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# Factors Influencing Asset Growth of Retirement Benefits Schemes: A Case of CFC Life Assurance Managed Schemes

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#### Abstract:

Retirement Scheme are the principal sources of retirement income for millions of people in the world. Retirement Schemes are also important contributors to the gross domestic product (GDP) of countries. This study focused on Retirement Schemes in Kenya where Retirement income accounts for 68% of the total income of retirees. Recent data shows that from the year 2001 the assets grew from Kshs 97 Billion to stand at Kshs 471 Billion as of on June 2012 (RBA, 2012).

This study aimed at determining the factors that influence the growth of Retirement Schemes assets.

The study adopted a case study of CfC Life Insurance a leading retirement approved issuer in Kenya with assets above Kshs 7.5 billion and to achieve the objectives research questionnaires were used for the study. The target population was drawn from the 35 staff in different managerial levels employed at CfC Life, Retirement Benefits Department.

Primary data was gathered directly from respondents by means of a questionnaire. The collected data was analyzed by the use of descriptive statistics using SPSS and presented through mean, standard deviations and frequencies. This was achieved by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of statistical package for social sciences (SPSS).

The study revealed a positive relationship between fund governance, risk management, investment strategy and size of the fund all collectively have a positive relationship to growth of retirement scheme assets.

The study found that investment strategy, risk management and size of the fund have a strong influence on growth of the fund while fund governance does not exert significant relationship to the growth of the fund assets.

# **Definition of Terms**

## • Scheme

Means an occupational retirement benefits scheme or any other arrangement set up for the purposes of providing retirement benefits scheme

# Asset

Means a financial instrument or its equivalent held by Trustees on behalf of a retirement benefit scheme.

#### Approved Issue

Mean an insurer registered under the provisions of the Insurance Act or any other issuer approved in writing under the provisions of the Capital Markets Authority Act or under any other written Law.

## Custodian

Means a custodian registered by the Authority and whom the Trustees have appointed.

# Fund Manager

Means an independent manager registered by the Authority and who has been appointed by the Trustee to manage the assets of the Scheme

# Fund

Means the fund maintained by the Trustee for the investment of the assets of the Scheme in accordance with the terms and conditions of the Trust Deed and Rules

Source RBA ACT 2000

#### CHAPTER ONE

#### 1. Introduction

#### 1. 1. Introduction

This chapter presents the background to the study and the statement of the problem. It also presents the objectives of the study, research questions, significance and scope of the study.

## 1.2. Background to the Study

Retirement schemes are expected to increase the income replacement rates (percentage of retirement income to pre-retirement income) (Sze, 2008; According to IOPS (2008a), the income replacement rates induced by Retirement fund growth were 95.7% in Greece, 81.9% in Netherlands, 81.2% in Spain, 80% in Austria, 67% in Korea, 49% in the Czech Republic, 44% in Canada, 41% in the United States of America, 36% in Mexico and 31% in the United Kingdom. Although no statistics are indicated, IOPS expects the replacement rates in African countries to be much lower than the selected countries.

The Retirement fund industry is a significant source of capital in the Kenyan financial markets (Omondi, 2008). According to Omondi, retirement funds invested a sum of Ksh. 223 billion in the Kenyan financial sector in 2007 of which Ksh. 77 billion was invested in government securities. Retirement funds are thus significant institutional investors and must therefore be managed efficiently.

Retirement fund systems in Kenya were first put in place after independence in 1963. The first post independent retirement fund body, the National Social Security Fund (NSSF), was established in 1965 (RBA, 2000) other schemes were established by the private sector employers and government bodies (parastatals). The industry functioned without much supervision save for limited supervision on taxation by KRA. In the 2000 Kenya introduced the Retirement Benefits Act 1997 for the purposes of regulating the Retirement benefits sector.

The retirement fund sector has since been supervised by the Retirement Benefits Authority (RBA), which oversees the 1997 RBA Act. The RBA continues working to develop the industry and advise the government on Retirement policy reforms.

Kenya's Retirement benefits system embraces four components namely the NSSF, Civil Servants Pension Scheme (CSPS), Occupational Retirement Schemes (ORS) and Individual Retirement Schemes. Overall the system is estimated to cover 15% of the labour force and to have accumulated assets of 18% of the GDP (Kakwani *et al* 2006). The Retirement benefits system covers an estimated 2 million workers leaving an estimated 5 million workers not provided for under any retirement scheme, of which at least 10% are at or near the retirement age (Kakwani *et al* 2006).

December 2010 the total Retirement industry assets had risen to Sh451 billion representing a massive 89 per cent growth from about Sh50 billion ten years ago (RBA, 2010).

# 1.3. Statement of the Problem

The first retirement fund scheme was set up in 1963 after Kenya gained independence. By the year 2000 the total retirement schemes assets were Kshs 97 billion (RBA 2001). From 2000 retirement scheme assets grew from 97 Billion in 2000 to stand at Kshs 471 Billion as of on June 30, 2012. The Amount was composed of Kshs 310 billion held by fund managers, Kshs 114 billion held by the National Social Security Fund (NSSF) and an additional Kshs 31 billion held by approved issuers (RBA, 2012). Retirement funds are a major vehicle of ensuring a financially stable ageing population, a growing asset base means that more and more people are saving for retirement, workers are having huge retirement savings and schemes are adequately funded. Fund growth can be influenced by many factors and this brings the need to investigate the factors influencing the growth of these fund assets. If these factors are investigated, this data will be useful to the government as they formulate their policy on Retirement sector, and the information will be useful to industry players like Fund Managers, Approved issuers, Custodians, and Administrators.

It is estimated that the baby boomers (those born between 1957 and 1964) will retire in the next five years and the burden of a financially independent ageing population is now real. It is therefore necessary to understand the factors that are affecting the growth of this sector are important to the government and necessary in formulation of pension sector policies.

The research on the growth of retirement funds management companies is a newly emerging area of investigation because for a long period of time the industry was not regulated and workers were not even aware that there were retirement plans set by their employers to provide an income at retirement. Since the introduction of RBA Act 2000, the management of such funds has become an area of great interest as there is more awareness in the public and employers have now than ever become keen on setting up Retirement funds. Previous research on Kenyan Retirement funds has focused on other areas besides growth factors such as; reviewing of the Retirement System in Kenya by Raichura (2008), Kakwani *et al* (2006) looked at Retirement schemes in Kenya and their effect on old age poverty, Kiptim (2007) looked at living standards of retirees and Retirement schemes while Amana (2006) looked at the investment of Retirement fund assets in Kenya. None of the past studies have looked at factors influencing the growth of Retirement scheme fund assets.

This study sought to fill this research gap by looking at the factors that influence the growth of Retirement scheme funds' assets. More specifically, the study explored the effect that governance, investment strategy, Retirement fund risk, Size of the Retirement fund have on the growth of Retirement funds' assets.

# 1.4. Research Objectives

# 1.4.1. General Objective

The general objective was to determine the factors that influence the growth of Retirement fund assets.

# 1.4.2. Specific Objectives

The study was guided by the following specific objectives:

- To investigate the influence of investment strategy on growth of Retirement Scheme assets.
- To investigate the influence of Retirement fund risk management on growth of Retirement scheme assets.
- To assess the extent to which governance influences the growth of Retirement fund assets.
- To determine the relationship between the size and growth of Retirement fund assets.

## 1.5. Research Questions

To achieve the research objectives the study was guided by the following research questions

- What is the role of investment strategy on Retirement fund asset growth at CFC Life?
- Does Retirement fund risk management affect growth of Retirement fund assets management on asset growth of Retirement fund assets at CFC Life?
- To what extent does governance affect the growth of Retirement fund assets at CFC Life
- What is the effect of size of Retirement fund on the growth of Retirement fund assets at CFC Life?

