

**PENSION FUND MANAGEMENT STRATEGIES IN KENYA AND THEIR
IMPACT ON THE AVERAGE RETURN OF THE FUND**

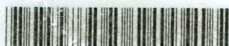
BY

YANO RENEE PENINAH

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Yano Renee Peninah
*Pension fund
management strategies*



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DECLARATION

This thesis is my original work and has not been presented at any other university for academic or any other purpose.

Signature..... ..... Date..... 05.05.2008.....

YANO RENEE PENINAH
D53/6089/03

This thesis has been submitted to the School of Business with our approval as university supervisors.

Signature..... ..... Date..... 5-5-2008.....

DR. ELIJAH W. KHAKAME
DEPARTMENT OF ACCOUNTING AND FINANCE

Signature..... ..... Date..... 05.05.08.....

 DR. WEKESA M. J. WESONGA
DEPARTMENT OF ECONOMICS

DEDICATION

This work is dedicated to my loving parents, Mr. Gabriel Chemweno Yano and Mrs. Margaret Yano, siblings, Joseph Chepterit and Mrs. Rebecca Cheron.

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ABBREVIATIONS

AIG:	American International Group
CAL:	Capital Allocation Line
CAPM:	Capital Asset Pricing Model
CML:	Capital Market Line
EMH:	Efficient Market Hypothesis
ERISA:	Employee Retirement Income Security Act
FASB:	Financial Accounting Standard Board
G-7	Group of Seven Countries
GDP	Gross Domestic Product
GM:	General Motors
NSE:	Nairobi Stock Exchange
P/E:	Price/Earnings Ratio
PA:	Pension Act
RBA:	Retirement Benefit Authority
ROE:	Return on Equity
S&P 500:	Standards and Poor composite index

DEFINITION OF TERMS

Active management strategy: it is the art of stock picking and market timing. It is the active trading of publicly traded securities in an attempt to outperform the assigned benchmarks.

Asset class: it is a group of securities that have similar risk and return characteristics.

Benchmark index: the index which comprises all the marketable assets in the market place.

Efficient market theory: it is the theory postulating that market prices reflect the knowledge and expectations of all the investors. It asserts that any new development is instantaneously priced into a security, thus making it impossible to consistently beat the market.

Fund manager: a firm, which provide investment management services or the individual who directs the fund management decisions.

Hedge: a means of defense against possible losses.

Index funds: a form of passive investing in which portfolios are based upon securities indexes which sample various market sectors.

Liquidity: the state of owning things of value that can easily be changed into cash.

Offshore investments: investments in foreign countries (overseas).

Opportunity cost: the value of the foregone alternative.

Opportunity cost risk: it is defined as the risk of portfolio's return deviating from the benchmark index return.

Passive management strategy: it refers to a buy- and – hold approach to money management. It seeks to match the return and risk characteristics of a market segment or index, by mirroring its composition.

Pension fund: it is a defined contribution scheme in which members' and employers' contributions are fixed either as a percentage of pensionable earnings or as a shilling amount, and a member's retirement benefits has a value equal to those contributions, net of expenses including premiums paid by insurance of death or disability risks, accumulated in an individual account with investment return and any surplus or deficits as determined by the trustees of the scheme.

Portfolio: it is a collection of products, services, or brands that are offered.

Portfolio management: it is the control and making of investment decisions concerning a collection of products, services, or brands in a business or organization.

Retirement benefits scheme: It is any scheme or arrangement, whether established by a written law for the time being in force or by any other instrument, under which persons are entitled to benefits in the form of payments, determined by age, length of service, amount of earnings or otherwise and payments primarily upon retirement, or upon death, termination of service, or upon the occurrence of such other event as may be specified in such written law or other instrument.

Risk: it means the potential for losing investment capital and the duration and permanency of that loss.

Tracking: following the course or movement of a benchmark or market index, a characteristic of passive management strategy.

ABSTRACT

The pension industry in Kenya has been characterized by rampant mismanagement and misappropriation of funds that led to underperformance. The management strategies employed by the Kenyan fund managers have been questioned and therefore been a major issue of concern. In an effort to establish the best management strategy that maximized returns of the fund, the study sought to establish the management strategies employed by the Kenyan fund managers, the predominant strategy, its effectiveness and challenges.

The target population was all pension fund managers, registered with the Retirement Benefit Authority (RBA). The data collected through questionnaire was analyzed using descriptive statistics with the aid of Statistical Package of Social Sciences (SPSS) and results presented by use of frequency tables and pie charts. Microsoft Excel was also used in the determination of averages and weighted averages.

The study found out that the performance of hybrid managers was superior. Hence, its recommendation for adoption in the management of pension funds in Kenya. The study makes recommendations to investors, fund managers, RBA, and the security markets officials. The study contributes to the existing literature on pension fund industry in Kenya while suggesting on further researchable areas, to form basis for further scholarly work.

TABLE OF CONTENTS

	PAGE
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
ABBREVIATIONS.....	v
DEFINITION OF TERMS.....	vi
ABSTRACT.....	viii
 CHAPTER ONE	
1.0 INTRODUCTION	
1.1 Background of the study.....	1
1.2 Statement of the problem.....	5
1.3 Objectives of the study.....	6
1.4 Research questions.....	7
1.5 Research assumption.....	7
1.6 Scope of the study.....	8
 CHAPTER TWO	
2.0 LITERATURE REVIEW	
2.1 Introduction.....	9
2.2 Portfolio management strategies.....	9
2.3 Passive management strategies.....	9
2.4 Active management strategies.....	12
2.5 Empirical literature.....	16
2.6 Conceptual framework.....	21
 CHAPTER THREE	
3.0 RESEARCH METHODOLOGY	
3.1 Introduction.....	26
3.2 Research design.....	26
3.3 Study population.....	27
3.4 Data types, sources and collection.....	27
3.5 Data analysis.....	28
 CHAPTER FOUR	
4.0 DATA ANALYSIS AND INTERPRETATION OF THE RESULTS	
4.1 Introduction.....	29
4.2 Descriptive data analysis.....	29
4.3 Performance analysis.....	48

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary and conclusion.....	54
5.2 Recommendations	56
5.3 Limitation of the study	57
5.4 Suggestions for further research.....	58

REFERENCES59

APPENDICES

A1 Fund managers' questionnaire.....	63
A2 Registered fund managers	69
A3 Ranking of challenges by fund managers	70

LIST OF TABLES

Table 1.0 Investment guideline.....	4
Table 4.1 Pension fund management strategies used by fund managers in Kenya.....	30
Table 4.2 Skills needed by fund managers	32
Table 4.3 Factors fund managers considered when choosing management strategy	34
Table 4.4 Chi-square and p-values of factors considered when choosing a strategy.....	35
Table 4.5 Costs associated with management strategy adopted.....	36
Table 4.6 Risks associated with management strategy adopted	37
Table 4.7: Chi-square and p-values on risk factors.....	39
Table 4.8 What has enhanced managers understanding of the management strategy?	40
Table 4.9 State of the security markets.	41
Table 4.10 Factors considered as an advantage or disadvantage of adopted strategy.....	43
Table 4.11.1 Merits of RBA involvement.....	44
Table 4.11.2 Shortcomings posed by investment guidelines.....	46
Table 4.12 Benchmarks used by fund managers in Kenya.....	48
Table 4.13 Analysis of asset allocations for the period starting 31 st March and ending 31 st March 2006.	49
Table 4.14 Pension fund performance	50
Table 4.15 Challenges faced by fund managers in Kenya.....	52

LIST OF FIGURES

Fig. 2.1	Schematic representation of conceptual framework.....	25
Fig. 4.1	Pension fund management strategies employed by fund managers in Kenya.....	32
Fig. 4.2	State of security markets in Kenya	42

CHAPTER ONE

1.0 INTRODUCTION

Everyone with money to invest is faced with the problem of forming and managing a portfolio of financial assets. This is true for an individual investor as it is for a large pension fund. Financial planning involves specifying goals and objectives, considering alternative strategies for accomplishing those objectives, and choosing a strategy for implementation (Winger and Fransca 1995).

The classical formulation of the portfolio selection problem depicts an investor who must choose a portfolio on the efficient set that exhibits the optimal combination of expected return and standard deviation given the investor's risk-return preferences (Reilly and Brown 2000). In practice, however, this description characterizes the situation faced by organizations that manage money for institutional investors. Certain types of institutional investors such as pension and endowment funds, typically hire outside firms as agents to invest their assets. These agents specialize in particular asset classes, such as common stocks or fixed income securities. The investors establish performance benchmarks for the agents. These benchmarks may be market indexes (such as the Standards & Poor 500) or specialized benchmarks that reflect specific investment styles (such as small-capitalization growth stocks).

1.1 BACKGROUND OF THE STUDY

Retirement Benefits Authority and the Retirement Benefits Industry

The Retirement Benefits Authority (RBA) in Kenya dates back to 1997 when parliament

enacted the Retirement Benefits Act (Act No.3 of 1997). RBA is the regulatory institution charged with the responsibility of addressing the needs of the pension industry as well as restructuring and developing the industry as part of on going financial reforms. Subsequent to the enactment of Retirement Benefit Act, the retirement rules and regulations were formulated and gazetted in October 2000.

The Roles of the Authority

Prior to 1997, a discordant regulatory framework characterized the pension industry. The industry was unprofessionally run and marred by numerous problems. Though members made their contributions as required, schemes remained under-funded and unable to fulfil their promises to retirees. These contributions were often diverted into sponsors' firms for the daily operations of their businesses. Where the funds were invested, the selection of investment was in many cases not done prudently, thus yielding very low returns that barely covered the scheme expenses.

In some instances the very guardians of the funds, the trustees, openly misappropriated and embezzled scheme funds, in the face of members who lacked knowledge and awareness and if they did, there was no recourse system. Schemes were poorly administered with resultant delays in payment of benefits to retirees due to lack of up-to-date records and proper books of accounts. In sum, many Kenyan pension funds were grossly mismanaged. The deplorable state of retirement benefit's industry required intervention, hence the establishment of RBA. The RBA took up these problems as its key concerns and embarked on eradicating them and streamlining the industry. The RBA,

on a continuous basis, regulates the industry ensuring that schemes comply with the Retirement Benefits Act that demands all schemes to employ professionals to provide managerial services. The combined efforts of service providers, through checks and balances ascertain that schemes are professionally run, funds are wisely invested, schemes are funded, records are well kept and schemes are independently run from sponsors.

Key Players in the Retirement Benefits Industry in Kenya

In efforts to inject a substantial level of professionalism, the Act mandates all schemes to appoint the service of experts. Much as the trustees play a vital role in schemes, they require the services of experts in investment, custody, forecasting and accounting in order to achieve optimal financial growth.

