

**THE EFFECT OF FUND CHARACTERISTICS ON FINANCIAL
PERFORMANCE OF PENSION SCHEMES IN KENYA**

BY

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DECLARATION

I, the undersigned, declare that this project is my original work and it has not been presented in any other University or Institution for academic examination.

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DEDICATION

I dedicate this project to God and to my loving family. My wonderful wife and my children.

ABBREVIATIONS AND ACRONYMS

NSSF:	National Social Security Fund
OECD:	Organization for Economic Co-operation and Development
PAYG	Pay As You Go
RAROC:	Risk Adjusted Return on Capital
RBA:	Retirement Benefits Authority
SPSS:	Statistical Package for the Social Sciences

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ABSTRACT

The successful performance of pension schemes is important to all the stakeholders based on the role they play in the economy. They are also development rapidly not only in Kenya but also across the public. Sustainability and growth of pension schemes is key as pensions schemes are expected to support the economy, create employment, and support the beneficiaries upon retirement. It is therefore imperative to understand how the age of operations of a pension schemes impacts on performance. The study sought to understand this by addressing the study objective of the effect of fund characteristics on financial performance of pension schemes in Kenya through the variables age of the fund, expenditure of the fund, idle funds and density of contributions. The study adopted a descriptive correlational research design quantitatively. The population of the study was 1232 registered pension schemes under RBA (RBA, 2018). The sampling design was stratified convenience sampling in the choice of the 34 schemes. Data was collected from the financial statements of 29 companies from 2014 to 2018. The study findings indicated that the age of the fund has a negative but not significant influence on the performance of pension schemes, density of contributions and expenditure were found to have a positive insignificant influence on performance and idle funds have a positive significant influence on the performance pension schemes. The study recommends further study on pension schemes to explore other variables that could significantly influence performance.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The Kenyan pension scheme has been growing steadily owing to the crucial role that it plays in the economy. The state is transitioning from a traditional system to a capitalist state, and the need to prepare for the inevitable change has led to a keen interest in social security as people try to prepare for old age. It is in this interest that the economy has been working towards ensuring there is financial security at old age through encouraging membership in retirement benefit schemes that provide payments to people on retirement through pension payment or a lump summation of payment on retirement (Mungoma, 2013).

Pension schemes acts as a form of insurance which works against the predictable risk of impoverishment later in life. Developed countries have experienced a demographic shift with an increase in the aging population forcing the government to focus on the provision of retirement schemes with different features (Schwartz, Monahan, Hatfield & Anderson, 2014). Pension schemes are financial institutions that manage savings of the employees' to the point of retirement.

The performance of pension funds is imperative, owing to the significant role it plays in the economy. It is key that organization employ suitable management on the resources and also measure achievement of goals based on short term and long term benchmarks. Performance of pensions could be measured based on the rates of contribution, the target rates, and the level of downward tolerance that a firm can take (Ajibade, Jayeoba & Aghahowa, 2018). Performance is however, influenced by the characteristics of the fund,

including the size of the fund, the design, the nature of membership and the density of contribution into the scheme.

The study will be laid on the theoretical foundation of the modern portfolio theory, stakeholder's theory, and the financial intermediation theory. The modern portfolio theory will be the main theory which stipulates that investors are generally risk-averse and construct portfolios that have the ability to optimize and maximize returns based on the fair risk and the estimated rate of return (Markowitz, 1952). Menjeri (2018) indicates that the running of pension resources is sensitive and important in all aspects, given that it bears on the quality of life of retirees when their working life comes to an end. Pension schemes should, therefore, design the characteristics of their pension assets in a manner to maximize the returns of their stakeholders to take up as minimum risk as possible which is provided by Markowitz who advices on the best portfolio to hold based on the risk and return model.

1.1.1 Fund Characteristics

Pension funds exhibit characteristics including the age of the fund, expenditure of funds, density of the contributions, and idle contributions. Density of the contributions is a crucial element in pension funds. In 2018, NSSF sought to increase deductions from Kes 200 to Kes 1080 with the reasoning that if the policy failed to go through, the fund would eventually shrink and the company would find itself in a situation where they would need to liquidate assets to pay their employees which was likely to influence the financial position of the fund (Alushula, 2019). Further, an underfunded scheme is likely to see the managers of the organization taking up risky investments as they grapple with trying and increase the level of return to cover for the low contribution densities. Valdés-Prieto (2008) indicated that the adequacy of contributions is dependent on the density of contribution

with countries unwilling to impose a mandate on all contribution for all jobs suffering the most.

The age of the fund looks into the period of time that the fund has been in existence (Ajibade, Jayeoba & Aghahowa, 2018). Tijjani (2014) indicates that pension funds that are older are stable and have better financial sustainability. Expenditure of the fund relates to the expenses incurred in the administration and management of the fund that could include valuations costs, consulting fees, and even bank charges. It calls for the management of the organization to understand the expenditure of the organization to ensure that it outweighs the income (Ajibade, Jayeoba & Aghahowa, 2018). Kigen (2016) notes that pension schemes also incur investment costs that could be significant in nature. Ngetich (2012) notes that operational efficiency is one of the key factors affecting the financial growth of pension schemes in Kenya.

Idle funds relate to the funds that are held by the pension scheme but have not been invested, meaning that they are not earning an interest income. s require some funds to be held in cash and be readily available when clients need to make a withdrawal or when accounts reach maturity. In Kenya, pension schemes are expected to hold idle cash not exceeding 5% (Omwenga, 2013). The funds held idly have been seen to be prone to mismanagement especially in developing countries such as Kenya in addition to being unable to generate extra income for the organization that is likely to affect the financial performance of pension schemes (Ngugi, 2000).

1.1.2 Financial Performance

Financial performance looks into the degree to which an institution achieves its financial objectives. It looks into measuring the results of an organization through achievement of the firms' policies and operations in monetary terms. It is evaluated through the examination of financial statements and therefore the need to maintain them in a logical and consistent manner. The statements indicating performance include the statement of financial position which indicates the assets and liabilities of the firm while the statement of income indicates the income and expenses of the organization. The financial health of an institution could be studied through analysis of the working capital, analysis of the financial structure and profitability analysis (Trivedi, 2010).

Hinz, Rudolph, Antolin and Yermo (2010) analyzed measurement of the financial performance of pension funds. They indicated that pension portfolios need to be designed and measured in a manner that indicates that they will deliver stable and sufficient income on the retirement of beneficiaries. Barros and Garcia (2007) indicated that the performance of pension funds could be evaluated based on the returns in the securities market which had the limitation that not all pension funds are quoted on the securities market. The problem is thus resolved by the use of performance ratios which provide information on the performance of the fund and how well the organization is working towards accomplishing its goals. The study will, therefore, adopt performance ratios including risk adjusted return on assets (RAROC) to establish the performance in the study.

1.1.3 Fund Characteristics and Financial Performance

The age of the fund examines how long pension administrators have managed an account. Pension funds are long term in nature, and they take time to become profitable to the organization. For funds to be sustainable in the long run, there needs to be a balance between long-run assets balance to ensure that it sustains the short term and long term goals of the organization. The fund managers need to understand expected liabilities, the expected amount of contributions and the necessary investments required in order to keep a balance (Okeyo, 2017).

Holding idle assets in the pension scheme has been seen as ultimately not being in the best interest of the pension scheme members. Ngugi (2000) indicates that in addition to not earning an interest or an income to the organization, there is the likelihood that the money could be mismanaged. Pension funds accumulate huge sums of money every month and they do so until the pensioners retire. They are expected to make payments that are more than the money deposited and thus a failure to invest and plan well could lead to a situation where they are unable to meet their obligations. In 2013, 254 pension schemes were found to be in breach of the 5% legal idle cash limit with the organizations holding more money than is legal (Omwenga, 2013). Such idle lying funds could be seen as a risk to the pension fund which could adversely affect the beneficiaries. Fabozi and Kothari (2007) indicates that large cash reserves held by institutional investments need attention as in the event that if real cash payouts rise, the cash returns will not keep pace.