# 1.6. Significance of the Study

Since Retirement benefits provision is an issue which has very serious social, economic and developmental implications for developing countries, the study offered the Kenya Government insight in order to provide comprehensive coverage of Retirement industry by eliminating factors that may inhibit growth of the sector and also inform the Government in areas which need bolstering to have a vibrant sector and a financially independent ageing population considering the baby boomers those (born between 1957 and 1964) will be retiring in the next 5 or so years.

Various stake holders in the Retirement fund industry benefited from this study in addition other meaningful stake holder groups like trade unions benefited from this study and were able to agitate for their rates from informed positions.

CfC Life insurance as an industry player and the insurance sector as a whole gained from the study in terms of getting researched feedback on some factors affecting growth of Retirement funds and considered on which areas to redirect their efforts in order to grow the portfolio under their management.

The employees, especially those in the Retirement benefits department gained by understanding the factors that contribute to growth of Retirement fund assets and made them more alert to offer better client service.

Trustees of Retirement funds benefited from this study as they were able to check and note what factors influence growth of retirement funds and ensure fund managers are kept on check on these aspects and the affect growth of their scheme assets.

Other parties in the Retirement benefits industry and service providers benefited from this study as they were able to understand factors affecting growth of Retirement fund assets and manage funds more prudently for maximum growth.

Academicians studying Retirement fund management and performance as a course of study gained in reference from the study. For Retirement fund administrators, fund managers and custodian together with the RBA officials, the study served as feedback as well a reference they can use to demonstrate on areas which need to be bolstered and areas needing more emphasis to achieve high growth of asset in the Retirement funds.

#### **CHAPTER TWO**

## 2. Literature Review

## 2.1. Introduction

This chapter explores theoretical and empirical literature on Retirement schemes, how they operate and what determines their growth with emphasis on the Kenyan sector.

## 2.2. Nature and Operations of Retirement Benefits Schemes

A Retirement fund is a legally separated pool of assets bought with contributions to a Retirement fund members for the exclusive purpose of financing Retirement benefits (OECD, 2008b; Yermo, 2002). A distinction is however often made between a Retirement fund and a Retirement plan (OECD 2008b). A Retirement plan has a legally binding contract with a clear retirement objective that may be part of the employment contract or may be required by law. Retirement plans may offer additional benefits such as disability, sickness and survivors' benefits (Yermo, 2002). A Retirement fund can be incorporated to manage Retirement assets of various Retirement plans. In Kenya however, each Retirement plan is allowed to manage only Retirement assets of their own (RBA, 2008). Thus Retirement plans are also called Retirement funds or retirement schemes in Kenya.

The Retirement fund members have a legal or contractual claim on the assets of the fund (Yermo, 2002). Retirement funds are therefore established under trusts law with legal capacity to invest and manage beneficiary funds with diligence and stewardship. Retirement funds collect and accumulate contributions from employees and their sponsors (employers who establish the Retirement

Retirement funds collect and accumulate contributions from employees and their sponsors (employers who establish the Retirement scheme), invest the contributions and hold the proceeds in stewardship for the benefit of the members on retirement (OECD, 2004; EBRI, 2004). OECD further shows that although both the employee and the employer contribute to the Retirement fund, the employer is not obliged to contribute any fixed amount. The contribution rates by the sponsor and the employee are listed in the Retirement fund constitution (Trust Deed and Rules) and they differ from one employer to another.

On retirement an employee Retirement benefits may be paid out in a lump sum or may be paid in monthly installments or there may be an initial lump sum on retirement and consequent monthly installments (Almaric, 2006; World Bank, 2005; Scott, Watson and Hu, 2009; Yogo, 2009). The payment regime depends on the stipulations of the trust covenant (Trust deed and rules), the Retirement fund design, the contributions made by both the employee and the sponsor during the worker's membership in the fund and the returns generated by the Retirement fund (Almaric, 2006).

In Kenya the Retirement RBA regulation do not allow members who leave employment before retirement date to withdraw retirement benefits from their employer's Retirement funds, except in cases of retirement due to ill health or those who suffer permanent disability (RBA Act 1997, as cited in Nyakundi, 2009). The implication is that workers who leave their job before the retirement age of 55 cannot access their employer's contributions but may withdraw their own contributions. The employer's contributions may however be transferred to another scheme of the employee's choice. Retirement savings contributed by both the employee and the sponsor can also be used as collateral when buying a home.

In summary, Retirement funds are distinct entities that are neither commercial corporations nor state owned enterprises. They therefore do not compete for customers or market share and they are single product entities as defined by the Retirement law to provide members with financial security throughout their retirement life (Asher and Nandy, 2006a). Retirement funds do not seek growth to pay dividends but instead they are evaluated on the basis of value adding to the members and long-term solvency and they limit risk by segregating their assets from those of the sponsoring entities.

#### 2.3. Theoretical Review

# 2.3.1. Portfolio Theory

Harry Markowitz first expounded Portfolio Theory in 1952. The model was developed for investments in various securities. The basic concepts of the theory are diversification, the efficient frontier, capital asset pricing model, the alpha coefficient and beta coefficient, the capital market line and the securities market line. Markowitz also identified three variables that are necessary to determine the efficient set of portfolios from among several stocks: return, the standard deviation of return, and the coefficient of correlation of each security to every other security. This would allow the determination of the lowest risk level of each of the portfolios.

He proposed diversification as an instrument that could be used to reduce individual asset's exposure to risk and noted that for diversification to work, assets must not be perfectly correlated, that is, correlation coefficient not equal to. With diversification a portfolio is created. Amling (1984) gives the definition of diversification to be the inclusion of a number of different investment vehicles in a portfolio, in order to increase returns or be exposed to less risk. He emphasizes that if done properly, diversification can reduce about 70% of total risk of investing.

Academic studies have extensively examined the issue of investment portfolio performance in general. Before 1960, investors evaluated portfolio performance almost entirely on the rate of return, although they knew that risk was a very important variable in determining investment success (Bballa, 2003). The reason for omitting risk was the lack of knowledge how to measure and quantify it. After the development of portfolio theory in early 60s, and CAPM in subsequent years, risk, measured as either by standard deviation or beta, was included in evaluation process.

Modern portfolio theory provides a framework to build efficient portfolios. Portfolio efficiency requires that asset weights reflect optimally investors' risk return expectations. Regulatory or self-imposed constraints which limit the investment universe, prohibit short sales, impose maximum allowable weights per asset or limit absolute or relative risk could lead to inefficient portfolios, that is, portfolios whose return can be improved without increasing risk or portfolios which do not provide a good match for the investor's liabilities. Constraining portfolio choice could lead to inefficient portfolios and could potentially impose significant costs to investors. Academic evidence on the issue of portfolio inefficiency and the associated costs are rather limited. Binsbergen and Brandt (2007) in their study of the effect of regulations on the investment decisions of Retirement funds find that preventive constraints such as risk constraints, limits on maximum holdings and short sale constraints reduce substantially the gains from dynamic investment strategies. Davis (1996) finds that Retirement funds operating in countries that impose few constraints on investments achieve higher returns than Retirement funds from countries with stricter quantitative portfolio restrictions. Regulatory restrictions force Retirement funds to hold inefficient portfolios whose returns are consistently less than average real wage earnings. In contrast Almazan et al (2004) who study the effects of investment constraints on mutual fund performance, find that constraints do not influence performance. Clarke et al (2002) examine the effect of investment constraints on a portfolio manager's ability to convert successful return forecasts into appropriate portfolio positions. They find, using simulation, that commonly used constraints like no short sales, constraints on turnover and constraints that force portfolios to have the same characteristics as a benchmark could, if used in combination, reduce valued added significantly.

Holding under-diversified portfolios in world were idiosyncratic risk receives no reward in equilibrium is another form of portfolio inefficiency. Accordingly investors will hold well diversified portfolio so that idiosyncratic risk is minimized or completely eliminated. Evidence in Blume and Friend (1975) and Polkovnichenko (2005) suggest that individuals hold portfolios that are poorly diversified. In contrast, using evidence from Swedish investors, Calvet *et al* (2007) find that only a few households are very poorly diversified and that the costs of diversification mistakes are rather small. Evidence on the diversification decisions and the cost of diversification mistakes of institutional investors is rather scant.

