0	0
Not at all	0	0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.22 Extent of ascribing good outcome to talent



The data above shows that good outcomes are usually ascribed to individual talents. 45% indicate this is done to a very great extent, 36% say to a great extent and 18% indicate that ascribing good outcomes to individual talents is done to a modeerate extent.

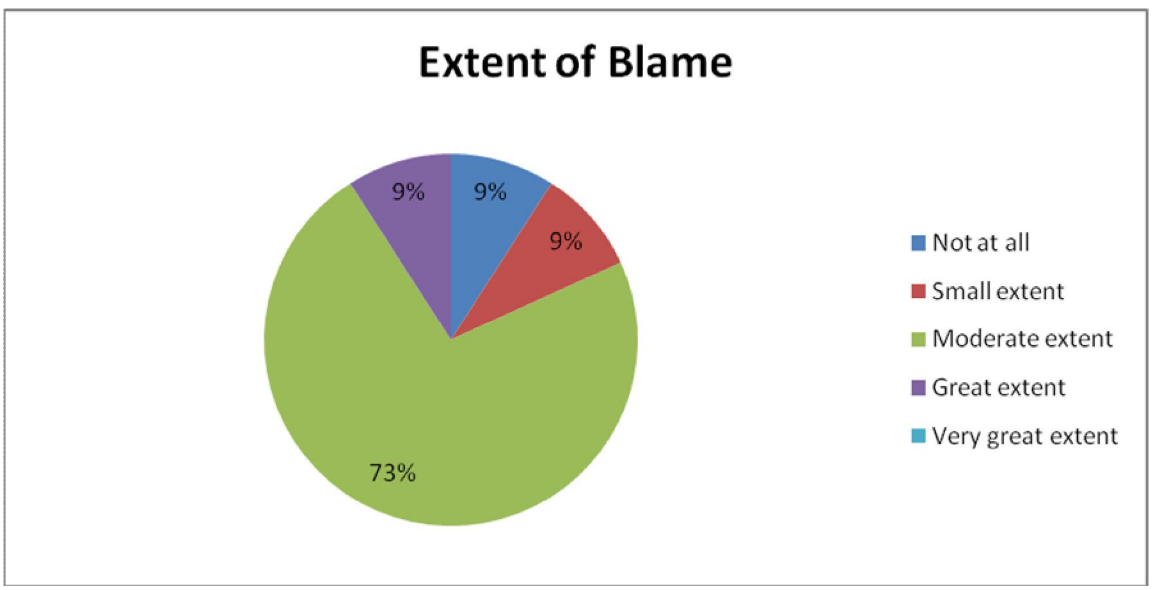
4.2.23 Extent of blame on external outcomes which is an irrational factor

Table 4.21 Extent of blame on external outcomes

Extent of blame	**Frequency**	**Percentage**
Not at all	1	9
Small extent	1	9
Moderate extent	8	73
Great extent	1	9
Very great extent		0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.23 Extent of blame on external outcomes



The data presented above indicates that a majority of 73% of the respondents place a moderated extent of blame on external outcomes incase of bad outcomes. The data indicates that the blame on external outcomes is not considered as a major factor since only 18% indicate it to be an influence on decision making by fund managers.

