DETERMINANTS OF INVESTMENT DECISIONS FOR PENSION FUNDS IN KENYA

BY

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DECLARATION

This research project is my original work and has not been presented to any university for any award or anywhere else for academic purposes.

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This project has been submitted for examination purposes with my approval as University Supervisor.

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DEDICATION

To my late dad, Nderitu
For the love and the faith he had in me
And my mum Anne, for her love and the support
She has shown throughout this project
and the entire course.

ACKNOWLEDGEMENT

For the success of this research I am heavily indebted to various people and organization without whose material and non material support this research would have come to naught. I take this opportunity to express my sincere thanks to each of these people and organizations.

The staff of the Jomo Kenyatta Library provided the opportunity to use the facilities especially in the MBA and the Electronic Library section. From these able staff I was able to access not only research reports from earlier MBA research findings but I was able to access scholarly publication from the wider academic sphere.

Much of the direction on what to do at each stage of this research from the generation of the research idea, to its conceptualization, to the drafting of the research proposal, to the analysis of samples and preparation of the report was provided by my supervisor Dr. Josiah Aduda.

The data of analysis was got from RBA data base and various responses from questionnaires circulated to Trustees of several Schemes in my sphere of the study. It would not have been possible to conduct an analysis and extract out the relevant finding if the data was not available in the first place.

In my literature review I have cited quite a lot of scholarly publication. Some are from earlier research finding from project done by other MBA students. I have used scholarly papers from the wider academia. These are works without which I could not have had a scholarly insight into this research

Finally I would wish to thank my family that provided me with encouragement throughout the period I was conducting this research.

ABSTRACT

The aim of this study was to find out the determinants of investment decisions among pension Funds in Kenya. The study used both primary and secondary data to establish the determinants. The primary data were collected using the Likert scale in questionnaires sent to the various pension funds. The secondary data on annual income of the funds and the annual values of assets were collected from the databases of the pension funds. The analysis using means and regression was done to determine the determinants of how the pension funds in Kenya choose to invest members' funds.

Results show that generally expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets and investment portfolio desired were the most influential factors that determined investment decisions across all the firms. The least influential results across the pension schemes were consistency in returns, decision-making preferences of the decision makers, benchmarking with other pension funds, social responsibility issues and the nature of the fund owners.

The correlation among the dependent variables namely average return and independent variables namely risk, expected return and investor characteristic variable was generally low indicating low level of interrelations among them. The factors were concluded to be independent of each other. The highest level of positive correlation was between the dependent variable and risk meaning that the higher the risk, the higher the return realized. The highest negative correlation was between the characteristics of the investors and risk meaning that the lower the importance attached to investor characteristics, the higher the risk.

The regression of average return against risk variable, expected return variable, and investor characteristics variable was significant according to the F-Test, though the variation in the realized return was not strongly explained by the variables identified. This means that, though the variables identified were important to the realized return, there were some variables that were not captured by the model.

TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS AND ACRONYMS

CEE Central and Eastern Europe

DCF Discounted Cash Flow

FIAD Financial Advisor

GDP Gross Domestic Product

GoK Government of Kenya

OECD Organization for Economic Co-operation and Development

RBA Retirement Benefits Authority

SRI Socially Responsible Investment

UK United Kingdom

CHAPTER ONE: INTRODUCTION

1.1   Background

Pension funds are forms of institutional investors, which do collect, pool, and invest funds contributed by sponsors and beneficiaries to provide for the future pension entitlements of beneficiaries (Davis 1995). They provide means for individuals to accumulate savings over their working life so as to finance their consumption needs in retirement, either by means of a lump sum or by an annuity. They also, at the same time, supply funds to end-users such as corporations, other households through securitized loans or to governments for investment or consumption. Pension funds have grown strongly in recent years in many developed countries as well as in emerging markets (Davis, 2000).

Since early withdrawal of funds from pension funds is usually restricted or forbidden, pension funds have long term liabilities, allowing the holding of high risk and high return instruments. Accordingly, monies are intermediated by pension funds into a variety of financial assets, which include corporate equities, government bonds, real estate, corporate debt (loans or bonds), securitized loans, foreign holdings of the instruments mentioned above and money market instruments and deposits as forms of liquidity (Besley & Prat, 2003).

One feature of most pension fund asset holdings is the amount they invest in assets that can be easily liquidated, namely, bank deposits, government bonds, and more generally short-term instruments among fixed-term securities. This is influenced by the key motivation for many countries which have the expectation that these funds would play a dynamic role in the development of capital markets, fostering private sector savings and

reducing the cost of capital for corporations, in the context of a broader strategy to achieve more developed, market-oriented financial systems. Since pensioners save for the long run, pension funds, unlike other institutional or retail investors, are expected to be able to provide long-term financing to domestic corporations, as well as governments (Raddatz & Schmukler, 2008).

Pensioners (by law) provide a steady flow of funds for many years to pension funds, enabling the latter to be a stable source of capital. Importantly, since pensioners are required to hold their investments in at least one pension fund until retirement, this gives stability to the system as a whole. Furthermore, given their size and commission fees, pension funds should be able to professionally manage the asset allocation, diversify risk appropriately, and overcome problems of asymmetric information and transaction costs that pervade financial markets. Also, given that pension funds have to allocate a large fraction of their capital domestically and the large size of their capital, they are expected to invest in a broad range of domestic assets and diversify risk as much as possible within the country. Therefore, relative to other institutional investors, pension funds are thought to be the ones who contribute the most to the development of capital markets (Raddatz & Schmukler, 2008).

Labor friendly pension funds in many countries are generally either jointly trusteed or union trusteed multi-employer plans, or public sector pension funds with a significant presence of union trustees. These funds often have a range of labor friendly policies and programs aimed at building strong and healthy communities. Such programs include responsible contractors' policies, responsible investors' policies, and specific allocations for targeted (or economically targeted) investments in their investment portfolio. These

targeted investments often require union built construction or are aimed at job creation and retention as in the case of private equity investments (Hebb & Beeferman, 2008).

Like any other investment, the main factors that determine investment decision are categorized into three: expected return, risk and investor characteristics. The most basic investment decisions revolve around the comparison of expected return. Return is the rate at which profits are expressed as a percentage of the values invested. Investors will take on investments that realize higher returns. These returns can be influenced by what the management of the organization expects, benchmarking with other similar funds or consistency of the returns (Modigliani & Miller, 1961).

Risk is statistically defined as variation in return. There is hardly some form of investment which doesn't involve risk. Government securities come close to be called risk free; but even they have some risks attached to them. Risk actually is the balancing factor of the financial markets. Various types of investment risk exist, such as financial risk, currency risk, inflation risk or capital risk are the most common one. Factors that will influence risk consideration may include attitude towards risk, risk level in the investment options, risk taking capacity, risk assessment by trustees and the political environment (Rono, 2009).

The nature of the investors also determines how pension funds invest. Different investors react differently to risks. While majority of the investors are risk averse, there are some investors who are seeking more risky ones with expectations of higher returns (Markowitz, 1952). Factors that contribute to the nature of the investors include: regulation; attitude towards risk and what kind of investments they prefer. (Rono, 2009).