Expanding the domestic investment opportunity set to overseas investments brings further diversification benefits. Constraining investors to invest only in domestic assets could lead to both lower returns and higher risk portfolios compared to portfolios diversified internationally. According to Driessen and Laeven (2007) international diversification benefits more investors from less developed countries compared to investors from developed markets. Baxter and King (2001) argue that in addition to the diversification benefits of foreign investments, another benefit is the ability of foreign assets to hedge the risk from non-traded assets and in particular human capital. They also show empirically that human capital returns are more highly correlated with domestic returns rather than international returns. Investors with domestic wage-based liabilities should hold a significant part of their portfolios in international assets to diversify risk.

# 2.3.2. Growth Opportunity -Boston Consulting Group Matrix (BCG Matrix)

Kevan Scholes (2002) articulates that Boston Growth Matrix suggests that a market share/growth matrix consists of cash cows, dogs, question marks and stars. In portfolio/asset management these components of the BCG matrix have become part of the strategy. In the BCG matrix in portfolio management the dogs are the low market growth areas which should be done away with or disposed of. The cash cows are those strategies in portfolio management which dominate the market although not a growing market. Since growth is not expected here the strategy will be to use the strategy as a cash flow generator - no new resources should go to cash cow component but there is need to concentrate on milking the cow. The cash cows in portfolio management will be placing assets in a cloister where risk is low and distractions' from outside world are minimized and all effects are focused on single goal - for example placing funds in a hold to maturity bond and focusing on receiving coupons and maturing the bond as opposed to holding the bond on available for sale where the market dynamics will affect the valuation of the asset. The stars will represent the winners in the long run where there is good prospect of growth in the market and require management thought, investment and policies to ensure they work. These are the units that require aggressive attention to fully exploit opportunities. The stars will require aggressive attention and resources will go into the stars which are likely to bring the winning trophies home. The question marks will be the non dominant portfolios in the growth matrix and will require a thought on their worth. The Boston Consulting model will assist us in placing the factors influencing growth of the Retirement scheme assets on the matrix and provide a powerful set of descriptors that will enable the Retirement fund stakeholders get into a thinking process on the models they will need to apply and which models will need to be thought further to ensure a stable and growing Retirement asset over a period of time.

Portfolio analysis examined the company's activities within both existing and potential markets. The objective was to build and strengthen position over the medium and longer terms. Protect these products/services required protection, as they are the cash generators for new products/services. The company allocated resources and implement actions to protect these. Harvest – A medium-low business position coincided with a medium-low level of market attractiveness. The objective here was to maximize the revenue stream with the minimum level of resource investment. There came a point where the company considered divesting the product/service to another company, terminating the product/service, or re-energizing the product/service. Divest – The weakest position and thus the company divested itself of the product/service (Seeger, Strategic Management Journal Vol 5 93-97(1984)).

# 2.4. Determinants of Retirement Fund Performance

## 2.4.1. Investment Strategy

Stanko (2002) defines "investment strategy" as the assortment of investments made by Retirement funds. The investment strategy determines the investment mix of the total funds of a Retirement fund that aims at having a careful balance between investment risks and returns (Stanko 2002; Eichholtz and Margaritova, 2009). The investment strategy is therefore a plan that guides the choice of the investments that Retirement funds make and by extension the returns funds return.

Risky assets (equity investments) generally generate higher returns compared to the less risky ones (bonds) (Eaton and Nofsinger, 2001; Asebedo and Grable 2004; Kakes, 2006; Bikker *et al.* 2009; Baldurdottir, 2000). This positive relationship between risk and returns causes a dilemma since to get more returns, Retirement funds have to take more risk (Eaton and Nofsinger, 2001). It is therefore suggested that Retirement funds adopt appropriate investment strategies that provide higher returns on investments with moderate risk (Eaton and Nofsinger, 2001).

According to OECD (2006), the investment strategy varies depending on the type of Retirement fund. In the case of a DB, the goal of the investment strategy is to generate the highest possible returns consistent with the liabilities and liquidity needs of the Retirement fund. In a DC Retirement fund, the main goal of the investment strategy is to generate gains that accrue to individual member account balances in light of the investment goals. The investment strategy thus contributes to the returns obtained on investments, which directly impacts on the financial efficiency of the Retirement fund (OECD, 2006).

The appropriate investment strategy should be anchored on four pillars namely: the prudent person rule (ensuring that all investments made are in the best interests of members), diversification (ensuring that Retirement investments are not concentrated in a specific

asset), maturity matching (ensuring that investments mature as liabilities become due) and it should have a clear statement of investment policies (Kyiv, 2003).

Despite the higher returns expected from equities, poor global market performance since 2005 has led many institutional investors to shift their investment mix to incorporate more fixed interest securities at the expense of equity investments (OECD, 2009b). This was done to mitigate the effects of the low returns noted on equity. Strategic decision-making is therefore related to the investment strategy (Campbell and Viceira, 2002) since strategic decision-making is the process of setting the parameters of institutional performance, matching its objectives and goals to long-term investment strategies informed by experience and expectations. According to Campbell and Viceira (2002), strategic investment decision-making results in higher returns that contribute to increased efficiency.

A good investment strategy results in more returns and lesser risks for Retirement funds (Kyiv, 2003; Leisako, Mitchell and Piggot, 2005). To achieve Retirement fund efficiency, Retirement funds must devise sound investment strategies and apply them consistently (Kyiv, 2003).

The investment strategy leads to the attainment of the Retirement fund's short-term (less than 3 years), intermediate (3 to 10 years) and long-term (more than 10 years) goals (OECD, 2009b). The investment strategy determines the short-term and long-term sustainability of a Retirement fund (OECD 2009b; Maurer, Schlag and Stamos, 2007). In other words, an investment strategy ensures that money is available to pay benefits and other costs as they fall due (Bikker *et al.* 2009). The investment strategy thus provides an appropriate mix between the long-term and short-term financial instruments where the investments are made in consideration of the expected maturity of liabilities (Bikker *et al.* 2009).

An investment strategy ensures that Retirement funds do not act haphazardly in times of stock market volatility (Springer and Cheng, 2006). The strategy ensures that the management is aware of the strategy relating to buying and holding of investments such that assets are purchased when prices are low and short-term ones are disposed of when prices are high (Kake, 2006).

The investment strategy contributes to better re-investment plans (Eaton and Nofsinger, 2001). According to Eaton and Nofsinger (2001), the reinvestment plans involve ploughing back the earnings to the same high yielding assets to take advantage of compounding effect. In addition, the investment strategy should result in savings in the form of taxation on the investment returns generated since it focuses on the more tax efficient investments (Kakes, 2006).

# 2.4.2. Retirement Fund Risk Management

In Retirement fund management risk tends to reduce the returns on investment over the long run, creates uncertainty about the value of Retirement assets when Retirement liabilities become due and raises questions that impact on the governance aspect of Retirement funds when irregularities and market volatility lead to losses in the Retirement funds (Maurer *et al.* 2009).

Applied to Retirement funds, risk reflects any variable that prevents a Retirement fund from achieving its intended objectives of providing adequate retirement income (Mangiero, 2006; Yermo, 2007). The impediments to Retirement fund objectives may include failure by the sponsors to meet their promises, stock market volatilities and operational inadequacies (Mangiero, 2006).

According to Mangiero (2005), "Retirement fund risk management implies management of multiple risk types – such as financial, operational and legal risks and assumes the use of derivatives." Mangiero (2005) thus views Retirement fund risks as including both operational and financial uncertainties.

