RISK MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE OF PENSION FUNDS IN NAIROBI, KENYA

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DECLARATION

I understand that plagiarism is an offence and I therefore declare that this project is my original work and has not been presented to any other institution for any other award.

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DEDICATION

This project is dedicated to my family and relatives who continues to provide solace during moments of uncertainty and celebration during moments of triumph. I dedicate the project to my friends, who continues to be a source of inspiration, camaraderie and laughter throughout this challenging endeavour. Lastly, this project is dedicated to all those who believe in the power of education to transform lives and society to continue with the collective pursuit of knowledge and the continuous quest for understanding.

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ABBREVIATIONS AND ACRONYMS

BCB	**:**	Burundi Commercial Bank
ERM	**:**	Enterprise risk management
JKF	**:**	Jomo Kenyatta Foundation
KCB	**:**	Kenya Commercial Bank
MFI	**:**	Micro Finance Institution
MTP	**:**	Modern Portfolio Theory
NACOSTI	**:**	National Commission for Science, Technology and Innovation
NSSF	**:**	National Social Security Fund
PCK	**:**	Postal Corporation of Kenya
RBA	**:**	Retirement Benefits Authority
SACCO	**:**	Savings and Credit Co-operative Society
SPSS	**:**	Statistical Package for Social Sciences

DEFINITION OF TERMS

Risk management: It is the process of identification, assessment and prioritization of risks in a firm to lower and regulate the likelihood of unfortunate events in businesses (Naczyk & Hassel, 2020). In this study risk management include practices such as risk assessment, risk control, risk transfer and risk monitoring.

Pension fund: It is a fund that accrues capital to be remitted as a pension for workers after retiring at the end of their careers (Consigli, Moriggia, Benincasa, Landoni, Petronio, Vitali & Uristani, 2018). The pension funds considered in this study are those that have headquarters in Nairobi

Risk assessment: It is the process for recognizing, recording and comprehending potential risks or threats that may affect an organization (Mayaka, 2017). In this study, risk assessment entails conducting external cross checks and ensuring there are adequate regulatory compliance reviews

Financial Performance: It is the evaluation of a company's fiscal health and its efficiency in managing financial resources over a particular period, typically a fiscal quarter or year (Cho, Chung, & Young, 2019). Financial performance entails assessing the annual return and total profits accrued by pensions funds.

Risk Control: It is the process of implementing measures and strategies to mitigate potential risks and uncertainties in various aspects of business (Aduloju & Akindipe, 2022). In this study, risk control

entails conducting internal audits and having financial investments for pensioners.

Risk Transfer: It is a strategy for managing risks in which one party shifts some or all of the financial liabilities associated with a particular risk to another party (Younes, 2022). In this study, risk transfer entails having insurance policy for pension funds' asset and pension buyout policy for pensioners.

Risk Monitoring: It is the ongoing process of observing, tracking and assessing potential risks and uncertainties that can impact an organization (Aghe & Agustia, 2023). In this study, risk monitoring entails conducting risk evaluations and ensuring pension funds complies with regulatory requirements.

ABSTRACT

Pension funds in Kenya have been recording poor performance which could be attributed to exposure to unmanaged risks due to weak enforcement of pension laws. The objective of this study was to examine the influence of risk management practices on financial performance of pension funds in Nairobi, Kenya. The study particularly sought to examine the influence of risk assessment, risk control, risk transfer and risk monitoring on financial performance of pension funds. Research was guided by enterprise risk management theory, liquidity preference theory, modern portfolio theory and contingency theory. Research adopted longitudinal research design, using objectively prepared questionnaires, collected data from 36 chief risk officers of the 36 targeted pension funds in Kenya. Pilot study was conducted in Machakos county pension fund to test for reliability and validity of research instruments. Data obtained was analysed through descriptive statistics and inferential statistics. Descriptive statistics included mean, frequency, percentage as well as standard deviations. Inferential statistics was conducted through Pearson correlation analysis and multiple regression analysis. The research found that risk assessment (β=0.867), risk control (β=0.844), risk transfer (β=0.717), risk monitoring (β=0.918) lead to significant changes in financial performance of pension funds in Kenya. The study concluded that risk assessment, risk control, risk transfer and risk monitoring significantly influenced financial performance of pension funds in Nairobi, Kenya. The study recommended that the management of pension funds needs to establish a robust risk assessment framework tailored to the specific needs and dynamics of pension funds in Kenya. The study further recommended that government of Kenya through the Retirement Benefits Authority should enhance regulatory oversight to ensure that pension funds adhere to prudent risk assessment practices. The research also recommended that government of Kenya through RBA should organize programs for training and workshops for pension fund managers and trustees.

CHAPTER ONE

1.0 INTRODUCTION

The chapter presents background of the study, problem statement, objectives, significance, limitations, scopes and assumptions of the study.

1.1 Background of the Study

Every sector is susceptible to risks, including loss of life and property, among others (Linke & Florio, 2019). While it's not always feasible to completely prevent undesirable incidents, financial institutions have developed products that provide financial compensation to individuals and businesses, assisting them in mitigating the impact of losses (Aven, 2016). Due to susceptibility to risks affecting financial performance, many firms adopt various risk management practices (Cohen, Krishnamoorthy & Wright, 2017). Financial performance is an evaluation of an entity's ability to efficiently utilize its core assets and generate income which depends on the proficiency of its risk management framework (Kissi, 2016). Some risk management practices used by various firms include risk assessment, risk control, risk transfer and risk monitoring (Smith & Merritt, 2020).

Among the sectors that have faced immense risks is the pension funds (Gerard, 2019). The primary objective of the pension fund is to offer benefits and retirement income to all permanent employees eligible for pensions. According to Agunga (2016), pension funds serve as a safeguard to mitigate the foreseeable threat of financial hardship during one's later years. Both developing and advanced nations have encountered a demographic transformation marked by a growing elderly population, prompting governments to prioritize creation of diverse retirement plans. Like any other financial institutions, pension funds need an effective risk management strategy to control and minimize effects of risks (Grigoli, Koczan & Topalova, 2018).

The research was guided by enterprise risk management theory among other theories such as liquidity preference theory, modern portfolio theory and contingency theory. Enterprise risk management (ERM) involves a thorough strategy for handling various risks that

organizations encounter, with the goal of maximizing value and ensuring that firms achieve their objectives. While ERM theory has evolved over the years, there are several controversies and gaps in its application to risk management practices. For instance, ERM often relies on quantitative risk assessment models to measure and prioritize risks. However, there is a debate on the accuracy and reliability of these models, especially for emerging and non-financial risks (Linke & Florio, 2019). Moreover, ERM theory's assumption that risks can be aggregated across the organization to provide a holistic view of risk exposure can be challenging in practice due to diversity of risks and their interdependencies. Furthermore, ERM often overlooks the importance of organizational culture and human behaviour in risk management. Cultural factors can significantly influence how risks are perceived, reported and mitigated. Some of the gaps existing in ERM are that it may not adequately address qualitative or subjective aspects of risk, such as reputation risk, cultural risk, or strategic risks (Bogodistov & Wohlgemuth, 2017).

Globally, governments promote pension plans by offering tax benefits on contributions made to these plans and gains generated from investments. However, pension funds face a lot of risks, which have prompted adoption of various risk management strategies (Horton, Kiosse, Koumenta & Mitrou, 2021). Achkasova (2018) argues that pension regulatory bodies worldwide have been monitoring developments in various financial sectors and are shifting toward an approach to pension oversight that prioritizes risk assessment. Risk assessment is a systematic process aimed at identifying most significant risks facing individual pension funds (Ertuğrul, Gebeşoğlu, & Atasoy, 2018). In Colombia, a crucial aspect of adopting a risk-centric method for overseeing pensions involves the regulatory body shifting its focus from traditional compliance-based supervision to a more proactive and forward-looking approach that emphasizes identifying, assessing and mitigating potential risks to the pension system’s stability and sustainability (Randle & Rudolph, 2014). In Brazil, authorities have been making efforts to revamp the pension system to alleviate the strain on the nation's public finances. In this case, authorities managed risks through the inclusion of substitute assets, which could improve performance of open private pension funds (Flores, Campani & Roquete, 2021).

In Africa, pension funds are financed by both employees and employers, especially in nations with mandatory retirement savings programs (Guven, 2019). African pension funds play a crucial role in accumulating and channelling steady, long-term savings to support investment efforts (Bayar, Gavriletea, Danuletiu, Danuletiu & Sakar, 2022). In Nigeria, the primary factor influencing asset allocation revolves around local bonds, primarily because of existing laws and limited availability of alternative investment options within the local market (Anago, 2021). One of the main challenges faced by African pension funds is portfolio diversification (Anago, 2021). Studies in most African countries have tried to determine the link between risk management practices and firm's financial performance. In Nigeria, Odigbo, Abdulmalik and Shuaibu (2022) argued that a strong and meaningful correlation exists between risk management practice and sustainable financial performance of publicly traded deposit money banks. Kyanda (2014) noted that management of pension funds in South Africa faces significant knowledge deficiencies in risk management, which have not been adequately resolved. These deficiencies contribute to a decrease in the pension funds' performance and encompass issues such as insufficient board oversight and conflict of interests involving consultants and fund management officials. In Uganda, Mukalazi, Larsson, Kasozi and Mayambala (2021) established that pension funds inherently engage in active risk management, with the two primary risk factors influencing performance being investment risk and longevity risk.

In Kenya, consistent growth of the pension fund can be attributed to its vital role in bolstering the economy. Pension funds in Kenya play several specific roles in the country's financial and retirement ecosystem. These roles are crucial in ensuring there is financial security and well-being of retirees (Oluoch, 2013). Among the roles of pension funds is serving as a vehicle for individuals to save for retirement. Pension funds collect contributions from employees and employers and invest these funds to grow retirement savings of individuals (Kigen, 2016). Additionally, many pension funds offer financial literacy programs for its members to assist them to understand importance of saving for retirement in order to make informed investment choices (Kibet & Simiyu, 2016). Pension funds also provide retirees with a regular income stream during their retirement years and manage the investment risk on behalf of their members (Kajwang, 2022).

Individual retirement benefits schemes like any other financial institutions are prone to different risks, such as legal risks, outsourcing-related risks, market risks, liquidity risks and funding risks that affect financial performance. This has prompted pension funds to adopt various risk management practices as one of the measures to mitigate risks (Ichingwa & Mbithi, 2017; Omwaka & Malenya, 2020). Studies in Kenya have established that risk management practices have an impact on financial performance. Kiunyu (2017) established that practices of managing risks significantly affected financial performance of Kenyan SACCOs as it helps them to identify and address potential threats to their financial well-being. In agreement, Rop and Rotich (2018) established that risk management practices had significant effects on the financial performance of Kenyan government owned corporations.