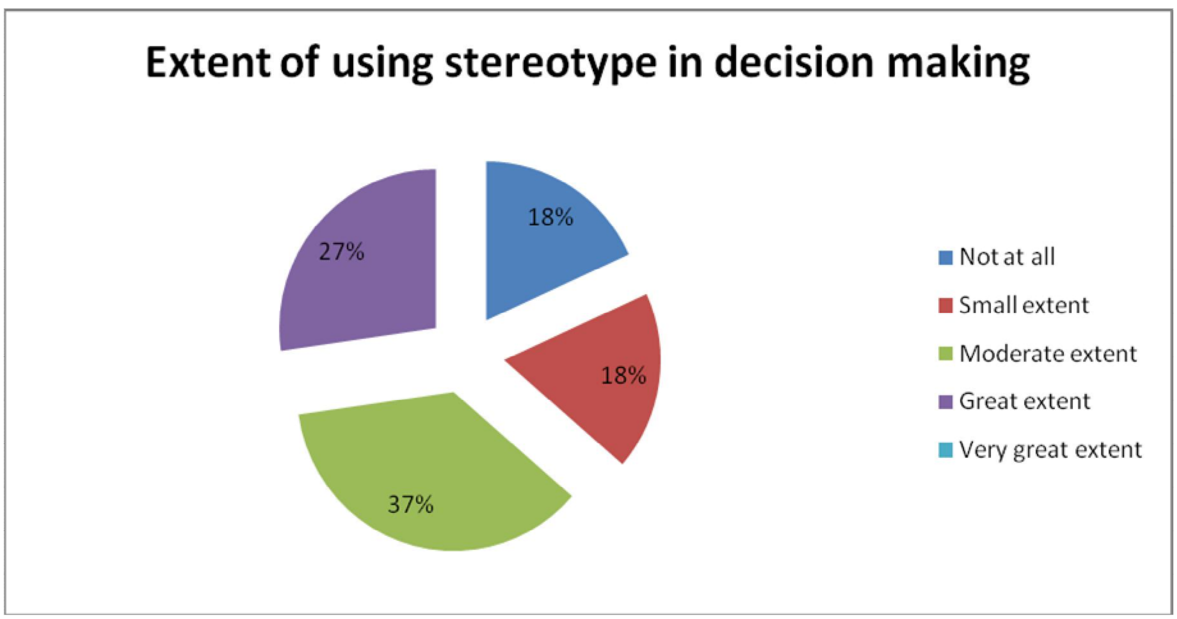
4.2.24 Decision making based on stereotypes which is an irrational factor

Table 4.22 Decision making based on stereotypes

Extent of using stereotype	**Frequency**	**Percentage**
Not at all	2	18
Small extent	2	18
Moderate extent	4	36
Great extent	3	27
Very great extent		0
TOTAL	**11**	**100**

Source: Author, 2012

Figure 4.24 Decision making based on stereotypes



The data above shows that a significant number of the respondents do not follow stereotypes in decision making. This is shown by 64% who either indicated to a moderate extent or small extend while 36% do consider stereotypes as a factor that affects decision making.

4.3 Summary

Major factors affecting investment decision making according to the findings of the study include investment risk, returns, trend in interest rates and investment portfolio which are the financial concepts this have been illustrated by table 4.4, table 4.5, table 4.6 and table 4.7 . They are various types of risks that are taken into consideration in making investment decisions such market risks, liquidity risks, strategy risks and regulatory risks which have a very great effect on the decisions as shown in table 4.8 to 4.16. This adds to Benheim (1998) conclusion that if individuals have insufficient knowledge concerning the retirement savings process, they are unlikely to be able to make optimal retirement savings decisions and that lack of financial education may result poor investment decision.

In regards to the irrational factors, this is the behavioral factors such stereotype, preferences, past performance and external outcomes. They is an insignificant influence of such factors on investment decision making. Table 4.17 to table 4.22 shows a small percentage of fund managers considering this factors while making investment decisions.

This can be further illustrated by simple regression model, where the independent variable is the financial literacy and the dependent variable is the investment decision. Using the above findings the study found that financial literacy has a strong positive relationship on investment decision.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter consists of the summary of findings, answers to research questions, the conclusion and researcher's recommendations.

5.1 Summary

The background of the study was outlined, followed by statement of the problem, objectives of the study, research questions, justification and scope of the study. The general objective of the study was to establish the effect of financial literacy on investment decisions making by pension funds in Kenya. The study based the research on 16 of the pension funds registered n Kenya having their headquarters in Nairobi.

The respondents for the study were distributed as 64% male and 36% female, 43% being under the age of 30 and majority of the respondents having university and post graduate degrees.

5.2 Conclusion

The findings on how financial literacy has an effect on investment decision making by fund managers shows that a high percentage of managers considers financial concepts such as returns, investment risks, investment portfolio management and trends in interest rates at a great extend. The results indicate that in general fund managers need to be financially literate in-order to make investment decisions. Beal and Delpachitra (2003) argued that having financial literacy skills like risks, investment portfolio, returns, diversification of the portfolio enable fund managers to make informed investment decisions about their money and minimizes the chances of being misled on financial matters. In addition Rooij et al. (2007) found that financial literacy affects financial decision-making because individuals with low literacy are more likely to rely on other people as their main source of financial advice and are less likely to make informed investment decisions.