Each of the service providers plays a different and unique role and reports to the authority. The fund managers are involved with the investment profiles of the schemes and provide trustees with prudent investment advice. Custodians provide a safe custody for the scheme funds. The two work closely, with the custodians effecting transactions and settlements of deals as directed by the fund managers. The auditors give an opinion of the accounting aspect of the scheme, while the actuaries authenticate the future.

Investment Guidelines

Investment guidelines, as given in Table 1.0, guides fund managers on the various asset classes available in the market place in which they can build their portfolios. The table

provides the proportions of the total funds, in terms of percentages, to be invested in the various asset classes.

Table 1.0 Investment Guidelines

Item	Column 1: Categories of Assets	Maximum % of aggregate market value of total assets of scheme or pooled fund
1	Cash and Demand Deposits in institutions licensed under the Banking Act of the republic of Kenya	5%
2	Fixed deposits, time deposit and certificates of deposits in institutions license under the Banking Act	30%
3	Commercial Paper, Corporate Bonds, Mortgage Bonds and Loan Stocks approved by the Capital Market Authority and collective investment scheme incorporated in Kenya and approved by the Capital Markets Authority reflecting this category.	30% (amended legal notice 101 of 13.06.02)
4	Kenya government securities and collective investment scheme incorporated in Kenya and approved by the Capital Markets Authority reflecting this category.	70%
5	Preference Shares and Ordinary Shares of companies quoted in a stock exchange in Kenya, Uganda or Tanzania and collective investment scheme incorporated in Kenya and approved by the Capital Markets Authority reflecting this category.	70%
6	Unquoted shares of companies incorporated in Kenya and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category.	5%
7	Offshore investments in Bank Deposits, Government Securities, Quoted Equities and rated Corporate Bonds and offshore collective investment schemes reflecting these assets	15%
8	Immovable property in Kenya and units in Property Unit Trust Schemes incorporated in Kenya and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	30%
9	Guaranteed Funds	100%
10	Any Other Assets	5%

Source: RBA ACT NO.3 of 1997

Provision of regulation 37 (1) require that a scheme and a pooled fund shall prepare and maintain a written document of the principles governing the investment decisions for the purpose of the scheme or the pooled fund, and after three years revise it.

According to the provisions of regulation 37(5) a scheme shall consider the latest actuarial report where applicable when determining the principles governing investment decisions for the purpose of the scheme. Subsequent to regulation 37(1) a scheme or a pooled fund shall invest only in an asset class referred to in column 1 in Table 1.0. The maximum percentage of the aggregate market value of the total assets of the scheme or pooled fund, which the managers should not exceed while they are investing in the given asset class is set by the Act.

1.2 STATEMENT OF THE PROBLEM

Poor management and misappropriation of pension funds in Kenya has been cited over years. The poor management is linked to the kind of management strategy employed by fund managers in the management of the pension funds. The level of returns to the beneficiaries of a pension fund should be the ultimate goal of the fund management. The scheme' assets should be administered in such a way that performance is enhanced. The automatic concern following this requirement is the issue of the kind of manager who should be hired, a passive or an active manager? Considering the objectives of the scheme, a manager who is committed to delivering good performance should come in handy.

The pension fund industry, in both developed and developing countries, has grown rapidly in the past decade. For instance, pension funds in the Group of Seven (G- 7) countries accounted for 45 percent of these countries' Gross Domestic Product (GDP) in 2001, up from 29 percent in 1991. During the same period, pension fund assets grew to 20 percent of the GDP from barely 5.5 percent. This is attributable to the style of management adopted by the fund managers concerned (Walter 1999). Thus the debate about active versus passive pension fund management strategies has been staged since early 1970's. Arguments have been put forward about the superiority of passive management vis-a-vis active management. Fama (1996) and French and Fama (1992) postulated that most plan sponsors pay for active management but they do not get impressive returns as expected. Ippolito and Turner (1987) affirm that passive pension fund investment strategies are viable options for many investors, given that the security markets are efficient in pricing of securities.

This study was carried out in Kenya to establish the management strategies employed by pension fund managers, identify the predominant strategy, and the factors which necessitate its adoption and its effectiveness. Thus, the study contributes to the on-going debate on the superiority of active or passive pension fund management, and sheds light on the performance of pension funds in Kenya.

1.3 OBJECTIVES OF THE STUDY

The purpose of the study was to establish the predominant pension fund management strategy in Kenya and the reasons for it.

The following were the specific objectives:

- i. To ascertain the pension fund management strategies employed in the retirement benefits industry in Kenya.
- ii. To determine the extent to which each strategy is used.
- iii. To establish the factors that influenced choice of strategy.
- iv. To investigate the effectiveness of strategy in terms of average return of the fund.
- v. To identify the challenges faced by fund managers.

1.4 RESEARCH QUESTIONS

The study addressed the following questions:

- i. What management strategies are at the disposal of pension fund managers in Kenya?
- ii. Which strategy is predominantly employed in managing the pension schemes?
- iii. What factors influence the choice of strategy?
- iv. How have the schemes performed for the last four financial years?
- v. What challenges confront the adopted strategy?

1.5 RESEARCH ASSUMPTIONS

Homogeneous investment preferences: This study assumed that the investment preferences and expectations of the members participating in the pension funds are homogeneous such that prudence may rule (managers acting in the best interest of the investors as if the funds were theirs) is exercised and agency problems (problems associated with delegation of management to non-owners) minimized. No member acts

contrary to expectations and preferences of the other members. The members include the RBA, fund managers and the beneficiaries.

1. 6 SCOPE OF THE STUDY

The study examined the pension fund management strategies employed by pension fund managers in Kenya. A survey was conducted by use of a self-administered questionnaire with registered pension fund managers as the respondents. These respondents represented approximately 87% of the total registered and non-registered Kenyan fund managers. However, the study's finding was taken to apply to the overall pension fund industry in Kenya (i.e., both registered and non registered fund managers without discrimination).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Investors have the opportunity to participate in securities markets in various activities. Each must make choices regarding the time and effort to be devoted to portfolio management, the degree and nature of analysis of individual securities or groups of securities, and the process of portfolio choice based on the results of this analysis.

Portfolio objectives centre on the risk-return trade-off between the expected return the investors want and how much they are willing to assume risk. Investment managers must know the level of risk that can be tolerated in pursuit of a better-expected rate of return (Jacob and Pettit 1988).

2.2 PORTFOLIO MANAGEMENT STRATEGIES

Portfolio management strategies can be divided into two categories: active portfolio management strategy and passive portfolio management strategy (Jacob and Pettit 1988). The choice of one or the other strategy depends on the investor's beliefs about the pricing of securities and about one's comparative advantage in transacting in such markets (Reilly 1979).

2.3 PASSIVE MANAGEMENT STRATEGIES

For investors who believe that market prices so closely reflect underlying values that it is not possible to profit from the hunt for over- or under- priced securities, passive portfolio

management is appropriate. This is also true for those investors who believe that, though under- and over-priced securities certainly exist, it is not possible to differentiate, ex ante, between the eventual "winners" (those securities that will do well) and "losers" (those securities that will perform poorly) (Jacob and Pettit, op.cit.).

Passive management refers to any attempt to construct a portfolio that mimics overall market returns. In the framework of the capital-asset-pricing model, that means attempting to construct a portfolio that includes all marketable assets in proportion to their value in the marketplace (Jacob and Pettit 1988).

There are three basic techniques for constructing a passive index portfolio: full replication, sampling, and quadratic optimization or programming (Swedroe 1998; Fisher and Jordan 1996).

a) Full replication: All the securities in the index are purchased in proportion to their weights in the index. This technique helps ensure close tracking. But it may be sub optimal for two reasons. First, the need to buy many securities will increase transaction costs that will detract from performance. Second, the reinvestment of dividends will also result in high commissions when firms pay small dividends at different times in the year.

b) Sampling: This addresses the problem of numerous stock issues. With sampling, a portfolio manager would only need to buy a representative sample of stocks that comprise the benchmark index (the index which comprises all the marketable assets in the market place). Stocks with larger index weights are purchased according to their weights in the index; smaller issues are purchased so their aggregate characteristics (e.g.,

beta, industry distribution, and dividend yield) approximate the underlying benchmark. With fewer stocks to purchase, larger positions can be taken in the issues acquired, which would lead to proportionately lower commissions. Further, the reinvestment of dividend cash flows will be less problematic because fewer securities need to be purchased to rebalance the portfolio. The disadvantage of sampling is that portfolio returns will almost certainly not track the returns for the benchmark index as closely as with full replication.

c) Quadratic optimization: With quadratic programming, historical information on price changes and correlations between securities are input to a computer programme that determines the composition of a portfolio that will minimize tracking errors with the benchmark.

Some passive portfolios are not based on a published index. Sometimes "customized" (tailor-made) passive portfolios, called completeness funds, are constructed to complement active portfolios that do not cover the entire market (Reilly and Brown 2000). The performance of the completeness fund will be compared to a customized benchmark that incorporates the characteristics of the stocks not covered by the active managers.

Still other passive portfolios and benchmarks exist for investors with certain unique needs and preferences. Some investors may want their funds to be invested only in stocks that pay dividends or in a company that produces a product or service that the investor deems socially responsible. Benchmarks can be produced that reflect these desired attributes,

and passive portfolios can be constructed to track the performance of the customized benchmark over time so that investors' special needs can be satisfied (Rahmani 1995).

2.4 ACTIVE MANAGEMENT STRATEGIES

The goal of active portfolio management is to earn a portfolio return that exceeds the return of a passive benchmark portfolio, net of transaction costs, on a risk-adjusted basis. An important issue for active managers and their clients to resolve is the selection of an appropriate benchmark sometimes called a "normal" portfolio. The benchmark should incorporate the average qualities of the portfolio strategy of the client (Moses *et al.* 1989). Thus, active portfolio managers who invest mainly in small capitalization stocks with low price-to-earnings (P/E) ratios (because their clients specified this strategy) should not have their performances compared to a broad market index such as the S&P 500.

The job of an active manager is not easy. If transaction costs total 1.5 percent of the portfolio's assets annually, the portfolio has to earn a return 1.5 percentage points above the passive benchmark just to keep pace with it. If the manager's strategy involves overweighting specific market sectors in anticipation of price increases, the risks of the active portfolio will exceed those of the passive benchmark, so the active portfolio's returns will have to exceed the benchmark by an even wider margin to compensate for its higher risks. One key to success is for active managers to consistently excel in their area of expertise. Market gyrations occur and investment styles (e.g., large capitalization, small capitalization, value etc) go in and out of favour. Successful long-term investing requires

that you maintain your investment philosophy and composure while others are panicking. Another key to success is to minimize the trading activity of the portfolio. Attempts to time price movements over short horizons will result in lower profits because of growing commissions (Reilly and Brown, *op. cit.*).