Okeyo (2017) highlighted that organizations with low contributions densities are likely to face low incomes in the years of retirement of the members in the scheme. The issue especially faces countries with high levels of the informal sector, where contributions are

not mandatory and regulated. Valdés-Prieto (2008) indicates that the adequacy of pension payments is dependent on the density of contributions and yet the density could fall far below 100% because states are unwilling to impose mandate on regulations especially on poor workers.

Expenditure is an integral part of any organization whether profit making or nonprofit making. There is uncertainty that comes with pension funds owing to post-retirement mortality and healthcare expenditure in addition to the day to day costs of running a pension scheme. OECD (2019) indicated that the other main expenditure in pension schemes is the change in demographics which are seeing many people retire and thus requiring payout. It, therefore, presents a complex dynamic for the organization that needs to plan for the long term yet take into consideration factors such as changes in policy and special funds to cater for emergencies. The study by OECD noted that public pension expenditure in countries such as Korea is expected to increase with up to 50% and thus a need to plan adequately to ensure sustainability.

1.1.4 Pension Schemes in Kenya

The Kenyan retirement benefit is regulated by the regulatory board authority (RBA) with the legal provisions provided under the Pensions Act. The pension Act provides provisions for granting and regulating the pensions, gratuities. The Act plays a crucial role of providing the manner in which gratuities are calculated. Kenya has a total of 1232 registered pension schemes under RBA (RBA, 2018).

The RBA classifies the contributions made to the scheme as defined contribution, defined contribution, and a hybrid. Defined contribution is a scheme where members contribute a

fixed amount either as a percentage or in amount. Under the arrangement, the benefits are not determined in advance but are rather determined by the level of contribution made over the accumulation period. The defined benefit scheme is one that the benefits are predetermined under the scheme rules in advance. Further, there are hybrid schemes that combine the features of the defined contribution and defined benefits. Additionally, RBA classifies payments as either being provident or pension funds. Provident funds pay a lumpsum to the members when they leave a scheme or to their dependents on their death. Pension schemes on retirement pay a commuted lump sum with the remaining amount being paid in a periodical mode (RBA, 2018).

Pension system in Kenya is classified into the civil service pension fund, NSSF, Public service employees and armed forces Schemes, the occupational schemes that are 1194 and individual schemes that are 34 in number. NSSF is a statutory scheme for which every employer must enroll and provide payments for their employees. It operates as a defined contribution scheme with the employer and employee contributing specified amounts at the end of every month. Currently, the NSSF operates in a manner the contribution is 12% of pensionable wages with the employee contributing 6% and the employer matching the amount with an upper limit of Kes 2160 (NSSF, 2019). NSSF is then required to pay a lumpsum at either the retirement of the beneficiary, earlier invalidity or on death to the beneficiaries.

Public service employees and armed forces Schemes is a defined benefit scheme that allows members to make modest contributions of 2%. The scheme is financed on a pay as you go (PAYG) basis with the costs incurred by the scheme being met by the government. The schemes main expenditure is the payment of lump sum as the members retire.

Schemes that are set up voluntarily by employers to enhance the well-being of their employees are known as occupational schemes. Employers are not mandated to provide an additional retirement scheme but if they choose to set up a retirement scheme for their employees; they are obligated to comply with the retirements benefits legislation and rules (Suleman, 2018). Under the occupational scheme, there are no minimum levels of contribution, but employers determine a reasonable amount to deduct, and they match up the amount when submitting to the pension scheme. The schemes are regulated by the RBA with issues relating to minimum retirement age, vesting, portability, and accessibility to the pension fund.

Institutional investors allow individuals to set up their personal pension plans and can be consolidated in the event that one needs a change of administrator. The Kenyan government has been encouraging the growth of such schemes to increase pension coverage. They have consequently grown from 17 to 34 in the past 10 years.

1.2 Research Problem

Pension schemes are irreplaceable Kenya economy based on the value they fetch. They are also growing rapidly not only in Kenya but also across the world. A big population of Kenyans understands the importance of saving for retirement which elevates the need for pension schemes. Sustainability and growth of pension schemes is key as pensions schemes are expected to support the economy, create employment, and support the beneficiaries upon retirement. It is therefore imperative to understand the manner in which the years of operations of a pension schemes impact performance. Ajibade, Jayeoba and Aghahowa (2018) indicate that financial performance may be attributed to performance of pension schemes. Further, expenditure of the fund is key in understanding whether the income of

the fund exceeds the income of the fund and the implication on performance. Density of the contributions is an important characteristic that looks into the quantity of contributions made into a pension scheme. Additionally, pension schemes have the tendency to hold idle funds which may be an indicator that the firm is holding assets that may not be generating an income.

According to the retirements benefit authority (RBA), the retirement scheme industry has experienced significant growth with a compounded annual growth rate of 14.3% between 2008 and 2018. The growth in the sector has been linked to increased member contributions or the density of contributions and an increase on return on investments of idle funds. Further, as at September 2018 pensions scheme in Kenya held total assets amounting to Kes 1.2 trillion up from Kes 1.08 trillion in 2018 (Wafubwa, 2019). However, despite the growth, the penetration rate remains low in Kenya at a rate of 15% for adult members indicating that pension schemes are experiencing challenges. In 2013, 254 pension schemes were found to be in breach of the 5% legal idle cash limit with the organizations holding more money than is legal (Omwenga, 2013). It therefore leaves the gap of understanding the impact that density of contributions and idle funds have on performance of pension schemes which the study will seek to address.

Were, AmuhayaIravo and Wanjala (2017) explored the factors that influence performance of pension schemes and established that access to capital, leverage, retained earnings and the firm size as significantly influencing performance. Nyangeri (2014) sought to understand the influence of company characteristics on financial performance of pension schemes and found a positive relationship between age of members, fund size, fund design and density of contributions. However, Oluoch (2013) found insignificant relationship

between the levels of contribution and the financial performance of pension schemes. Internationally, in Africa, Ajibade, Jayeoba & Aghahowa (2018) found that the age of the fund, expenditure, density of contributions, and idle contributions have a significant impact on the financial performance of the funds. The findings from the various studies appear to generate conflicting results on the various variables affecting performance leaving a study gap to be addressed to conflicting arguments.

The significant importance of the pension sector cannot be underplayed yet; there are few studies that have sought to address the impact of fund characteristics on the financial performance of the pension schemes and those that do, have generated conflicting results. This study will, therefore, seek to address the research gap by addressing the below research objective.

1.3 Research Objective

The objective of the study was to determine the effect of fund characteristics on the financial performance of pension schemes in Kenya

1.4 Value of the Study

The study was valuable to the body of research as it adds to the body of knowledge on the area of the effect that fund characteristics have on financial performance. Further, provided an opportunity to understand existing gaps in the study and thus broadening study on the topic.

The study was valuable to the practice of pension schemes in Kenya. The role of pension schemes is evidently very critical to the Kenyan economy and the study is a guide to the management on the areas that need to be addressed in relation to fund characteristics to

ensure that they remain sustainable and profitable. Further, it has provided interested investors with information on the important areas of pension schemes that they need to be aware of to ensure that they minimize risk and maximize returns.