The findings on how irrational factors which do not depend on financial literacy rather depend on investor attitude, behavior and characteristics such as stereotype, past performance, legal frame work, preferences and individual talents, portrays a low percentage and therefore has a less effect on investment decision.

Therefore to make effective investment decision, investor needs to select the right stock among different alternatives at the right time. In order to choose superior stock, investor has to evaluate alternative investments and specify criteria to minimize those alternatives and rank the lifted ones (Albadvi et al., 2006). The criteria or factors that affect investment decision could be categorized to rational or analytical factors because they have a significant effect on decision making by pension funds managers in Kenya. Which implies that financial literacy has a strong positive relationship with investment decision making.

5.3 Policy Recommendations

The findings of the study shows that acceptability and usage of financial literacy in making decisions is important. Financial decisions are made in all organizations including top government ministries and non – government organizations. Organisations should therefore be ready to invest in building capacity in terms of financial literacy where it is required. This would foster clearly calculated decisions being made and reduce the number of bad outcomes from investment decisions.

The research would also recommend that in hand with the governments vision of increasing computer literacy through increasing computer hardware in learning institutions, investment agencies should partner with other stakeholders in increasing the amount of information available for use in making clear investment decisions to investors and simplified financial courses for learning institutions in all sectors.

The researcher also recommends for more regulatory guidelines concerning financial literacy in key institutions as is the case for accountants and procurement officers who need certification to actively engage in their professional activities.

5.4 Limitations of the study

This study was done in selected mutual funds in Nairobi. This location has given sufficient proof to the study objectives of the research but may not serve all investment agencies due to different aspects of the mutual funds to other funds and investment agencies.

Another constraint to the current study on the effect of financial literacy on investment decisions making by pension funds in Kenya was collecting data as the respondents were scattered in different parts of the town and during administration the respondents asked for additional time to return the questionnaires.

Many of the underlying assumptions about the effect of financial literacy on investment decisions making by pension funds in Kenya emphasize the nature of investment as dynamic. The study being based in one region (Nairobi) would not be able to gauge the the attitudes of the entire country towards the study and its influence.

Another limiting factor was that the sample of respondents was limited to a small number because of data collection cost. The design used was ex-post-facto research design where the researcher has no control over the independent variables because the effects of financial literacy on investment decisions have already occurred.

5.5 Areas for further study

The study was limited to pension funds. The researcher would thus recommend for further study in the topic of financial literacy among investors across the board and look at its relevance to all elements of the economy. Further study in financial literacy and its effect on key decisions and overall performance would improve literature on the topic as well as improve the capacity of the organizations.

The study recommends for further study in the impact of inflation rates on investment decisions and ways to mitigate against sudden losses due to inflation fluctuation.

The study also recommends further study into the effect of non – financial factors on the process of making investment decisions.

The study also recommends for further study in pension fund investment in the broader categories of guaranteed funds vis-a-vis segregated funds. It may give a clearer picture of the diversity of pension funds in the Kenyan market.

References

Agnew, J. Szykman, L, Utkus, P & Young , J(2007), Literacy, Trust and 401(k) savings Behavior, Centre for Retirement Research (Online) Available http//institutional.vanguard .com/iip/pdf.CCRSavingsBehavior.pdf (Retrieved 15 September 2011) Vol. 16, pp 19-40.

Akwimbi W(2011), The impact of Pension Sector Reforms on the financial viability of pension at ssrn:http;//ssrn.com/abstract 1784297.

Albadui, Amir, chaharsoghi, S; Esfahanipour, Akbar (2007), Decision making in shock Trading; An application of PROMETHEE, European Journal of Operational research, November pp 673-683.

Alexander, Gordon; Jones,Jonathan, Nigio, Peter (1997), Investor self- selection Evidence from a mutual fund survey, Managerial and Decision Economics, Vol 18, pp 719-729

Angeletos, George-Marios, Andrea Repetto, Jeremy Tobacman and Stephen Weingberg,(2009) managerial and decision Economics Vol. 18, PP 719-729.