The greatest obstacle confronting active managers is their lack of omniscience (knowing everything). Even the most capable of them make numerous errors in their security selections (Sharpe *et al.* 1995). Despite fables about managers who outperform the market's return every year by ten percentage points, common stock managers who exceed their benchmark's returns by one to two percentage points per annum are considered exceptional performers (Ibid). Managers lacking skills will lose to, or track behind their assigned benchmarks as their fees and trading costs diminish their returns.

Active managers use three generic themes to time the market and add value to their portfolios in comparison to the benchmark. First, they try timing the equity market by shifting funds into and out of stocks and treasury bills depending on broad market forecast and estimated risk premiums. Second, they shift funds among different equity sectors and industries (financial stocks, durable goods, and so on) or among investment styles (large capitalization, small capitalization, value, growth, and so on) to catch the next 'hot' concept (possible profitable venture) before the rest of the market does. Third, equity managers can do stock picking, looking at individual issues in an attempt to find undervalued stocks (i.e., buy low and sell high).

For instance global portfolios can apply economic analysis to identify different countries whose equity markets are potentially undervalued or overvalued. The global portfolios can then overweight or underweight those countries relative to a global benchmark portfolio.

Some global portfolio managers emphasize industry analysis rather than a country allocation (Steiner 1993). As competition is becoming more global, some analysts examine industries and firms while disregarding country boundaries. For example, Caterpillar and Komatsu compete globally in the heavy equipment industries and Boeing, McDonnell Douglas, and Airbus compete globally in the airline manufacturing industry. The global automobile market is obvious by noting the home country of the cars on the street. These global portfolio managers analyze economic trends, industry competitive forces and company strengths and strategies with global perspective. The analysis of financial statements, industry, and companies are applied in a global, rather than a national, setting in order to identify undervalued industrial sectors and firms.

Strategies in Active Management

A sector rotation strategy: This is generally used by managers who invest in domestic equities. It involves positioning the portfolio to take advantage of the market's next move. Often this means overweighting (relative to the benchmark portfolio) certain economic sectors or industries in response to the next expected phase of the business cycle (Jacob and Pettit, op. cit.).

Earnings momentum and price momentum strategies: These are used because the market at times seems to reward the stocks of companies whose earnings have steady, above-average growth, or whose prices are rising because of market optimization. The existence of computer databases has encouraged the use of computer screening and other quantitatively based methods of evaluating stocks. These screening methods search for portfolios of stocks with certain characteristics rather than examining individual stocks to determine whether they are under priced (Reilly 1979).

The simplest computer screens identify groups of stocks based on a set of attributes. Screens also are used to narrow the list of thousands of stocks to a manageable few that can then be evaluated using more traditional analytical means. Stocks can be screened on many company and stock price characteristics. For example, it is possible to generate a list of "value" (profitable) stocks with at least a 20 percent return on equity (ROE), stable or growing dividends over the past 10 years and below market P/E ratios.

More complicated quantitative strategies are available that are similar in some ways to sector rotation. Factor models, can identify stocks whose earnings or prices are sensitive to economic variables such as exchange rates, inflation, interest rates, or consumer sentiment. With this information, portfolios can be "tilted" (tailored) by trading those stocks most sensitive to the analyst's economic forecast. The manager can try to improve the portfolio's relative performance in recession by purchasing stocks that are least sensitive to the analyst's pessimistic forecast (Bodie 2002).

2.5 EMPIRICAL LITERATURE

While there is an extensive literature evaluating the performance of the fund management industry in other countries, very few studies have focused on pension funds in Kenya. This is due to the absence of publicly available information about pension fund portfolios.

A look at Nairobi Stock Exchange (NSE) reveals that most of the investors at this market are either active or passive (Nyariji 2001). Active investments are those in which the investors participate in the everyday decision making regarding the activities and management while passive investments are available to investors who do not necessarily wish to participate in management, and it presupposes risk and common way of reducing risk to follow the principle of diversification (Nyariji 2001). Regardless of the investment strategy employed by managers, risk, market liquidity, level of return, costs and stock selection are problems these managers face on a day-to-day basis.

Passive Fund Management Investment Strategy

While there exists several classes of assets for investment in Kenya, securities are a popular form of investing used by millions of investors at the NSE. They are popular in part, because they offer the investors an opportunity to tailor their investment programmes to meet individual needs and preference. For people living off their investment holdings, securities provide a way of earning a steady stream of current income in terms of dividends. For investors less concerned about current income, securities can serve as a basis for long run accumulation of wealth. Investor buy securities for the long haul as a way to earn not only dividends but also steady flow of

capital gains (Muthui 2003). The only question that remain to be answered is “what management strategy should be adopted?” as there is a tendency for securities prices to go up and down over time.

The Efficient Market Hypothesis (EMH) explains how security prices should behave under the conditions of perfect market characterized by free availability of information, homogenous investor expectations and zero transaction costs. Every time new information is released, the price adjusts towards a new value (Kiweu 1991). But these values of stocks take a random and unpredictable path, as postulated by the Random Walk Theory (Sharpe *et al.* 1995). With this kind of price adjustments, the question that lingers in investors’ minds is whether to react to the price changes or to stay indifferent. The answer to the question will depend on the investment objectives set by investors, and management style adopted.

Passive fund management has become a very popular investment technique in the United States of America (USA) and also attracts sophisticated investors in the United Kingdom (UK). Employer-sponsored, defined benefit fund trustees have access to professional expertise and sophisticated passive management approaches to match assets and liabilities, such as portfolio insurance or bond immunization techniques (Peskin 1997).

The legal principle that pension funds should invest their funds so as to maximize the return on investment was established in a court case of Cowan v. Scargill, where it was held that pension fund trustees have a duty to manage the funds in the best interests of the

beneficiaries. Under the U.S. Pensions Act, (1995), trustees must state their policy about both risk and expected return (section 31) and diversify investments (section 32) (Bird *et al.* 1990).

The techniques are less readily available to individual members of defined contribution funds who must bear the investment risk, yet often have limited discretion over, or understanding of, the choice of investment (Bodie 1990). However, relatively simple and inexpensive index or tracker funds are becoming increasingly popular to both retail and institutional investors. Such funds merely seek to replicate a particular index such as the S&P 500 and are designed to generate a beta of 1.0 (i.e., the rate of return on the fund is expected to be equal to that of the index). These funds are based on the Efficient Capital Market Theory (ECMT), which states that securities markets are efficient in the processing of information (Allen *et al.* 1988). There is little evidence that markets are informationally efficient to an extent that investors cannot earn excess returns using any information. However, the available evidence suggests that at best, only publicly available information is fully reflected in a security's market price (Ball 1992).

A few empirical studies provide contradictory evidence on the performance of actively managed pension fund portfolios. While USA-based studies (Ippolito 1989; Lakonishok *et al.* 1992) find that the average actively managed fund significantly underperforms benchmark indexes, Brown *et al.* (1997) present results which suggest that a few top quartile performing managers provide consistent good performance to United Kingdom pension funds. However, all three studies rely on beta to evaluate portfolio managers, the

validity of which is questionable because it fails to account for the costs of delegating a portfolio to an active, value maximizing fund manager.

The major conceptual arguments for passive management rely on risk-return trade-off, the management of cost and liquidity, and stock selection and timing skills. These arguments imply that it will be difficult for active investment managers to consistently outperform passive funds, especially when the effects of fees and transaction costs are accounted for.

Two USA-based studies examined the effects of active versus passive fund management on the investment performance of pension fund portfolios. Ippolito and Turner (1987) examined pension portfolio data contained in annual reports filed by 1,526 pension funds with regulators under Employee Retirement Income Security Act (ERISA), over the period 1977-1983. Lakonishok *et al.* (1992) examined the performance of 769 all-equity defined benefit pension funds run by 341 fund managers over the subsequent period 1983-1989. Both studies find that, on average, pension plans significantly underperformed the S&P 500 index, underperformed passively managed pension funds, and engaged in distortion of investment behaviour. Lakonishok *et al.* (1992) attributed this to the agency problems (shortcomings arising from appointing service providers on behalf of the owner) associated with delegated, active management of defined benefit fund.

Studies done by Grinblatt and Titman (1992); Brown and Groetzmann (1995); and Brown *et al.* (1995), examined whether actively managed fund' performance can persist over

time. If active fund management is successful, then above average performance over time due to ability should be greater than that sustained by mere chance. Brown *et al.* (1997) examined the consistency of investment performance of 602 UK pension funds that have retained the services of 17 fund managers without change during the period 1986-1990. They find that top quartile performing managers in the sample are able to offer a degree of consistent good performance to pension funds, relative to lower quartile managers.

The validity of inferences drawn from the results of these empirical studies is limited by the following factors:

- i) Survivorship bias may induce results, which ex post suggest that certain management styles were successful (Brown *et al.* 1992).
- ii) A reliance on risk-adjusted performance procedures that adjust excess returns using the Capital Asset Pricing Model (CAPM) beta, the predictive power of which has been called into question by Fama (1996) and French *et al.* (1992).
- iii) The failure to adequately incorporate the transaction costs associated with active fund management, the existence of which questions the efficiency of capital markets (Grossman and Stiglitz 1992).

Nor do any of these studies calculate the intermediary spread which creates a wedge between the returns realized by the active fund manager and those attributed to pension fund members, in the form of fees (Brennam 1993). Klumpes and McCrae (1997) examined the impact of intermediary spreads on the financial performance of a sample of 48 defined contribution Australian pension funds over the period 1990-1993. When they

calculated the present value of fund returns, net of expenses and the intermediary spread, the net realized returns made available to participating members was less than those available on an individual pension fund indexed to inflation.

All of these empirical studies assume that the investment preferences of the members participating in the pension funds are homogeneous. There is a growing empirical and theoretical literature on the implications of age-related portfolio choice (Samuelson 1989; Bodie *et al.* 1992; Kingston 1995). The findings in this literature suggest that asset allocation decisions should be made on an individual basis using 'age phasing' (disposal based on age of the asset), by progressively reducing their proportionate exposure of risky assets as they age.

2.6 CONCEPTUAL FRAMEWORK

This section outlines major conceptual arguments on the strategies employed in the management of pension funds as follows:

Cost

It is factual that passive fund management is a lower-cost alternative to active management. Passive fund management is a systems intensive business, so once systems are in place there is less need for vast staff of highly trained (and compensated) investment analysts. Since active managers are marketing their services on the basis of being smarter than their competitors, it is essential for them to attract and retain personnel who can convince the marketplace of their superiority (Klumpes 1997). In contrast, passive pension fund assets need not be managed on this 'star' (outstanding) system, nor

is there generally a need for as many professionals per unit of assets managed. Ignoring the establishment cost of constructing complex systems, which pose a formidable barrier to entry to indexing, significant economies can be passed on in the form of lower fees.