Every investor will finish off with a different conclusion concerning an investment although the market, economy and all statistical facts and figures are same for everyone. This difference comes from the investor's intuition. Some will start from research; by collecting lots of information and then analyzing to decide, others start from defining their objectives and then going for opportunities that suit their needs. The consequence is a variation in investment decisions despite being in a common environment.

A decision is a clear and concise statement of the line of action intended to be followed by an investor as the one most favorable to the successful accomplishment of the assigned mission. If the decision is made by an institution like a pension fund (or any organization that invests on behalf of members) it becomes an institutional investment decision. A decision is a choice made between alternative courses of action in a situation of uncertainty. A decision is said to have been reached if the investors utilize the types of information available to make a choice on the constituents of the assets that make up their portfolio and how much money is held in each of the constituents (Mintzberg, Raisinghani & Théorêt, 1976).

An investment decision is assessed empirically by looking at the value of the return vis-à-vis the risk level and the requirement of the investor. This means that actual return can be used as a proxy for investment decision. This will be a product of expected return by the investors, the perceived risk levels and the manner in which fund owners prefer their funds being invested. Consequently, realized return will be the dependent return, while expected return, expected risk and investor characteristics will make the independent variables.

In this study realized return is the dependent variable and is affected by the three variables: expected return, risk and the nature of the investors. If the expected return is high then the investors will only chose investments with high returns and this is likely to push realized returns high. This means a positive relationship between realized and expected return. When the level of risk is high, the investors who are majorly risk-averse will invest in projects with higher returns. This, therefore, means a positive relationship between realized return and the level of risk. The relationship between returns and investor characteristics may not be clear. Risk-averse pension schemes might invest in more risky, high return portfolios and vice versa. The general relationship will be a linear relationship with realized return being the dependent variable while expected return, risk and investor characteristics are the dependent variables.

1.1.1 Pension Funds in Kenya

Pension funds are the principal sources of retirement income for millions of people in the world. Retirement income accounts for 68% of the total income of retirees in Kenya, 45% in Australia, 44% in Austria and 80% in France while in South Africa 75% of the elderly population rely on pension income. In the United States of America 82% of retirees depend on pension income. Pension funds should therefore be managed efficiently to ensure higher retirement income for pensioners (Njuguna, 2010).

The fund managers investing in pension funds in Kenya 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 Benefits 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. From then on, Insurance companies have set up separate subsidiary companies to meet this legal requirement. However, on the actual investment, they follow the requirements of the Insurance Act.

The pension fund investment regulations issued by RBA in 2006 provide maximum investments in various classes of assets as follows: government securities (government bonds and treasury bills) 70%, commercial paper and corporate bonds 30%, quoted equity 70%, real estate 5%, off shore investments 15%, term deposits and cash 30%, guaranteed funds 100% and unlisted equities 5%. These limits, in RBA's view, should provide guidelines to pension funds to tame their risk exposure while at the same time increasing their returns (GoK, 2000).

The RBA Act of 2000 embedded specific regulations that are supposed to encourage pension fund efficiency. These regulations provide that trustees must prepare annual accounts consisting of a statement of assets and liabilities, income and expenditure account and a cash flow statement at the end of every financial year. These accounts must be audited and presented to the RBA within a period of 3 months from the end of the financial year and presented to the members at the annual general meeting (Gok, 2000).

The Kenyan retirement benefits industry is regulated by the RBA. The funds are divided into four categories: the Civil Service Pension Scheme and the National Social Security Fund both created by Act of parliament; and Occupational Schemes and Individual Schemes both created by trustee deeds. Except Civil Service Pension Scheme, the categories are under the RBA. In total there were 1300 pension schemes registered by the RBA as at 08th June 2012 (RBA, 2012).

1.2   Research Problem

Theory predicts that asset managers that are monitored by large professional investors (pension funds) should perform better than asset managers that are monitored by individual and relatively inexpert investors (mutual funds). The monitoring guides how members' funds are allocated among the available investments to come up with a portfolio of assets that yield the highest return. Good investment decision making brings in the highest returns under the given circumstances. The return levels become a gauge for good decision making for good decisions yield high returns (Davanzo & Kautz, 1992).

In Kenya, pension funds hold large sums of money in trust for pensioner for long periods of time. These funds are held in Cash & Demand Deposits, Fixed Deposits, Fixed Income, Government Securities, Quoted Equity, Unquoted Equity, Offshore, Immovable Property, and Guaranteed Funds with little room left for others as guided by the law (Makori, 2010). The factors that basically determine how investment of the funds will be done are grouped into expected return factors, risk factors and investor characteristics. However, the factors that determine how one pension fund will invest its funds are not necessarily similar to what other funds will do. This leaves this an area that is not clearly explained Njoroge (2010).

A study conducted by Njoroge (2010) presented the argument that factors like strategic cost management, improving records processing systems, maintaining appropriate funding levels, complying with the pension law, conducting efficient trustee meetings and ensuring timely payment of retirement benefits do not, unlike expectation, influence pension fund efficiency significantly. Further the study by Njoroge (2010) showed that

pension fund governance did not lead to improved pension fund efficiency. An agency-theoretic explanation advanced by Lakonishok et al (1992) and supported by Njuguna (2010) and Makori, (2010) suggest that the additional monitoring activity of pension trustees may actually be the cause of the lower returns. On the other hand Rono (2009) shows that monitoring, though, if done with the proper understanding of the factors that seem to provide guidance to investment among these pension firms in Kenya can lead to higher returns. These views are in disagreement on what considerations actually drive investment decision-making in pension funds. This leads to this research which seeks to answer the question: What factors determine investment decisions among pension schemes in Kenya?

1.3   Objective of the Study

This study aims at establishing the determinants of investment decisions among pension schemes in Kenya

1.4   Value of the Study

The pensioner will find this research useful for they are interested in the safety of their funds and how these funds are managed. Pension funds hold large amounts of money due to the fact that the pensioners are not allowed to withdraw these funds till they provide evidence of retirement from the job market. The pensioners are therefore investors in these funds which invest in risky assets. Profits or losses accruing affect the values of the pensioners directly. This study will provide information to pensioners concerning what main issues drive decisions of how their funds are invested.

8

The government of Kenya, through the RBA, regulates the activities of the individual pension funds to ensure that, not only are pensioners' funds safe, but that the funds are invested profitably. This research intends to find out what factors provide the direction on how these funds are invested. The government can therefore, possibly, adjust its regulation policy in accordance with the safety and profit generation needs of the pension holders.

The managements of the registered pension fund are held by their moral and professional responsibility to hold fund safely and profitably so. The funds are therefore to focus only on investments that minimize risk while simultaneously maximizing the returns for the pensioners. This study will provide a balanced and unbiased scrutiny into the factors to e considered when making investment decisions to help in more efficient utilization of the funds.

Investment scholars will find this research useful. This study will provide a contribution to the scholarly dialogue concerning pension schemes. This will be important to such future researchers who may want to use the findings of this research as a basis for advancing their arguments.

CHAPTER TWO: LITERATURE REVIEW

2.1   Introduction

This chapter discusses the theories and the empirical literature review behind this study. There are seven theories behind this study. These are the Agency Theory, Control Theory, Value Theory, Clientele Effect Theory, Accelerator theory, Neoclassical Theory and Modified Neoclassical Theory. These theories are discussed under the first section of this chapter. The second chapter discusses other earlier research works that have been done on this topic. There seem to be an agreement among the earlier researchers that the decisions on how institutional investors share out the amounts of money among the portfolios they hold are not based on uniform guiding standards.