The study research recommendations are important to the retirement benefits authority as they will ensure that policies created are directed towards enhancing the performance of pension schemes to ensure that they are not only attractive to potential investors but also to protect the funds of the beneficiaries in order to enhance growth and confidence in the sectors.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Chapter two of the study will look into the literature review which will bring out a critical analysis of literature from previous studies and sources. The chapter will provide a summary of studies relating to the issue of fund characteristics and the impact that it has on the performance of pension schemes in a bid to compare, assess and identify research gaps in the study from the empirical review. Further, the chapter will incorporate the theoretical review and the conceptual framework.

2.2 Theoretical Review

Theories are formulated with the intent of explaining phenomenon, predicting possible outcomes and in some instances extending or challenging existing knowledge within the assumptions of the specific theories. The aim of the literature review is to examine various theories in regard to the financial performance of pension schemes and fund characteristics and to review and explain the existing relationship. The study will be based on the modern portfolio theory, the theory of constraints and the financial intermediation theory.

2.2.1 The Modern Portfolio Theory

The modern portfolio theory derives its fundamentals from the Portfolio Selection theory that was developed by Markowitz in 1952. The theory is based on the fundamentals of risk and return which stipulates that the selection and construction of a portfolio is based on its ability to maximize returns and subsequently minimizing the risks (Fabozzi, Gupta & Markowitz, 2002).

The theory is based on certain assumptions on the behavior of the markets and that of investor decisions. The theory stipulates that investors in the market need to be rational and need to seek to maximize returns. Further, investors in the market need only to take up additional risk if they are expecting to be compensated through higher returns. Further, investors in the market need to be able to receive all the relevant information before making a decision on their investments. Further, investors need to be able to borrow unlimited amounts of money for capital at a risk-free rate. Markowitz also stipulates that for the theory to work, markets need to be efficient, has no hidden transaction costs and that securities can be selected independently in the market. The theories have, however, been challenged and criticized based on such arguments that it is almost impossible to borrow unlimited amounts at a risk-free rate (Menjeri, 2018).

Portfolio management has evolved enormously over the past 20 years as today, it is seen as being central in the financial industry. Performance analysis is an important part of portfolio management as it provides an evaluation of the overall success of the investment management process. For an organization to successfully implement portfolio management, they need to understand portfolio analysis to ensure that they are able to meet the expectations of its stakeholders. According to Amenc and Le Sourd (2003) performance analysis is the last part of portfolio management and provides an understanding of the success of the investment process that the organization adopted.

Pension schemes are managed in a manner that looks into ensuring that assets are invested in different levels of risk by the investment managers. By doing so, they ensure that they are able to minimize risks and maximize wealth. The theory forms a basis for understanding the importance of investing the funds of the pension scheme as opposed to holding them in

idle assets and whether this has a financial implication on the performance of pension schemes. Further, the theory provides an understanding that it is the fund managers that understand the risk dynamics of the investments that can enhance the financial performance of the organization. It is a call to understand that pension managers should not take up risk but should do so while safeguarding the investments of their various beneficiaries.

2.2.2 Financial intermediation Theory

The financial intermediation theory was fronted by Gurley and Shaw (1960). It is based on the foundations of information asymmetry and agency theory. In any economic market, the need for financial intermediaries is brought forth by the existence of high transactions costs and lack of adequate information in the market owing to the lack of perfect market conditions. Allen and Santomero (1996) explain that in perfect markets allocation of resources is efficient. However, such a situation does not exist in a normal market as observed in practice. It is almost impossible for individual households to come together and create a portfolio that will generate adequate value without the assistance of mediators. Historically, banks and insurance companies have played the role of intermediation, especially in developed markets.

Andries and Cuza (2009) that in addition to intermediation being based on information asymmetry, it also addresses transaction costs in the market and regulation of monetary creation of saving and financing the economy. The theory stipulates that the regulation of the intermediaries influences the liquidity and solvency of the organizations. Financial intermediaries have the role of buying and selling assets on behalf of their beneficiaries with the key aim of reducing the liquidity risk, enhancing information provision and debt renegotiation.

Pension schemes play the role of intermediation in the market. Tirimba (2013) indicates that pension schemes pool finances from small intermediaries and provide a tradeoff between risk and return. They are organizations that are burdened with the role of diversifying premiums invested in various securities whether domestic or international. Further, they have the ability to collect, absorb and process information in a superior manner compared to individuals. Further, they have the ability to reduce transaction costs and custodial fees. Davis (2000) looks at pension schemes as institutional investors that pool, save and invest the funds of their beneficiaries and though they provide a myriad of advantages to the stakeholders, it is key to understand the costs that come with their role and how it affects their performance and sustainability. The theory will therefore contribute to the study by creating an understanding of the effect of fund expenditure on the financial performance of pension schemes.

2.2.3 The Theory of Constraints

The theory of constraints was established by Eliyahu Goldratt in the 1980s as a systems management philosophy. The theory is based on the need to identify the most important obstacle that stands in the way of the organization's ability to achieve its goals. The theory then proposes that once the constraint is detected, the organization works towards improving and eliminating it. Teliyahu proposes a scientific five-step approach that requires organizations to identify the current existing constraint which limits the rate of goal achievement. The organization then exploits the existing resources to make improvements. Further, the organization reviews the activities of the organization to ensure they are aligned to the goals of the organization. In the event that the constraint still exists,

further actions are taken such as seeking additional financing when capital is not available. Finally, the process is repeated for every existing constraint in the organization.

The constraints theory was in the past limited to manufacturing companies, but it has been broadened to incorporate diverse organizational settings. The theory comes in as a challenge for the management of an organization to consider the actions of the organizations such as in the management of expenditure. The theory challenges managers to focus on the constraints that stand between the company and the achievement of goals. Constraints in the market could come in the form of lack of people, materials, space, existing policies, nature of the market and a paradigm of beliefs engrained in people. The study will present a platform to understand the constraints that limit pension schemes from maximizing on their profitability and through the recommendations, the study will highlight areas that the company can improve its operations.

2.3 Determinants of Financial Performance of Pension Schemes

Pension schemes are set up in a manner that unlike short term investment funds, they look at the long term which comes after the retirement of the beneficiaries. Ultimately long term investments are riskier compared to short term investments, and it is critical to understand the various variables that could affect the success. There are many factors that affect performance including interest rates, inflation, employee skills, and management policies. However, the study will focus on the manner that the age of the fund, density of the contributions, the expenditure of the fund and idle funds influence the performance of pension schemes.

2.3.1 Density of the Contributions

Density of the contributions looks into the amounts of contributions made into a pension scheme in a given period (Ajibade, Jayeoba & Aghahowa, 2018). Density of contributions is determined by the number of people making a contribution into a pension scheme. Density of contributions is considered an effective measure of the success of a pension fund as it shows the potential of the scheme. Persons that are alive, in active service and hence not retired, above the age of 18 years are considered to having potential to contributing to the density of contributions (Robalino & David, 2005). The density of the contributions is often influenced by the level of compulsory and defined contribution that a group makes in a bid to achieve their post-retirement benefits. Developing countries face the challenge of improving the contribution density owing to the high levels of people in the informal sector who do not necessarily make a contribution into the pension schemes. The impact of density of contributions, in the long run, leads to underfunded public pensions especially those with a defined benefit plan (Jeppson, Ruddy & Salerno, 2018). Consequently, it is expected that governments will be forced to reduce public expenditure and thus reducing economic vibrancy. Further, it is anticipated that underfunded pensions schemes call upon the employees to increase the level of contribution which is a situation that has been experienced in Kenya.