Return

A tracker investment portfolio has a clear and precisely measurable investment objective to match the performance of a particular index. By contrast, actively managed fund turnover translates into a leakage each year from an investment portfolio and from the active manager universe (Klumpes 1997). Thus, over time, active managers will trail the indices by an amount roughly equal to the leakage caused by transaction costs and fees. Thus, tracking will consistently deliver above median returns over time.

Risk

Tracking is an attractive investment technique relative to active management from the viewpoint of various risk measures (Grossman and Stiglitz 1992). Since tracker portfolios (comprised of all assets in the marketplace) hold the market, the number of securities in a portfolio tends to be higher than in an active portfolio. The more assets in a portfolio, the less volatile the returns are since risk will decrease steadily until correlation is -1 when total portfolio risk is eliminated. Thus, tracking is a less volatile technique than active funds management. Further, tracking has little or no market opportunity cost of risk, defined as the risk of a portfolio's return deviating from the benchmark index return (Modigliani and Modigliani 1997). A well-constructed tracker fund will bear little or no opportunity cost of risk while active managers incur varying amounts of such risk.

Liquidity

Liquidity is an important consideration in a pension fund's investment decision. Tracking

provides more liquidity than active management, since a given portfolio is spread across a wide distribution of stocks that comprise a replicated stock index. By contrast, an active portfolio will hold a more limited number of stocks, the purchase or sale of which may affect market liquidity. Further, futures contracts are often available on the most well established market indices, greatly increasing liquidity. Many index funds take advantage of stock index futures as a proxy for holding stocks, as a means of exactly hedging large purchases or sales of stocks in an index, or to arbitrage enhanced risk-free returns in excess of an index (Graham *et al.* 1989).

Stock selection

Tracker fund managers typically either fully replicate or adopt either stratified or optimized sampling techniques in seeking to track an index. Full replication involves purchasing all the stocks that are represented in the appropriate index in exactly the proportions that they are weighted in that index. Stratified technique involves holding a generally stable and predetermined range of stocks that will match the movement of an index. Many passive fund managers believe that this is the best way to manage a tracker fund because, if you fully replicate an index, you may have to hold many exotic and thinly traded stocks, which are difficult to buy and sell. Optimized sampling involves holding a small number, say 20 to 30, of stocks that have been selected for their particular attributes and/or holding synthetic securities to replicate an index. Over time, this approach can perform very closely to the index, but the levels of volatility experienced by the portfolio compared with the index could be higher than those experienced using other indexing techniques (Chordia 1993). This scientific approach to funds management contrasts with the 'art' (employing skills) of the stock selection by active managers. The

biggest source of transaction costs in a passive fund is reinvestment of dividends, which tend to be less than 2 percent per year. By contrast, active managers may realize a much larger annual turnover (Reilly and Brown 2000). A well-constructed passive fund portfolio thus tends to incur fewer transactions relative to an active portfolio, thus providing both lower transaction costs than actively traded portfolios, as well as a more balanced, diversified portfolio.

Market timing

Some active managers argue that, in addition to stock-selection skills, they also have special skills in market timing, which depends on the difference between the rates of return from stock and from cash, for which there are considerable potential gains, not otherwise made available to indexed fund managers (Sy 1990). However, this argument relies on the assumption that professional managers possess insider information not available to ordinary investors. Whether market timing adds value is an unresolved empirical question (Samuelson 1989; Liebowitz 1986a; Brocato and Chandy 1994; Larsen and Wozniak 1995; Brennam 1995). In contrast, the timing skills demanded by indexed fund managers are much less demanding. This is usually limited to the issues such as when to rebalance the portfolio in line with changes that have taken place in an index, and/or defunct companies.

The conceptual framework was modeled as follows:

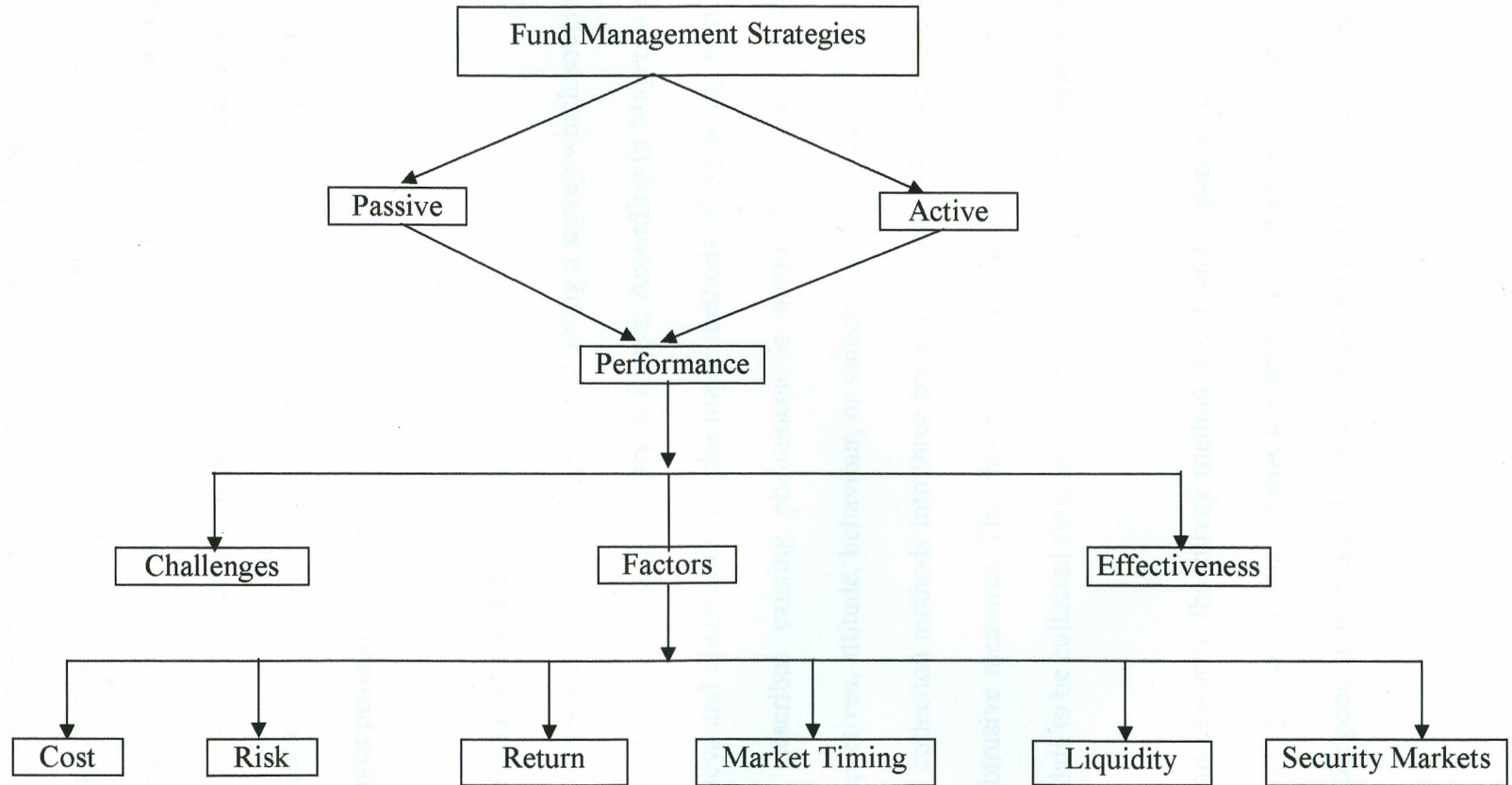
$$R_p = W_1X_1 + W_2X_2 + \dots + W_nX_n$$

Where: R_p = Dependent variable (performance)

W = Weights of the independent variables

X = Independent variables i.e. factors, challenges and effectiveness

Figure 2.1: Schematic representation of conceptual framework



Source: Researcher 2008

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter presents a description of the research design employed by the study, sources of data, methods of data collection, study population as well as the data analysis method, which was used in the study. This study collected data on management strategies employed by pension fund managers, the factors necessitating their adoption, their effectiveness and challenges as well as the preferred (predominant) strategy in the Kenyan pension fund arena.

3.2 RESEARCH DESIGN

The study was entirely descriptive, involving a survey which sought to find the real facts about the pension fund industry in Kenya. According to Mugenda and Mugenda (1999), surveys and observation are the major methods of collecting primary data. Information that describes existing phenomena is obtained by asking individuals about their perspectives, attitude, behaviour, or values. Saunders et al. (2000) have grouped primary data collection methods into three broad categories: observational methods, surveys and unobtrusive measures. The choice of the method is largely determined by the nature of the data to be collected (Mugenda and Mugenda 1999; Saunders *et al.* 1999).

In this research, the survey method was found superior compared to other methods of collecting primary data because it allowed the collection of a large amount of data from a sizable population in a highly economical way. It also allowed easy comparison of items

in the questionnaire. Gall *et al* (1996) agreed that a survey is present-oriented research that sought to accurately state what is there.

3.3 STUDY POPULATION.

The population of the study consisted of 13 registered pension fund managers as per the RBA register. These registered fund managers (firms) with the RBA, each manage several schemes as indicated in the Appendix A2. However, two managers did not participate in the study.

3.4 DATA TYPES, SOURCE, AND COLLECTION.

Because of the nature of the research, questionnaires and individual interviews were used. A pilot study was conducted to detect weaknesses in the research design and to test the reliability and validity of the data collection instrument.

Both primary and secondary data were needed. The method of primary data collection was through structured and unstructured questionnaires. Secondary data was sourced through studying the annual reports of the funds/schemes. Individual interviews were critical to ensure accurate data collection. The respondents were members of the management team in each pension fund, also referred to as fund managers. The researcher and her assistant personally administered the questionnaires to the respondents, who then provided answers to the questions contained in the questionnaire.

3.5 DATA ANALYSIS.

Data collected from the field was edited to correct for errors and omissions. The data was then organized and common themes were obtained from the collected data and clustered in a patterned order to identify variables that depicted general concepts and differences. The study employed mainly the use of descriptive statistics with the aid of Statistical Package of Social Sciences (SPSS) in the computation of means, median, ranges, standard deviations and in factor analysis. In addition, chi-square was used to measure significance of variables and association between variables under study. The results of the study were presented using frequency tables and pie charts.