1.1.1 Risk Management Practices

Risk management practices are importance because they equip businesses with essential resources to effectively recognize and address potential risks. There are various components of risk management practices, which entail risk assessment, risk control, risk transfer and risk monitoring (Ondu, 2020; Wideman, 2022). Across the globe, pension funds have used various strategies for managing risks. In Germany, Naczyk and Hassel (2020) noted that pension funds manage risks through diversification, where investments are distributed across various asset classes, such as equity, fixed income security and alternative investments like private equity and infrastructure. In Nigeria, Obasa (2022) opined that pension funds manage risks by adopting various strategies, including risk assessment, risk transfer and risk control. In Kenya, Ngugi, Njuguna and Wambalaba (2018) noted that pension funds manage risks through regular assessment and monitoring of the risk profile of the portfolio to evaluate the potential risks associated with its investments.

Risk assessment is one of the ways to manage risks, which involves a series of actions aimed at recognizing and recording all possible threats to a company's assets and operations that could potentially harm its overall performance (Gallati, 2022). By identifying risks, firms can take necessary measures to mitigate potential losses that may arise from unforeseen events. According to Remy and Njeru (2020), risk assessment in any company

can be assessed using internal and external cross-checks. Risk control is a crucial part of the risk management procedure, involving execution of strategies which mitigate or minimize risks that have been identified (Sam & Khudhair, 2019). Managed risks still pose potential dangers, but likelihood of an accompanying event or the resulting repercussions is substantially diminished (Akwaa Sekyi & Moreno Gené, 2017). According to Solomon (2020), risk control can be assessed through conducting internal audits, asset allocation strategies, active management strategies and increased financial investments.

Risk transfer is a risk management approach in which pure risk is shifted from one entity to another through a contractual arrangement (Younes, 2022). According to Burke and Demirag (2017), risk transfer occurs when an individual or organization deliberately shifts the burden of risk to another party, typically by obtaining insurance policies. Caleb and Macharia (2018) argued that transfer of risks can vary among different parties, depending on the specific attributes of the risks involved. According to Thuku and Muchemi (2021), risk transfer can take various forms, such as purchase of insurance policies, use of third-party guarantees, longevity reinsurance and buyouts.

Risk monitoring is a constituent part of the process for managing risks where companies evaluate effectiveness of practices in order to enhance organizational performance (Hopkin, 2018). Risk monitoring assists organizations to avoid or mitigate potential losses and also identify opportunities for growth and improvement. Eikenhout (2015) noted that risk monitoring is an essential element of the entire risk management process, as it is tasked with ensuring that positive changes occur as planned. According to Kiprop and Tenai (2017), risk monitoring is carried out through risk evaluations, self-regulatory processes, development of risk response plans and tracking identified risks. Moon (2016) noted that risk monitoring entails routine assessment of potential risks and their impact on organizational operations, detection of emerging threats and adjustment of risk mitigation plans and strategies as necessary

1.1.2 Financial Performance of Pension Funds in Kenya

Financial performance of any organization is of utmost importance because it allows organization to generate revenue, thereby enabling it to effectively compete in the financial

marketplace. There are various factors used to assess performance of a firm, with profitability being the most commonly used index for measurement (Ichingwa & Mbithi, 2017). According to Cho, Chung and Young (2019), financial performance serves as a subjective gauge of a company's overall well-being. Pension schemes can utilize resources from their core operations to generate income. Financial statements of these pension schemes offer essential financial performance insights to various stakeholders (Martí-Ballester, 2020). Financial performance plays a crucial role in assessing a company's net income and gauging its financial risk. The financial well-being of a substantial portion of retirees can be influenced by the financial condition of the pension plan (Ichingwa & Mbithi, 2017). Many organisations use ratios to assess financial performance of pension funds (Cho, Chung & Young 2019). This study focuses particularly on profitability ratios, which includes return on equity and assets. Profitability ratios are used to assess earnings level of pension schemes in comparison to a base such as capital, sales, or assets (Bunea, Corbos & Popescu, 2019). In Ethiopia, Hagos (2018) noted that the rate of return for pension funds had been declining continuously between 2015 and 2018.

In Kenya, there are various pension funds which includes: NSSF, Kenya Power Pension Fund, PCK Pension Scheme, Mwavuli Pension Fund, TelPosta Pension Scheme, Apex Pension Limited and Nairobi Pension Fund, among others. These pension funds have inspired voluntary retirement savings for those in informal employment through various pension initiatives. Such initiatives include Mbao pension plan, where one is encouraged to contribute a minimum of Kshs. 20 per day through M-pesa. Registrations for these self-contribution pension plans are available at various pension and provident fund offices and on various online platforms. Return on pension funds in Kenya for 2021 came in at 11.6%, a 4.6 percentage point increase from the 7.0% recorded in 2020 (RBA, 2021). Oyoo and Ochieng (2022) intimate that most pension funds in Kenya suffer from poor investment decisions, poor risk management practices and high fund management expenses. Consequently, pension funds have been advised to examine risk management practices to minimize effect of these risks. It was therefore significant to assess how risk management practices affect financial performance of pension funds in Kenya which was the gap the study intended to bridge.

1.2 Statement of the Problem

Pension funds play a key role in the economy based on the value they generate and this has led to their rapid growth not only in Kenya but also across the globe (Keli, 2021). Despite their importance, pension funds in Kenya have been posting poor performance. As per the Retirement Benefits Authority (2022), there was a reduction of 2.43% in the overall total value of assets held in quoted equities by pension funds between 2021 and 2022. This could be attributed to exposure to unmanaged risks due to weak enforcement of pension laws. Pension funds are exposed to market risks, liquidity risks, compliance risks and operational risks. Therefore, there is a need for pension funds to adopt efficient risk management practices, which play a substantial role in improving financial performance (Cheptoo, 2022).

In Kenya, the problem with pension funds is poor performance linked to lack of effective risk management practices. Without proper risk management, organizations may fail to identify and prepare for potential risks and uncertainties leading to disruptions in operations and financial losses. In addition, inadequate risk management results in financial challenges such as increased costs, revenue losses and unexpected expenditures. Another problem is failure to incorporate effective risk management practices to mitigate immeasurable risks like market and operational risks. The stability of pension funds worsens due to ineffective risk management practices, as demonstrated by a risk rating of 3.070 in 2018, 3.095 in 2019, 3.28 in 2022 and a score of 3.19 in 2021 against the benchmark rating of 2.88. Failure to resolve these problems, pension penetration into formal and informal sector will continue to be low at an average of 21% of the total labour force recorded between 2017 and 2023 (Auditor's Report, 2022).

There are different studies done in regard to risk management practices and financial performance. Some of the studies include Mwaura (2020) which exhibited a conceptual gap as it focused on financial risk management and not risk management practices while a study by Nyaga et al. (2021) exhibited a research gap as it focused on dairy cooperative societies and not pension funds. In addition, a study by Mamari et al. (2022) exhibited a contextual gap as it was done in Oman and not in Kenya. The existing studies had contextual gaps since they did not focus on pension funds and methodological gaps as the

studies used research methods that are not applicable to this study. The existing studies also failed to focus on risk management practices such as risk assessment, risk control, risk transfer and risk monitoring which are covered in this study. Hence, the study intended to fill these research gaps by examining how risk management practices influenced financial performance of pension funds in Nairobi, Kenya.

1.3 General Objective

The main objective was to examine the influence of risk management practices on financial performance of pension funds in Nairobi, Kenya.

1.3.1 Specific Objectives

The specific objectives included:

i. To establish the influence of risk assessment on financial performance of pension funds in Nairobi, Kenya.
ii. To examine the influence of risk control on financial performance of pension funds in Nairobi, Kenya.
iii. To establish the influence of risk transfer on financial performance of pension funds in Nairobi, Kenya.
iv. To assess the influence of risk monitoring on financial performance of pension funds in Nairobi, Kenya.

1.4 Research Hypothesis

The study sought to test the following null hypothesis:

H_{01}: Risk assessment has no significant influence on financial performance of pension funds in Nairobi, Kenya

H_{02}: Risk control has no significant influence on financial performance of pension funds in Nairobi, Kenya

H_{03}: Risk transfer has no significant influence on financial performance of pension funds in Nairobi, Kenya

H_{04}: Risk monitoring has no significant influence on financial performance of pension funds in Nairobi, Kenya

1.5 Significance of the Study

The findings would be significant to pension industry as managers of pension funds would get insights on how practices for managing risks affect financial performance. This may enable pension funds to establish and identify risk management practices that have a substantial impact on financial performance. This would ensure that they only adopt risk management practices that positively affect financial performance.

The study would be valuable to policymakers in Retirement Benefits Authority (RBA) as it would provide insights into how risk management affect financial performance of pension funds. This, in turn, would allow them to formulate effective policies that could help pension funds adopt relevant and effective risk management practices to mitigate risks. The study's findings would assist pension scheme regulators in crafting improved policies that can effectively support sound investment choices and enhance pension funds' returns. In its role as a regulator, RBA might utilize these research results to update and amend the current regulatory and supervisory policies governing Kenyan pension funds.

The findings would be significant to researchers and scholars as it they are anticipated to contribute to the existing theoretical foundations. The results would be useful to future researchers, who could use them as reference material when conducting future studies on how risk management practices affect financial performance. The study may also identify knowledge gaps that future researchers may want to bridge in regard to influence of risk management on pension funds' performance.

1.6 Limitations of the study

The researcher faced some limitations in the research process. First, study respondents hesitated to share data due to concerns that it would be used to intimidate them. However, the researcher addressed this by guaranteeing the respondents that the data they provide was treated with a lot of discretion.

1.7 Scope of the Study

The research explored on how risk management practices influence financial performance. The study used 36 Kenyan pension funds. Specifically, the research aimed to examine how risk assessment, risk control, risk transfer and risk monitoring influence financial

performance of pension funds in Nairobi, Kenya. The researcher collected data from 36 chief risk officers drawn from 36 targeted pension funds in Kenya. Primary data was used relating to the period (2017-2023). The study was completed within twelve months.