Arnone, W. (2004), *Educating Pension Plan Participants*, Pension Research Council. University of PennsylvaniaKefela, G. (2010), "Promoting Access to Finance by Empowering Consumers – Financial Literacy in Developing Countries", in, *Education Research Reviews 5* (5), 205 – 212.

Beal, O.S Delpachitra,.S.B(2003), Financial Literacy Amog Australian University student, EconomicPapers, Vol 22, No 1, pp 65-78.

Bernheim, D. D. (1998). Financial illiteracy, education, and retirement saving. In O. S. Mitchell andS. J. Schieber (Eds.), Living with Defined Contribution Pensions, pp. 38–68. The Pension Research Council, Wharton School Pension Research Council, University of Pennsylvania.

Byrne, Alistair (2007), Investment Employees Saving and investment Decision in defined Contribution Pension Plans: Survey Evidence from the U.K, financial service Review, Vol 16, pp 19-40

Chen, haiyungi; Volpe, Ronaldo (1998), An analysis of Personal Financial Literacy Among Among College Students, Financial Service Review, Vol.7, No.2 PP. 107-128.

Clark and Schieber 1989 – Factors affecting participation rates and contribution levels

Cocco, Gomes and Maerihout (2005), Investing Retirement Wealth; Risk Aspects of Investment, Based Social Security Reforms, University of Chicago press Vol 2, pp 439

Cole, S. & Fernando, N. (2003*) Assessing the Importance of Financial Literacy,* Harvard University*:* Boston Massachusetts. Worthington, A. (2005), *Debt as a Source of Financial Stress in Australian Households,* International Journal of Consumer Studies.

Cooper and Schindler (2011), Exploring, Displaying and Examining data Edition 11th, pp 45

Creedy (1974), Income changes over the life cycle, Oxford Economics Papers, Vol 26, No.3, Pp 404

FSD (2008a). Financial Education in Kenya: Scoping Exercise Reports. [Online] Available;

www.fsdkenya.org/**publications.**

Laibson and Brigitte C. Madrian (2005), Reducing the complexity costs of 401(k) participation Through quick Enrollment NBER working Papers.11979, National Bureau of Economics Research.

Lerman, R. & Bell, E. (2006), *Financial Literacy Strategies*, the Urban Institute, Report No. 1

Lusardi, A, Mitchell, O. & Curto, V. (2010), "Financial Literacy among the Young", in, *Journal of Consumer Affairs*, Summer, 358 – 380

Lusardi, A. & Mitchell, O. (2006), *Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education,* Michigan Retirement Research Center. WP 2006-144.

Lusardi, A. (2006), *Financial Literacy and Financial Education Review and Policy Implications*: Networks Financial Institute

Maurer, Mitchell and Rogalla (2010), Managing Contribution Capital Market Risk in Funded Public Defined Benefit Plan Impact of CVaR cost Constraints in Insurance: Mathematics and Economics, 45, 2009, pp 25-34

Mugweru T W (2001) Factors affecting the efficiency of National Provident funds in Kenya: A case of National Social Security Fund; Unpublised MBA thesis

Moore, D. (2003), "Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes and Experiences", in, *Social and Economic Sciences Research Center. Technical Report. N 03 – 39*: Washington State University.

Mutuku, N. (2007), *Financial Education Campaigns and Pension Reform: Kenyan Experience in Training Trustees*, Retirement Benefit Authority. Available: www.rba.go.ke.

Mutuku N,(2009) Financial Education Campaigns and Pension Reform: Kenyan Experience in Training Trustees, Retirement Benefit Authority: Available www.rba.go.ke

Mutuku N(2010) The impact of the financial crisis on the Kenya Retirement Benefit Industry (June 30, 2010) Available at ssrn:http//ssrn.com

Noctor el al (1992), Financial Literacy: A discussion of concepts and competences of financial Literacy and opportunities for its introduction into yong peoples learning, Report Prepared for the National Westminster Bank, National foundation for research London

Nyakundi, B. (2009), *Pension Coverage in Kenya: Legal and Policy Framework Required to Enhance Pension Coverage in Kenya.* [Online] Available: http://ssrn.com. (Retrieved 20 October 2010).