Retirement fund risk management involves five steps namely identification (threats and opportunities), evaluation, prioritization, treatment (accept, mitigate, exploit or avoid) and monitoring (Blake, 2007). According to Blake (2007), Retirement fund risk management is a structured process that should be handled with expertise to optimize Retirement benefits. It involves the measurement and assessment of Retirement fund risks and the design, monitoring and revision of the Retirement fund's parameters (contributions, benefits and investments) in order to address these risks in line with the fund's objectives (Blome *et al.* 2007). The main goals of Retirement fund risk management are the minimization of Retirement costs and minimization of the chances of benefit cuts to beneficiaries (Blome *et al.* 2007).

Retirement funds risk management has become important as a result of the global demographic aging coupled with social security benefit cuts and the volatile stock market returns (Maurer, Mitchell and Rogalla, 2008). The major concern for Retirement fund stakeholders has been the variability of the value of Retirement fund investments which have always been based on the aberrant market values (Maurer *et al.* 2009).

Bikker *et al.* (2009) concur that Retirement funds are instrumental in the transfer of risk from individuals to collectives and hence are better risk managers compared to individual investors since they have incentives to invest long run and bear the long-term risks. The collectivism of the Retirement fund members enables them to bear risk that would have been otherwise avoided thus making them more efficient (Bikker *et al.* 2009).

# 2.4.3. Retirement Fund Governance

According to Kenyan schools (2002) governance describes who the organization is there to serve and how the purposes and priorities of the industry should be served. Governance is more concerned with the functioning of the Retirement industry governance is regulated by the Retirement Benefits Authority Act and regulations (2000) The legal and regulatory framework form the bulk of the Retirement fund governance structure and stipulate the need for separation between ownership and control of the Trustees from management which is done by service providers. The governance structure in a Retirement fund is that the members and beneficiaries get reports from Trustees, who in turn get the reports from fund managers and administrators of the funds. The RBA model of supervision of the retirement funds Trustees on governance issues is done through a rigorous compliance model – According to RBA,

well governed funds returned better growth that funds that were struggling on compliance with the governance structures and guidelines band have achieved Retirement fund efficiency (Augusztinovics, 2002).

The present study investigates to what extend the governance structures have influence that the Retirement fund growth.

#### 2.4.4. Size of the Retirement Fund

One of the controversial issues in Retirement fund management literature is the relationship between fund performance and the size of the Retirement fund. Research literature points to a positive relationship between fund size and fund performance (Bikker and Dreu, 2009; Chen, Hong, Huang and Kubit, 2004; Mahon and Donohoe, 2006; Ahmad, 2009; Vittas, Impavido and O'Connor, 2008; Ardon, 2006). By implication, the bigger the Retirement fund the better the performance of the fund (Dahlquist, Engstrom and Soderlind, 2000; Gallagher and Martin, 2005). On the other hand, Chan, Faff, Gallagher and Looi (2004) found no association between the fund size and performance. Empirical studies are therefore still inconclusive on the optimal size of a Retirement fund.

The issues of economic and efficient administration of Retirement funds and its relation to size were first documented in Caswell (1976). According to Caswell (1976), Retirement funds in the construction industry experienced economies of scale that were related to their size. Caswell (1976) defined economic efficiency as consisting of the achievement of predetermined objectives with a minimum expenditure of resources. Economies of scale are defined as the relationship between changes in the physical units of output and monetary costs associated with the inputs. Retirement funds should operate at the appropriate scale; not too big, not too small (Caswell, 1976).

According to Mahon and Donohoe (2006), Blake, Lehmann and Timmermann (2001) and Zera and Madura (2001), significant economies of scale exist in Retirement fund administration. They suggest that smaller Retirement funds bear excessive operating costs per participant since many of their expenses are fixed. The most important factor affecting Retirement fund costs therefore is size determined on the basis of the number of members in the Retirement funds (Mahon and Donohoe, 2006).

Recognizing the dramatic effects that Retirement fund size can have on performance, the Irish Funds Industry Association (2009), cited in Mahon and Donohoe (2006), urges small Retirement funds to pool their assets. According to the association, Retirement pooling would allow Retirement funds to "pool" assets into a single investment vehicle that would invest in assets, such as global equities, bonds and cash on behalf of the investing Retirement funds. The argument expounded is that pooling would result in considerable economies of scale, which would in turn lead to cost savings and enhanced returns to provide greater consistency in asset management and enhance control over risks.

Retirement funds in Nigeria followed the merger directives imposed on commercial banks which resulted in Retirement funds being able to absorb and efficiently process information on capital market operations (Ahmad, 2009). Through these mergers, large Retirement funds were created which resulted in lower average transaction costs and custodial fees for the investors. The mergers thus made Retirement funds to be more efficient.

Vittas *et al.* (2008), however, observed that large Retirement funds enjoy the benefit of low operating costs because they avoid large marketing costs. These economies may however be eroded by poor investment performance, weak governance structures, lack of independence from the sponsor and low levels of accountability and transparency (Vittas *et al.* 2008).

In Massachusetts smaller Retirement systems face diseconomies of scale in their administration and management which resulted in higher costs (Ardon 2006). Ardon (2006) shows that out of the 106 Retirement funds he surveyed, 26 Retirement funds had less than \$50 million in assets and only one with \$750 million yet each Retirement fund had the same number of administrators and staff as well as advisors and consultants. The smaller funds recorded administrative costs equal to 0.78% of their asset values whilst the bigger funds recorded administrative costs of 0.44% of the asset values (Ardon, 2006). Very small Retirement funds are therefore uneconomical to operate and will result in low levels of efficiency. Faktum (2009) found that Danish Retirement companies are the lowest cost operators in the OECD countries since the Retirement funds operate at ideal sizes "not too big, not too small."

Furthermore, Retirement plan assets tend to increase with the number of employees (Henon and Kanouse, 2004). Comparing the value of assets with the number of employees in the Retirement fund, Henon and Kanouse (2004) found that 62% of Retirement funds with 25 000 or more employees have asset values exceeding \$1 billion while only 74% of the Retirement funds with 1000 – 2499 employees have asset values averaging \$20 billion.

Large Retirement funds are also more efficient than the smaller ones because there are significant economies of scale in paying benefits, keeping records and investing funds effectively (Ghilarducci and Terry, 1999). In large Retirement funds technological advances permit a reduction in expenses, internal reorganisation produces price advantages and cost reductions. Greater specialisation improves efficiency (Ghilarducci and Terry, 1999).

Henon and Kanouse (2004) however caution that large Retirement schemes are not necessarily efficient if proper tools and processes are not in place. Without the latter, large Retirement funds spend a lot of money on communication to members, member education, investment decisions, collecting contributions from workers, keeping records, paying benefits to Retirement managers and general administration (Henon and Kanouse, 2004).

The debate of whether larger funds outperform smaller ones is therefore on-going. The present study also investigates this issue.

# 2.5. Fund Size and Performance

An empirical review of Retirement fund performance literature is mostly composed of studies on mutual funds and a few studies on Retirement funds' performance. This review contains a look at fund performance in general, with a particular focus on performance persistence, and spans over 40 years of research.

Sharpe (1966) looked at the performance of open-end mutual funds and found that to a major extent the capital market is highly efficient, but there is some evidence of persistence in performance. Henriksson (1984) evaluated the performance of open-end mutual funds and concluded that their empirical results do not support the hypothesis that mutual fund managers are able to follow an investment strategy that successfully times the return on the market portfolio. Ippolito (1989) looked at mutual fund data and found evidence that is consistent with optimal trading in efficient markets. He concluded that risk-adjusted returns in the mutual fund industry, net of fees and expenses, are comparable to returns available in index funds. Grinblatt and Titman (1989) looked at mutual fund performance and tests indicated that the risk-adjusted gross returns of some funds were significantly positive.