Wharton University (2018) noted that despite civil servants making contributions towards their pension every year, the country found themselves in a situation where they were underfunded. Analysts in the country noted that the density of contributions was outweighed by the investment opportunities available with the government expectations being that the investment returns would be huge enough to cover payments but there was

a collapse of the housing market. Herrerias and Zamarripa (2017) looked into the determinants of density contributions on the Mexican pension system. The study noted that developing countries are characterized by low-density contributions with African countries suffering the most, and countries such as Mexico, Chile, and Uruguay. Additionally, despite the call for gender balance, men are seen to contribute higher as they are the persons that mainly participate in formal employment. The study further noted that the density of contribution varies with time with higher contributions happening in the initial years of affiliation with a decline due to entry-exit dynamics.

2.3.2 Expenditure of the Fund

The OECD (2019) defines pension expenditure as the payments made by the pension scheme including lumpsum payments upon retirement or to the beneficiaries. OECD notes that there has been an increase in spending in the OECD countries in the past decade mainly driven by demographic changes. In Kenya, pension expenditure was expected to rise by Kes 12 billion from Kes 43 billion to Kes 55.7 billion in the year 2016/17 (Mutai, 2016). The increase in the expenditure was expected due to an increase in gratuity to civil servants who were expected to leave the public office by 117%. Sluchynsk (2015) notes that there are administrative and operational expenses that need to be taken into account while looking at the performance of the pension scheme including labor cost, cost of supplies, taxes, and utilities. The study notes that some costs may be direct or indirect but should ideally be considered in the process of constructing a consistent cost measure for the organization. Ajibade, Jayeoba and Aghahowa (2018) additionally include valuation costs, trustee fees, custodial fees, fees for investment managers, audit fees, bank charges and other professional fees as being significant costs accruing to a fund.

Kigen (2016) notes that there are different ways of levying pension costs in an organization as they reflect on the pattern scheme costs structures in various parts of the world. Some pension schemes have fixed costs while some organizations levy costs to each transaction while some use a combination of both. Additionally, some pension schemes levy taxes at the upfront of disbursing pensions while others stretch taxes over the lifetime of the pension. Kigen (2016) further notes that pension schemes also incur investment costs that could be significant in nature. Sluchynsk (2015) notes that there is a lot of pressure for pension schemes to improve on efficiency. Ngetich (2012) notes that operational efficiency is one of the key factors affecting the growth of pension schemes in Kenya. In the study, he notes that there is a need to move from the pay as you go (PAYG) system and make pension schemes to be fully funded. The study argues that funding the pension system will allow the employees to be saving for their retirement and thus remove the excessive pension expenditure on the government. The OECD (2019) notes that there is a need to make long term projections as there is a time lag between the period when reforms in the economy start affecting the public expenditure of pensions.

2.3.3 Idle Contributions

Idle funds look into funds that are held in the organization that are maintained in the organization and therefore not earning an interest for the company. Annort, Bernstein and Hall (1991) indicate that the large cash reserves maintained in institutions require attention. Cash reserves cannot be compared with liabilities held in the organization as idle cash bears a higher risk. A drop in interest rates in the economy could reduce the interest rate of earning held in the bank compared to that which could be earned through the stock market and from bonds. Such situations could lead the pension scheme to being unable to meet

their obligations when they fall due. Idle cash is considered a risk owing to its ability to produce very low returns.

However, cash reserves are necessary as they allow fund managers to be able to take advantage of opportunities that arise in the market. It is necessary to be able to meet the company's near term liabilities especially those that arise unplanned for such as the death of beneficiaries that require immediate payment to the dependants. Hall (2000) noted that in the past, pension schemes could ask the custodians to place cash in deposit but in the modern era, there are an array of instruments that provide active management of money in a bid to add more value. However, pension funds maintain a complex class of clients owing to the need to access their funds. The question, therefore, lies in how much pension schemes should hold and how it influences their financial performance. In Kenya, pension schemes have been noted to hold idle cash as they await for their beneficiaries to retire (Ngugi, 2000). The funds held idly have been seen to be prone to mismanagement especially in developing countries such as Kenya. Ngugi (2000) makes the recommendation that pension schemes should direct the idle funds to income generating ventures such as housing. Modern cash management indicates that funds should operate in a manner that they do not hold idle cash as holding it is considered a wasteful use of resources.

2.3.4 Age of the Fund

The age of the fund looks into the period of time that the fund has been in existence (Ajibade, Jayeoba & Aghahowa, 2018). The age of the fund is synonymous with the administration of the pension scheme with organizations that have operated for a longer period being more profitable. Further, Tijjani (2014) indicates that pension funds that are older are stable and have better financial sustainability. Age is considered one of the most

important firm-specific factors that influence the performance of the organization (Pervan, Pervan & Curak, 2017). Age comes to influence several aspects of the operations of the organization. Start up entities face teething issues, struggling to gain market share and trying to stay sustainable for the first few years of operation in the renowned liability of newness that is used to describe young organizations.

Age has the ability to influence performance in various ways depending on the organizations' rigidness and inertia. Rigid companies have the ability to be affected negatively as they may fail to have impaired judgment on valuable opportunities that are presented to them. Garnsey et al., 2006 indicates that new firms have a nonlinear growth owing to interruptions and setbacks that may not have been anticipated in the business planning stages. There is minimal literature existing on the impact of the age of a pension fund on financial performance.

2.4 Empirical Review

The empirical review analyzed past literature on factors that influence the performance of pension funds locally and internationally.

2.4.1 Local Studies

Oluoch (2013) researched on the causal factor of the performance of pension system in Kenya. The study noted that despite an interest by researchers on the pensions schemes owing to their growth, there were minimal studies on the factors that affect performance of pension schemes. The research focused on the variables of age of the contributors, the net value of assets and the level of contributions received into the fund. The study focused on the 1216 pension funds registered by the RBA as at 2013 with a sample of the 29 schemes

registered by the Liaison Financial services. The study used the financial statements of the firms of the study and analyzed the data using the multiple linear regression model. The study findings indicated that there is a weak relationship but positive between the fund value, assets, age and amount of contributions on the financial performance of pension schemes. The insignificance of the study variables led to the conclusion that there had to be other factors that influence the performance of pension schemes and thus necessitating this study.

Nyangeri (2014) explored the outcome of firm characteristics on the financial performance of pension schemes in Kenya. The inquiry noted that the pension sector is a significant source of capital for the Kenyan economy. However, there are a few studies addressing the impact of firm characteristics with studies on pensions various aspects of pension schemes including determinants for growth and financial efficacy. The study focused on the variables of age of members, fund size, fund design and density of contributions on financial performance. The study employed a descriptive research design with a focus on the 1216 pension schemes registered by the RBA as the study population. A sample of 134 firms was selected using the Neuman (2000) formula and data was collected from financial statements between 2009 and 2013. The findings of the study were presented with the assistance of the regression model which indicated that there is a positive relationship between the study variables and the financial performance of pension schemes. The study limitations indicated that the study failed to employ a causality test to establish the strength or weakness of the relationship which is a key gap that this study will seek to address using the regression model at a significance level of 95%.

Kigen (2016) explored the effect of the fund size on the financial performance of pension schemes in Kenya. The analysis specific objectives looked at the impact of contribution density, fund size and administration costs. The study noted that research on pension schemes in Kenya is focused on private pension schemes and also a focus on international study leaving the gap of understanding the impact of fund size in the Kenyan sector. The study was conducted using a cross-sectional correlation study design in a bid to understand the cause and effect relationship of the variables. The population was 1264 pension schemes in Kenya and used the Yamane (1987) method to get a sample size of 93 schemes for the period between 2011 and 2015. The findings of the study indicated that investment expenses were seen to have a negative but significant impact on performance of pensions schemes. Further, administrative expenses were seen to have a positive and significant relationship on the performance of pension schemes. The study finding indicated that the fund size has a negative and significant relationship with the pension fund performance. The study recommendation included a need for pension schemes to pay attention to pension contributions and administrative costs which is a key gap that this study will seek to address.