1.8 Assumptions of the Study

The study assumed that respondents provided accurate responses, given the guarantee of confidentiality and anonymity. The study also assumed that the respondents were readily available for timely responses. The study assumed that financial data obtained from pension funds and other relevant sources was accurate, reliable and free from significant errors. The study also assumed that risk management practices implemented by pension funds are accurately reported and effectively influence financial performance of pension funds.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter highlights literature review on influence of risk management on financial performance. The chapter covers theoretical frameworks, empirical reviews, research gaps and conceptual framework.

2.2 Theoretical Framework

Theoretical framework serves as the foundation that provides support for the theory in a research study. It presents and elaborates on the theory that explains the reasoning behind the research problem being investigated (Varpio, Paradis, Uijtdehaage & Young, 2020). The study was grounded in the following theories: enterprise risk management theory, liquidity preference theory, modern portfolio theoryand contingency theory.

2.2.1 Enterprise Risk Management Theory

This theory was proposed by Nocco and Stulz (2006) and advanced by Jankensgard (2019). Enterprise risk management theory advocates for use of systematic and uniform method in management of all risks the organization is exposed to. Jankensgård (2019) asserts that companies are managed by agents who may have personal biases or motivations, causing sub-optimal risk management decisions. Companies, have management board that is expected to be impartial to risk, prioritize the interests of stakeholders and strive to attain the goal of maximizing profits for the owner's benefit (Bogodistov & Wohlgemuth, 2017). Enterprise risk management (ERM) theory is criticized for proposing that firms should identify and address every risk expansively and consistently as an alternative to handling them independently (Bogodistov & Wohlgemuth, 2017). Enterprise risk management facilitates assessment of risks affecting a firm within a harmonized and premeditated outline. According to the theory, pension funds need to identify risks that may be encountered in their operations for the funds to achieve financial benefits.

The theory aims to reconcile the two main pressures in business, namely fulfilling obligations to stakeholders and mitigating risks inherent. In this manner, risk manager stays

cognizant of potential hazards and continuously evaluates the level of vulnerability, enabling them to adapt an approach which maintains an acceptable level of risk (Linke & Florio, 2019). The theory is linked to risk assessment variable as it emphasizes a methodical approach in systematic management of risks in pension funds.

2.2.2 Liquidity Preference Theory

Liquidity preference theory was postulated by Keynes (1936) who asserted that the need to retain cash is influenced by speculative, precautionary and transactions motives and interest rate is the payment for parting with cash. The amount of money required for speculative, precautionary and transactional needs contributes to the aggregate demand for liquidity. The theory posits that individuals prefer holding cash over other assets due to three specific motives: for transactions, a precautionary measure and for speculative purposes (Keynes, 1936). The transaction motive is based on the idea that companies maintain a certain amount of cash on hand to support daily activities, which can vary depending on their earnings and specific needs. For instance, pension funds need to ensure they have sufficient funds to regularly pay out employee pensions after retirement (Lavoie & Reissl, 2019).

Critics such as Bibow (2013) argue that liquidity preference theory places too much emphasis on the role of liquidity in determining interest rates. They contend that other factors such as expectations about future events and changes in the real demand for money, are equally important in determining interest rates. Further, critics argue that liquidity preference theory focuses too much on the demand side of the loanable funds market and neglects the role of the supply side (Missaglia & Botta, 2022). According to the theory of liquidity preference, stockholders require a higher return rate or premium for securities with a long-term maturity due to the higher level of risk associated with them. Thus, preference is rooted in the fact that, under equal conditions, investors generally favour holding cash or assets that are easily convertible to cash because of their higher liquidity (Bertocco & Kalajzic, 2014).

This theory is linked to risk control variable as it helps in understanding effective risk control mechanisms adopted by pension funds in maintaining the optimal level between

liquid assets and long-term investments, in a bid to ensure financial stability and operational efficiency. The theory helps explain how pension funds manage liquidity to mitigate risks by ensuring they meet short-term obligations while maximizing financial performance. Pension funds need funds for daily operations which include payment of retirement benefits. It emphasizes the need for pension funds to carefully consider asset allocation to control risk while aiming to optimize financial performance. The theory also suggests the need for pension funds to create investment strategies that align with the extended duration of pension obligations and risk inclinations, allowing for effective risk management and enhanced financial performance.

2.2.3 Modern Portfolio Theory (MPT)

Modern Portfolio Theory (MPT) was postulated by Harry Markowitz in 1950. He proposed that a company can reduce fluctuations in its portfolio and enhance results by transferring risk across various kinds of securities in form of investment. In finance, MPT theory is used to optimize expected return of a portfolio by balancing and transferring risk involved (Bakar & Rosbi, 2018). This is achieved by selecting right combination of assets to meet either a desired level of risk or a set expected return for a desired expected return. According to investment principles, the probability for increased returns increases with greater risk, while lower risk typically corresponds to lower expected returns (Chen & Chen, 2016).

Critics argue that in reality, investors may not always behave rationally, as emotions, cognitive biases and other psychological factors can influence decision-making (Surtee & Alagidede, 2023). According to modern portfolio theory, risk and return attributes of a diversified investment portfolio are determined by the interplay and relationships among various constituent investments. For every level of risk, there exists an asset allocation that is considered “ideal” and provides the optimal balance between risk and returns (Rodríguez, Gómez & Contreras, 2021). A perfect investment portfolio aims to strike a balance between risk minimization and maximization of returns while still accepting reasonable risk levels. It is crucial to consider all types of investments, as the yields generated from these investments are interdependent; therefore, the correlation between returns of assets within a portfolio is significant (Gallati, 2022).

Applying portfolio theory to risk management suggests that companies handle inherent risks across the portfolio by transferring risks. Pension funds need to comprehend not only the dangers posed by each individual investment in the portfolios but also how risks associated with these investments are interconnected in order to effectively manage portfolios (Edwards, Magee & Bassetti, 2018). The theory is linked to risk transfer variable as it provides an understanding of risk transfer through investment in portfolio held and managed by pension funds. Such investments could be spread in various financial assets including equity, bonds, fixed deposits, real estate securities. The essence of these holdings multifaceted assets in a portfolio is to diversify probable risks.

2.2.4 Contingency Theory

Contingency theory was proposed by Fiedler in 1967. It is one of the predominant approaches in the field of organizational design. The theory postulates that specific circumstances lead to selection of appropriate risk management practices for different organizations. The theory emphasizes correlation between demands of the task environment, attributes of the organization such as leadership style and organizational performance (McAdam, *et al*, 2019). The central idea behind contingency-based approaches is that variations in formal organizational structures can be explained by variations in organizational contexts. Contingency theory emphasizes the need for a clear, elaborate structure on how to manage operational risk to fully realize benefits associated with good risk management (McShane, 2018).

Critics suggest that contingency theory place too much emphasis on leadership style and not enough on other important factors such as organizational culture, communication and employee engagement. According to contingency theory, decision-making in an organizational context heavily depends on various circumstances, including internal and external factors within the company (McAdam, Miller & McSorley, 2019). The foundation of contingency theory lies in discovering strategies for achieving a fit that leads to the expected financial performance by matching risk monitoring practices and contingent factors within the organization (Munir, Jajja, Chatha & Farooq, 2020).

Contingency theory underscores the critical nature of monitoring risk in risk management, as it can significantly impact financial performance of organizations. Therefore, this theory supports risk monitoring variable since it helps in understanding the need for a clear, elaborate structure on how to manage operational risk to fully realize benefits associated with good risk management.

2.3 Empirical Review

Studies were conducted worldwide to examine the influence of risk management on financial performance. This section presents a review of empirical studies related to four variables: risk assessment, risk control, risk transfer and risk monitoring.

2.3.1 Risk Assessment and Financial Performance

Remy and Njeru (2020) explored the impacts of risk assessment on the banking financial performance in Burundi. The goal was to investigate effect of strategic risk assessment, operational risk assessment and project risk assessment on the financial performance of commercial banks in Burundi. Research was based on contingency theory and employed descriptive research design. The target population was 66 staff members at BANCOBU and BCB from which 66 staff were chosen using census method. The study used primary data from survey and secondary data from the annual reports of BANCOBU and BCB. Data analysis was done through descriptive and inferential statistics. The study found that recognizing credit risk was confirmed to be efficient for banks in Burundi. Additionally, the study established that having a reliable method for assessing potential risks is crucial in achieving desired outcomes for banks. The research recommended that banks in Burundi need to execute a reliable system for monitoring risks to guarantee financial stability and enhance monetary policies and protocols to better detect potential risks. The study was done in Burundi and not in Kenya. The research also explored banks and not pension funds.

Study by Mogga, Mwambia and Kithinji (2018) explored how risk managements affected financial performance of South Sudanese commercial banks. The objective was to explore how credit risk management influenced financial performance. The theoretical framework underpinning this research were portfolio theories and arbitrage pricing theories. The research employed descriptive research design. The target population consisted of 80 staff

members from six Kenyan commercial banks. A sample of 44 respondents was chosen through proportionate sampling methods. Questionnaires were used for data collection. Analysis of the collected data was conducted quantitatively through descriptive statistic. The study established that process of identifying risks was efficiently managed in the majority of banks and all bank employees were trained on risk assessment. It was concluded that most banks need to consider risk assessment as a crucial part of credit risk management practice, which could significantly impact firm performance. The study suggested that every bank operating in East Africa should establish well-defined policies for identifying risks. The study was done in South Sudan and not in Kenya. The research also explored banks and not pension funds.

Research by Mayaka (2017) assessed how risk assessment effect financial performance of micro finance institutions (MFIs) in Kisii County. The research intended to evaluate how credit risk management procedures affect financial performance of MFIs. The research was grounded on contingency theory and adopted descriptive research design. The research targeted 45 employees including branch managers, risk managers and loan managers working in nine licensed MFIs in Kisii County. A sample of 45 staff members was selected using census method and questionnaire was used for data collection. Data analysis was performed through descriptive statistic. The research found that microfinance institutions (MFIs) consider risk assessment to be an integral component of credit risk management. The study concluded that risk assessment had a significant effect on MFIs performance in Kisii County. The study recommended that there was need to execute robust measures to manage credit risks effectively in order to enhance financial performance of MFIs. The study also focused on micro finance institutions (MFIs) and not pension funds.

Mohamed and Onyiego (2018) examined how risk assessment affect financial performance of Kenyan commercial banks. The goal was to determine if risk assessment affect financial performance of Kenyan commercial banks. The loanable funds theory, risk management theories and contingency planning theories guided the research. Descriptive research design were adopted. The target population was staff from 13 banks in Mombasa. The sample consisted of 33 staff selected using random sampling. The researcher used data obtained through survey. Analysis of data was done through descriptive and inferential

statistic. Results established that assessing risk had a great impact on the banks' financial performance. The study recommended that banks need to embrace effective risk management practices. The study also focused on commercial banks and not pension funds.