Sharpe (1992) described an asset class factor model, which makes it possible to determine how effectively individual fund managers have performed their functions and the extent (if any) to which value has been added through active management. Brown *et al.* (1992) showed that survivorship bias can give the false impression of persistence in mutual fund performance. Grinblatt and Titman (1992) looked at mutual fund data and found evidence that differences in performance between funds persist over time and that this persistence is consistent with the ability of fund managers to earn abnormal returns. Hendricks *et al.* (1993) found that in the period 1974–1988 relative performance of no-load, growth-oriented mutual funds persisted in the near term, with the strongest evidence for a one-year evaluation horizon. Coggin *et al.* (1993) examined the investment performance of US equity Retirement fund managers. They found that Retirement fund managers were good at picking stocks, but poor at timing the market. The best managers produced substantial risk-adjusted excess returns.

Brown and Goetzmann (1995) explored equity mutual fund data and found clear evidence of relative risk-adjusted performance persistence; however, the persistence was mostly due to funds that lag the S&P 500, depends upon the time period observed and is correlated across managers. Elton *et al.* (1995) found that bond funds underperformed the returns predicted by a relative pricing model that they developed by the amount of expenses, on average. They note that there is no evidence that managers, on average, can provide superior returns on the portfolios they manage, even if they provide their services free of cost. Grinblatt *et al.* (1995) found that mutual funds which bought past winners (followed a momentum strategy) realized significantly better performance than other funds.

Elton *et al.* (1996b) found persistence in risk-adjusted stock mutual fund returns. Ferson and Schadt (1996) advocate conditional mutual fund performance evaluation in which the relevant expectations are conditioned on public information variables. This method made the average performance of the mutual funds in their sample look better. Gruber (1996) sought to solve the puzzle as to why investors buy actively managed open end mutual funds when their performance on average has been inferior to that of index funds. He suggests that the solution to the puzzle is that if managers and past performance do not form a predictable future performance. Ferson and Warther (1996) modified classical performance measures to take account of well-known market indicators (interest rates, dividend yields and other commonly available variables). This conditional performance evaluation makes mutual funds' performance look better.

Carhart (1997) considered the persistence in equity mutual funds' mean and risk-adjusted returns. He concluded that the results do not support the existence of skilled or informed mutual fund portfolio managers. Daniel *et al.* (1997) looked at the performance of equity mutual funds. Their results showed that mutual funds, particularly aggressive-growth funds, exhibit some selectivity ability, but that funds exhibit no characteristic timing ability. Indro *et al.* (1999) reported that fund size (net assets under management) affects mutual fund performance and found that, in effect, 20% of non-indexed US equity funds were too small and 10% too large. Ackermann *et al.* (1999) examined hedge fund data from 1988–1995 and found that hedge funds consistently outperform mutual funds, but not standard market indices. However, hedge funds are more volatile than both mutual funds and market indices. Incentive fees explained some of the higher performance, but were not correlated with total risk.

Liang (1999) looked at hedge fund performance. 'Funds with 'high watermarks' (under which managers are required to make up previous losses before receiving any incentive fees) significantly outperform those without. Hedge funds provide higher Sharpe ratios than mutual funds, and their performance in the period of January 1992 through December 1996 reflects better manager skills, although hedge fund returns are more volatile. Average hedge fund returns are related positively to incentive fees, fund assets, and the lockup period.' Edelen (1999) showed that the common finding of negative return performance at open-end mutual funds is attributable to the costs of liquidity-motivated trading: open-end equity funds provide diversified equity positions with little direct cost to investors for liquidity. Blake *et al.* (1999) analysed a data set on UK Retirement funds. Their main finding was that strategic asset allocation accounts for most of the ex post variation of UK Retirement funds' returns. Moreover, the vast majority of funds had negative market-timing estimates.

Wermers (2000) examined mutual fund databases and concluded that their evidence supported the value of active mutual fund management. Liang (2001) studied hedge fund performance and risk from 1990 to mid-1999. Hedge funds had an annual return of 14.2 per cent in this period, compared with 18.8 per cent for the S&P 500 Index, although the S&P 500 was much more volatile. Kothari and Warner (2001) argue that standard mutual fund performance measures are inadequate for detecting abnormal fund performance. They suggest using event-study procedures that analyse a fund's stock trades.

Berk and Green (2004) derived a rational model of active portfolio management. They state that 'the lack of persistence in returns does not imply that differential ability across managers is nonexistent or unrewarded or that gathering information about performance is socially wasteful.' Bollen and Busse (2005) examine daily mutual fund data, consider quarterly returns and conclude that superior performance is a short-lived phenomenon that is observable only when funds are evaluated several times a year. Huij and Verbeek (2007) investigated the persistence in mutual fund performance using monthly return data of more than 6400 US equity mutual funds over the period 1984–2003. Their results clearly support the idea that past performance of mutual funds has predictive power for future performance. Cuthbertson *et al.* (2008) used a 1975–2002 data set for UK equity mutual funds and found the existence of stock

picking ability among the top 5–10% of funds, whilst most poor performing funds were not merely unlucky, but demonstrated 'bad skill'. Agarwal *et al.* (2009) examined the role of managerial incentives and discretion in hedge fund performance. First, they found that funds with better managerial incentives (higher total deltas, higher option deltas, greater managerial ownership, and the presence of a high-water mark provision in the hedge fund contract) are associated with better performance. Second, they observed that funds with greater managerial discretion (longer lockup and restriction periods) generate higher returns.

Barras *et al.* (2010) analysed monthly returns of 2,076 actively managed US open-end, domestic equity mutual funds that existed at any time between 1975 and 2006. They found that 75% of funds exhibit zero alpha (net of expenses). Further, they found that the proportion of skilled (positive alpha) funds declined from 22% in 1993 to just 1% in 2006. Jagannathan *et al.* (2010) considered hedge fund returns from 1996 until 2005, and found significant performance persistence among superior funds but little evidence of persistence among inferior funds. Busse *et al.* (2010) examined the performance and persistence in performance of 4,282 active US equity institutional products managed by 1,384 investment management firms between 1991 and 2007. They found little to no evidence that performance persists.

In summary, the literature on fund performance over the last 40 years shows that fund size (net assets under management) affects mutual fund performance and market indices Incentive fees explained some of the higher performance, but were not correlated with total risk, average hedge fund returns are related positively to incentive fees, fund assets, and the lockup period, strategic asset allocation accounts for most of the ex post variation of UK Retirement funds' returns and that funds with better managerial incentives are associated with better performance.

# 2.6. Research Gaps

Empirical literature reviewed suggests that there are some research gaps regarding the growth of Retirement funds.

Different authors (Asebedo and Grable 2004; Markese 2000; Stanko 2002) relate the investment strategy to the mix that an investor makes in the investment portfolio. Asebedo and Grable (2004) further identify two investment management styles: passive and active management and argue that passive investment management is more conservative than active investment management. A research gap has been identified, as the empirical literature does not relate the investment strategy to asset growth. The present study will investigate the appropriate investment strategy to maximise asset growth.

Literature on the relationship between size and asset growth reveals mixed findings. Studies that report on the absence of the relationship include Cicotello and Grant (1996), Droms and Walker (2001) and Grinblatt and Titmat (1994). Contradictory results on the same proposition are included in Gallagher and Martin (2005) and Cheong (2007). In terms of risk, Droms and Walker (2001) noted that portfolios of smaller funds are more risky than larger funds but found that smaller funds outperforming the larger funds. Malhotra and McLeod (2000) found contradicting results on the same issue. The contradictory findings of the empirical studies have left a research gap on the optimum fund size. The present study will attempt to determine the factors that influence growth of Retirement asset funds.

# 2.7. Conceptual Framework

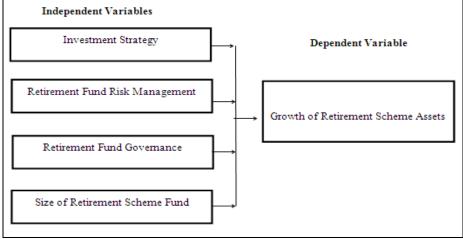


Figure 1: Conceptual Framework Source: Author (2012)

Investment strategy: The investment strategy used by a Retirement fund results in the investment mix between various investments options (Stanko 2002; Asebedo & Grable 2004). In the present study, the elements of investment strategy that will be related to asset growth include; investment regulations, liability insurance for investment decision makers, independent performance appraisal, investment policy, discretion to investment managers and maintaining a risk management policy.