Njuguna A (2010) Strategies to improve Pension Funds Performance in kenya

Odundo, E. (2003), Retirement *Benefits Authority, Kenya on Pensions Reforms: An Agenda for Sub-Saharan Africa Seminar,* World Bank: Washington DC. [Online] Available: www.worldbank.org. (Retrieved 20 October 2010).

OECD. (2008), *Recommendation on Good Practices for Financial Education relating to Private Pensions*, OECD Publishing

Remund D(2010) Financial literacy Explicated

Roscoe 1975 – Research Methods for Business

RBA. (2008), *Report on Retirees' and Pensioners' Survey,* [Online] Available: http://www.rba.go.ke/docs/publications/Pensioners%27_Survey_Report%20-%20Final.pdf.

Roois, Marten; Lusardi, Annamaria; Allsie; Rob (2007) Financial Literacy and Stock Market Participation; DNB Working paper, De neder landsche Bank, No.146, September 2007.

Venti and wise 2000 Choice chance and wealth dispersion at retirement

Yermo J 2008a Survey of Investment Regulation of Pension Funds, OECD Publishing.

Yithaki, Shlomo,1987, The Optimal size of a Tax Collection Agency

Appendix 1: Questionnaire

Dear Respondent,

I am Sarah Amisi an MBA student in the University of Nairobi department of Finance and Accounting. I am doing a research aimed at collecting information to assist me in the research. The information to be collected concerns data on investment decision making by pension funds in Kenya. All information given is private and will be accorded confidentiality it deserves. *My contact number is:* ***0721881408***

Kindly tick where necessary

Part 1: General information

1. Gender: Male [ ] Female [ ]

2) What is your age bracket?

a) Under 30 years. [ ]

b) 31-40 years. [ ]

c) 41-50 years. [ ]

d) Over 50 years. [ ]

3. What is your highest level of education qualification?

a) Post Graduate Level [ ]

b) University [ ]

c) Tertiary College [ ]

d) Secondary [ ]

Part 2: Financial literacy factors on investment decisions

4) To what extend do you consider the following factors when making decision on investment of funds? 1. Not at all, 2.small extent, 3. Moderate extent, 4. Great extent, 5, very great extent

		1	2	3	4	5
a)	Returns					
b)	Investments risks					
c)	Trends in interest rates					
d)	Investment portfolio					

5) To what extent does your managed fund follow? 1. Not at all, 2.small extent, 3. Moderate extent, 4. Great extent, 5, very great extent

		1	2	3	4	5
a)	Herd					
b)	Track an Index					

6) To what extend do you consider the following areas of risks when making investment decisions? 1. Not at all, 2.small extend, 3. Moderate extend, 4. Great extent, 5, very great extend

		1	2	3	4	5
a)	Market risk					
b)	Liquidity risks					
c)	Valuation risks					
d)	Operational risk					
e)	Regulatory risk					
f)	Strategy risk					
d)	Counter party risk					
e)	Sub advisor risk					
f)	Vendor selection					

7) Do you consider the prevailing inflation rates when making investment decisions?

Yes [ ] No [ ]

Part 3: Behavioral financial factors

8) To what extent are the following factors considered when making decision on investment of funds? 1. Not at all, 2.small extent, 3. Moderate extent, 4. Great extent, 5, very great extent

		1	2	3	4	5
a)	Past performance					
b)	Legal Framework					
c)	Preferences					

9) To what extend do you have a comprehensive and integrated governance framework for the fund and the plan which clearly outlines the: 1. Not at all, 2.small extend, 3. Moderate extend, 4. Great extent, 5, very great extend

		1	2	3	4	5
a)	roles and responsibilities of government supervisors					
b)	committees					
c)	board of directors					
d)	actuaries					
e)	administrators					
f)	pension fund managers					

10) To what extent do you ascribe any good outcomes to your own talents?

Not at all [ ] Small extend [ ] Moderate extend [ ] Great extend [ ]
Very great extend [ ]

11) To what extend do you blame bad outcomes on external outcomes.

Not at all [ ] Small extend [ ] Moderate extend [ ] Great extend [ ]
Very great extend [ ]

12) To what extend do you tend to make decisions based on stereotypes formed from experience.

Not at all [ ] Small extend [ ] Moderate extend [ ] Great extend [ ]
Very great extend [ ]

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