2.2   Review of Theories

2.2.1 Agency Theory (Jensen & Meckling, 1976)

Jensen & Meckling (1976) defined agency relationship as a contract under which one or more persons (the principals made up of pension scheme members) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interests of the principal (Jensen & Meckling, 1976). They further posit that the principal can limit divergences from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent.

Agency theory therefore is mainly concerned with resolving two problems that can occur in agency relationships. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principle to verify what the agent is actually doing. The problem here is that the principal cannot verify that the agent has behaved appropriately. The second is the problem of risk sharing that arises when the principal and agent have different attitudes towards risk. The problem here is that the principal and the agent may prefer different actions because of the different risk preferences. Some of these agency issues manifest in the dividend policy. The question is whether it is possible to get a model that can be used as a mechanism of deciding between the management and the shareholders as concerns dividend (Jensen & Meckling, 1976).

2.2.2 Control Theory (Walter Reckless, 1932)

Control theory is the concept that people (those who manage pension funds on behalf of members) tend to engage in wayward or criminal behavior unless strong moral, social, and/or retributive deterrents are in effect. In other words, they will do what they can get away with. Control Theory, as developed by Walter Reckless in 1973, states that behavior is caused not by outside stimuli, but by what a person wants most at any given time. According to the control theory, weak containing social systems result in deviant behavior. Deviant behavior occurs when external controls on behavior are weak. According to control theory; people act rationally, but if someone was given the chance to act deviant they would. So, basically, if you have strong social bonds to positive influences, deviant behavior is less likely than someone who has no family or friends (Reckless & Smith, 1932).

Control theory stresses how weak bonds between the individuals and society free people to deviate or go against the norms, or the people who have weak ties would engage in crimes so they could benefit, or gain something that is to their own interest. This is where strong bonds make deviance more costly. Deviant acts appear attractive to individuals but social bonds stop most people from committing the acts. Deviance is a result from extensive exposure to certain social situations where individuals develop behaviors that attract them to avoid conforming to social norms. Social bonds are used in control theory to help individuals from going after these attractive deviations (Reckless & Smith, 1932). According to Hirschi (1969), humans are selfish beings, we all make decisions based on which choice will give us the greatest benefit to our needs or wants. A good example of control theory would be that people go to work. Most people do not want to go to work, but they do, because they get paid, to obtain food, water, shelter, and clothing. The people that do not have a job or income will commit deviant acts in order to get what they need to survive.

2.2.3 Value Theory (John Burr Williams, 1937)

This is an economic view of stock prices as determined by their intrinsic value. It is based on the Discounted Cash Flow (DCF) valuation, and in particular, based on dividend. The theory argues that financial markets are markets in which prices should reflect an asset's intrinsic value. Rather than forecasting stock prices directly, the emphasis is on future corporate earnings and dividends. The value of an asset should be calculated and evaluated using the rule of present worth. Thus, for a common stock, the intrinsic, long-term worth is the present value of all its future net cash flows in the form of dividend distributions and selling price. Under conditions of certainty, the value of a stock is,

therefore, the discounted value of all its future dividends. An insurance firm will therefore decide on how to share out its funds among assets guided buy the net present value (Williams, 1938).

2.2.4 Clientele Effect Theory (Modigliani & Miller, 1961)

This is the theory that a company's stock price will move according to the demands and goals of investors in reaction to a tax, dividend or other policy change affecting the company. The clientele effect assumes that investors are attracted to different company policies, and that when a company's policy changes, investors will adjust their stock holdings accordingly. The clientele effect is related to the investor's preferences with respect to the desired dividend policy. Market inefficiency such as taxes, transaction costs and institutional constraints are some of the factors that drive the clientele effect. A pension fund will therefore have o invest the funds of their members (clients) in manners that efficiently respond to these market inefficiencies while ensuring funds are safe (Cohen & Yagil, 2008).

2.2.5 Accelerator theory (Carver T. N. & Aftalion, A.)

The Accelerator Theory is an economic theory that suggests that as demand or income increases in an economy, so does the investment made by firms. Furthermore, accelerator theory suggests that when demand levels result in an excess in demand, firms have two choices of how to meet demand: Raise prices to cause demand to drop or Increase investment to match demand. The accelerator theory proposes that most companies choose to increase production thus increase their profits. The theory further explains how this growth attracts more investors, which accelerates growth. This theory can help

explain how insurance funds invest their funds for they will expect higher returns from organizations that are in demand for their funds (Samuel, 1996).

2.2.6 Neoclassical Theory

The standard neoclassical theory predicts that investment is inherently tied with the stock market through Tobin's Q. The essence of Q theory is the following argument: If the repurchase cost of capital is less than the net present value of additional profits it will bring at the margin, the company should then invest and vice versa. The only reasons preventing the ratio of the two values (known as Q) from always being equal to 1 are adjustment costs. It is expensive to install new capital and therefore a deviation of Q from 1 can exist, but it should diminish over time. The link between investment and the stock market follows. The value of a company is the net present value of its profits and thus whenever one sees the stock market rising, one should simultaneously observe an increase in investment in order to bring the numerator and the denominator of the Q ratio in line (Panageas, 2005).

2.2.7 Modified Neoclassical Theory (Jorgenson and Stephenson, 1967)

The Neoclassical theory of investment behaviour is based on an optimal path for capital accumulation, according to which the desired level of capital services at every period is derived from a maximization of the present value of future expected net revenue, over an infinite number of years. The desired level of capital services thus derived is a function of relative prices and not output. The cost of capital incorporates the rate of interest (Ismail, Ibrahim, Yusoff & Zainal, 2010).

The theory assumes that in investment activities, firms face cost of capital in order to acquire the desired stock of capital. The financial factors are unimportant in this model because the optimization process of firms does not depend on the factors. The model only takes into account factors that may affect the cost of capital such as changes in the tax policy. Under assumptions of both theories internal and external funds are assumed perfect substitutes which imply that firms may easily obtain external funds to smooth their investments (Ismail, Ibrahim, Yusoff & Zainal, 2010).

2.3   Determinants of Investment Decision

Determinants of investment decisions are divided into three categories: those to do with expected return, those to do with risk and those to do with investor characteristics. Returns are simply increase in value expressed as a percentage of the invested amounts. Any investment has to take into consideration the risk return trade off. For pension funds the focus is more on return stability than the rate of return. In this case pension funds will rather go for relatively low rates of returns that are guaranteed than go for higher returns that are not guaranteed (Mogera, 1999)

Risk is variability in the returns from an investment. Successful pension funds investment should be one whose returns justify the risk taken. This means that one of the factors to be considered in making investment decisions is risk. Risk is a major concern in pension as wherever there is an expected return there is a risk. The objective of any fund managers is to balance the risk to ensure optimal return. One of the mitigations against risk is diversification where a fund will hold amounts in many assets with varying levels of return and risk. The asset classes available and the law governing how to invest in them will determine the diversification freedom (Rono, 2009).

The nature of the investors also has a large bearing on the manner in which monies are invested. A study by Hong & Kostovetsky (2010) showed that the manner in which funds were invested in some funds depended on the political affiliation of the fund managers. There was a sharp difference between assets republican supporting and democrat supporting fund managers. They also found that the decisions to invest were determined by the nature of the owners of the funds.