Nyarangi and Ngali (2021) explored risk assessment and financial performance of NSE-listed insurance firms in Kenya. The goal was to investigate how assessment of risk affects financial performance. Contingency theory guided the study. The study adopted descriptive research design and a target of six NSE listed insurance firms. The sample selected consisted of 72 management staff obtained through random sampling method. Survey method was employed in data collection. Data analysis was conducted through descriptive and inferential statistic. The study revealed that NSE-listed insurance firms employed measures for assessing risks to a reasonable extent. The study concluded that insurance companies implemented risk assessment strategies extensively with the aim of improving financial results. It was recommended that listed insurance firms need to establish robust risk assessment procedures to pinpoint both internal and external risks. This would enable them to assess potential operational challenges that could lead to significant disruptions. The study also focused on insurance companies and not pension funds.

Otaalo, Muchelule and Asinza (2019) examined effect of risk assessment on the project performance in Kakamega County. The goal was to determine how risk assessment and risk analysis influence project performance. The study employed risk management theory and a target population of 80 different project stakeholders, with a sample of 61 chosen through random sampling. Survey was used for data collection. The study revealed that assessment of risks had an affirmative and substantial impact on the project performance. The research recommended that it is essential to involve all parties in risk assessment phase so that they can consider anticipated favourable results of the project.

A study done by Lagat and Tenai (2017) explored how risk assessment affect performance of financial institutions. The research aimed to examine impact of risk assessment on the performance of financial institutions, guided by risk management theory. The research used explanatory research design, targeting a population of 1,181 staff members in financial entities in Kenya. The sample of 239 was chosen using stratified random sampling. Date

collection was done through use of questionnaire and date analysis was done through descriptive and inferential statistic. The results did not reveal a substantial connection between risk assessment and financial performance. The study recommended that regulators should consider establishing appropriate legal framework for risk assessment so as to improve financial performance.

Research by Lau, Tey and Ting (2023) explored how risk assessment practices influence financial performance of property developers in Malaysia. The research was founded on risk management theory. The study utilized quantitative research design. The targeted population consisted of 1,099 property developers and sampled 282 respondents chosen using random sampling method. Survey method was used for collecting data. Data analysis was done by use of descriptive and inferential statistic. The study found that risk assessment negatively impacted financial performance of property developers in Malaysia. It was recommended that Malaysian government consider introducing strategic policy framework aimed at incentivizing property developers to adopt risk management measures within their organizations. The study was done in Malysia focusing on property developers and not pension funds in Kenya.

2.3.2 Risk Control and Financial Performance

A study done by Aduloju and Akindipe (2022) examined how risk control technique affect performance of SMES in Nigeria. The goal was to examine how risk control affected performance. The research was based on exposure to and control theory. Survey research design was used. The target population of 11,663 registered SMEs with a sample of 387 respondents chosen using convenience sampling method. Descriptive and inferential statistic was adopted for analysis. Results revealed that risk control technique had no substantial impact on performance of Nigerian SMEs. It was concluded that small and medium-sized enterprises (SMEs) must adopt cost-effective measures to mitigate risks that could jeopardize SME survival. The study recommended that SME management need to engage experts to train staff so as to remain in business and contribute to economic growth. The study was done in Nigeria focusing on SMEs and not pension funds in Kenya.

Study done by Mutuku (2016) examined how risk control affects financial performance of commercial banks in Kenya. The objective was to examine how risk control affected financial performance. Modern portfolio theory and moral hazard theory were main theories for the study. The research adopted cross section survey design. The study's target population was 42 banks. The sample was 42 selected using census method. Primary data was collected through survey and secondary data was collected from financial statements. Data was analysed through descriptive and inferential statistic. Results showed that risk control significantly affected financial performance of Kenyan commercial banks. Research findings indicated that the most substantial factor affecting banks' financial performance is effective management of risks, a favourable risk control environment and robust internal control. The research recommended that Kenyan banks should ensure there is appropriate methods of assessing risk and implement more advanced and dependable methods to effectively handle financial risks that arise from growth of innovative financial practices in the banking industry.

Research by Al-Nimer, Abbadi, Al-Omush and Ahmad (2021) did study on how risk control practices influence firm performance in Jordanian firms. The objective of the study was to examine how risk control affected firm performance. Risk management theory guided the study. The research used descriptive research design. The target population was 228 firms in Jordan. A sample of 61 respondents was chosen using random sampling. Primary data was collected through survey. Data analysis was done using descriptive statistic. The study found that risk control negatively affected performance in Jordanian firms. The study recommended that firms' management in Jordan should come up with better risk control strategies that had positive impact on firm performance. The study was done in Jordanian firms and not pension funds in Kenya.

Njuguna (2019) examined how risk control practices influenced performance of projects in Kenya. The aim of the study was to examine how risk control techniques affect project's performance. Expectancy theory and network theory guided the study. The study used descriptive design. Target population was 135 people who included project managers, construction firms and finance officers. Census method was used for selecting a sample of 135. Research used primary data obtained using questionnaires. Data analysis was done

through descriptive statistics. The study established that risk preventions substantially impacted projects' performance. It was established that risk prevention is widely adopted by organizations as a means of managing risk, leading to improved completion of projects within scope, budget and time frame. The research recommended that project management should incorporate risk management strategies into the execution of projects.

Study by Muchiri and Jagongo (2017) examined internal auditing as a risk control practice and financial performance of Kenya Meat Commission. The objective was to assess how internal auditing as a risk control practice affect financial performance. The research was based on institutional theory. The research used case study research design. The targeted population was 321 respondents. The sample was 57 managers chosen from KMC who were selected using stratified sampling method. Questionnaire was used for obtaining the data. Data analysis was done through descriptive statistic. The data collected ascertained that internal auditing as risk control practice play critical role in financial performance. The study showed that internal audit function and KMC financial performance had no significant relationship. The research recommended that internal audit function needs to be staffed with skilled personnel and operate with greater independence. The research explored KMC and not pension funds in Kenya.

Muchiri, Ngala and Anyika (2021) examined how risk prevention affected financial competitiveness of SACCOs in Kenya. Financial theory guided the research. The study adopted descriptive research design. The study population was 23 SACCOs operating in Kirinyaga County. Sample was drawn from 23 management staff of SACCOs selected using census method. Survey method was employed in data collection. Data analysis was done through descriptive and inferential statistic. The research found a substantial connection between implementation of risk prevention strategies and financial performance of SACCOs. It was recommended that SACCO management need to proactively plan and implement appropriate strategies for preventing risks in SACCOs. The research explored SACCOs and not pension funds in Kenya.

2.3.3 Risk Transfer and Financial Performance

Research conducted by Younes (2022) focused on how credit risk transfer affected banking stability and performance. The objective was to determine how credit risk transfer affected banking performance. The study was based on risk management theory. The research employed descriptive research design. Target population was two groups of American commercial banks from 2001 to 2017. The study used census method. Findings indicated a general increase in risk for the banks, particularly prior to crisis which was accompanied by a decrease in the amount of liquid assets held on their balance sheets with an overall rise in profitability. It was deduced that risk transfer did not show a substantial impact on stability and performance of banks. It was recommended that banks should come up with appropriate risk transfer strategies. The research was done in commercial banks in America not pension funds in Kenya.

The study by Onyele and Ariwa (2019) examined how risk transfer affect growth of Nigerian insurance industry. The study goal was to assess how risk transfer affect growth of insurance industries. The study was based on contingency theory. The research employed ex-post facto design. Secondary data used was collected from financial reports. Data analysis was done through descriptive and inferential statistics. The study found that risk transfer negatively affected growth of the Nigerian insurance industry. The study recommended that proactive actions need to be taken to improve insurance industry's efficiency while also establishing attractive investment opportunities to incentivize individuals and entrepreneurs to buy insurance policies to effect transfer of financial and operational risks.

Biira, Tukei, Tukei and Mboma (2021) did a study on risk transfer strategies and performance of Total Uganda Limited. The objective of the study was to assess how risk transfer strategies effect performance of Total Uganda Limited. Risk management theory steered the research. The research applied a descriptive study design. Targeted population was 126 respondents. The study used census method to arrive at a sample of 126. Quantitative data was collected by use of questionnaire and qualitative data was collected through interviews. The study applied inferential statistics and thematic analysis for data analysis. The outcomes affirmed a strong link between the implementation of risk transfer

tactics and performance of total Uganda limited (r=0.839, *p*=0.000). In light of these results, it was determined that integration of risk transfer initiatives into firms' operations enhances overall performance. It was recommended that firms must ensure that all recently acquired operational equipment comes with both a warranty and guarantee for potential breakdowns or spare parts, while also extracting valuable lessons from past legal cases to safeguard against similar incidents in the future, among other precautions.

Ondu (2020) examined risk transfer strategies and performance of SACCOs in Nakuru County, Kenya. The goal was to examine how risk transfer affect performance of SACCOs. The research was founded on theory of modern portfolio. The study applied descriptive survey research design. Target population was 165 staff in managerial positions. 63 study respondents were chosen using random sampling method. The research used questionnaire for data collection. Statistical analysis was conducted through SPSS. The study found that risk transfer positively affected performance of SACCOs in Nakuru County. It was evident that majority of SACCOs opt for risk mitigation through a practice called reinsurance, wherein they secure their operations with insurance companies. This strategy allowed them to clear potential risks. It was recommended that managers at the SACCOs ought to employ effective risk transfer procedures to ensure proper standardization, monitoring and evaluation of risks within the Saccos' operations. The focus of the study was SACCOs and not pension funds in Kenya.

A study by Macharia and Kirui (2018) examined risk transfer strategies and performance of construction projects in Kenyan secondary schools. The research objective was to assess how risk transfer strategy effect project performance. The study was guided by contingency theory. The research used descriptive research design. Target population was 291 schools in Murang'a County. The sample of 136 was selected through purposive sampling method. Survey method was used for collecting quantitative data. Descriptive and correlation were used for analysing of the data. The study concluded that strategy for risk transfer significantly affected performance of construction projects. Additionally, correlation analysis revealed a positive association between risk transfer strategy and project performance. This study recommended that there was need for secondary schools to have an effective risk transfer strategy.