Retirement fund risk: Retirement fund risk is a major issue of concern during times of bearish financial markets and numerous uncertainties (Maurer, Mitchell & Rogalla 2009; Bikker et al. 2009; Rauh 2006). In this study, Retirement fund risk has been captured along the following dimensions: default risk from employers and employees, stock market risk, operational risks and liquidity risks. Retirement fund size: Different studies (Bikker & Dreu 2009; Ahmad 2009; Caswell 1976; Mahon & Donohoe 2006) distinguish between large and small Retirement funds by using the number of members and value of assets as a measure of size. The same measure was adopted for the present study.

Retirement fund governance (2004) documented differences in financial performance of Retirement funds with good Retirement fund governance. The current study will investigate this aspect by regressing efficiency scores with the well governed Retirement funds.

#### **CHAPTER THREE**

# 3. Research Methodology

#### 3.1. Introduction

This chapter gives the methodology that was used by the researcher to find answers to the research questions. In this chapter the research methodology was presented in the following order, research design, data collection methods, instruments of data collection and finally the data analysis.

# 3.2. Research Design

This research adopts a case study since it was based on one organization. A case study is an in-depth investigation of an individual, institution or phenomenon (Mugenda and Mugenda, 2003). The primary purpose of a case study is to determine factors and relationships among the factors that have resulted in the behavior under study. Since this study was to determine the factors that influence the growth of Retirement fund assets at CfC Life, a case study design was deemed the best design to fulfill the objectives of the study and enables the researcher to have an in-depth understanding of the management of Retirement funds at CfC Life.

## 3.3. Findings and Discussions

This section presents the study findings and discussions of the same in line with the objectives raised on page 8 chapter one. Questions answered by the respondents were analyzed and results presented and discussed.

## 3.3.1. Investment Strategy and Fund Growth

The study explored the univariate nature of the independent variable investment strategy. How the Investment strategy questions were responded to by staff members in a 5-likert scale of different levels of its importance as a factor in influencing fund growth.

An analysis was done on the indicators of investment strategies as responded to. The respondents were asked to grade the investment strategy indicators of their retirement benefit funds on a five likert scale with 1 as strong disagreement and 5 as strong agreement. Since the likert scale measure was categorical and ordinal, the median was used to determine the average score for each indicator.

Nine indicators were responded to with more than 50% of the respondents either in agreement or strong agreement with the statements. The indicator "We have a Retirement investment committee that makes investment decisions" had a median score of 4, "Trustees are covered by liability insurance" a median score of 4.5, "We have invested considerably more in fixed interest investments (bonds and Treasury bills) over the past two years" a median score of 4.5, "We conduct independent evaluations of our Retirement fund performance to confirm the rates given by the fund administrators" a median score of 5, "We have a clear investment policy that is strictly implemented" a median score of 4.5, "Trustees give total investment discretion to the fund managers" a median score of 5, "We have an investment risk management policy for our Retirement plan" a median score of 4.5, "Our investment strategies are based on findings of market research conducted by fund managers" a median score of 4.5, and "We set quarterly targets on investment returns and strategize to achieve them" a median score of 5.

These 9 indicators are positive measures for investment strategy such that a higher score as responded would imply a better strategy being used for the fund.

Two of the indicators had low median scores of 2.5 and 2 respectively for the statements "Our Retirement plan rules do not restrict investments in any company" and "RBA rules on investment restrictions have a negative impact on our investment decisions". More than 50% of the respondents were in disagreement with these two indicators. The two indicators however are negative measures of investment strategies since a higher score by respondents would imply poor investment strategies.

The indicators were used to get a single numerical measure for investment strategies out of 5. A higher value of this measure would imply a higher level of investment of the retirement benefit funds. This was determined by getting a sum of the weighted scores of the indicators. Equal weights of 0.0909 were assigned to each indicator. The weighted scores from the two indicators with the negative measures for investment were subtracted from the sum of the other 9 positive indicators.

Table 1, shows the descriptive analysis of the variable investment strategies from the weighted scores. From The table, the mean score of fund investment strategy is 2.619 out of 5 on level adequacies and appropriateness of the investment strategy. With 95% confidence, the true mean of investment strategies lies between 2.431 (lower bound) and 2.808 (upper bound) and has a standard deviation of 0.425.

		Statistic	Std. Error
Mean		2.619	0.090
95% Confidence Interval for Mean	Lower Bound	2.431	
	Upper Bound	2.808	
Std. Deviation		0.425	
Minimum		1.909	
Maximum		3.272	
Skewness		-0.024	0.491

Table 1: Investment Strategy Descriptive Statistics

A correlation analysis showed that there is a positive relationship between fund growth and investment strategy. Investment strategy is strongly correlated to fund growth with a correlation coefficient of 0.611 which is also significant with a p value of 0.003 that is less than the 0.05 level of significance.

One independent variable regression analysis between fund growth and investment strategy was also done to determine the level of positive influence investment strategy has on fund growth assuming all other factors constant. R<sup>2</sup> of the fitted model returned a value of 0.976. R<sup>2</sup> shows how well the variations in independent variable explain the variation in the dependent variable. The 0.976 R<sup>2</sup> value implies that the variations in the independent variable in the fitted model explain 97.6% of the variations in the dependent variable. The extent of influence of investment strategy on fund growth was done by the analysis of the beta coefficients of the model. A beta coefficient of an independent variable in a regression model is the change in the dependent variable that results from a unit change in the independent variable. The analysis of the beta coefficients in Table 2 of the regression model showed that investment strategy has a significant positive influence on the dependent variable (fund growth). The parameters of the in the model are; Investment strategy 6.138 and a constant term of 5.738 with p value of their respective t statistics as 0.003 and 0.042. The coefficients to the model are

	B – coefficients	t - statistics	p-values
(Constant)	5.738	1.216	0.042
Investment strategy	6.138	3.450	0.003

Table 2: Regression Coefficient Fund Growth and Investment Strategy

With 95 percent confidence interval, the researcher concluded that investment strategy has a positive influence on the dependent variable (fund growth).

# 3.3.2. Risk Management and Fund Growth

both significant with p value less than 0.05 the level of significance.

The study sought to find out whether Retirement fund risk management affect growth of Retirement fund assets at CFC. How the risk management questions were responded to by staff members in a 5-likert scale of different levels of its importance as a factor in influencing fund growth. An analysis was done on the indicators of risk management as responded. The respondents were asked to grade the risk management indicators of their retirement benefit funds on a five likert scale with 1 as strong agreement and 5 as strong disagreement. Since the likert scale measure was categorical and ordinal, the median was used to determine the average score for each indicator.

Over 50% of the respondents were in disagreement with the 9 of the statement indicators. The statement "Our Retirement fund is negatively exposed to default risk from our sponsor" had a median score of 4, "Our Retirement fund is negatively exposed to default risk from our employer a median score of 4, "Our Retirement fund does not have strategies in place to counter the stock market risk" a median score of 4, "Our Retirement fund faces bankruptcy if our employer ceases to exist" a median score of 4, "We do not have a fund to provide for unexpected Retirement expenses" a median score of 4, "Our Retirement fund is negatively exposed to default risk from our employees" a median score of 4, "We expose our Retirement fund to high volatility to earn higher returns" a median score of 4, "Our Retirement fund invests a large proportion of funds in shares" a median score of 3.5 and "We tolerate risk beyond the guidelines given by RBA" a median score of 4. Respondents were however neutral to the indicator statement "Our Retirement fund could be negatively affected by the industry changes of our employer" which had a median score of 3, these ten indicators as asked are positive measures of risk management of the retirement benefit funds. The higher the score the higher the disagreement of the respondents with the risk and thus the better the risk management of the funds.