2.4.2 International Studies

Ajibade, Jayeoba and Aghahowa (2018) did research on pension fund characteristics and financial performance in Nigeria. The study notes that as of 2017, Nigeria had a pension fund of N7.5 which was an 18% rise from N6.1 in 2016. It was an indication of the rapid growth of pension assets in the country, and there was, therefore, a need to study the area in a bid to enhance effective management of pension schemes to ensure that they yield a good return to the pensioners on retirement. The study adopted an Ex-post facto research

design with a focus on the 21 pension administrators operating in Nigeria for the period between 2010 and 2016. The study, however, sampled 11 pension schemes with a focus on the age of the fund, expenditure, density of contributions, and idle contributions. The study findings indicated that jointly, the study variables have a significant impact on the financial performance of the funds with the model indicating that the variables explained 97% of the changes in performance. However, the study noted that independently, in the choice of a fund administrator, the minimal expenditure may not always mean better performance; further, smaller contribution density could lead to better performance of a pension scheme.

Acikgoz, Uygurturk and Korkmaz (2015) did an analysis of the factors that affect the growth of pension mutual funds growth in Turkey. The study noted that pension schemes play a crucial role of increasing the level of savings in the economy and enhance the allocation of resources in the country. The studied the real return of the fund, fund assets, fund operating expenses and number of participants as the study variables using a linear regression model. The study used the eight equity pension schemes in the country as the study population between January 2006 and September 2013. The study findings indicated that there is no significant relationship between the funds operating expenses and profitability of the firm while return on funds and the number of participants were found to have a significant relationship. The study conclusion notes that it may not be realistic to speak of growth in a fund in real terms. It may be more realistic to look at growth in terms of changes in performance in the stock market or the size of the fund based on the changing number of participants and growth in their contribution.

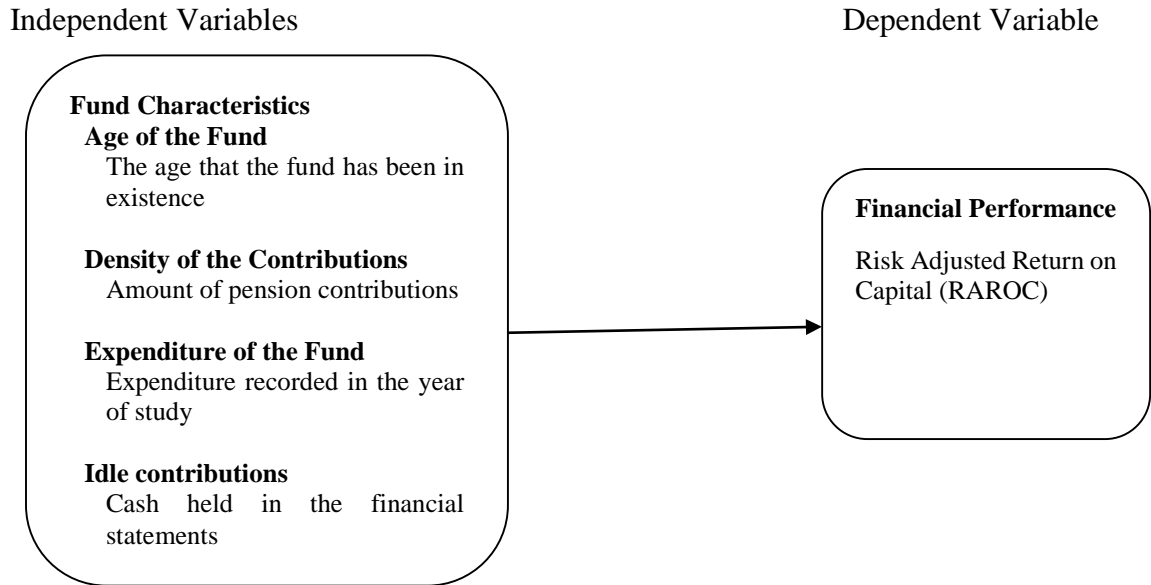
Adami, Gough, Mukherjee and Sivaprasad (2014) did an empirical study of the performance of pension schemes in the UK. The study notes that there has been a growing interest in

the returns of pension schemes for institutional and individual investors. The study collects data from CAPS-Mellon survey data for 993 pension funds between the years 1980 and 2003. Data analysis was done through a linear regression model to understand the impact of size of the firm, expenses of the organization and the momentum of the portfolio. The study findings indicate that the expenses of the organization play a key role in the net returns of the organization. The study further notes that large equity funds underperform small funds and thus the size of the fund matters in the performance of the organization.

2.5 Conceptual Framework

Conceptual framework is important in synthesizing the literature in the study to explain the key point of view of the study. It shows the independent variables in the study as being the age of the fund, density of the contributions, expenditure of the fund, size of the fund and idle contributions and the impact that they have on fund performance as measured by risk adjusted return on capital with the size of the firm as the control variable.

Figure 2.1: Conceptual Framework



Source: Author, 2019

2.6 Summary of the Empirical Review

The literature review was instrumental in bringing out the theories relating to the performance of pension schemes. The modern portfolio theory indicated that there importance of investing the funds of the pension scheme as opposed to holding them in idle assets and whether this has a financial implication on the performance of pension schemes. The financial intermediation theory was key in highlighting the role of pension schemes in acting as the intermediary for their beneficiaries. The theory of constraints challenges managers to focus on the constraints that stand between the company and the achievement of goals such as fund expenditure and idle funds. The study further looked into the variables affecting the financial performance of pension schemes including the age of the fund, the contribution density, the age of the fund, expenditure of the fund and idle funds.

In addition, Ajibade, Jayeoba and Aghahowa (2018) find that jointly age of the fund, expenditure, density of contributions, and idle contributions have a significant impact on the financial performance of the funds, however, the study noted that independently, in the choice of a fund administrator, the expenditure may not always mean better performance. Acikgoz, Uygurturk and Korkmaz (2015) made the findings indicated that there is an insignificant relationship between the funds operating expenses and profitability of the organization. Adami, Gough, Mukherjee and Sivaprasad (2014) the costs of the organization play a key role in the net returns of the organization. The empirical review appears to bring put conflicting arguments on the impact that fund characteristics have on the pension scheme which is a key gap that the study will seek to address.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Chapter three of the study looked into the methods that were employed to investigate the research problem and the specific procedures that were used to analyze information to understand the research problem. It is a critical part of the study as it allowed readers to understand how data would be obtained, evaluated the reasons for choice of given procedures and also anticipated challenges and evaluated how to prevent them from impacting the study findings. The chapter included the research design, the population and sample size of the study, the manner in which data was collected and analyzed.

3.2 Research Design

The research design relates to the arrangement of condition and analysis of data in a manner that it provides information that is relevant to a study. It is the plan, strategy and structure in which investigation is conceived in a bid to answer the research questions (Ikart & Ditsa, 2004). Research design has been seen as an operational plan and framework of the project and establishes the manner in which data will be collected. It ensures that data in the study is collected in an accurate and economic manner. It looks to address what the study is about, why the study is being done, the type of data required, where the data can be found, and the nature of the report that is to be generated.

The study on the effect of fund characteristics of pension funds in quantitative in nature as the research sought to have statistical conclusions. Research has shown that number provide a better insight especially when business decisions are involved as it is in the study (Palinkas, 2014). Further, numbers provide a basis for analyzing the growth prospects of

an organization. The study adopted a descriptive correlational research design which was quantitative in nature as it provided an opportunity to understand causal linkages between the study variables through the observation of existing phenomenon and searching through available data to identify a plausible relationship (Palinkas, 2014).