Aduma and Kimutai (2018) assessed the project risk transfer strategies and project's performance at NHIF in Kenya. The objective was to examine how risk transfer strategy effect project performance. The study was directed by transaction cost economic theory. The research used descriptive research design. The target population was 651 staff in managerial positions. The sample of 241 respondents were chosen through stratified sampling method. Primary data was obtained through a questionnaire. Data analysis was done through descriptive and inferential statistic. The study indicated that risk transfer significantly impacted the performance of NHIF projects. Risk transfer strategies that significantly affect project performance included outsourcing and use of insurance policies. The study recommended that NHIF management should establish effective processes for timely risk detection and operational risk assessment to ensure that financial performance remains unaffected.

Thuku and Muchemi (2021) studied how risk transfer affect performance of insurance companies in Kenya. The goal was to assess how risk transfer strategy affects insurance firms' performance. Enterprise risk management theory guided the study. The research used descriptive research design. The target population was 66 management staff with a sample of 66 selected using census method. Questionnaires were employed in collecting data. Analysis of data was done through descriptive and inferential statistic. It was determined that implementation of a risk transfer strategies had a significantly impact on the operational performance of insurance companies. The study recommended that insurers ought to emphasize on the use of insurance derivatives, engage in reinsurance, collaborate with other insurance firms for managing high-risk situations and expand the range of group insurance offerings to attain more substantial performance advantages. The research examined insurance companies and not pension funds in Kenya.

2.3.4 Risk Monitoring and Financial Performance

Study done by Aghe and Agustia (2023) on how risk monitoring committee affect financial performance in Islamic Banks in Indonesia was geared towards establishing how risk monitoring affect financial performance of Islamic banks. The study was guided by signalling theory. The study applied quantitative research design. Target population was 72 Islamic banks in Indonesia. Sample of 72 management staff from banks was attained

using census method. Secondary data was derived from banks' financial reports. Data analysis was done through descriptive and inferential statistic. It was established that having a risk monitoring committee negatively impacted banks' financial performance. It was recommended that risk monitoring unit committee's need to have a robust oversight of risk disclosure to enhance banks' financial performance, particularly Islamic banks in the ASIA region. The research was done in Asia and not in Kenya.

Study by Mukayisinga (2018) examined investment risk monitoring and financial sustainability of Rwanda Social Security Board (RSSB). The objective was to assess how risk monitoring affect financial sustainability. Risk management theory guided the study. The research used descriptive design. Target population was 90 RSSB staff. Purposive and random sampling were used to get 47 sampled respondents. Questionnaire was used to get primary data. Data analysis was done through descriptive and inferential statistic. It was established that there was a negative association between adoption practices for monitoring risks and financial performance of RSSB firms. It was recommended that RSSB need an effective risk monitoring strategy by adding value through leveraging on information technology. The research was conducted in Rwanda and not in Kenya.

Study by Algremazy, Ideris, Alferjany and Akram (2023) examined how risk monitoring practices affect project performance in Libyan Construction Industry. The goal of the study was to assess how risk monitoring affect project performance. The study was based on risk management theory. Descriptive research design was employed. Target population comprised of 450 building construction firms. A sample of 450 management staff was established through random sampling method. Questionnaires was used in data collection. Descriptive and inferential statistic was used for data analysis. It was established that risk monitoring had a negative and substantial impact on the project performance in construction industry of Libya. It was recommended that management of construction firms should formulate effective risk monitoring strategy to guarantee project performance.

Research by Kiprop and Tenai (2017) explored how risk monitoring affect performance of financial institutions. The objective was to establish how risk monitoring affect performance. Risk management theory guided the research. The research used explanatory

research design. Target population was 789 staff in managerial positions. A sample of 239 respondents was attained through random sampling. Primary data was gathered through survey method. Data analysis was done through descriptive and inferential statistic. It was established that risk monitoring had a positive link to financial performance of financial entities. The study established that effective risk monitoring procedures need to be implemented to align risks with the management goals to enhance performance of financial institutions. It was recommended that risk monitoring should be improved to boost financial institution performance by implementing regulatory measures for effective risk oversight.

Osiemo (2016) did a study on how risk monitoring practices affect financial performance of non-life insurance firms operating in Kenya. The objective of the study was to examine how risk monitoring affect financial performance. Stakeholder theories and agency theories guided the study. Descriptive survey research design was used. Target population was 237 respondents from ten selected insurance firms. A sample of 48 respondents was attained using random sampling method. Questionnaires were used for date collection while secondary data was extracted from AKI financial reports. Descriptive and inferential statistic were used for data analysis. The study found that monitoring risks had little impact on financial performance, indicating that a one-unit increase in risk monitoring resulted in only a marginal 0.156 increase in financial performance. It was recommended that insurance risk managers should maintain ongoing communication with their clients in order to understand their company's challenges and develop solutions, thereby ensuring client retention and benefiting the overall success of the companies.

2.4 Research Gaps

Several studies have been done in regard to the influence of risk management on financial performance. However, these studies exhibited methodological, contextual and conceptual gaps. For instance, Sam and Khudhair (2019), Remy and Njeru (2020) and Mogga, Mwambia and Kithinji (2018) studied risk management and financial performance, but they focused on commercial banks and not pension funds. Additionally, studies were also not done in Kenya and hence was not generalizable to cover Kenyan pension funds. Moreover, though Mayaka (2017), Lagat and Tenai (2017) did research on how risk

management affect financial performance, they only explored financial institutions in general and was not generalised to the case of pension funds. Further, Biira, Tukei, Tukei and Mboma (2021), Thuku and Muchemi (2021) and Kiprop and Tenai (2017) looked at one risk management practices, that is, risk transfer and risk monitoring respectively. Hence these studies omitted other risk management practices that affect financial funds. The studies did not also look at pension funds.

Additionally, other studies used primary data only (Lagat & Tenai, 2017; Njuguna, 2019; Muchiri, Ngala & Anyika, 2021 and Kiprop & Tenai, 2017). In addition, majority of the studies highlights general management of risks and most of them did not highlight the aspects of risk control, risk assessment and risk monitoring. Moreover, other studies linked risk management practices with other aspects of the organization such as project performance and financial sustainability and failed to link them to financial performance. Further, little evidence exists of studies examining risk management in pension funds in Kenya. This research intended to bridge these gaps by using primary and secondary data to examine how risk management affect financial performance of pension funds in Nairobi, Kenya.

2.5 Conceptual Framework

Conceptual frameworks present a diagrammatic representation of the link between dependent variable and independent variables. In this study, the dependent variable is financial performance whereas the independent variables were risk assessment, risk control, risk transfer and risk monitoring. Figure 2.1 highlights the conceptual frameworks.

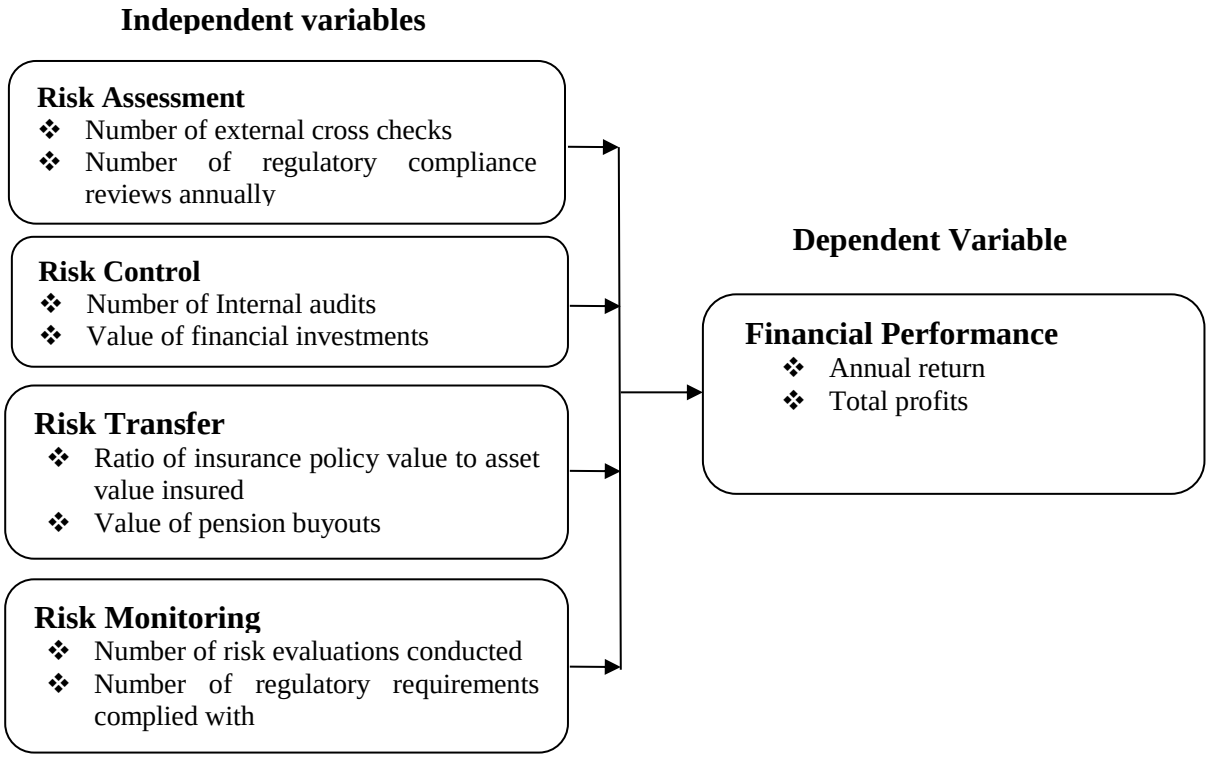

Figure 2. 1: Conceptual Framework

Source: Researcher (2023)

Risk Assessment

Risk assessment practices assessed in the study included number of internal and external cross checks and number of regulatory compliance reviews. Risk assessment may have a positive or negative link with financial performance of pension funds. In this case, if pension funds fail to assess risks and manage them appropriately, it could lead to significant losses and negatively affect financial performance. On the other hand, if pension funds have effective risk assessment methods, they can identify and mitigate potential risks before they materialize, which can help in maintaining their financial performance.

Risk Control

Risk control practices assessed in the study included conducting audits and value of financial investments. Risk control practices need a substantial link with financial performance of pension funds. Effective risk control practices can also improve

transparency and accountability of pension fund operations, which can assist in building trust and confidence among shareholders.

Risk Transfer

Risk transfer practices assessed in the study included ratio of insurance policy value to asset value insured and value of pension buyouts. Risk transfer practices are expected to have a substantial link to financial performance of pension funds. Risk transfer practices such as pension funds insurance policy can help pension funds to manage risk exposure and reduce volatility of investment returns to enhance financial performance.