More than 50% respondents were in agreement and strong agreement with the indicator statement "In our Retirement fund, there is a clear separation of the management of the Retirement fund from the management of our employer's business" which had a median score of 2.5. The indicator of separation of management funds from the retirement funds as asked of the respondents has a negative measure for disagreement and risk management of the retirement funds.

The indicators were used to get a single numerical measure for fund risk management out of 5. A higher value of this measure would

imply a higher level of risk management of the retirement benefit funds. This was determined by getting a sum of the weighted scores of the indicators as responded to. Equal weights of 0.0909 were assigned to each indicator. The weighted scores from the indicator with the negative measures for investment were subtracted from the sum of the weighted scores from the other 10 positive indicators. Table 3, shows the descriptive analysis of the variable fund risk management from the weighted scores. From The table, the mean score of fund governance is 2.268 out of 5 on level adequacy and appropriateness of fund risk management. With 95% confidence, the true mean of fund risk management lies between 1.976 (lower bound) and 2.561 (upper bound) and has a standard deviation of 0.656.

		Statistic	Std. Error
Mean		2.268	0.140
95% Confidence Interval for Mean	Lower Bound	1.976	
	Upper Bound	2.561	
Std. Deviation		0.659	
Minimum		1.182	
Maximum		3.454	
Skewness		-0.011	0.491

Table 3: Risk Management Descriptive Statistics

A correlation analysis showed that there is a positive relationship between fund growth and risk management. Investment strategy is moderately correlated to fund growth with a correlation coefficient of 0.523 which is also significant with a p value of 0.012 that is less than the 0.05 level of significance.

One independent variable regression analysis between fund growth and risk management was also done to determine the level of positive influence risk management has on fund growth assuming all other factors constant. R<sup>2</sup> of the fitted model returned a value of 0.944. R<sup>2</sup> shows how well the variations in independent variable explain the variation in the dependent variable. The 0.944 R<sup>2</sup> value implies that the variations in the independent variable in the fitted model explain 94.4% of the variations in the dependent variable. The extent of influence of risk management on fund growth was done by the analysis of the beta coefficients of the model. A beta

coefficient of an independent variable in a regression model is the change in the dependent variable that results from a unit change in the independent variable. The analysis of the beta coefficients in Table 4 of the regression model showed that risk management has a significant positive influence on the dependent variable (fund growth). The parameters of the in the model are; Risk management 3.360 and a constant term of 14.188 with p value of their respective t statistics as 0.013 and 0.000. The coefficients to the model are both significant with p value less than 0.05 the level of significance.

	B - Coefficient	t - statistics	p- values
(Constant)	14.189	4.859	0.000
Fund risk Management	3.3630	2.716	0.013

Table 4: Regression coefficient Fund Growth and Fund Risk Management

With 95 percent confidence interval, the researcher concluded that fund risk management has a positive influence on the dependent variable (fund growth).

# 3.3.3. Fund Governance Relations and Fund Growth

The Study sought to find out to what extent fund governance affects the growth of retirement fund assets. The analysis was done on the indicators of fund governance as responded to. The respondents were asked to grade the fund governance indicators of their retirement benefit funds on a five likert scale based on importance of key governance indicators. 1 represented not important and 5 represented very important. Since the likert scale measure was categorical and ordinal, the median was used to determine the average score for each indicator.

More than 50% of the respondents deemed all the indicator statements of Fund governance as important. The statement "Board of trustees having members in active employment" had a median score of 4.5, "The CEO's leadership of the Retirement fund" a median score of 4, "Continuous finance education to trustees by the Retirement fund" a median score of 5, "The Retirement fund providing liability insurance cover for trustees" a median score of 5, "The Retirement fund using competitive bidding in appointing service providers" a median score of 5, "The Retirement fund using an internal control system of documenting, monitoring and reporting its operations" a median score of 5, "Effective communication to members by the Retirement fund" a median score of 5, "The Retirement fund's ability to avoid conflict of interest in decision-making" a median score of 4, "The Retirement fund clearly defining the roles of trustees" a median score of 4, "The Retirement fund clearly defining the roles of service providers" a median score of 5, "The Retirement fund maintaining an effective performance measurement system" a median score of 5 and "The Retirement fund

outsourcing specialized fund management functions Remuneration of trustees" a median score of 5. All the indicators as asked are positive measures of fund governance. A high score implies better fund governance of the scheme.

The indicators were used to get a single numerical measure for fund governance out of 5. A higher value of this measure would imply a higher level of fund governance. This was determined by getting a sum of the weighted scores of the indicators as responded to. Equal weights of 0.08333 were assigned to each of the 12 indicators of fund governance.

Table 5 shows the descriptive analysis of the variable fund governance from the weighted scores. From The table, the mean score of fund governance is 3.042 out of 5 on level adequacies and appropriateness of fund governance. With 95% confidence, the true mean of fund governance lies between 2.849 (lower bound) and 3.234 (upper bound) and has a standard deviation of 0.434.

		Statistic	Std. Error
Mean		3.042	0.093
95% Confidence Interval for Mean	Lower Bound	2.849	
	Upper Bound	3.234	
Std. Deviation		0.434	
Minimum		1.917	
Maximum		3.5	
Skewness		-1.019	0.490

Table 5: Fund Governance Descriptive Statistics

A correlation analysis showed that there is a positive relationship between fund growth and fund governance. Fund governance is slightly correlated to fund growth with a correlation coefficient of 0.340 which is also significant with a p value of 0.021 that is less than the 0.05 level of significance.

One independent variable regression analysis between fund growth and fund governance was also done to determine the level of positive influence fund governance has on fund growth assuming all other factors constant.  $R^2$  of the fitted model returned a value of 0.964.  $R^2$  shows how well the variations in independent variable explain the variation in the dependent variable. The 0.964  $R^2$  value implies that the variations in the independent variable in the fitted model explain 96.4% of the variations in the dependent variable.

The extent of influence of each of fund governance on fund growth was done by the analysis of the beta coefficients of the model. A beta coefficient of an independent variable in a regression model is the change in the dependent variable that results from a unit change in the independent variable.

The analysis of the beta coefficients in Table 6 of the regression model showed that fund governance has a significant positive influence on the dependent variable (fund growth). The parameters of the in the model are; Fund governance 3.350 and a constant term of 11.628 with p value of their respective t statistics as 0.032 and 0.044. The coefficients to the model are both significant with p value less than 0.05 the level of significance.

	B – coefficients	t –statistics	P -values
(Constant)	11.627	1.829	0.044
Fund Governance	3.350	1.617	0.032

Table 6: Regression Coefficient Fund Growth and Fund Governance

From table 7, fund growth was found to be positively correlated with all the independent variables; Fund risk management, Investment strategy and fund governance. Investment strategy is strongly correlated to Fund growth with a correlation coefficient of 0.611, Fund risk management is moderately correlated to fund growth with a correlation coefficient of 0.519 and Fund governance is also slightly positively correlated to Fund growth with a correlation coefficient of 0.340. All the three correlation coefficients are statistically significant since all the p values from the analysis are less than 0.005. The p values are 0.003, 0.012 and 0.021 respectively. This implies that all the independent variables (Fund governance, investment strategy and Fund risk management) are significantly positively correlated to the dependent variable (Fund growth). Investment strategy affects fund growth to a greater extent as compared to other independent variables since it has a higher correlation coefficient.