2.4   Review of Empirical Literature

Sturm & Badde (2001) conducted a study to investigate socially responsible investment (SRI) practices among pension funds in the Northern America and European countries. The social responsibility issues that were keenly studied were workplace issues, social issues, cultural issues, religious issues, environmental issues and economic issues. The paper acknowledged that pension funds used a mixture of issues to make investment decisions. In the pension funds, for instance, the study found that 59 % of the top 500 funds in UK would include socially responsible investment principles in their investment plans. 48 % of these funds had given full responsibility for the use of the funds for SRI expenditure. Larger pension funds were more likely to take on SRI principles that the small ones. The paper demonstrated that there was no uniform approach to ho funds decided to invest their funds.

Another research was conducted by FIAD (2003) to summarize the regulatory framework of the investment of pension funds in the Central and Eastern Europe (CEE) Countries, the investment styles and strategies of pension funds, as well as the actual investment categories. The comparative study analyzed the size of pension funds' assets in relations

with the local capital markets and the respective GDPs. The research was conducted for a period covering May 2003 to December 2003.

The research by FIAD (2003) found that the Czech Republic, Slovakia and Slovenia have pension funds that operate within the most strictly regulated environment, and they are the pension entities that have tried to limit their market risk furthest as well. These three countries followed what they called an overall risk averse strategy. Polish pension funds followed what a domestic risk strategy. The amount of domestic equity risk is high, but foreign exposure is very limited. To a lesser extent, Hungarian pension funds could be classified in this group – or somewhere between this group and the previous. Estonian and to some extent Latvian pension funds followed a foreign risk strategy. This is because they have above average foreign exposure compared to other CEE countries, due to the limited domestic markets. Estonia also had a relatively high equity exposure as well, while Latvian pension funds are more risk averse on that front. Latvian pension funds are – similarly to Hungarian pension entities – are between the overall risk averse and the foreign risk strategies.

A study by Franzen (2007) inquired into the forces that drive investment strategies and risk management approaches of defined benefit (DB) pension funds in Germany, Netherlands, United Kingdom and the United States in the aftermath of the perfect pension storm. It critically examined the impact of recent changes in the regulatory and accounting environment for pension funds and their sponsors thereby explicitly taking into account the specific governance context in which pension funds were situated. The aim of this research was, first, to provide an understanding of the investment risk management of defined benefit pension funds thereby contributing to the theory of

financial decision-making. Second, by conducting the analysis on a cross-country basis, the research aimed at contributing to the comparative analysis of pension funds.

The paper argued that the risk-taking capacity was a central element of defined benefit pension funds. The empirical results suggested that in general risk management had become much more sophisticated but that it was often driven more by regulatory and accounting issues than by the pension fund's specific risk profile. Furthermore, changes to the regulatory and accounting standards increasingly impeded the risk-taking capacity of defined benefit pension funds with longstanding detrimental effects on the macro- and microeconomic environment. Eventually the sustainability of the traditional single-company defined benefit pension fund which represented the backbone of the current Anglo-American pension fund system seemed questionable. This research drew on in-depth interviews with market participants within the pension fund industry and their advisers (Franzen, 2007).

Individual wealth in the OECD area was increasingly managed by institutional investors. Fully funded, privately managed pension funds had been important in only a handful of OECD countries, such as the US, the UK, the Netherlands, Switzerland, Canada and Australia. Elsewhere, private funded schemes have seen their development hampered by the scale of state social security pension provision. State social security in the OECD mostly provides a compulsory, indexed, defined-benefit, and unfunded pension schemes. However, aging populations, with a rising proportion of retirees, will further strain existing social security systems. Policymakers are thus faced with the unappealing choice of either decreasing benefits or of increasing social security taxes. At the same time, the

need to tackle unemployment is exerting strong pressure to control labour costs (Davis, 1992).

In most OECD countries, quantitative limits to international investment still constrain the portfolio management of pension funds. How do pension funds invest when such limits are absent? Coote (1993) has recently looked at this question by examining in-house investment guidelines of life insurance and pension institutions in Australia, the Netherlands, Switzerland and the United Kingdom. The investment behaviour of these largely unconstrained institutions may be indicative of the future for those countries that decide to relax their official restrictions on international investment (Coote, 1993).

Coote (1993) found that pension funds take a conservative approach to international investment, which is motivated more by risk-reducing portfolio diversification than by expectations of superior long-term returns. The emphasis on diversification benefits is reflected in the fact that in-house guidelines specify both minimum and maximum limits to foreign investment; it is considered just as imprudent not to have a minimum foreign exposure as to hold too many foreign assets.

Further, investment guidelines usually specify benchmarks for the purpose of defining a neutral long-term investment position, with a breakdown for the three major international asset classes, namely equities, fixed-interest instruments, and real estate. Limits to foreign equity holdings are usually the highest. The preference for equities reflects the advantage to participants in defined-contribution pension funds of acquiring assets of long duration with high yields and an expectation that their price movements will broadly offset inflation, a role for which equities are ideally suited. Bonds are suitable as a core

holding for defined-benefit pension funds with liabilities defined in nominal terms (Davanzo & Kautz, 1992).

Regional specifications cover in most guidelines minimum and maximum investment limits in three major regions — Europe, North America, and Asia Pacific. The benchmark here is often a commonly reported index such as the Morgan Stanley Market Capitalization Weighted Accumulation Index. The share of countries in this benchmark depends on the capitalization value of their respective stock markets; countries may not be overweight or underweight by more than 5 per cent of their share in the benchmark. The development of forward currency markets has now led most pension funds to recognize that investment in a foreign asset and investment in a foreign currency involve two separate investment decisions.

Pension fund portfolios nonetheless often continue to display a home bias. Goldstein and Mussa (1993) listed the possible explanations as transactions costs, externally-imposed prudential limits on foreign assets, uncertainties about expected returns, higher (than warranted) risk perceptions about foreign assets due to relative unfamiliarity with those markets and institutions, and express their own belief that the latter factor is the most important. Moreover, currency matching requirements sometimes obligate the holding of excess reserves when the currency composition of assets and liabilities is mismatched; such requirements make foreign investment less attractive.

Another factor, which militates particularly against pension fund investment into emerging markets, is liquidity risk. Yet a further frequent explanation is the role of employee representatives, who typically favour investment at home because of a

protectionist assumption that home investment promotes social welfare. In some countries, like Germany, the track record of (positive) inflation-adjusted returns on domestic government bonds and the strength of the domestic currency have also made foreign investment look less compelling. However, while pension funds have not so far pursued diversification into foreign assets to the extent predicted by modern portfolio theory, namely to the global portfolio, there is currently a clear trend to reduce the home bias of pension fund investment, so that those funds with low foreign exposure are now rapidly investing abroad, foremost in equities (Davis 1991).

There is a strong tendency for portfolio behaviour to conform to industry norms, a result of the principal-agent problem. For a pension fund manager, a strategy of low personal risk is to do what the others are doing. If they are all wrong in their choices, the manager will not be held personally accountable. But for the principal, the sponsoring companies and the pension beneficiaries, the damage will be done (Davanzo & Kautz, 1992).