Risk Monitoring

Risk monitoring practices assessed in the study include number of risk evaluations conducted and number of regulatory requirements pension funds complied with. Risk monitoring practices are expected to have a significant link with financial performance of pension funds. Risk monitoring involves continuous tracking and assessment of potential risks and uncertainties that can influence an organization.

Financial Performance

Financial performance entails evaluating the fiscal well-being and financial position of an organization. This assessment encompasses examination of diverse financial measures and signals to gauge how effectively an entity is handling its monetary assets, generating income and attaining its fiscal objectives. In this study, financial performance of pension funds was assessed through annual return and total profits.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter covers the research design, target population sample size and sampling procedures, research instrument, pilot study (validity and reliability), data collection procedures, data analysis and research ethics.

3.2 Research Design

This study employed longitudinal research design. By applying a longitudinal design, we can explore how variables interact over time, revealing trends and patterns that a cross-sectional approach would miss. Additionally, in the current study, longitudinal data provided a robust framework for controlling variables that might have influenced the outcome (Dannels, 2018; Adams, 2015).

3.3 Target Population

The target population refers to the total group of people, elements, or units that the study seeks to explore and analyse in order to achieve the study goals. The study targeted 36 pension funds in Kenya. The study collected data from 36 chief risk officers drawn from 36 targeted pension funds in Nairobi, Kenya.

3.4 Census Survey

Since the population was small, census method was used to include all the chief risk officers hence, the sample size for the study was 36.

3.5 Research Instruments

Primary data was collected using questionnaires administered to chief risk officers in the selected pension funds in Nairobi, Kenya. The questionnaire had both open and closed ended questions. Open-ended questions were used to encourage respondents to offer comprehensive responses without constraints, whereas closed questions allow respondents to select answers from predefined options. As per Adams (2015), open-ended questions

typically yield comprehensive responses from survey respondents, whereas closed questions are generally more straightforward to assess.

3.6 Pilot Study

Pilot testing is a small scale-study done before undertaking actual research with a sole purpose of refining the research tools (Gadke, Kratochwill & Gettinger, 2021). Pilot study was done in county pension fund, Machakos County. Machakos County was selected because it provided the same conditions that the respondents in the main study was exposed to. The researcher randomly administered 7 questionnaires to the managers and other staff involved in managing risk. The 7 represented 20% of target population. Pilot testing played a vital role in the research process since it helped in identifying and rectification of any unclear questions and instructions. This aided in increasing instrument reliability and validity and making appropriate amendments.

3.6.1 Reliability of Research Instruments

Reliability of the instrument is the degree that a research tool generates similar findings in similar conditions on different occasions (Junyong, 2017). The study tested for internal consistency, which gauges the extent to which a test effectively addresses various concepts and provides dependable scores. To test this, the study used Cronbach's alpha. In this case, variables in the questionnaire were considered reliable if it had a Cronbach alpha (α)) coefficient of 0.7 and above. The Cronbach's alpha for the research tool was calculated as follows:

$\alpha = k/k\text{-}1 \times [1 - \sum(S2)/\sum S2sum]$

Where: α = Cronbach's alpha

k = Number of items

$\sum(S2)$ = Summation for Variance of individual items

$\sum S2sum$ = Variances of summed up scores.

From the pilot study results, the findings showed that financial performance (α=0.712), risk assessment (α=0.707), risk control (α=0.786), risk transfer (α=0.803) and risk monitoring (α=0.768) exhibited high reliability values as their Cronbach's alpha values were more than 0.7. The results are illustrated in Table 3.1.

Table 3. 1: Reliability Analysis Results

Variable	Cronbach's Alpha (α)	Number of items
Financial performance	0.712	2
Risk assessment	0.707	2
Risk control	0.786	2
Risk transfer	0.803	2
Risk monitoring	0.768	2

3.6.2 Validity of Research Instruments

Content validity evaluates the representation of a test to all aspects of the construct being measured (Yusoff, 2019). The study tested for content and construct validity. Content validity was ensured by developing the questionnaire that accurately reflected the study objectives. Content validity was confirmed by obtaining opinions of experts such as supervisors and professionals in the field. This assisted in enhancing validity of the data obtained. Construct validity assessed whether a research instrument accurately captured the intended aspect being measured. Construct validity was established through factor analysis, which enabled evaluation of the construct validity of a survey questionnaire. The research questionnaire were deemed construct valid if every item collectively represented the underlying construct.

3.7 Data Collection Procedure

The study used primary data collected through questionnaires. First, the researcher applied for NACOSTI permit and sought an introduction letter from the university. Permission from management of pension funds was also obtained. The researcher distributed questionnaires to chief risk officers using drop and pick later method. Drop and pick later method was used because it gave the respondents adequate time for responding to every question in the questionnaire. Questionnaires were returned after 5 days to give respondents adequate time to fill them. In cases of chief risk officers with busy schedules, researcher booked appointment with them and questionnaires were administered at the agreed time.

3.8 Data Analysis

After data collection, every questionnaire received was recorded and coding of its items was done to make entry of data easier. Cleaning of data involved checking for errors in

data entry. For quantitative data, descriptive statistic including frequency, percentage, mean score and standard deviation was used to summarize the data. Pearson correlation analysis and panel regression analysis was used to establish the relationship between risk management and financial performance of pension funds in Nairobi, Kenya. Panel regression model was used. A panel regression model was chosen because it efficiently controls for individual-specific effects and temporal variations, providing more accurate insights into causal relationships. The panel regression model assumed the following form:

$$Y_{it} = \beta_{0it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Where;

Y= Financial performance

β_0 = regression constant

$\beta_1, \beta_2, \beta_3, \beta_4$= Coefficient of independent variables estimated

X_1= Risk assessment assessed using Number of internal and external cross checks and Number of regulatory compliance reviews annually

X_2= Risk control assessed using number of Internal audits and value of financial investments.

X_3= Risk transfer assessed through ratio of insurance policy value to asset value insured and value of pension buyouts

X_4= Risk monitoring assessed using number of risk evaluations conducted and number of regulatory requirements complied with.

ε= stochastic error term assumed to be normally distributed

t=Represents time period of the observations i.e. 2017-2023

i= Represents observations of each pension fund at the point in time

3.8.1 Diagnostic Tests

The study undertook diagnostic tests which comprised of normality tests, autocorrelation and multicollinearity test. Normality test ascertains the normal distribution of data. Shapiro-Wilk test was used for testing normality. Data is said to be normal if the corresponding probability value of Shapiro-Wilk test statistical value is greater than 0.05.

Autocorrelation is the degree of association between the same variables over two consecutive time periods (King, 2018). Autocorrelation was assessed through Durbin Watson (DW) tests. The statistics of Durbin-Watson test (*d*) range between 0 and 4 where

values near 2 indicate that there is no autocorrelation. Multicollinearity is a statistical notion in which various independent variables in a model are interrelated (Daoud, 2017). The research used Variance inflation factor (VIF) for multicollinearity test. The generated VIFs were checked to ascertain if there was presence of multicollinearity. The serious problem of multicollinearity can be corrected through differencing or dropping some of the collinear variables (Yusoff, 2019).

3.9 Ethical Considerations

The researcher observed critical clauses in research ethics. First, the researcher collected a university introduction letter and permit from NACOSTI. The researcher also sought informed consent from the respondents before they took part in the research. In addition, respondents were informed of the study's goal and was assured that information provided was kept confidential. Moreover, the respondents had a right to withdraw from the data collection exercise and also had a right not to answer any question they were not comfortable with. The study results were shared with respondents through conferences and publications.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

The major purpose of this study was to assess the influence of risk management practices on financial performance of pension funds in Nairobi, Kenya. The research particularly sought to determine the influence of risk assessment, risk control, risk transfer and risk monitoring on financial performance of pension funds. This section highlights analysis of data obtained using questionnaires distributed to the chief risk officers in 36 targeted pension funds in Nairobi, Kenya. The chapter has various parts including descriptive statistics, diagnostic tests, test of hypothesis and overall regression analysis. The results are arranged as per the study objectives are presented in Tables and figures.

4.2 Response Rate

Out of 36 questionnaires that were distributed, 36 were properly filled and returned which equated to 100% response rate. This high response rate was enhanced through follow ups.

4.3 General Information

This section highlights the general information of the respondents to establish their distribution based on gender and working experience. This gives a clear comprehension of characteristics of the chief risk officers from whom the data was collected.

4.3.1 Gender of the respondents

The respondents were requested to specify their gender. The results are represented in Figure 4.1.

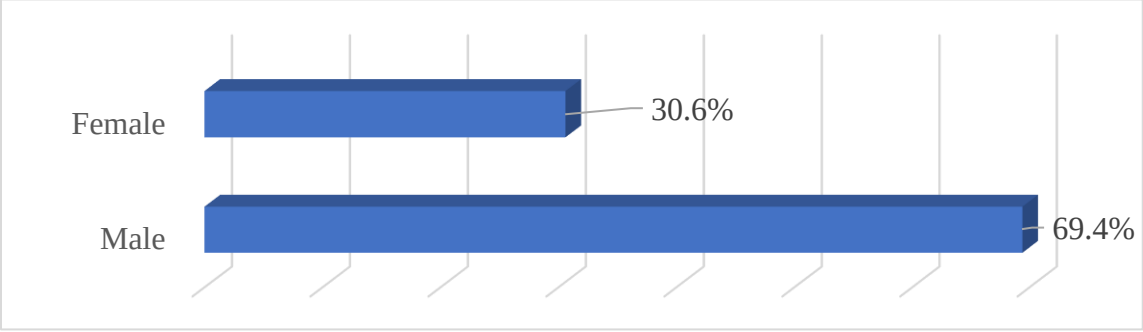

Figure 4. 1: Gender of the Respondents

From the results in Figure 4.1, most of the respondents specified that they were female at 30.6% while 69.4% indicated to be male. This implies that data regarding risk management and performance of pension funds was collected across all the chief risk officers irrespective of their gender. There were more male than female chief risk officers because traditionally, financial and risk management sectors have been male-dominated which has resulted in fewer women rising to top positions within these industries. In addition, there may be fewer women entering the finance and risk management fields compared to men. Further, the demanding nature of senior leadership roles could make it challenging for women who often bear a larger share of caregiving responsibilities, to balance work and personal life.

4.3.2 Period of Working at this Pension Fund

The respondents were requested to specify period they had worked in the pension fund. The results are highlighted in Figure 4.2.