4. ANALYSIS

4.2.1 Management strategies used by fund managers

Research and experience shows that asset allocation is a key determinant of the investment return and returns of pension funds. A great deal of attention has been given to the asset allocation, and changes in the allocation of assets have been a major concern of fund manager houses in controlling the risk of their investments. The asset allocation of pension holdings, so as to maximize the return on investment, is a complex task that requires constant attention and the fund and asset manager's expertise in the market to execute. Asset allocation is greatly determined by the asset manager's view of the market. Looking at the asset manager's strategy, it can be divided into two categories, passive and

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 INTRODUCTION

This chapter details the analysis of data and interpretation of the results. The study was meant to establish the management strategies employed by pension fund managers, the predominant strategy, their effectiveness as well as the challenges that each of the managers face. The respondents were mainly pension fund managers registered with the RBA. Out of the 13 managers registered 11 of them gave their views concerning the issues raised by the questionnaire while 2 did not respond at all. Descriptive data analysis was used and the results have been presented in the form of tables and figures. Analysis of data was done using Statistical Package of Social Sciences.

4.2 DESCRIPTIVE DATA ANALYSIS

4.2.1 Management strategies used by fund managers

Research and experience shows that asset allocation is the prime determinant of long-term returns of pension funds. A great deal of thought needs to go into the aspect of asset allocation, and changes to the allocation over time. The skills of the successful fund manager consists in constructing the asset allocation and separately the individual holdings, so as to outperform the peer group of competing fund management organizations and the bond and stock indices appropriate to the clients' objective. Asset allocation is greatly determined by the type of management strategy in question. Looking at the Kenyan scenario, the strategies available to a fund manager are active, passive, and

hybrid (a mix of active and passive). Active managers construct their portfolios based on asset attractiveness while passive managers construct theirs by replicating or mimicking a certain market index. Application of each individual strategy depends on the manager's perception about the securities pricing in the securities markets.

Table 4.1: Pension fund management strategies employed by fund managers in Kenya

Strategy	Frequency	Percentage
Active	6	55
Passive	3	27
Hybrid	2	18
Total	11	100

Source: field data (2006)

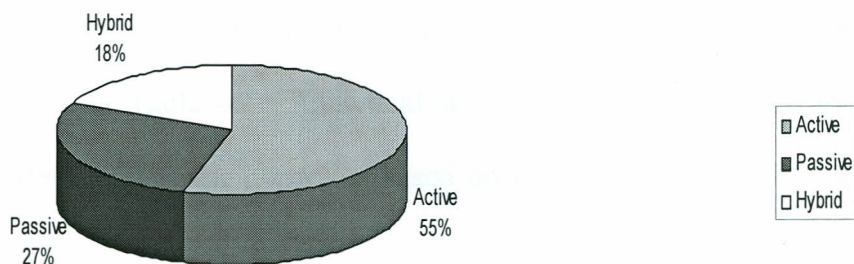
Table 4.1 indicates that 55 % of the fund managers employed active management strategies. These managers believe that local securities markets, mostly the East African, are inefficient in pricing of securities such that any new information that may affect prices is not outrightly incorporated. This leaves room for managers to take advantage of such market imperfections. Passive managers' proportion stands at 27%. Three (3) of the respondents employed passive management strategies because of the tenet that securities prices in the market are true reflection of all the information that should be incorporated. Hence trading actively will lead to taking unmerited costs and risks that otherwise derail the return available to the beneficiaries. These managers constructed their portfolios

basing on the market index by including all marketable assets in proportion to their value in the marketplace. Hybrid strategy was also applied by 18% managers with the perception that securities markets were relatively efficient to some degree, but also believed that it was possible to get undervalued securities. While active asset classes certainly exist in hybrid managers' portfolios, customized passive portfolios were also constructed by these managers to complement active portfolios that did not cover the entire market. Hybrid managers managed their offshore investments as well as real estate through passive strategies while most of the local investments were done actively. The other reason behind the mix of strategies concerned the risk appetite of the clients. Managers constructed and balanced their portfolios based on the risk preferences of their clients (pensioners) who were either risk takers or risk averse. For the risk averse, the managers tend to go passive by constructing portfolios that replicated a market index. This had the advantage of low risk exposure.

It is also evident from Table 4.1 that the predominant strategy in Kenya is active management. 55% of the fund managers employed this strategy while 27% and 18% respectively, resorted to passive and hybrid management.

The Figure 4.1 further provides a summary on these strategies.

Figure 4.1: Portfolio management strategies employed by fund managers in Kenya



4.2.2 Skills needed by fund managers

The skills required depend on the strategy employed. Passive managers cited accounting and valuation as the main skills they required for the pursuit of their strategy, unlike their active and hybrid counterparts who needed accounting, valuation and analytical skills to be able to be at a competitive edge, as summarized in Table 4.2.

Table 4.2: Skills needed by fund managers

Management strategies														
Factor	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Accounting	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Valuation	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Analytical	4	36	2	19	0	0	3	27	1	9	1	9	11	100

Source: field data

Accounting skills, as all the respondents agreed that they needed, included skills on bookkeeping, recording of transactions among others. Valuation skills, on the other hand, were important especially in determination of value of assets. All the fund managers needed these skills as shown in Table 4.2. Analytical skills were mainly required by active managers to help them build their portfolios based on their attractiveness in the market place.

4.2.3 Factors a fund manager considered when choosing a management strategy

The strategy employed in the management of pension funds is critical, especially looking at the expectations of investors who are after a good return on their investments. Certain factors are deemed crucial when choosing the management strategy to be adopted by fund managers.

All respondents cited risk, return and market efficiency as the main factors they considered when choosing their strategies. 46% of the fund managers, specially the passive ones agreed that liquidity and costs were other factors which came at play while choosing the strategy to be adopted.

The Table 4.3 summarizes the responses given by the fund managers on these factors.

Table 4.3: Factors a fund manager considered when choosing a strategy

Management strategies														
Factor	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Risk	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Return	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Liquidity	4	36	2	19	3	27	0	0	2	18	0	0	11	100
Market														
Efficiency	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Costs	1	10	5	45	3	27	0	0	1	9	1	9	11	100

Source: field data

Depending on the attitude towards risk of scheme members consideration of the risk appetites of the clients is key. Some clients are risk takers and would assume greater levels of risks for higher levels of returns while others are risk averse meaning their risk appetites are low and would want their funds to be managed passively because of perceived low risks associated with passive management. Passive portfolios hold the market; hence the number of securities in a portfolio tends to be higher than in an active portfolio. The more the assets in a portfolio, the less volatile returns are.

Cost is a factor that all the passive managers consider most. They argued that active managers market their services on the basis of being smarter than their competitors,

which in the long run attracts high costs in terms of commissions paid to such managers and transaction costs. These costs in the long-run lowered the returns to the beneficiaries.

Investment decisions should factor in liquidity as an important consideration. This factor was largely embraced by both passive and hybrid managers because they believed that going passive provided more liquidity since a passive portfolio was spread across a wide distribution of stocks that comprised a replicated stock index.

Chi-square tests on cost factors

Chi-square and p-values of these factors as given in Table 4.4 indicate that risk, return, market efficiency and costs played a major role in deciding on the management strategy to be adopted. The study made this conclusion that they were significant by looking at their p-values which were lower than 0.05 at 95% confidence level.

Table 4.4 Chi-square and p-values of factors considered when choosing a strategy

Factor	Degrees of freedom	Chi-square	p-values
Risk	2	7.818	0.020
Return	2	7.818	0.020
Liquidity	2	0.818	0.366
Market efficiency	2	7.818	0.020
Costs	2	7.364	0.007

Source: field data

4.2.4 Costs associated with the management strategies

For every investment decision/policy undertaken there are respective costs typical of it. Transaction, marketing, administration costs and losses are some of the costs mentioned by fund managers. The Table 4.5 gives an overview of the costs incurred by fund managers in Kenya.

Table 4.5: Costs associated with the management strategies

Cost Item	Management strategies													
	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Transaction	5	45	1	10	0	0	3	27	1	9	1	9	11	100
Marketing	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Administration	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Poor returns (losses)	5	45	1	10	1	9	2	18	1	9	1	9	11	100
Rebalancing	6	55	0	0	0	0	3	27	1	9	1	9	11	100

Source: field data

The following were the costs associated with each respective strategy adopted as shown in Table 4.5:

Active management: All active managers incurred marketing, administrative and rebalancing costs. Out of the six active managers, five of them incurred losses due to poor returns and transaction costs. The high transaction costs associated with active management arose from attracting and retaining personnel who can convince the market place of their superiority. Re-balancing costs occurred due to high turn-over. Because of constant change in the attractiveness of certain securities active managers said they tend

to switch from one security to the other hence incurring so many costs in the process.

However, the active managers argue that switching was essential for better returns.

Passive management: This strategy attracted such costs like marketing, administrative and to a small degree, those arising from losses due to poor returns.

Hybrid management: All managers who adopted this strategy incurred marketing, and administration costs as well as small portions of transaction, rebalancing costs and costs associated with losses due to poor returns because of the mix of strategies involved.

4.2.5 Risks associated with a management strategy

Table 4.6 is geared towards establishing the risks, which were encountered on a day-to-day basis by fund managers. These include interest rate risks, inflation, political instability, benchmark risks and exchange rate risks.

Table 4.6: Risks associated with a management strategy

Risk Item	Management strategies													
	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Interest rate	6	55	0	0	3	27	0	0	2	18	0	0	11	100
inflation	5	45	1	10	2	18	1	9	2	18	0	0	11	100
Political instability	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Benchmark risks	5	45	1	10	0	0	3	27	1	9	1	9	11	100
Exchange rate	4	36	2	19	1	9	2	18	1	9	1	9	11	100

Source: field data

These risks are summarized as follows:

Interest rate risks: All the fund managers responded that interest rates for various asset classes kept on changing depending on the economic outlook and other factors. This posed them a challenge especially when the fluctuations were numerous and unexpected.

Inflation: 81 % of the respondents claimed that inflation adversely affected their investment returns especially those asset classes whose risks were not hedgeable. They proposed that innovation in the classes of financial derivatives that help cushion against inflation risks should be emphasized in the Kenyan market.

Political risk: According to the fund managers political instability was a major cause of risk in the investment arena. They proposed that the government should pursue sound economic policies as well as practice transparency; a move that all the fund managers believed will result in an increase in economic activity. Panicking amongst investors will be checked when there is political rest in the country.

Benchmark risks: This occurred when there were poor choices in the benchmarks to be followed. 54% of the fund managers indicated that a good benchmark should be a close reflection of the investment objectives, investment strategy, should be investable, unambiguous, measurable and specifiable in advance. However, they perceived that it is very difficult to have a benchmark that had all the desired attributes. This therefore, poses as one of the sources of risks faced by fund managers.