3.3 Population and Sample

The population of the study was defined as the total collection of members, events or objects that have similar characteristics and for which the researcher aims to generalize the findings. Kenya has a total of 1232 registered pension schemes under RBA (RBA, 2018). The schemes are classified into the one civil service pension fund which covers public service employees and armed forces and is defined benefit in nature, one mandatory scheme for the formal sector (NSSF) that are defined contribution in nature, 1196 voluntary occupational schemes that are either defined contribution or defined benefit and individual schemes that are 34 in number that are defined contribution. The population of the study was the 1232 pension schemes.

3.4 Sampling

A sample consists of a number of objects selected from the larger group that have the ability to provide information that is a good representative of the larger group. Sampling entails the procedures that are employed in selecting the portion of the population (Ethridge, 2004). Connaway and Powell (2010) indicates that in the choice of a sample is because the researcher needs to choose one that is less costly and less time consuming which would not be achieved if the entire population is studied.

The sample in study consisted of 34 (See Appendix) individual retirement benefits schemes registered with the RBA (RBA, 2019). The study adopted stratified sampling in the choice of the 34 schemes. Stratified sampling divides the population of the study into groups called strata which in the study are the various classifications of pension schemes in Kenya. The 34 schemes provided the ability to access the financial statements that are submitted to RBA at the close of every financial year. The 34 firms are selected based on convenient sampling based on ability to access their financial statements.

Table 3.1: Classification of Pension Schemes

Type of Pension	No. of Schemes	Type of Scheme
Mandatory scheme for formal sector employees	1	Defined Contribution
Public service employees and armed forces Schemes	1	Defined Benefit
Voluntary occupational schemes	1196	Defined Contribution plus Defined Contribution
Individual personal pension plans	34	Defined Contribution
TOTAL	1232	

Source: RBA (2018)

3.5 Data Collection

Data collection is one of most significant bit of research as it influences the validity and accuracy of the results. It is based on the reasoning that data is the basic unit of quantitative research. It is through data collection that the researcher is able to gather quality information that will ensure that informed data analysis is made and the conclusions made are quality and can be used to add to the body of knowledge (Grbich, 2012).

Secondary data from annual financial statements to obtained from financial statements while information on other variables were obtained from company reports and annual reports by RBA. Secondary data relates to information that has already been collected and is readily available for use by the researchers. The study utilized secondary data from financial statements of pension schemes that were sourced from the retirement benefits authority system for a five-year period from 2014 to 2018. The data was collected and recorded in an excel document (See Appendix) in preparation for analysis.

3.6 Data Analysis

Data analysis is the process of inspecting data and transforming it into useful information that can be interpreted, discussed and a conclusion drawn. Quantitative data analysis especially looks into transforming raw numbers into meaningful data which looks into getting values relating on frequencies such as the mean and standard deviation. Further, it provides an opportunity to derive statistics on the relationship between the variables of the study (Grbich, 2012).

3.6.1 Data Analysis Model

The findings of the study were analyzed through a multiple linear regression model generated from SPSS which took the form:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y_i = Financial performance of pension schemes as measured by Risk Adjusted Return on Capital (RAROC)

β_0 = constant (The part of financial performance that is influenced by other factors other than fund characteristics).

$\beta_1, \beta_2, \beta_3, \beta_4$ = parameters of independent variables under study

The fund characteristics are the dependent variables that are determined by various measures indicated as X_1, X_2, X_3 , and X_4 .

X_1 = Age of the Fund (Natural log of the number of years the fund has been in existence)

X_2 = Density of the Contributions (Natural log of total contributions to the scheme)

X_3 = Expenditure of the Fund (Natural log of expenditure of the fund of the scheme)

X_4 = Idle contributions (Natural log of cash at bank in the financial records)

ε = Error Term

The multiple linear regression analysis makes five assumptions including existence of a linear relationship, the residuals are normally distributed, there is no multi collinearity and test for auto correlation.

Linear relationship in the study was tested using the correlation analysis. Pearson's correlation was used to test for correlation. It is a statistical test that measures the relationship between two continuous variables and it has the ability to give the magnitude of association and the direction of the relationship. The significance level (or p-value) or probability of obtaining results as extreme will be observed. The research study was done at a 95% confidence level, hence, if the findings of the study were found to be less than 0.05 then the variables were considered significant. If greater than 0.05 then the correlation is not significant and the two variables are not linearly related (Guajarati, 2004).

Multi collinearity looked into the possibility that one predictor variable in a study can be predicted from the others with a substantial degree of accuracy (Guajarati, 2004). Multi collinearity is tested with the help of the Variance Inflation Factor (VIF). A VIF of 1 is an indication that there is no correlation between the independent variables. A VIF level of between 1 and 10 is an indication that moderate correlation exists but may not be severe enough to warrant corrective measures. (VIF) values less than 10 shows there is no problem of multi collinearity (Field, 2009).

3.6.2 Test of Significance

The test of significance is meant to establish the statistical significance of the study variables and indicates the likelihood of rejecting or accepting the null hypothesis (Chawla & Sondhi, 2011). The study will be done at 95% confidence level and the p level will be used for comparison. If the p value is less than or equal to 0.05 will indicate strong evidence against null hypothesis and thus the study will reject the null hypothesis. If the p value is greater than 0.05, the study evidence will be against the null hypothesis thus the study will fail to reject it.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

Chapter four of the study will look into the analysis of data collected as per the outline laid in chapter three. The will seek to address the research objective of determining the effect of fund characteristics on financial performance of pension schemes in Kenya. The study sought to address the study objective through a study of the various variables including impact of age of fund, density of the contributions, expenditure of the fund and idle funds and how they influence the risk adjusted rate of return as the measure of performance. The chapter will present data in the study that was collected, organized and analyzed with the assistance of SPSS. The chapter will present the response rate, descriptive statistics, regression analysis and assumptions of a linear regression model.

4.2 Descriptive Analysis

Descriptive statistics in the study were generated to give a summary of the data set in the study. Data collected in the study included number of years the pension fund has been in operation, cash held in the bank balance, expenditure of the fund and contributions into the pension schemes. Data analysis was done by converting the figures in logs of the independent variables. The results in the study will be presented in logs of the financial data. Table 4.2 below shows that the mean and the standard deviation of the variables in the study. RAROC had a mean of 17.99% and a standard deviation of 1.9820. It is an indication that the firms risk asset return on capital for the 29 firms in the study averaged

to the figure with a small standard deviation. The age of the firms was at an average of 2.9142 years.

4.2.1 Mean and Standard Deviation

Table 4.1: Descriptive Statistics

	Obs	Descriptive Statistics							
		Statistic	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis
Age of fund	145	.6931	5.1417	2.9142	1.3546	-.378	.434	-.996	.845
Density of Contributions	145	9.4783	21.3892	17.3111	2.5610	1.066	.434	1.949	.845
Expenditure	145	9.6622	22.0361	15.1139	2.3329	.586	.434	2.111	.845
Idle Funds	145	12.7191	24.0361	17.1484	2.3893	.471	.434	1.481	.845
RAROC	145	-16.3241	31.3796	17.9887	1.9820	.035	.434	-.283	.845
Valid N (listwise)	145								

Source: Author (2019)

4.2.2 Kurtosis and Skewness

Skewness is a measure of the availability or unavailability of symmetry in data. Data is considered to have symmetry when it has similarity on the right and the left in relation to the center point. Kurtosis measures whether the data in a study is heavy tailed or light tailed relative to normal distribution. The kurtosis levels between -2 to +2 are considered

acceptable to prove the existence of normal univariate distribution while a skewness of -1.96 to +1.96 is considered within the normal distribution (Trochim & Donnelly, 2006).