Gitundu (2010) conducted a study to assess the existing investments policy of the pension funds in Kenya with the secondary data being asset allocation ratios and the rates of return obtained from year 2001 investment reports of various pension funds. This data was tabulated and analyzed in search of relationships that would support the objectives of the study. Findings of the study revealed that asset allocations differ between various pension funds this being an indicator that the criteria for developing the optimum investment mix differed between investment managers of various pension funds. It was also apparent that, although performance of pension funds assets was comparable to various market indexes, there was no defined standard performance measure. Some fund managers constructed in-house indexes for some assets; others evaluated performance

against available economic performance indicators, while others were silent on the performance of the pension fund's portfolio.

Rono (2006) conducted a study focused on the analysis of factors influencing pension fund managers' investment decisions in Kenya. The objectives of the study were to identify investment options available to pension fund managers, identify factors that are considered by fund managers when making a choice of these investment decisions and identify challenges faced. Three representatives from each of the twelve registered fund managers completed the study questionnaire. The study found out that returns, investment risks and trends in interest rates were the most important factors affecting pension managers' investment decisions. Decision-making preferences, investment portfolio, past performance and legal framework were rated as less important. Consistency and return maximization in the rate of returns (sustainable long term returns), prevailing economic and political situations-inflation, global markets which determines key indicators like interest rates/ exchange and risk profile of the scheme investment (risk assessment of the board of trustees) in that order are also important qualitative factors in decision making for pension fund investment.

The research, further, found out that few investment avenues, bureaucracy in consultations with trustees and unpredictable (turbulent) and dynamic market situations in that order were the major challenges facing fund managers investing pension funds. The researcher identified a need for a portfolio that will give higher returns. There is also need to harmonize all regulations relating to pensions in order to create efficiency and avoid confusion. The research also recommends that RBA benchmarks with the world best in order to help the sector to achieve growth. The promotion of retirement funds and

22

regulatory functions should be separated to avoid conflict of interest in the two roles Rono (2006).

2.5   Conclusion

The several theories presented in this study have demonstrated the variations in how institutional investors make decisions concerning how to share out moneys among the portfolios they hold. The empirical researches cited, too, have shown that the manner in which funds are invested have variation across countries. Further, variations have been revealed even among institutional investors within the same country. These decision-making input parameters are likely to vary with the passing of times. This leads to the need for this research which is to find out which factors determine how pension funds, which are part of the institutional investors in Kenya, funds are invested.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1   Introduction

This chapter outlines the general methodology used to conduct the study. It specifies the research design, target population, data collection method and how analysis of the data was done.

3.2   Research design

This study was exploratory and descriptive in nature and the researcher used survey method. Primary data collected from such a population or census is more reliable and up-to-date and hence the choice of this method. The descriptive research was meant to enhance a systematic description that is as accurate, valid and as reliable as possible regarding the responses on the investment options available to pension schemes and the factors considered in selecting various combinations. This research design was applied by Njuguna, (2010) to survey Strategies to improve pension fund efficiency in Kenya. It was also used by Ardon (2006) to conduct a study of a similar nature among 106 pension funds in Massachusetts.

3.3   Population

The 1216 pension schemes registered by RBA made up the population of this study. These are the NSSF, the Civil Servants Pension Scheme, 1191 Occupational Schemes and twenty-three Individual Pension Schemes (RBA, 2012

3.4   Sample

After getting the list of the pension schemes the number of schemes to be studied will was determined by the model:

$$\underline{\hspace{3cm}} \text{(i)}$$

where,

$$\underline{\hspace{3cm}} \text{(ii)}$$

and,

    S = sample size

    N = the population size (the numbers of pension schemes)

    Z = the standard score at 95 % (or 0.95) confidence level (1.96)

    p = 0.5 (because the prevalence of the features of the population in the sample is unknown).

    D = the interval of accuracy 0.05 (i.e. 1 – 0.95)

Once the sample size has been determined, the number of schemes to be studied from each of the cluster was proportionally shared by the model:

$$\underline{\hspace{3cm}} \text{(iii)}$$

Where   was the number of companies in the cluster. The allocation was followed by pure random sampling to decide the exact scheme to be studied. In the pension schemes there were four clusters namely the NSSF, the Civil Servants Pension Scheme, Occupational Schemes and Individual Schemes. The NSSF and the Civil Servants Pension Scheme was definitely included in the study. The third cluster was made up of

the 1191 occupational schemes are while the final cluster is made up of the twenty-three individual schemes. The sample size was three hundred and eighty four Schemes.

3.5   Data collection

The data to be used involved both primary and secondary data from the RBA. The research required both quantitative and qualitative data to provide complete analysis and give plausible findings. This is because some factors determining investment decisions are qualitative in nature. The secondary data included the annual returns for the schemes. These data covered the period extending from January 2002 to 2011 December.

The primary data involved response to a questionnaire that was delivered to the respondents by hand and picked later after being completed. The questionnaire was structured to contain two sections. The first section was used to capture general descriptive data concerning the respondent pension funds. The second part was used to determine which factors are put in consideration when deciding to hold funds in the portfolios they hold. Given that decision-making is highly qualitative, the Likert scale was used. The proxy for expected return was the mean of the response for the first seven items in Section B. The mean of the next five items proxied for risk. The mean score of the remaining six provided the proxy for investor characteristics. Every pension scheme had a complete observation if there was the average realized return, the expected return proxy, the risk proxy and the investor characteristic proxy.

3.6   Data analysis

A qualitative analysis of the responses from the questionnaire was analyzed using the mean and standard deviation to determine the extent to which the factors identified determine investment decision making in pension funds.

The primary data was classified in accordance with the variables, that is, risk, expected return and investor characteristics. For each of the pension fund the grand mean response for each of the set of responses per variable was found by the formula

$$_____ \text{(a)}$$

$$\overline{}$$

Where

is the option   picked in response to item j in a set of items.

and

is the number of items in the set per variable

the possible options per item

The secondary data capturing actual return rates from 2002 to 2011 per pension fund was calculated by the formula

_____ (b)

—

In which   is the return realized in year   expressed as a percentage.

The regression model for the analysis is of the form

_____(c)

Where

Average realized return. This is the five year geometric average of the annual returns of the pension schemes

Constant of regression

Sensitivity of   to variable   (

Risk variable. This is the average response to the extent to which the risk factors determined investment decisions

28

Expected return variable. This is the average response to the extent to which expected return factors determined investment decisions

Investor characteristics variable. This is the average response to the extent to which the Investor characteristics determined investment decisions

The F-Test at 95 % was used to test the significance of the regressed variables and   . The coefficient of determination   was used to determine the strength at which the variation in the independent variables explains the variation in the dependent variable.

Statistical Package for Social Scientists (SPSS) data analysis program was utilized to generate the mean and standard deviation to establish the relative importance and weight for each of the variables. MS. EXCEL 07 spreadsheet tools were utilized in analyzing the quantitative data.

CHAPTER FOUR:

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter focuses on the presentation of data and interpretation. The first part presents the analysis of the data ending with the regression results. The second part of this section deals with the summary and the interpretation of the findings. In this study 384 questionnaires were sent out to the pension schemes of which 249 were successfully completed making a response rate of 65 %

4.2 Data Presentation

4.2.1 Factors based on all Pension Schemes

Table 1 is showing the analysis of the response to the determinants of investment of funds as were presented in the questionnaire. The extent to which each of the factors determined investment decisions was measured by used of the Likert scale. In the Likert scale the range of 1 (not at all) to 5 (to a very great extent) was used. The average of the responses was calculated to determine the average extent to which the factor determined investment decisions among the pension funds. Ranking the means of the factors was used to point out the most determining and the least determining factors. The findings showed that the most influential factors were: expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets and investment portfolio desired. The least influential factors were: consistency in returns, decision-making preferences of the decision makers, benchmarking with other pension funds, social responsibility issues and the nature of the fund owners.