Foreign exchange risks: This was a common phenomenon with offshore investments. The strength of the currency in which the assets were denominated greatly determined the true value of those assets at any given time based on the prevailing exchange rates. Some, 54% of fund managers, argued that unstable currency posed a high chance of either gains or losses. And, therefore, incase a depreciation of value of the currency in question

occurred, offshore investments suffered a great deal of losses. These respondents proposed that the securities markets should come up with more instruments to hedge against these risks.

Chi-square test on risk factors:

Chi-square tests on the above risk factors reveal that political and exchange rate risks are significant as found out by the study because their p-values are less than 0.05 at 95% confidence level. Table 4.7 gives the chi-square and p-values of the various risk factors.

Source: field data

Table 4.7: Chi-square and p-values on risk factors

Risk factor	Degrees of freedom	Chi-square	p-value
Interest rate	1	0.091	0.763
Inflation	1	0.091	0.763
Political instability	1	4.455	0.035
Benchmark	1	0.091	0.763
Exchange rate	1	4.455	0.035

Source: field data

4.2.6 What enhanced managers' understanding of the management strategy

Establishing the extent to which the fund managers are knowledgeable about the adopted strategies was critical. The study therefore, sought to look into the factors that enhanced managers understanding of their respective strategies. Table 4.8 provides a summary on these findings.

Table 4.8: What enhanced managers' understanding of the strategy

Factor	Management strategies													
	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Experience	6	55	0	0	3	27	0	0	2	18	0	0	11	100
Professional/ academic prowess	5	45	1	10	2	18	1	9	1	9	1	9	11	100
Seminars	4	36	2	19	1	9	2	18	2	18	0	0	11	100
Training	5	45	1	10	2	18	1	9	2	18	0	0	11	100
Others e.g. field research	6	55	0	0	0	0	3	27	2	18	0	0	11	100

Source: field data (2006)

The fund managers exhibited a high degree of understanding of the respective strategies and pension fund industry in general. All the fund managers cited professional experience, 72% cited academic prowess, 63% cited market forum discussions (seminars) and 81% cited on-the-job training as the important instruments that greatly enhanced their knowledge of the respective strategies. Also 73% of the respondents, majority being active managers, were actively involved in field research to enhance their investment decisions.

4.2.7 State of the security market

The state of the securities markets played a major role in deciding on the investment strategy to be employed in management of pension funds. Table 4.9 summarizes the responses given by the fund managers on their perceptions about the state of securities market and how they affected their choices of strategies.

Table 4.9: State of the security market in Kenya

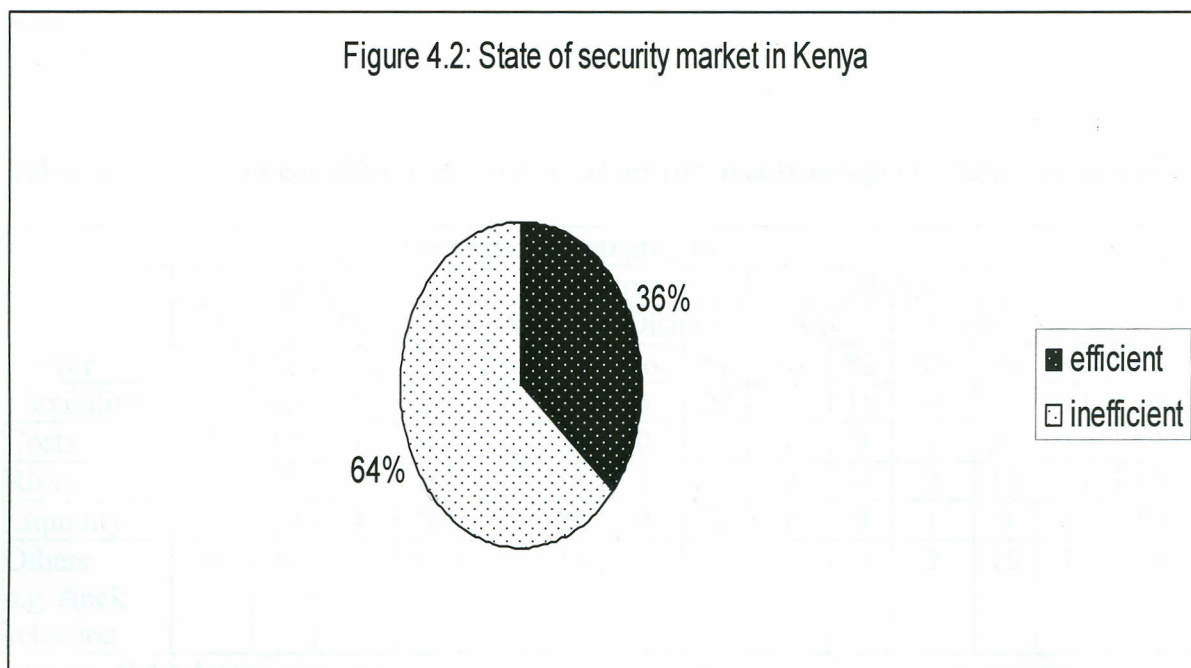
Management strategies														
State of securities market	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Highly efficient	0	0	6	55	0	0	3	27	0	0	2	18	11	100
Efficient	0	0	6	55	3	27	0	0	1	9	1	9	11	100
Inefficient	6	55	0	0	0	0	3	27	1	9	1	9	11	100

Source: field data

None of the fund managers agreed that securities markets in Kenya were highly efficient in pricing of securities. On the other hand, 64% of the fund managers perceived the securities markets in Kenya as inefficient. This meant, the markets were unable to quickly incorporate new information that affected security prices, hence active investors believed that this afforded them the opportunity to capitalize on those inefficiencies to beat the market.

On the contrary, 36% of the fund managers held the view that markets were relatively efficient, such that any new information was reflected relatively fast. Therefore no one was able to gain a competitive edge in the long run. These managers preferred to go passive. A representation of the above information on the state of securities markets and how it affected choice of strategy is further summarized by Figure 4.2.

Figure 4.2: State of security market in Kenya



Source: field data

4.2.8 Contextual factors considered advantages and disadvantages of the strategy

The advantages and disadvantages of the various management strategies were explored by considering contextual factors which are advantageous or otherwise, to the strategy. These factors are flexibility, costs, risks, liquidity and “others” as indicated in Table 4.10.

Flexibility/dynamism is rated as one of the greatest advantages of active management strategy as cited by 63% of the respondents. Because securities prices kept on changing following the release of new information in the market, their attractiveness were altered hence the need of revising the composition in the portfolio held (a process called switching by active manager). This ensured that securities held at one given time

contributed positively towards the long-term profit upon the sale or disposal of such assets.

Table 4.10: Factors considered as an advantage (or disadvantage) by fund managers

Management strategies														
Factor	Active				Passive				Hybrid				Total	
	Adv.		Disadv.		Adv.		Disadv.		Adv.		Disadv.		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Flexibility	5	45	1	10	0	0	3	27	2	18	0	0	11	100
Costs	2	19	4	36	3	27	0	0	1	9	1	9	11	100
Risks	1	10	5	45	2	18	1	9	0	0	2	18	11	100
Liquidity	2	19	4	36	3	27	0	0	1	9	1	9	11	100
Others e.g. stock selection	0	0	6	55	2	18	1	9	0	0	2	18	11	100

Source: field data

While the active managers hold dynamism/flexibility as top advantage, the passive managers have criticized it on the grounds that it posed a great challenge to the fund in the long run in the form of high rebalancing or monitoring costs. These costs diminished the returns that will be made available to the beneficiaries of such funds. Therefore, they proposed that instead of constant switching, replication of a certain market index in exact weights and proportions is the best way to trade.

From a point of view of costs, 55% of the respondent's majority being passive managers cited passive strategy as a low cost alternative. Costs such as transaction costs, rebalancing/monitoring were typical of active management. These costs were responsible for the low net return available to the beneficiaries of the fund (after taking care of these costs) adopting active management.

Risks were cited as affecting more of active investments because of inadequate skills to make perfect decision as concerns stock selection. Stock selection was also mentioned by passive managers as an advantage. They argued that by mimicking a market index, stock selection process was made easier.

4.2.9 Involvement of RBA in fund affairs

RBA has impacted both positively and negatively in the pension fund industry. The enactment of the Retirement Benefits Act (1997) ushered in investment guidelines.

4.2.9a Merits of investment guidelines

Among the positive aspects associated with the RBA investment guidelines as the study established include effect on portfolio and risk mitigation, limiting abuse of power, and guiding investment decisions. Table 4.11.1 gives a summary of the positive aspects of RBA involvement in pension fund industry.

Table 4.11.1: Merits of investment guidelines

Merit	Management strategies													
	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Diversification and risk mitigation	4	36	2	19	2	18	1	9	2	18	0	0	11	100
Limits abuse of power	5	45	1	10	3	27	0	0	1	9	1	9	11	100
Guides investment decision	2	19	4	36	2	18	1	9	2	18	0	0	11	100

Source: field data (2006)

Portfolio diversification and risk mitigation: seventy two percent of respondents believed that the investment guideline has widened the scope in which portfolios can be built. This enhances the number of assets a portfolio can hold. It has the benefit of reduced risk exposure.

Limits abuse of power: Before the establishment of RBA, there was widespread abuse of funds and power amongst the high-ranking officials managing the pension funds. This scenario has been checked following the enactment of the Act. Fund managers are to follow the investment guidelines to the letter without breaching them because of tight monitoring upon them by RBA. This was the response of 9 fund managers.

Guides investment decisions: Some respondents, 55%, felt that the investment guidelines offered by RBA provides a basis on which some new players in the pension fund management arena construct their portfolio because of lack of adequate experience in the field.

4.2.9b Shortcomings posed by investment guidelines

The negative aspects of RBA involvement include limitation on off-shore investments, failure to recognize size of scheme, among others as shown in Table 4.11.2.

Table 4.11.2: Shortcomings posed by investment guidelines

Shortcoming	Management strategies													
	Active				Passive				Hybrid				Total	
	Yes		No		Yes		No		Yes		No		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Limit offshore investment	5	45	1	10	2	18	1	9	2	19	0	0	11	100
Failure to recognize size of scheme	2	19	4	36	1	9	2	18	1	9	1	9	11	100
Investment in risky classes of assets	1	10	5	45	2	18	1	9	0	0	2	18	11	100
Restriction on short term money market instruments	5	45	1	10	1	9	2	18	1	9	1	9	11	100

Source: field data**Limitation on off-shore investment**

The investment guidelines restrict offshore investments to 15% of the total funds of the scheme. Eighty two percent of respondents felt that this is too restrictive owing to the profitable opportunities available offshore. They contend that the restriction is a sure way of denying scheme members better returns. The restriction on off-shore investments is, however, justifiable on the grounds that those funds mobilized locally should be utilized to develop the local economy first before going out. In fact, Chile a country with a successful story of pension reforms at the inception of its pension reforms disallowed foreign investments up to 1992 when it allowed only 3% investments in foreign securities.