Table 4.1 above indicates that skewness stood at between -1.066 for pension contributions and the lowest being 0.035 for RAROC meaning that the data in the study is normally distributed. The kurtosis in the study was between 2.111 for idle funds held in the organization and -0.996 for age of fund meaning that the data in the study is considered acceptable to prove the existence of normal univariate distribution.

4.3 Correlation Analysis

Correlation looks into evaluating the strength of the relationship between the variables in the study. Correlation analysis seeks to establish whether the variables in the study have a connection. Negative correlation means that the variables move in negative direction. The degree of correlation is measured by the closeness to either -1 or +1. Correlations closer to -1 are strongly negatively correlated while those close to +1 are strongly positively correlated.

Table 4.2: Correlation Coefficients

		Correlations				
		RAROC	Age of fund	Density of Contr	Expenditure	Idle Funds
	RAROC	1.000	.453	.798	.805	.890
	Age of fund		1.000	.523	.461	.470
Pearson Correlation	Density of Contributions			1.000	.786	.741
	Expenditure				1.000	.796
	Idle Funds					1.000

Source: Author (2019)

Table 4.2 above indicates that age if the fund has a Pearson correlation coefficient of 0.453 meaning that it has a positive but weak relationship with the dependent variable RAROC which indicates a positive relationship. Density of the contributions had a correlation of 0.798 which is a strong positive relationship with performance. Expenditure has a coefficient of 0.805 indicating a positive relationship with RAROC. Idle funds had a coefficient correlation of 0.890 which indicates a strong positive correlation with the performance of the organization.

4.4 Test for Multi collinearity

The study then checked the data for existence of multi collinearity. Multi collinearity is said to exist when the predictor variables are highly correlated with each other.

Table 4.3: Test for Multi collinearity

Model	Coefficients ^a								
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	4.311	1.269		3.398	.002	1.692	6.929		
Age of fund	-.041	.141	-.028	-.291	.774	-.333	.251	.711	1.407
Density of Contributions	.203	.111	.262	1.832	.079	-.026	.431	.325	3.080
Expenditure	.110	.131	.129	.840	.409	-.160	.380	.281	3.562
Idle Funds	.503	.118	.606	4.255	.000	.259	.747	.327	3.055

a. Dependent Variable: RAROC

Source: Author (2019)

Using collinearity statistics results in Table 4.3 above, the Variance Inflation Factor (VIF) values were all less than 10 and according to Field (2009), this shows there was no problem

of multi collinearity. Multi collinearity is important as it looks into the possibility that one predictor variable in a study can be predicted from the others with a substantial degree of accuracy.

4.5 Regression Analysis

Regression analysis is a tool that allows the researcher in a study to examine the relationship between the variables in the study. It establishes the influence of one or more independent variables on the dependent variable. The study of the regression analysis will bring into understanding the analysis of variance, the model coefficients and the model summary.

4.5.1 Analysis of Variance

The analysis of variance (ANOVA) is a model that seeks to bring into understanding whether there is a significant statistical difference between there or more independent variables.

Table 4.4: Analysis of Variance (ANOVA)

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	92.445	4	23.111	31.607	.000 ^b
	Residual	17.549	25	.731		
	Total	109.994	29			

a. Dependent Variable: RAROC

b. Predictors: (Constant), Idle Funds, Age of fund, Pension Contr, Expenditure

Source: Author (2019)

The ANOVA results extracted and presented in Table 4.4 shows that model had a sig-value = 0.000 which meant the model predicted by; idle funds, age of the fund, pension contribution and expenditure of the fund was significant in explaining the linear relationship between the four predictors that define company performance as measured by RAROC.

4.5.2 Model Coefficients

Table 4.5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.311	1.269		3.398	.002
Age of Fund	-.041	.141	-.028	-.291	.774
Density of Contr	.203	.111	.262	1.832	.079
Expenditure	.110	.131	.129	.840	.409
Idle Contr	-.503	.118	.606	4.255	.000

Source: Author (2019)

Table 4.4 above gives the regression coefficients and the significance value denoted sig. which are the p values. P values are compared with the study's confidence level to establish whether the coefficients in the study are statistically significant or not. When values are less than the confidence level, the coefficients in the study are considered statistically significant and thus reject the null hypothesis and say that the coefficients are significant for the study. The study was done at a confidence level of 95% which interprets that coefficients with p values of less than 0.05 being considered to having a significant impact on the dependent variable.

The B values in the study are the values of the regression equation for predicting the dependent variables from the independent variables. They tell about the relationship between the variables in the study. Positive coefficients indicate existence of a positive relationship which means that an increase in the independent variable would cause an increase on the dependent variable. Negative coefficients indicate a negative relationship which means that an increase in the independent variable would lead to a decrease of the dependent variable with p values indicating whether the relationship is significant or insignificant.

The findings of the study were analyzed through a linear regression model generated from SPSS which will take the form:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

From Table 4.4 above, the resulting coefficients were used in derivation of the fitted model as follows;

$$Y = 4.311 - 0.041 X_1 + 0.203 X_2 + 0.110 X_3 + 0.503 X_4 + \epsilon$$

The results of the study indicate that in the absence of the independent variables in the study including age of the fund, expenditure, density of contributions and idle funds, RAROC would be 4.311 with a p value of 0.002 which is significant as it is less than 0.05. It is interpreted to mean that there are other factors outside the model that are significant in determining the financial performance of pension schemes.

Age of the fund generated a coefficient of -0.041 with a significant value of 0.774. The p value in the study is greater than 0.05 meaning that age of the fund has a negative

insignificant influence on financial performance of pension schemes. It leads to the study noting that age of the fund has no effect of financial performance of pension schemes.

Density of the contributions generated coefficients of 0.079 with a significance value of 0.079. It is an indication that the level of contributions that a firm makes into a pension firm has a positive but insignificant impact on the performance of the organization. It leads to the study noting that density of contributions has no effect of financial performance of pension schemes.

The model generated the coefficients of 0.110 at a significance level of 0.409 for fund expenditure. It is an indication that expenditure has a positive insignificant influence on the performance of pension schemes. It leads to the study noting that expenditure has no effect of financial performance of pension schemes.

Idle contributions had coefficients of 0.505 with a significance value of 0.000. The study therefore notes that idle funds have a positive significant influence on the performance of the organization. It leads to the study noting that idle funds have an effect of financial performance of pension schemes.

4.5.3 Model Summary Results

Table 4.8 below gives the model summary. A higher r^2 indicates that the model fits the data under the study and the models explains most of the variability of the response data around its mean.

Table 4.6: Model Summary

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.917 ^a	.840	.814	.8551049

a. Predictors: (Constant), Cash held, Age of fund, Pension Contr, Expenditure

b. Dependent Variable: RAROC

Source: Author (2019)

The model summary reports on the regression model in the study. R is the square root of R square which is the correlation between the observed and predicted values in the dependent variables in the study. R square represents the proportion of variance that that can be interpreted by the dependent variables of the study. It is a measure of association that is also known as the coefficient of determination.

The model summary from Table 4.6 above gave an r^2 of 84.0%. The high value of r^2 for the model of 84.0% is an indication that the study model explains more than 84.0% of the study variables and thus the model is a good fit. The adjusted R square tries to improve on the prediction of the model and yields a more honest value estimate of the R square and confirms that R square did not happen by chance. The adjusted R square in the study was 81.4%.

4.6 Discussion of the Findings

The study noted that the age of the fund has a negative insignificant influence on the performance of pension schemes. The study is in line with the findings of Tijjani (2014) who indicated that pension funds that are older are stable and have better financial

sustainability. The study noted that the financial ability of firms as they grow older could be influenced by rigidness and inertia that could negatively influence the performance of pension schemes.