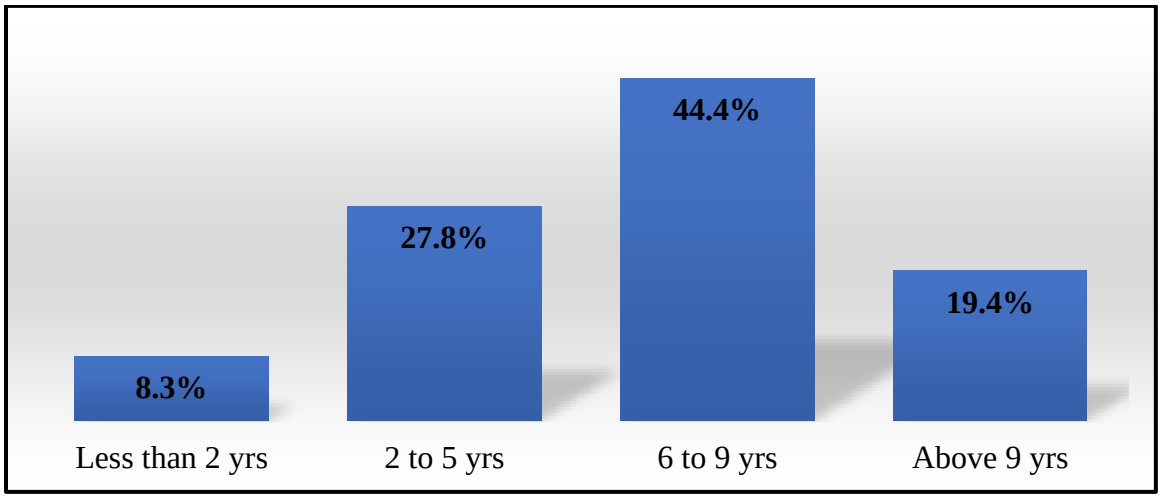

Figure 4. 2: Period of Working at this Pension Fund

As per the study outcomes in Figure 4.2, almost half of the respondents specified that they had worked in the pension funds for 6 to 9 years (44.4%). In addition, the remaining respondents specified that they had worked in the pension funds for 2 to 5 years (27.8%), for more than 9 years (19.4%) and for less than 2 years (8.3%). This implies that most respondents had worked at the pension fund for long enough to be in a position to give credible information regarding the effect of risk management on financial performance.

4.4 Descriptive Statistics

The research intended to assess the influence of risk assessment, risk control, risk transfer and risk monitoring on financial performance of pension funds. This section highlights descriptive statistics including minimum value, maximum value, mean and standard deviation.

4.4.1 Risk Assessment

The research intended to determine the influence of risk assessment on financial performance of pension funds. The respondents were requested to provide data on number of internal and external cross checks and number of compliance reviews annually. The findings are illustrated in Table 4.1.

Table 4. 1: Descriptive statistics for Risk Assessment

	Min.	Max.	Mean	Std. Dev.
Number of internal and external cross checks	1	4.00	2.93	0.86
Number of compliance reviews annually	1	4.00	2.31	0.72

From the results in Table 4.1, the minimum number of internal and external cross checks among the pension funds was 1 while the maximum was 4. The average number of internal and external cross checks among the pension funds was 2.93. This implies that most pension funds conducted internal and external cross checks at least 3 times annually. This is crucial for pension funds because internal and external cross-checks assist in minimization of errors and ensures that the financial information provided to pension fund members and regulators is reliable. Further, internal and external cross checks assist in ensuring compliance with internal policies and procedures. In addition, validating compliance with external regulations set by regulatory authorities to mitigate the risk of penalties. In addition, cross checks assist in detecting potential fraud and mismanagement of pension funds which protect interests of pension fund members and ensures that their retirement savings are being managed discreetly. Both external and internal cross-checks are also important to pension funds as they provide valuable feedback which can be used to improve processes.

The results revealed that the minimum number of compliance reviews done annually among the pension funds was 1 while the maximum was 4. The annual average number of compliance reviews among pension funds was 2.31. This implies that most pension funds conducted at least 2 compliance reviews every year. This is very important because compliance reviews ensures that pension funds adhere to the regulations set forth by the RBA to avoid legal issues and penalties for non-compliance. In addition, conducting compliance reviews ensures that pension funds are managed prudently and in the best interest of the members to prevent mismanagement, fraud, or misuse of funds that could jeopardize the financial security of pensioners. Further, compliance reviews enhance reputation of pension fund which demonstrates commitment to good governance, risk management and regulatory compliance.

4.4.2 Risk Control

The study further sought to examine the influence of risk control on financial performance of pension funds. Respondents were requested to provide data on number of internal audits and value of financial investments. The results are highlighted in Table 4.2.

Table 4. 2: Descriptive statistics for Risk Control

	Min.	Max.	Mean	Std. Dev.
Number of internal audits	2	8	4.75	1.31
Value of financial investments ('000)	7601	32,826,417	1439774.87	3408765.95

From the findings in Table 4.2, the minimum number of internal audits was 2 while the maximum was 8. In addition, the average number of internal audits was 4.75. This implies that pension funds in Kenya conducts at least 4 internal audits every year. Internal audits are significant because they help firms identify and assess risks associated with pension fund. Internal audits ensure compliance with regulatory requirements and standards. Further, internal audits play a crucial role in detecting and preventing fraudulent activities within the pension fund which safeguards pension fund assets and enhance financial performance.

Further, results revealed that the minimum value of financial investments among the pension funds was Kshs. 7.6 million while the maximum was Kshs. 32.8 billion. Therefore, the average value of financial investments among pension funds was Kshs. 1.4 billion. This implies that most pension funds in Nairobi, Kenya have financial investments for its members as a way of controlling risks. Financial investment assist in risk control because of diversification where firms invest in a variety of financial assets such as stocks, bonds, real estate and commodities to spread the risk and reduces the impact of adverse events affecting any single investment or asset class. Further, financial investments offer potential for higher returns compared to keeping money in low-risk, low-return assets like savings accounts and allow members to participate in the growth potential of companies and economies over time.

4.4.3 Risk Transfer

The research intended to examine the influence of risk transfer on financial performance of pension funds. Respondents were requested to provide data on ratio of insurance policy value to asset value insured and value of pension buyouts. The findings are highlighted in Table 4.3.

Table 4. 3: Descriptive Statistics for Risk Transfer

	Min.	Max.	Mean	Std. Dev.
Ratio of insurance policy value to asset value insured	0.01	0.62	0.13	0.11
Value of pension buyouts '000	5701	24619813.00	1079831.33	2556574.47

From the results in Table 4.3, the study revealed that the minimum ratio of insurance policy value to asset value insured was 0.01 while the maximum ratio was 0.62. The average ratio of insurance policy value to asset value insured was 0.13. This implies that pension funds insured various assets by purchasing insurance policies at a ratio of 0.13 to the asset insured. Insurance policy has been used by pension funds as a way of transferring risks in order to enhance financial performance. Low ratio of insurance policy value to asset value insured provides a cushion against potential losses and also protects assets and investments, mitigating potential financial losses that could destabilize pension fund's financial position.

Further, the study showed that the minimum value of pension buyouts was Kshs. 5.7 million and that maximum value was Kshs. 24.6 billion while the average was Kshs. 1.079 billion. Pension buyouts shield the company from the responsibility of managing pension and paying out future benefits. In addition, pension buyout plays crucial roles in enhancing financial performance as it eliminates financial risk associated with managing pension and frees up capital by offloading pension liabilities which allows pension funds to invest in other areas of their business. Further, pension buyout reduces pension funds' exposure to volatility due to fluctuations in interest rates.

4.4.4 Risk Monitoring

The study sought to assess the influence of risk monitoring on financial performance of pension funds. The respondents were requested to give data on number of risk evaluations conducted and the number of regulatory requirements complied with. The results are illustrated in Table 4.4.

Table 4. 4: Descriptive Statistics for Risk Monitoring

	Min.	Max.	Mean	Std. Dev.
Number of risk evaluations conducted	1	6.00	3.15	0.84
Number of regulatory requirements complied with	3	7.00	4.58	0.84

From the results in Table 4.4, the study revealed that the minimum number of risk evaluations conducted by pension funds was 1 while the maximum number was 6.00. The average number of risk evaluations conducted by pension funds was 3.15. This implies that most pension funds in Nairobi, Kenya conducts at least 3 risk evaluations as a strategy to monitor risks. It is important to conduct risk evaluations as it assists in identification of potential threats to pension funds' assets, such as market volatility and interest rate fluctuations. Further, risk evaluations allow pension fund managers to identify specific risks and develop strategies to mitigate them such as diversification of investments across

different asset classes, adjustment of asset allocation based on market conditions and implementation of hedging strategies to protect against adverse movements in markets.

The study also showed that the minimum number of regulatory requirements complied with were 3 and the maximum value of 7. The average number of regulatory requirements complied with was 4.58. This implies that pension funds in Nairobi, Kenya have been complying with various regulatory requirements. Some of the existing regulations include Pensions Act CAP 189, The Finance Act-2021 and Retirement Benefits Act. Complying with regulatory requirements safeguards interests of pension fund members and ensure that investors are safeguarded from fraudulent activities.

4.4.5 Financial Performance

The respondents were required to give data on annual return and total profits. The results are represented in Table 4.5.

Table 4. 5: Descriptive Statistics for Financial Performance

	Min.	Max.	Mean	Std. Dev.
Annual return (%)	1.25	14.80	6.22	2.57
Total profits '000	8708	1185184.00	219151.67	175602.47

As per the findings in Table 4.5, the minimum annual return was 1.25% while the maximum value was 14.8%. The average annual return for the pension funds was 6.22%. This implies that most investments made by the pension funds had low return rates. Hence there was need for pension funds to come up with ways for managing risks to enhance return of the investments. Further, the study showed that the minimum profits made by the pensions in Nairobi, Kenya was Kshs. 8.7 million while the maximum profits were Kshs, 1.18 billion. The average profits made by the pensions in Nairobi, Kenya was Kshs, 219.2 million. This implies that existing risk management practices enabled pension funds in Nairobi, Kenya to improve on their profits.

4.5 Diagnostic Tests

The research undertook diagnostic tests such as normality tests, heteroscedasticity, autocorrelation and multicollinearity test.

4.5.1 Normality Test

Shapiro-Wilk test was used for normality test. If the probability values were higher than 0.05, then the data had normal distribution. The results are represented in Table 4.6.