		Fund Growth Rate	Fund risk Management	Investment strategy	Fund Governance
Fund Growth Rate	Pearson Correlation	1	0.523*	0.611**	0.3403
	Sig. (2-tail	ed)	0.012	0.003	0.021
	N	22	22	22	22
Fund risk Management	Pearson Correlation	0.523*	1	0.203	-0.119
	Sig. (2-tailed)	0.0124		0.366	0.598
	N	22	22	22	22
Investment strategy	Pearson Correlation	.611**	0.203	1	0.340
	Sig. (2-tailed)	0.0025	0.366		0.121
	N	22	22	22	22
Fund Governance	Pearson Correlation	0.3403	-0.119	0.340	1
	Sig. (2-tailed)	0.1212	0.598	0.121	
-	N	22	22	22	22

Table 7: Correlations

## 3.3.4. The Retirement Fund Asset Size and Fund Asset Growth

The study sought to find out the effect of size of Retirement fund on the growth of Retirement fund assets. This was done by determining the relationship between fund growth and total fund value. From table 8, fund growth was found to be positively correlated to the total fund value. Total fund value is strongly correlated to Fund growth with a correlation coefficient of 0.998. This coefficient is significant since the p values from the analysis is 0.00 which is less than 0.05 the accepted level of significance at 95% confidence. This will definitely mean that fund growth entirely depends on Total fund value over time.

		<b>Fund Growth Rate</b>	Total fund value
Fund Growth Rate	Pearson Correlation	1	.998**
	Sig. (2-tailed)		0
	N	22	22
Total fund value	Pearson Correlation	.998**	1
	Sig. (2-tailed)	0	
	N	22	22

Table 8: Correlation between Fund Growth and Total Fund Value

With 95 percent confidence interval, the researcher concluded that fund size has a positive influence on the dependent variable (fund growth) and thus rightly concludes that each of the fund size positively affects the growth of retirement benefits funds.

#### **CHAPTER FOUR**

# 4. Summary of Findings, Conclusion and Recommendations

#### 4.1. Introduction

This chapter provides the summary of the findings from chapter four, and also it gives the conclusions and recommendations of the study based on the objectives of the study.

#### 4.2. Summary of the Findings

The study found out that most of the respondents had worked in the organization long enough to be knowledgeable about the organizations affairs and therefore in a position to answer the questions, the members contributions to the fund have been increasing from a low of 2.5 million in 2004 to a high of 4.5 million in 2012, the income credited by the fund have been increasing from a low of 2.8 million in 2004 to a high of 5.1 million in 2012, the investment management expenses used by the fund have been increasing from a low of 0.8 million in 2004 which fluctuated frequently over the years to a low of 0.7 million in 2012, the benefits payable by the fund has been fluctuating from a low of 0.6 million in 2004 which fluctuated frequently over the years to 0.7 million in 2012.

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

The study also found out that the fund uses the fund have a retirement investment committee that makes investment decisions, trustees are covered by liability insurance, they conduct independent evaluations of their retirement fund performance to confirm the rates given by the fund administrators, they have a clear investment policy that is strictly implemented, they have an investment risk management policy for their retirement plan, their investment strategies are based on findings of market research conducted by fund managers and they set quarterly targets on investment returns and strategize to achieve them as the investment strategy while they were sure on whether that their retirement plan rules do not restrict investments in any company, they have invested considerably more in fixed interest investments (bonds and treasury bills) over the past two years, RBA rules on investment restrictions have a negative impact on their investment decisions and trustees give total investment discretion to the fund managers.

The study found out that the Retirement fund's ability to avoid conflict of interest in decision-making was one of the governance measures, Board of trustees having members in active employment, the CEO's leadership of the retirement fund, continuous finance education to trustees by the retirement fund, the retirement fund providing liability insurance cover for trustees, the retirement fund using competitive bidding in appointing service providers, the retirement fund using an internal control system of documenting, monitoring and reporting its operations, effective communication to members by the retirement fund, the retirement fund clearly defining the roles of trustees, the retirement fund clearly defining the roles of service providers, the retirement fund maintaining an effective performance measurement system and the retirement fund outsourcing specialized fund management functions remuneration of trustees were the governance measures used by the organization as the funds governance.

The study found out that the effective regulation of compliance costs by the RBA, the RBA regulation limiting the number of trustees to 10 (regardless of the size of the scheme), RBA's regulation of fees charged by service operators, Tax on non-exempt incomes of Retirement fund members as imposed by the Kenyan Revenue Authority, the compliance with RBA levies, The regulatory meetings (4 per year) with the service providers as stipulated by RBA, the risk based approach adopted by RBA in the supervision of Retirement funds, the required RBA financial reporting regulations to which Retirement funds should adhere to and the risk tolerance limits imposed by the RBA as the fund governance relations.

The study found out that the fund could be negatively affected by the industry changes of their employer and they do not have a fund to provide for unexpected retirement expenses because of risk management practices while they were not sure their retirement fund is negatively exposed to default risk from their sponsor, their retirement fund is negatively exposed to default risk from our employer, their retirement fund does not have strategies in place to counter the stock market risk, their retirement fund faces bankruptcy if our employer ceases to exist, in their retirement fund, there is a clear separation of the management of the retirement fund from the management of their employer's business, their retirement fund is negatively exposed to default risk from our employees, they expose our retirement fund to high volatility to earn higher returns, their retirement fund invests a large proportion of funds in shares and they tolerate risk beyond the guidelines given by RBA.

## 4.3. Conclusion

Results of the study showed that fund governance does not exert a significant relationship to the growth of Retirement Scheme assets. This means that pension fund governance does not lead to the growth of Retirement Scheme assets. The result further shows that reducing the benefits processing period, providing relevant education to the trustees, maintaining an appropriate internal control system, communicating regularly with members, defining the roles of the trustees clearly, regulating the fees charged by the service providers, controlling default risk on the part of the sponsor and implementing investment strategies that are based on requisite market research do not lead to the growth of Retirement Scheme assets.

Odundo (2008) disagrees with the above-mentioned finding that reducing the benefits processing period does not influence the growth of Retirement Scheme assets. Odundo (2008) found that timely processing and payment of retirement benefits create confidence and trust in the leadership that governs the pension fund. The results are also dissonant with Impavido's (2002) findings that pension efficiency depends on ensuring remittance of contributions to the pension board in a timely manner and ensuring timely and correct payment of benefits.

The results revealed that fund regulations do not exert a significant relationship on the growth of Retirement Scheme assets. This implies that the implementation of the following regulations did not improve the growth of Retirement Scheme assets: monitoring of performance of the service providers; regulation of compliance costs; limiting the size of the pension fund board; conducting regulatory meetings; the separation of fund ownership from the sponsor's business; and the investment policy.

The empirical results further revealed a positive relationship between fund governance and the growth of Retirement Scheme assets. (Clark & Urwin ,2009) reported similar findings and concluded that the two variables are related due to their association with the optimal allocation of resources; staffing; framing of delegated responsibilities; showing sensitivity to fund mission statements; attending to the culture of the organisation; and issues of accountability and performance measurement.

# 4.4. Recommendations

Pension funds with more members are expected to have a higher value in contributions and assets compared to smaller ones (Chan *et al.*, 2004). The funds therefore receive sizable contributions that may result in inefficiency in investments (Dahlquist *et al.*, 2000). Thus the larger pension funds have large sums of money at their disposal that they tend to invest in less profitable ventures as opposed to smaller pension funds with lesser financial resources that forces them to allocate the money judiciously to the most profitable opportunities. Moreover, the larger pension funds with huge investments in the stock market are exposed to more risk as opposed to the smaller funds (Bikker & Dreu 2009). Managers must therefore guard against their pension funds becoming too big.

It is recommended that managers adhere to the following regulations in order to improve fund leadership: regular monitoring of the performance of service providers; effective regulation of compliance costs; limiting the size of the pension fund board; regulatory meetings with service providers; separation of pension fund management from employer management and maintaining a clear investment policy. By doing so, the following leadership elements will be achieved: complete honesty in sharing information with members; respect to the CEO; the maintenance of an effective performance management system; compliance with RBA levies; adherence to RBA financial reporting regulations and the granting of full discretion to fund managers.

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