The study findings indicated that density of contributions have a positive but insignificant influence on the financial performance of pension schemes. The study is in contradiction with the findings of Jeppson, Ruddy & Salerno (2018) who indicated that density of contributions, in the long run, leads to underfunded public pensions especially those with a defined benefit plan. The findings however are debatable as the study was done in a period of five years and the findings could change within a period longer than 5 years. Kigen (2016) notes that the fund size has a negative and but insignificant relationship with the pension fund performance which is in concurrence with the findings of this study.

The study found that expenditure has a positive and significant influence on the performance of pension schemes. Kigen (2016) noted that pension schemes also incur investment costs that could be significant in nature which could in the long run positively influence the performance of a pension scheme. Ngetich (2012) however noted that operational efficiency is one of the key factors affecting the growth of pension schemes in Kenya. It means that pension firms need to find a good balance between necessary expenditure that has the potential to generate positive results.

The study therefore notes that idle funds have a positive significant influence on the performance of the organization. Hall (2000) indicates that cash reserves are necessary as they allow fund managers to be able to take advantage of opportunities that arise in the market. However, Ngugi (2000) makes the recommendation that pension schemes should direct the idle funds to income generating ventures such as housing. It is key to identify the

balance of cash reserves that pension funds should hold to ensure that they do not hold idle cash as holding it is considered a wasteful use of resources and at the same time have adequate resources to take advantage of new opportunities in the market.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Chapter five of the study presents summary of the findings, conclusion and recommendations of the study. The fund characteristics chosen in the study included expenditure of the fund, idle cash, age of the fund and amount of pension contribution.

5.2 Summary of Findings

The study findings reveal that the model is jointly significant having a significant impact on the performance of pension schemes in Kenya which is indicated by the model that generated an F-Statistic at 0.0000. The results of the study indicate that age of the fund, fund expenditure, contribution density and idle contributions are jointly responsible for 84.0% of the performance of pension schemes as indicated by the Adjusted R-Squared figure of 84.0%. The findings of the study are an indication that age of the fund, idle funds, expenditure and contribution density are key factors to consider in assessing the performance of pension schemes in Kenya.

However, independently, only idle funds have a significant impact on the financial performance of pension schemes in Kenya at a significance level of $t = 0.000$. Density of the contributions, expenditure of the fund and age of the fund were seen to have an insignificant but positive impact on the financial performance of pension schemes at $t = 0.774$, $t = 0.079$, and $t = 0.409$ respectively.

5.3 Conclusion

The study concludes that holding idle funds in the organization has a positive impact on the performance. Based on the study findings, the study makes the conclusion that as firms grow older, they have the poorer they perform. This could be explained by the fact that as firms grow older, they become overcome by inertia, inflexibility, routines and organizational structures that are likely to hinder innovation and subsequently profitability.

The study concludes that large funds are important in maintaining higher returns in a pension scheme. It means that the pension scheme has the opportunity to invest in a wider pool, diversify risks and subsequently generate higher returns. The study concludes that high expenditure in a pension scheme is not necessary a negative decision. Expenditure could be an indication that pension schemes are driving their resources to platforms that are enabling them generate higher returns.

5.4 Recommendations

The study recommends that as pension schemes grow older, they need to identify new opportunities in the market to ensure that they remain profitable, innovative and flexible. They need to create structures that do not hinder growth through bureaucracy to ensure that they remain sustainable. The study recommends that pension firms stay keen on identifying sales strategies that will ensure that contributions into the fund increase as it would allow the firm to accommodate their expenses, invest in profitable ventures and subsequently improve company performance. The study recommends that pension schemes identify expenditure that drive the profitability of the organization such as on strategy, research and

development as well as sales and marketing while reducing administrative and overhead costs.

5.5 Limitations of the Study

The study was limited by the inability to acquire some financial statements owing to some of the pension firms not issuing their financial statements. It means that the study was unable to acquire data from 100% of the firms. The study was further limited by failing to include a moderating variable that could explain the 16% of the variables not explained by the study variables.

The nature of data collection and analysis entailed a quantitative study on the impact of the various independent variables on financial performance and therefore limiting the ability to develop possible relationship between variables on other areas of performance such as operational ability and efficiency.

The study entailed the use of historical data in measuring financial performance of pension schemes. Secondary data is readily available but it may lack some level of reliability and consistency that may be desired in decision making. Secondary data is historical and may not be a true reflection on future performance of an organization.

5.6 Suggestions for Further Research

The study sought to understand the manner in which pension firm's characteristics influence financial performance. The study model indicated that 16% of the financial performance of pension schemes is explained by other factors other than those studied in the model. The study makes suggestion on a study into this variable to look into the effect that they have on a pension scheme's performance.

The study suggests further studies into other factors that influence performance of pension schemes including government policies, management styles, and the country's economic status. The study findings indicated that among the study variables, only idle funds had a significant impact on performance, it is clear that there needs an understanding on other variables that could significantly impact performance of pension schemes.

The study was limited by the inability to include a moderating variable in the study such as level of education of employees and management on financial performance of pension schemes. These are the key in influencing decision making in an organization and it would be instrumental in understanding they play in the eventual performance of the organization.

The constraints theory is based on the need to identify the most important obstacle that stands in the way of the organization's ability to achieve its goals. The study has identified idle funds as a constraint that could positively or negatively influence performance. The study makes a suggestion to study how organization can exploit the existing resources such as idle funds to make improvement in financial performance.

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APPENDIX

APPENDIX I: LIST OF INDIVIDUAL RETIREMENT SCHEMES REGISTERED WITH RBA

NO	INDIVIDUAL RETIREMENT BENEFITS SCHEMES REGISTERED WITH RBA
1	Amana Personal Pension Plan
2	Apollo Insurance Co. Ltd. Individual Pension Arrangement
3	Blue MSMEs Jua Kali Individual Retirement Benefits Scheme (Mbao Pension Plan)
4	British American Personal Pension Plan
5	CFC Life Individual Pension Plan
6	Chancery Personal Pension Plan
7	CIC (Jipange Personal Pension Plan)
8	Commercial Bank of Africa Individual Pension Plan
9	CPF Individual Pension Scheme
10	Dry Associates Personal Provident Plan
11	Enwealth Diaspora & Expatriates Retirement Fund
12	Enwealth Personal Pension Scheme
13	GA Life Personal Provident Plan
14	GA Life Personal Pension Plan
15	ICEA Lion Individual Retirement Benefits Scheme
16	Jubilee Insurance Company Ltd Personal Pension Plan
17	Kenindia Assurance Co. Ltd. Personal Pension Plan

NO	INDIVIDUAL RETIREMENT BENEFITS SCHEMES REGISTERED WITH RBA
18	Kenyan Alliance Insurance Co.Ltd. Individual Retirement Benefits Scheme
19	Liaison Personal Retirement Plan
20	Madison Insurance Personal Pension Plan
21	Mercantile Personal Provident Fund Scheme
22	Minet Individual Pension Plan
23	Mwavuli Individual Pension Plan
24	The Heritage AII Company Ltd. Individual Retirement Benefits Scheme
25	The Kenya Orient Individual Pension Plan
26	The Monarch Personal Pension Plan
27	Octagon Personal Pension Scheme
28	Old Mutual Individual Retirement Benefits Scheme
29	Pan Africa Life Personal Pension Plan
30	Pioneer Assurance Individual Retirement Benefits Scheme
31	Stanlib Individual Pension Plan
32	UAP Life Assurance Individual Retirement Benefits Plan
33	Zamara Vuna Pension Plan
34	Zimele Personal Pension Plan