Table1	Factors based on all Pension Schemes		
FACTORS		**MEAN**	**SD**
Expected return		4.533	0.640
Past performance of your fund		3.333	1.047
Consistency in returns		3.000	1.134
Benchmarking with other pension funds		2.600	1.056
In-house indexes and rules for return		3.067	1.280
Comparison to various market indexes		3.067	1.100
Past performance of the return of opted for investment		3.133	1.125
The risk-taking capacity		4.400	0.632
Risk level in the desired investment		4.200	0.676
Prevailing political situations		3.267	1.223
Nature of risk in the global investment markets		4.200	0.561
Risk assessment by the board of trustees		3.267	1.163
Regulations and the legal environment		3.267	0.961
Social responsibility issues		2.533	0.990
The nature of the fund owners		2.467	0.990
Decision-making preferences of the decision makers		3.000	1.134
Investment portfolio desired		4.000	1.069
Recommendation from the R & D department		3.467	0.743
GRAND MEAN		**3.378**	

(Source: Prepared by Researcher)

4.2.2   Factors According to Pension Funds that were Less Than Ten Years Old

An analysis of the factors according to the age of the pension funds revealed that the risk-taking capacity, risk level in the desired investment, expected return and nature of risk in the global investment markets were the most influential factors. According to Table 2 the factors scored means of 4.500, 4.250, 4.000 and 4.000 respectively. On the other hand benchmarking with other pension funds, prevailing political situations, regulations and the legal environment, the nature of the fund owners, decision-making preferences of the decision makers, social responsibility issues were the least influential factors with mean values of 2.500, 2.500, 2.500, 2.500, 2.250 and 1.750 respectively.

Table 2 Factors according to Pension Funds that were Less Than 10 Years Old

FACTORS	MEAN	SD
Expected return	4.000	0.816
Past performance of your fund	3.000	1.633
Consistency in returns	3.250	1.500
Benchmarking with other pension funds	2.500	0.577
In-house indexes and rules for return	3.000	1.633
Comparison to various market indexes	3.750	0.957
Past performance of the return of opted for investment	3.000	1.155
The risk-taking capacity	4.500	0.577
Risk level in the desired investment	4.250	0.500
Prevailing political situations	2.500	1.291
Nature of risk in the global investment markets	4.000	0.000
Risk assessment by the board of trustees	3.250	1.258
Regulations and the legal environment	2.500	0.577
Social responsibility issues	1.750	0.500
The nature of the fund owners	2.500	1.291
Decision-making preferences of the decision makers	2.250	0.957
Investment portfolio desired	3.500	1.000
Recommendation from the R & D department	3.250	0.500
GRAND MEAN	**3.153**	

(Source: Prepared by Researcher)

4.2.3   Factors among Funds between 11 and 20 Years Old

The funds that had been operational for the last between 11 and 20 years revealed that the most important considerations were: expected return; the risk-taking capacity; nature of risk in the global investment markets; investment portfolio desired and risk level in the desired investment. According to Table 3 the factors scored means of 4.750, 4.250, 4.125, 4.125 and 4.000 respectively. Among these pension schemes the least influential factors were: benchmarking with other pension funds; risk assessment by the board of trustees; social responsibility issues; the nature of the fund owners. The results in Table 3 show that the factors scored means of 2.875, 2.875, 2.875 and 2.500 respectively.

Table 3 Factors among Funds between 11 and 20 Years Old

FACTORS	MEAN	SD
Expected return	4.750	0.463
Past performance of your fund	3.625	0.916
Consistency in returns	3.125	1.126
Benchmarking with other pension funds	2.875	1.356
In-house indexes and rules for return	3.500	1.195
Comparison to various market indexes	3.125	0.991
Past performance of the return of opted for investment	3.375	1.302
The risk-taking capacity	4.250	0.707
Risk level in the desired investment	4.000	0.756
Prevailing political situations	3.000	0.756
Nature of risk in the global investment markets	4.125	0.641
Risk assessment by the board of trustees	2.875	0.991
Regulations and the legal environment	3.500	1.069
Social responsibility issues	2.875	1.126
The nature of the fund owners	2.500	1.069
Decision-making preferences of the decision makers	3.125	1.246
Investment portfolio desired	4.125	1.126
Recommendation from the R & D department	3.375	0.744
GRAND MEAN	**3.451**	

(Source: Prepared by Researcher)

4.2.4   Factors among Funds over 20 Years Old

Among the pension funds that were over 20 years old in operation the factors that were given most importance were: expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets; investment portfolio desired which had means of 4.533, 4.400, 4.200, 4.200 and 4.000 respectively as shown in Table 4. According to these pension schemes the least influential factors: benchmarking with other pension funds; social responsibility issues and the nature of the fund owners which had mean values of 2.600, 2.533 and 2.467 respectively. The grand mean of 3.378 showed the factors were generally important.

Table 4   Factors among Funds over 20 Years Old

FACTORS	MEAN	SD
Expected return	4.533	0.688
Past performance of your fund	3.333	0.944
Consistency in returns	3.000	0.905
Benchmarking with other pension funds	2.600	1.128
In-house indexes and rules for return	3.067	1.168
Comparison to various market indexes	3.067	1.265
Past performance of the return of opted for investment	3.133	1.168
The risk-taking capacity	4.400	0.522
Risk level in the desired investment	4.200	0.647
Prevailing political situations	3.267	1.362
Nature of risk in the global investment markets	4.200	0.505
Risk assessment by the board of trustees	3.267	1.286
Regulations and the legal environment	3.267	0.905
Social responsibility issues	2.533	0.688
The nature of the fund owners	2.467	0.603
Decision-making preferences of the decision makers	3.000	1.250
Investment portfolio desired	4.000	1.183
Recommendation from the R & D department	3.467	0.820
GRAND MEAN	**3.378**	

(Source: Prepared by Researcher)

4.2.5   Analysis of Factors among Funds by Membership

Table 5 shows that among pension schemes with 200 members or less the most important factors were: expected return; risk level in the desired investment; the risk-taking capacity; nature of risk in the global investment markets; investment portfolio desired and recommendation from the R & D department which had mean scores of 4.750, 4.750, 4.500, 4.500, 4.000 and 4.000 respectively. The least important factors were: consistency in returns; social responsibility issues; benchmarking with other pension funds; comparison to various market indexes and the nature of the fund owners. The factors had mean scores of 2.750, 2.750, 2.500 and 2.500 respectively.

Among the funds with members between 201 and 999 the most influential factors were; expected return; the risk-taking capacity; investment portfolio desired and nature of risk

34

in the global investment markets which had means of 4.800, 4.200, 4.200 and 4.000 respectively. The least important factors were: social responsibility issues; benchmarking with other pension funds and the nature of the fund owners which had mean scores of 3.000, 3.000 and 2.800 respectively.