Failure to recognize size of scheme

Another major shortcoming the research found out was the failure of the investment guidelines to recognize the size of the scheme. Small schemes, for instance, a scheme with annual contribution by members below ksh.100,000 and has just commenced will find it difficult to apportion its funds to various asset classes. The respondents felt that for such schemes, they should be allowed to invest 100% in some asset classes which are less risky and with more return, a position agreed upon by 37% of the fund managers.

Investment in risky asset classes

Twenty eight percent of respondents argued that the maximum investment allowed in risky asset classes such as equity of up to 70% was too large. Most of them indicated that a figure of about 30-40% will do especially for those whose capital base is still small and are short-run oriented. Equity is deemed a good asset class capable of offering high returns in the long-run, that is, buying and holding them over a considerable period of time, but more risky in the short-run.

Restriction on short-term money market instruments.

Investments in short- term money market instruments do not go beyond three years and include investment in commercial paper, corporate bonds, mortgage bonds and loan stocks. Sixty three percent of the respondents argued that restricting investments in this asset class to 15% is not justifiable. This is because corporate bonds offer a high return in the market currently in the short-run, a situation that small and new entrants in the fund industry can take advantage of to improve their return and liquidity over short horizons.

4.2.10 Benchmarks used by fund managers

Awareness on the benchmarks used by fund managers in Kenya was crucial. Therefore, the study sought information on the types of these benchmarks in the Kenyan market. The benchmarks analyzed included NSE-20 share index, interest rate on treasury bills, and interest rate on commercial paper.

Table 4.12: Benchmarks used by fund managers

Benchmark	Number of managers	Percentage
NSE index only	0	0
Interest rate on Treasury bills only	0	0
NSE index and interest rate on Treasury bills	7	67
Others e.g. AIG 27 share index, MSCI And JP Morgan	4	33
Total	11	100

Source: field data.

Table 4.12 indicates that 67% of the respondents used NSE-20 share index and interest rate on Treasury bills only as their benchmarks. This high prevalence was due to availability of information on these benchmarks. The other benchmarks used by the remaining 33% of the managers included interest rate on commercial paper, interest rate on fixed deposits, AIG 27 share index, MSCI, and JP Morgan.

4.3 PERFORMANCE ANALYSIS

4.3.1 Asset allocations by fund managers

Information on asset classes was geared towards establishing the asset allocations done

by fund managers for the financial year starting 1st March 2005 and ending 31st March 2006. From Table 4.13, the assets were divided into four broad classes namely equities, fixed income and interest, property and offshore investments. The asset class allocations of the participating fund managers were then averaged across the participants and then weighted according to asset values under management.

Table 4.13: Analysis of asset allocations for the period starting 1st March 2005 and ending 31st March 2006

	Equity	Fixed income	Property	Offshore
Average	26.3 %	66.4%	2.0%	5.1%
Weighted average	27%	55.3%	10.5%	7.0%
Allocation range	53.2%	100%	33.7%	16.4%
Lowest	0.0%	0.0%	0.0%	0.0%
Median	25.1%	65.0%	0.0%	3.4%
Highest	53.2%	100.0%	33.7%	16.4%

Source: field data

The survey indicated that the average fund manager (a manager whose asset allocation on various asset classes is a reflection of the summation of individual schemes' asset allocation over the total funds invested by all schemes in that particular asset class) had 26.3% of the funds invested in equities, 66.4% invested in fixed income and interest bearing assets, 2% in property and 5.1 % of the fund assets invested offshore. This position changed slightly on a weighted average (takes care of any biases on the given averages) basis where the average fund manager invested 27.2% of the assets in equities, 55.3% in fixed income and interest bearing assets, 10.5% in property and 7% of the schemes assets invested offshore.

4.3.2 Performance of pension funds

Pension fund performance is defined as the actual rate of returns on investment of schemes' funds. The study employs the use of average return and weighted average as a measure of performance of the fund managers, over a one year period and an annualized three year period for the respective strategy employed, where return of the fund/ portfolio, $R_p = W_1X_1 + W_2X_2 + \dots + W_nX_n$.

Table 4.14 Pension fund performance for four financial years starting 2002

Management strategies						
	Active		Passive		Hybrid	
	1year (%)	3year (%)	1year (%)	3year (%)	1year (%)	3year (%)
Average	15.2	14.5	15.1	11.4	16.4	15.5
Weighted average	16.8	15.9	15.3	13.7	19.6	17.7
Range	29.9	21.0	22.7	25.2	29.1	27.1
Lowest	2.6	5.3	6.7	6.3	5.4	5.2
Median	15.6	14.5	17.3	15.7	19.2	21.1
Highest	32.5	26.3	29.4	31.5	34.5	32.3

Source: field data

The active managers registered an average return of 15.2% over one year and an annualized 14.5% over three years. However, an interesting observation is the significant range in returns with the lowest one year return being 2.6% and the highest being 32.5%.

As Table 4.14 shows, the range of returns of active managers relative to passive and hybrid managers is lower over a three year period at 21.0% compared to 29.9% over the one year to 31st March 2006. The median return was 14.5%. Such a range of return is significant and does suggest a need for further analysis of the impact of asset allocation, mandates and management strategy adopted.

4.3.3 Challenges faced by fund managers

Table 4.15 presents the analysis of challenges the fund managers face in portfolio management. The challenges are ranked on a scale of 1 to 6 with "most challenging" ranked 6 and "irrelevant" ranked 1. The issues being ranked as challenges included valuation of assets, measuring portfolio risk, finding appropriate benchmark, legal restriction, computing the rate of return, disclosure requirements, finding appropriate performance measure and "others" which the respondents indicated themselves. Appendix A3 presents these details. Table 4.15 indicates the results of the analysis.

Table 4.15: Challenges faced by fund managers

Ranking	Valuation of assets		Measuring of portfolio risk		Finding appropriate benchmark		Legal restrictions		Computing rate of return		Disclosure requirements		Performance measures		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	1	11	4	45	3	33	1	11	2	22	0	0	1	11	1	17
2	2	22	3	33	2	22	2	22	0	0	3	33	2	22	4	66
3	0	0	2	22	3	33	5	33	2	22	1	11	1	11	1	17
4	1	11	0	0	1	11	1	11	2	22	0	0	1	11	0	0
5	4	55	0	0	0	0	0	0	3	22	4	45	0	0	0	0
6	1	11	0	0	0	0	0	0	0	0	1	11	3	33	0	0
Total respondents	9	100	9	100	9	100	9	100	9	100	9	100	9	100	6	100
Average Ranking	2.89		5.22		4.78		4.33		3.56		3.11		3.0		5.0	

Source: field data

Key

Most challenging (6)

Challenging (5)

Fairly challenging (4)

Least challenging (3)

Not challenging (2)

Irrelevant (1)

From Table 4.15, it is clear that measurement of risk of portfolio returns, with an average ranking of 5.22 is the greatest challenge faced by fund managers here in Kenya. Second to that is finding appropriate benchmark with an average ranking of 4.78. Legal restrictions, computing rate of return, disclosure requirements and performance measures are ranked third, fourth, fifth and sixth respectively. Valuation of assets with an average ranking of 2.89 was found to be the least challenging issue faced by fund managers in Kenya. A miscellaneous collection of other challenges such as corporate governance considerations, political risks and unstable economic environment, collectively score “5.0”, but individually are insignificant.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 SUMMARY AND CONCLUSION

Reforming the retirement benefits sector to deliver intended services effectively has become a major concern to all nations around the world. Kenya has not been left behind in these reforms as witnessed by the enactment of the Retirement Benefits Act (1997), and Retirement Benefits Regulations (2000), with the later becoming effective on 8th October 2001.

The retirement benefits schemes hold substantial sums of money and play a pivotal role in financial systems and economic development of most developed and developing countries. A startling example of such pivotal role played by retirement benefits sector is in Chile where pension funds were the largest investors, managing a total of US\$ 32 billions, equivalent to 44% of the gross domestic product (GDP) by the end of 1997. Today, RBA estimates the retirement benefit sector to hold assets in excess of US\$. 2 billion, equivalent to 24% of the country's GDP. With the proper management strategy and supervision by RBA, this sector can grow to reach the coveted heights of Chile.

The study established the pension fund management strategies employed by fund managers, the predominant one and their effectiveness among others. It found out that 55% of Kenyan fund managers employ active management strategy, 27% passive while 18% employ hybrid management, which is a mix of active and passive management strategies.

Advocates of active investing suggest that the market provides sufficient inefficiencies to be successfully exploited by the astute investors. They believe that they are able to consistently identify enough high-performing investments to ultimately achieve better-than-average return, by seeking out what they consider better-than-average opportunities. Advocates of passive investing believe that the market behaves according to the efficient market hypothesis. In such a world, no investors could systematically exploit any mispricings, as they would be instantaneously corrected. Consequently, passive investors believe it is not possible to accurately identify investments that will consistently top market averages, at low enough cost to justify the effort. Passive managers attempt simply to duplicate their respective universes/ benchmarks.

In every investment decisions made, a cross-section of factors come into play in shaping the decision taken. In the pension arena, the decision as to what kind of strategy to adopt in managing the pension funds is determined by certain factors. These factors according to the study are costs, liquidity, market efficiency and risks.

While investment guidelines serve to streamline pension industry, the study found out that the same pose great limitations to the fund managers. Some of the limitations include the fact that it restricts offshore investments to 15%, a limit that denies them a chance to venture into more profitable investments overseas. Also found is the failure of investment guidelines to recognize size of scheme, promotion of investments in highly risky classes of assets like equity, and restrictions on short term money market instruments.

From a cost minimization point of view, passive management is cost effective. Administration and costs incurred as a result of losses are typical for the passive manager. Active management strategy attracts more costs in the form of transaction costs, marketing and advertisement and other costs related to rebalancing/ monitoring of portfolios. Comparing the performances of each strategy, hybrid management strategy registers consistently high returns, while active managers show a high volatility.

The greatest challenge faced by fund managers in Kenya is their inability to measure portfolio risks. An analysis of the risk-return of respective portfolios should be carried out by fund managers in order to decide on the amount of risk to be assumed for a given level of return. The study found out that some fund managers lacked understanding on the measures to be employed in the measurement of such risks, as the managers indicated.

5.2 RECOMMENDATIONS

The study recommends that Kenyan fund managers consider adopting hybrid management strategy because of its consistent higher average returns relative to the active and passive strategies. In hybrid management active and passive strategies are inextricably linked; their relationship is symbiotic, and the pension industry could not exist without fund managers practicing both active and passive strategies. While active asset classes certainly exist in hybrid managers' portfolios, customized passive portfolios are also constructed by these managers to complement active portfolios that do not cover the entire market.