Among the pension schemes with more than 1000 members the most influential factors as shown in Table 5 were: the risk-taking capacity; risk level in the desired investment; expected return and nature of risk in the global investment markets. The factors scored means of 4.500, 4.333, 4.167 and 4.167 respectively. The least important factors were: decision-making preferences of the decision makers; the nature of the fund owners; benchmarking with other pension funds and social responsibility issues. These factors had mean scores of 2.500, 2.500, 2.333 and 2.000 respectively.

Table 5   Pension Schemes by Membership

FACTORS	LESS THAN 200		201-999		ABOVE 1000	
	MEAN	SD	MEAN	SD	MEAN	SD
Expected return	4.750	0.500	4.800	0.447	4.167	0.753
Past performance of your fund	3.250	0.500	3.800	1.095	3.000	1.265
Consistency in returns	2.750	0.957	3.400	1.140	2.833	1.329
Benchmarking with other pension funds	2.500	1.732	3.000	1.000	2.333	0.516
In-house indexes and rules for return	3.000	1.414	3.400	1.342	2.833	1.329
Comparison to various market indexes	2.500	1.291	3.200	1.095	3.333	1.033
Past performance of the return of opted for investment	3.250	1.500	3.400	1.140	2.833	0.983
The risk-taking capacity	4.500	0.577	4.200	0.837	4.500	0.548
Risk level in the desired investment	4.750	0.500	3.600	0.548	4.333	0.516
Prevailing political situations	3.500	1.291	3.400	1.140	3.000	1.414
Nature of risk in the global investment markets	4.500	0.577	4.000	0.707	4.167	0.408
Risk assessment by the board of trustees	3.000	1.633	3.400	0.548	3.333	1.366
Regulations and the legal environment	3.750	0.957	3.400	1.140	2.833	0.753
Social responsibility issues	2.750	0.957	3.000	1.225	2.000	0.632
The nature of the fund owners	2.000	0.000	2.800	1.304	2.500	1.049
Decision-making preferences of the decision makers	3.500	1.291	3.200	1.095	2.500	1.049
Investment portfolio desired	4.000	1.414	4.200	1.095	3.833	0.983
Recommendation from the R & D department	4.000	1.155	3.200	0.447	3.333	0.516
GRAND MEAN	3.458		3.522		3.204	

(Source: Prepared by Researcher)

4.2.6   Correlation among Variables

Table 6 below shows the correlations matrix among the variables. The inter-variable correlations were less than an absolute value of 0.5 showing that the variables were not having high levels of interrelations. However, the highest level of correlation was between risk variable and the average return, $r(13) = 0.48427$ followed by the negative correlation between return variable and the investor characteristics $r(13) = -0.4024$. The lowest inter-variable correlations were the correlation between the average return and the expected return variable, $r(13) = -0.12757$ and between risk variable and investor characteristic.

Table 6	Correlations among the Variables			
	A	E	R	I
A	1	-0.12757	0.48427	0.3454
E		1	0.3894	-0.4024
R			1	-0.0893
I				1

(Source: Prepared by Researcher)

4.2.7 Regression of Average Realized Return and the Independent Variables

Table 7 below shows the summary of the regression results after analysis conducted on the average realized return and the independent variables. The confidence level in the analysis was 95 % meaning that the critical P-Value was 0.05. All the P-Values of the constant and the coefficients were greater than 0.05 indicating insignificance of the values. However, the return rate that was independent of the identified factors was 22.916 %,   . The factors that heavily negatively affected return were those to do with risk having a coefficient of -5.0202,   while the greatest positive contributor towards return were factors to do with expected return with a coefficient of 5.14,   . Investor characteristics also had a negative influence on return as shown by the coefficient of -2.261,

  , The variation in the independent variables explained only 26.5 % of variation in realized return,   .

Table 7   **Regression Results for the Model**

	REGRESSION COEFFICIENTS	T-VALUE	P-VALUE
CONSTANT	22.916	0.9935	0.342
E	5.14	1.2098	0.252
R	-5.0202	-0.9456	0.365
I	-2.261	-0.4772	0.642
REGRESSION STATISTICS			
R-SQUARED	0.265		
ADJUSTED R- SQUARED	0.0646		
F	14.54		0.00038
DW	1.6291		

(Source: Prepared by Researcher)

The regression model:

4.3   Summary and Interpretation of Findings

The analysis of the factors determining the investment of funds among pension schemes in Kenya had different revelations according to the classifications of the schemes. Generally expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets and investment portfolio desired which had mean scores of 4.533, 4.400, 4.200, 4.200 and 4.000 respectively were the factors that determine investment decisions across all the firms. The least influential results across the pension schemes were consistency in returns, decision-making preferences of the decision makers, benchmarking with other pension funds, social responsibility issues and the nature of the fund owners

The correlation among the regression variables was generally low indicating low level of interrelations among them. The factors were concluded to be independent of each other. However, the highest level of positive correlation was between the dependent variable

and risk meaning that the higher the risk, the higher the return realized. The highest negative correlation was between the characteristics of the investors and risk meaning that the lower the importance attached to investor characteristics, the higher the risk.

The regression was significant according to the F-Test, though the variation in the realized return was not strongly explained by the variables identified. This means that, though the variables identified were important to the realized return, there were some variables that were not captured by the model. The regression coefficients showed that realized return was highly sensitive to the expected risk in such a way that realized return increased with increase in risk. Realized return was highly sensitive to risk. However, the realized return was highly negatively sensitive to expected return so that expected return, past performance of fund and consistency in returns together had a negative effect on realized return. Investor characteristics also had a negative effect on returns.

The study seems to give support to the findings by Sharpe (1964) postulation of risk aversion that investors should gain more risk when they invest in more risky assets. Sharpe (1964) argues that investment in assets is governed by the risk-averse nature of the investors. As a result investors are careful on comparing return and risk. They will therefore take on higher risk if the return is higher than the return when risk is lower. This makes returns to have a positive relationship with risk. The results of this study find the same relationship between risk and realized return which have a correlation coefficient of 0.48427 and the regression coefficient of 5.14. It also agrees with the findings by IMF (2011) which showed that investors are more risk conscious and will only take on more risk if the return is higher also leading to a positive relationship .

The study, however, also disagrees with Rono (2009) who argued that monitoring was the main contributor to returns among pension schemes. According to Rono (2009) the main factor contributing positively to the behavior of returns among Kenyan pension schemes was monitoring by the stakeholders. This study finds that risk issues are the main contributors. These risk issues were the risk-taking capacity, risk level in the desired investment, prevailing political situations, nature of risk in the global investment markets and risk assessment by the board of trustees whose aggregate effect on return was both positive and greatest

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1   Summary

Theory predicts that asset managers that are monitored by large professional investors perform better than asset managers that are monitored by individual and relatively inexpert investors. The monitoring means that the considerations that are used to determine how the funds invest members' funds are closely monitored in order to bring about the desired level of returns while keeping members' funds safe. Good investment decision making brings in the highest returns under the given circumstances. The return levels become a gauge for good decision making for good decisions yield high returns (Davanzo & Kautz, 1992).

In Kenya there are legal guidelines that determine how funds are to be distributed among the various types of assets. However, there are other non-legal investment considerations. For this study the factors that basically determine how investment of the funds is decided were grouped into expected return factors, risk factors and investor characteristics. The research sought to find out which key factors determine investment decisions among the pension funds.

The findings show that expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets and investment portfolio desired were the key factors that were generally considered when making investment decisions. The least influential factors across the pension schemes were consistency in returns, decision-making preferences of the decision makers, benchmarking with other

pension funds, social responsibility issues and the nature of the fund owners. The regression results indicated that risk factors were the greatest positive contributor to realized return while expected return had the most negative contribution to realized return. The regression, however, showed that the variation in realized return was weakly explained by the three used variables showing there are other variables that could be included to explain the variation in realized return to a higher level.

5.2   Conclusions

From this study it is concluded that risk factors, return factors and investor characteristics have key influence on how pension fund in Kenya are invested. This is drawn from the fact that the F-statistic in regression analysis indicated that the regression was significant. The variables were therefore significantly connected.

The three variables return factors; risk factors and investor characteristics are not the only variables that explain variation in realized return. This is because they had a weak coefficient of determination. It can be drawn that there are other variables not captured in the model but contribute to variation in realized return.

Expected return; the risk-taking capacity; risk level in the desired investment; nature of risk in the global investment markets and investment portfolio desired were the strongest factors considered by the pension scheme when making investment decisions. Therefore meaning that return and risk were the main considerations.

Consistency in returns, decision-making preferences of the decision makers, benchmarking with other pension funds, social responsibility issues and the nature of the fund owners were the least considered factors. This indicated that past performance of

assets were not very seriously considered when making investment, the decision makers'
preferences had little influence, the performance of other pension schemes was
inconsequential, and the preferences of the members were also not considered in
investment decisions.

Corporate social responsibility issues are not taken seriously by the pension schemes.
From the finding among the different classifications of the responding pension schemes,
social responsibility got poor mean scores indicating that the pension schemes do not
have high rating of corporate social responsibility.

5.3   Policy Recommendations

Drawing from the fact that the F-statistic in regression analysis indicated that the
regression was significant the recommendation is that the management of the pension
funds should be risk averse. The operational principle should be the matching of risk with
the return to be drawn from investing in such assets. If an investment has a higher level of
risk, then the investment should only be taken if the commensurate risk is higher.

Investor characteristics should also be considered when making investment decisions. In
many situations the small pensioners, who are many, may not participate in the
investment decision making due their small individual interest or due to ignorance, or due
to lack of time to pay attention on how their funds are being utilized. There should be put
in place mechanisms to ensure the inputs of such members are considered.

Benchmarking of performance has not taken deep anchorage in pension schemes in
Kenya. This is an indication that the pension fund schemes have a disjointed approach to
the pensions market such that standards are internally set and may not be in tandem with
the standards of other payers in the market. It is the recommendation of this study that

there should be a way of putting in place non-legal benchmarks to guide the performance of the pension schemes so as to generate higher value for the pensioners.

There should be inculcation of corporate social responsibility among the pension schemes so that they are able to manage the funds in a manner that is of high benefit to the pensioners and not just a business. The role of pension schemes is not just making profit but providing regular income to pensioners. In that line of thought, the pension schemes should therefore take it upon themselves not to be purely risk-return oriented but bear the social responsibility of ensuring pensioners get socially accepted service from them.

5.4   Limitations of the Study

The data covers a few pension schemes. The findings may not be applicable to all the pension schemes in Kenya in their varied nature. The results given by this study are therefore limited to the pension schemes that were studied. Further, the findings may not be applicable universally because the sampling was limited to Kenyan pension schemes.

The strength of the findings of this research is weakened by the nature of the data. The independent variables were operationalized by use of the non-quantitative Likert scale. The findings are therefore highly dependent upon the views, attitudes and the expertise of the opinions of the respondents.

The research has not provided an indication as to why the independent variables are not strongly explaining the dependent variable. The best it has done is to show that the explanation is weak, but the source of the weakness has not been explained. This is because the study has fallen short of determining whether or not there is a causal relationship between the dependent variable and the independent variables.

5.5   Suggestions for Further Studies

The findings of this study can be improved if the study is expanded to cover as many pension schemes as possible. Also given that Kenya is a key player in the East African community the study can be expanded to cover other pension funds within the East African community in order to provide result that will be useful in that context.

A future research can be carried out on the same topic, but using quantitative data. This is with the assumption that the quantitative data will provide results that are better than those provided by the qualitative data used in this study. The possible objectivity issues that arise may be settled by using quantitative data.

A future researcher can conduct the research with the aim of determining whether there is a causal relationship between the dependent variable (average returns) and the independent variables. This will help provide an explanation of why the coefficient of determination is low. Further, such a study will provide solution as to which factors are to be considered to make the relationship stronger.

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APPENDICES

Appendix I: Letter of Introduction

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UNIVERSITY OF NAIROBI

MBA PROGRAMME

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TELEPHONE: 4184160/5 EXT. 208	P.O. BOX 30197
TELEGRAMS: "VARSITY", NAIROBI	NAIROBI, KENYA
TELEX: 22095 VARSITY	

November, 2012

The Manager,

……………………………………………………….

Dear Sir/Madam,

RE: INTRODUCTION-CAROLINE NDERITU

I am a student of the University of Nairobi, pursuing a Masters of Business Administration degree. In partial fulfillment of the requirements for this degree, I am required to carry out a management research project on a real topic in my area of study. I am conducting a survey to find out the determinants of investment decisions among pension schemes in Kenya.

I kindly request you to provide the required information to the best of your knowledge by filling out the attached interview guide. The information is strictly for academic purposes only and will be treated in the strictest confidence. A copy of the research project will be made available to you on request. Your kind assistance will be highly appreciated.

Yours faithfully,

Caroline Nderitu	Dr. Aduda Josiah
Sign_____	Sign_____
Date_____	Date_____
(RESEARCHER)	**(SUPERVISOR)**

Appendix II: Questionnaire

QUESTIONNAIRE

Please answer all questions honestly according to the given instructions

A. GENERAL INFORMATION

1. How old is your pension fund in years? _____

2. How many active members do you have? _____

3. In what category of pension fund do you belong? Tick as appropriate.

        1) Civil Service Pension Scheme

        2) National Social Security Fund

        3) Occupational Schemes

        4) Individual Schemes

Other (specify) _____

B. DETERMINANTS OF INVESMENT DECISIONS

Below are some of the determinants that may determine how funds are invested in your pension fund. On a scale of 1 to 5, Tick the number that most describes the level to which the factor affects your investment decisions. The interpretation each of the numbers is as shown below

Not at all	**1**
To a little extend	**2**
To a moderate extend	**3**
To a great extent)	**4**
To a very great extent	**5**

	1	2	3	4	5
FACTOR					

1. Expected return

2. Past performance of your fund

3. Consistency in returns

4. Benchmarking with other pension funds

5. In-house indexes and rules for return

6. Comparison to various market indexes

7. Past performance of the return of opted for investment

8. The risk-taking capacity

9. Risk level in the desired investment

10. Prevailing political situations

11. Nature of risk in the global investment markets

12. Risk assessment by the board of trustees

13. Regulations and the legal environment

14. Social responsibility issues

15. The nature of the fund owners

16. Decision-making preferences of the decision makers

17. Investment portfolio desired

18. Recommendation from the R & D department

Other factors (specify):
   a) _____
   b) _____
   c) _____