Regardless of the strategy adopted the study recommends that risk, return and state of security markets be the factors they consider most before making an investment decision. The study recommends that fund managers enhance their ability to measure risks of the various investment decisions they undertake in order to minimize incidence of incurring unmerited risks.

Following the shortcomings posed by investment guidelines, the study recommends that these guidelines be revised to reflect the dynamics in the market place that bring better yields to the fund. Bringing up the percentage of offshore investment from 15% will provide more profitable opportunities abroad.

The Nairobi Stock Exchange on the other hand should consider raising the number of shares that its index constitutes to make a better market index. Currently, only 20 shares of the listed companies act as the market proxy, a situation viewed by fund managers as conservative. On asset allocation, a holistic approach based on the analysis of an investors' unique circumstances such as risk-return preference should provide a guideline on what percentage of a portfolio should be in growth/equity oriented investments and what percentage in fixed, for example.

5.3 LIMITATIONS OF THE STUDY

The research was constrained by factors such as lack of timely data availability and time resource. On the data availability, it was difficult to gather all the relevant information

from the respondents. Some of the respondents did not have all the relevant data required for the purpose of the study. Two fund managers did not give any response at all while those who responded to the questionnaire did not answer all the questions.

Only registered pension fund managers (approximately 87% of the total registered and non-registered fund managers) were taken as respondents. There was suspicion of the exercise by some of the fund managers. However, they agreed to participate eventually after the researcher convinced them.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

This study uncovers several related phenomena that beg investigation in this area. These include risk management, extent of adherences to RBA investment guidelines, performance measures employed by fund managers among others. Individuals may want to establish how pension fund risks can be hedged using financial derivatives. A further study may focus on other portfolio or asset management firms in Kenya apart from those registered with RBA by establishing whether the same problems, challenges and extent of usage of portfolio management strategies are prevalent with fund managers not registered with RBA. Researchers on the other hand, may want to establish the performance measures employed by fund managers.

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APPENDICES

A1: FUND MANAGERS' QUESTIONNAIRE

Instructions

- a) Kindly answer all questions
- b) Indicate your answers by writing them down in the space provided.

Questions

1. Rate how often you use active and passive pension fund management strategies in managing the funds under your care.

Note: Rate whether it is: Very often [5]
 Often [4]
 Sometimes [3]
 Very rarely [2]
 Never [1]

Circle the number that most closely reflects your approach.

Active 5, 4, 3, 2, 1.
Passive 5, 4, 3, 2, 1.

2. Specify 3 to 5 pension fund schemes on which you use mainly active management strategy, and why.

	Scheme	Reason
i		
ii		
iii		
iv		
v		

3. Specify 3 to 5 pension fund schemes on which you use mainly passive management strategy, and why.

	Scheme	Reason
i		
ii		
iii		
iv		
v		

4. To what degree are the following skills necessary for active and passive management strategies?

Note: circle appropriately, where: Very important [4]
 Important [3]
 Of limited importance [2]
 Not important at all [1]

For passive strategy:

- i. Analytical skills 4, 3, 2, 1.
- ii. Valuation skills. 4, 3, 2, 1.
- iii. Other (specify 4, 3, 2, 1.

For active strategy:

- i. Analytical skills 4, 3, 2, 1.
- ii. Valuation skills. 4, 3, 2, 1.
- iii. Other (specify 4, 3, 2, 1.

5. In what ways does RBA policy on fund investment (investment guideline) facilitate or retard fund performance?

a) Retardive moves (list upto 5):

No.	Move by RBA	How it retards fund performance
i		
ii		
iii		
iv		
v		

b) Facilitative moves (list upto 5):

No.	Move by RBA	How it facilitates fund performance
i		
ii		
iii		
iv		
v		

6. Rank the importance of the following factors in your choice of active or passive management strategy.

Note: circle appropriately where, Very important [4]
 Important [3]
 Seldom important [2]
 Irrelevant [1]

For active strategy:

- a) Risk 4, 3, 2, 1.

- b) Return 4, 3, 2, 1.
- c) Liquidity 4, 3, 2, 1.
- d) Market efficiency 4, 3, 2, 1.
- e) Other (specify). 4, 3, 2, 1.

For passive strategy:

- a) Risk 4, 3, 2, 1.
- b) Return 4, 3, 2, 1.
- c) Liquidity 4, 3, 2, 1.
- d) Market efficiency 4, 3, 2, 1.
- e) Other (specify) 4, 3, 2, 1.

7. What proportion of the total costs of the fund do the following costs represent?

Rate them by circling the appropriate number, in terms of:

Very high [4]

High [3]

Low [2]

Irrelevant [1]

For active strategy:

- a) Transaction cost 4, 3, 2, 1.
- b) Marketing/advertisement 4, 3, 2, 1.
- c) General administration 4, 3, 2, 1.
- d) Losses due to poor returns 4, 3, 2, 1.
- e) Re-balancing /monitoring 4, 3, 2, 1.
- f) Other (specify) 4, 3, 2, 1.

For passive strategy:

- a) Transaction cost 4, 3, 2, 1.
- b) Marketing/advertisement 4, 3, 2, 1.
- c) General administration 4, 3, 2, 1.
- d) Losses due to poor returns 4, 3, 2, 1.
- e) Re-balancing /monitoring 4, 3, 2, 1.
- f) Other (specify) 4, 3, 2, 1.

8. To what extent do the following factors pose as current/potential sources of risks following your investment policy?

State whether it is: Very high [4]

High [3]

Low [2]

Unlikely [1]

For active strategy:

- a) Interest rate risks 4, 3, 2, 1.
- b) Inflation 4, 3, 2, 1.
- c) Political instability 4, 3, 2, 1.
- d) Bench mark risks 4, 3, 2, 1.
- e) Exchange rates 4, 3, 2, 1.

f) Other (specify) 4, 3, 2, 1.

For passive strategy:

- a) Interest rate risks 4, 3, 2, 1.
- b) Inflation 4, 3, 2, 1.
- c) Political instability 4, 3, 2, 1.
- d) Bench mark risks 4, 3, 2, 1.
- e) Exchange rates 4, 3, 2, 1.
- f) Other (specify) 4, 3, 2, 1.

9. How do you rate your understanding of the strategy?

- Highly knowledgeable ()
- Knowledgeable ()

What has enhanced your understanding?

- a) Experience ()
- b) Academic training ()
- c) Professional training ()
- d) Seminars ()
- e) Other (specify).

10. How do you rate the pricing of securities in security markets in Kenya?

Note: Efficiency in this study refers to the rate at which new information is reflected in security prices.

- Highly efficient ()
- Efficient ()
- Inefficient ()

How does the state of securities markets affect your choice of strategy?

.....

.....

.....

.....

.....

.....

11. What are the advantages and disadvantages of the strategy you are adopting? (List upto three of each category starting with the most important)

For active strategy:

Advantages

i.

ii.

iii.....

Disadvantages

i.....

ii.....

iii.....

For passive strategy:

Advantages

i.....

ii.....

iii.....

Disadvantages

i.....

ii.....

iii.....

12. What are the commonly available benchmarks you use as a Kenyan fund manager?

- a. NSE index only ()
- b. Interest rate on Treasury bills only ()
- c. NSE index and interest rate on Treasury bills ()
- d. Other (specify).....

13. To what extent have you invested in the following asset classes? (Percentage of the total funds invested).

For active strategy:

- a. Equity ()
- b. Fixed income and interest bearing assets ()
- c. Property ()
- d. Offshore ()
- e. Other (specify).....

For passive strategy

- a. Equity ()
- b. Fixed income and interest bearing assets ()
- c. Property ()
- d. Offshore ()
- e. Other (specify).....

14. How has been the performance of various schemes, averagely, for the last five financial years? (Kindly attach a summarized financial report)

15. To what extent do the following issues pose a challenge in pension funds management?

State whether it is:

Most challenging (6)

Challenging (5)

Fairly challenging (4)

Least challenging (3)

Not challenging (2)

Irrelevant (1)

(Circle the number that most represents your position)

No.	Description of issue	Response					
		6	5	4	3	2	1
1	Evaluation of portfolio assets	6	5	4	3	2	1
2	Measuring risk of portfolio returns	6	5	4	3	2	1
3	Finding suitable benchmarks	6	5	4	3	2	1
4	Legal restrictions on categories of assets to constitute a portfolio	6	5	4	3	2	1
5	Disclosure requirements of financial statements	6	5	4	3	2	1
6	Use of appropriate portfolio performance measures	6	5	4	3	2	1
7	Inadequate public disclosure of information	6	5	4	3	2	1
8	Other (specify)	6	5	4	3	2	1
9	Other (specify)	6	5	4	3	2	1

End.

Thank you for your participation.

A2: REGISTERED FUND MANAGERS

MANAGER	NO. OF SCHEMES
1.African Alliance Kenya Ltd. (AFR)	8
2.AIG Global Investment Company (East Africa) (AIG)	121
3. CFC Financial Services Limited (CFC)	30
4. Co-op Trust Investment Services Limited (COOP)	85
5.Genesis Kenya Investment Management Limited (GEN)	49
6.ICEA Investment Services Limited (ICEA)	209
7.Jubilee Financial Services Limited (JUBI)	101
8. Kenindia Asset Management Company Limited (KENI)	108
9. Madison Asset Management Services Ltd. (MAD I)	29
10. Old Mutual Asset Managers (K) Limited (OM)(K)	121
11. Old Mutual Asset Managers (East Africa) Limited (OM)(EA)	7
12. Royal Investment Management Services Ltd. (RYL)	10
13. Stanbic Investment Management Services (East Africa) Limited (SIMS)	73

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A3: RANKING OF CHALLENGES BY FUND MANAGERS

Fund Manager	Valuation of asset	Measuring performance Risk	Finding appropriate benchmark	Legal Restrictions	Computing rate of return	Disclosure requirements	Finding appropriate performance Measure	Other
No.1	2	4	3	3	3	2	3	-
No.2	4	5	4	4	3	5	4	4
No.3	3	5	5	4	4	2	1	5
No.4	2	6	5	4	2	4	5	5
No.5	2	6	4	5	2	5	1	5
No.6	1	6	6	4	2	2	1	5
No.7	5	4	6	6	6	2	1	-
No.8	5	5	5-	4	6	5	5	-
No.9	2	6	4	5	4	1	6	6
Total	26	47	43	39	32	28	27	30
Average	2.89	5.22	4.78	4.33	3.56	3.11	3.0	5.0

Source: Field research

Key

Most challenging (6)

Challenging (5)

Fairly challenging (4)

Least challenging (3)

Not challenging (2)

Irrelevant (1)