Table 4. 6: Results for Normality Tests

	Shapiro-Wilk	
	Statistic	**Sig.**
Risk Assessment	.918	.108
Risk Control	.924	.271
Risk Transfer	.970	.116
Risk Monitoring	.961	.109
Financial Performance	.964	.201

As per the findings in Table 4.6, the p-values for risk assessment (0.108), risk control (0.271), risk transfer (0.116), risk monitoring (0.109) and financial performance (0.201) exceeded 0.05. This implies that the data for the study had a normal distribution.

4.5.2 Autocorrelation Test

Autocorrelation was assessed through Durbin Watson (DW) tests. The statistics of Durbin-Watson test (*d*) range between 0 and 4, in which values near 2 indicate non-autocorrelation. The findings are shown in Table 4.7.

Table 4. 7: Results for Autocorrelation

Model	**Durbin-Watson**
1	1.907

As per the findings in Table 4.7, the Durbin-Watson value was 1.907 that is approximately equal to 2. This shows that the data collected for the study had no issues of autocorrelation.

4.5.3 Multicollinearity Test

The study used VIF for multicollinearity test. If the VIF is greater or equal to 10, then there was multicollinearity whereas if VIF was less than 10 there is no multicollinearity. The findings are highlighted in Table 4.8.

Table 4. 8: Multicollinearity Test Results

	Collinearity Statistics
	VIF
Risk Assessment	9.549
Risk Control	9.603
Risk Transfer	4.249
Risk Monitoring	6.737

From the findings in Table 4.8, the VIF values for risk assessment (9.549), risk control (9.603), risk transfer (4.249) and risk monitoring (6.737) were less than 10. This implies that the data collected exhibited no multicollinearity.

4.6 Inferential Statistics

The study employed correlation analysis to examine non-causal relationship between variables and regression analysis to examine causal relationship between variables under study.

4.6.1 Correlation Analysis

The study did Pearson correlation analysis to examine association between risk management practices and financial performance of pension funds in Nairobi, Kenya. The findings are illustrated in Table 4.9.

Table 4. 9: Findings for Pearson Correlation Analysis

		Risk Assessment	Risk Control	Risk Transfer	Risk Monitoring
Financial Performance	Pearson Correlation	.809**	.829**	.860**	.857**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	36	36	36	36

**significant at the 0.01

As per the findings in Table 4.9, the study showed that there is strong and significant association between risk assessment and financial performance of pension funds in

Nairobi, Kenya (r=0.809; p=0.000). The findings also show that there is strong and significant association between risk control (r=0.829; p=0.000), risk transfer (r=0.860; p=0.000), risk monitoring (r=0.857; p=0.000) and financial performance of pension funds in Nairobi, Kenya. This shows that all risk management practices adopted have a strong and significant association with financial performance of pension funds in Nairobi, Kenya.

4.6.2 Panel Regression Analysis for Testing Hypotheses

The research conducted panel regression analysis to test four-hypothesis stated in chapter one. Hypotheses were tested at 95% confidence level and findings are shown in Table 4.10.

Table 4. 10: Results for Panel Regression Analysis

		R-square	=	.756
		F-statistic	=	191.266
		Sig.	=	.000
	Coef.	**Std. Err.**	**z**	**P>|z|**
_Constant	8.090	.909	8.900	.003
Risk Assessment	.867	.086	10.081	.000
Risk Control	.844	.023	36.696	.000
Risk Transfer	.717	.019	37.737	.000
Risk Monitoring	.918	.111	8.270	.000

From the results in Table 4.10, the R-square was 0.756 which shows that 75.6% of variations in financial performance of pension funds in Nairobi, Kenya could be described by risk assessment, risk control, risk transfer and risk monitoring. Further, F-statistic (191.266) exceeded F-critical (2.408) with sig. value of 0.000 which was less than 0.05. This implies that panel regression model was significant.

The following model was fitted:

$$Y=8.090+ 0.867X_{1it} + 0.844X_{2it}+ 0.717X_{3it}+ 0.918X_{4it}+\varepsilon_{it}$$

4.6.2.1 Test of Hypothesis One

The first hypothesis stated that, "*H_{01}: Risk assessment has no significant influence on financial performance of pension funds in Nairobi, Kenya*". As per the results in Table 4.11, the study established that a unit change in risk assessment would lead to a positive change of 0.867 in financial performance of pension funds in Nairobi, Kenya. Since the p-value (0.000) was less than 0.05, the study rejected null hypothesis and concluded that risk assessment has a significant influence on financial performance of pension funds. Risk assessment helps in determining the appropriate allocation of assets within the portfolio which make pension funds achieve the desired level of return and helps in understanding the nature and timing of long-term liabilities and enables pension funds to match them with suitable assets.

4.6.2.2 Test of Hypothesis Two

The second hypothesis stated that, "*H_{02}: risk control has no significant influence on financial performance of pension funds in Nairobi, Kenya*". As per the findings in Table 4.11, the research established that a unit change in risk control would lead to a positive change of 0.844 in financial performance of pension funds in Nairobi, Kenya. Since p-value (0.000) was less than 0.05, the study rejected null hypothesis and concluded that risk control had a significant influence on financial performance of pension funds. Effective risk control is essential for pension funds to achieve sustainable financial performance as it enhances pension funds' ability to generate returns, meet its obligations and maintain the trust and confidence of stakeholders.

4.6.2.3 Test of Hypothesis Three

The third hypothesis stated that, "*H_{03}: Risk transfer has no significant influence on financial performance of pension funds in Nairobi, Kenya*". From the study outcomes in Table 4.11, the research established that a unit change in risk transfer leads to positive change of 0.717 in financial performance of pension funds in Nairobi, Kenya. Since p-value (0.000) was less than 0.05, null hypothesis was rejected and the study concluded that risk transfer has a significant influence on financial performance of pension funds in Nairobi, Kenya. Transfer of risks reduces the overall liability exposure of the pension fund resulting to predictable cash flow management and reduced volatility in funding

requirements. Risk transfer mechanisms free up capital and provide pension funds with greater flexibility in investment strategies for improved returns and also help in reducing administrative costs and improve operational efficiency.

4.6.2.4 Test of Hypothesis Four

The fourth hypothesis stated that, "*H_{04}: risk monitoring has no significant influence on financial performance of pension funds in Nairobi, Kenya*". From the study outcomes in Table 4.11, the research established that a unit change in risk monitoring leads to a positive change of 0.918 in financial performance of pension funds in Nairobi, Kenya. Since p-value (0.000) was less than 0.05, the study rejected null hypothesis and concluded that risk monitoring has a significant influence on financial performance of pension funds. Risk monitoring allows pension funds to identify and assess various types of investment risks which reduces the likelihood of losses and enhance financial performance. Effective risk monitoring ensures that pension funds remain compliant with relevant regulations and guidelines to avoid potential penalties that negatively affect financial performance.

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This chapter highlights the study findings in relation to related literature conducted on risk management practices and financial performance. The findings of the current study are linked and compared with findings of past studies in relation to risk assessment, risk control, risk transfer and risk monitoring.

5.2 Risk Assessment and Financial Performance

The study sought to establish the influence of risk assessment on financial performance of pension funds in Nairobi, Kenya. The study rejected null hypothesis and concluded that risk assessment has a significant influence on financial performance of pension funds in Nairobi, Kenya. The research established that there is strong and significant relationship between risk assessment and financial performance of pension funds in Nairobi, Kenya ($r=0.809$; $p=0.000$). The results agree with Mogga, Mwambia and Kithinji (2018) who established that process of identifying risks was efficiently managed in the majority of banks and all bank employees received training on risk assessment and concluded that majority of the banks consider risk assessment as an integral part of credit risk management practice, which significantly impacted firm performance. However, the results disagree with Lau, Tey and Ting (2023) who found that risk assessment negatively affected financial performance of property developers in Malaysia.

The research established that a unit change in risk assessment led to 0.867 changes in financial performance of pension funds in Nairobi, Kenya. The results are in line with Mohamed and Onyiego (2018) who established that assessing risks has great effect on the banks' financial performance. The finding agrees with Nyarangi and Ngali (2021) and Otaalo et al. (2019) who argued that assessment of risks had positively and significantly impacted performance of organizations. However, the findings disagree with Lagat and Tenai (2017) whose study did not reveal a significant connection between risk assessment and financial performance.

The study found that most pension funds conducted internal and external cross checks at least 3 times annually which is crucial since it helps in minimizing errors and ensuring that the financial information provided to pension fund members and regulators is reliable. Further, internal and external cross checks assist in ensuring compliance with internal policies and procedures. The findings agree with Mayaka (2017) who found that microfinance institutions (MFIs) consider risk assessment to be an integral component of credit risk management protocols and concluded that these systems aimed at assessing potential risks, which included use of risk trigger questions, documenting information and conducting interviews.

In addition, the study revealed that cross checks assist in detecting potential fraud and mismanagement of pension funds which protect interests of pension fund members and ensures that retirement savings are managed prudently. External and internal cross-checks are important to pension funds because they provide valuable feedback which can be used to improve processes. The findings concur with Remy and Njeru (2020) who argued that recognizing credit risk was effective for banks in Burundi because it was useful for assessing potential risks which is crucial in achieving desired outcome for banks.

The study found that most pension funds conducted at least 2 compliance reviews every year. This is very important because compliance reviews ensures that pension funds adhere to the regulations set forth by the RBA which assist in avoiding legal issues and penalties for non-compliance. In addition, conducting compliance reviews ensures that pension funds are managed prudently and in the best interest of the members in an effort to prevent mismanagement, fraud, or misuse of funds that could jeopardize financial security of pensioners. Further, compliance review enhances reputation of pension fund which demonstrates commitment to good governance, risk management and regulatory compliance. The findings agree with Gallati (2022) who noted that risk assessment is one of the ways to manage risks, which involves a series of actions aimed at recognizing, explaining and recording all possible threats to a company's assets and operations that could potentially harm its overall performance.

5.3 Risk Control and Financial Performance

The study sought to examine the influence of risk control on financial performance of pension funds in Nairobi, Kenya. The study rejected null hypothesis and established that risk control has a significant influence on financial performance of pension funds in Nairobi, Kenya. The study found that there is strong and significant relationship between risk control and financial performance of pension funds in Nairobi, Kenya (r=0.829; p=0.000). The results concur with Muchiri, Ngala and Anyika (2021) who established that there is a substantial connection between implementation of risk prevention strategies and financial performance of SACCOs and recommended that SACCO management should proactively plan and implement appropriate strategic measures to ensure success of initiatives. However, the findings disagree with Muchiri and Jagongo (2017) who established that, there is no association between existence of internal audit function and KMC financial performance. The findings also agree with Sam and Khudhair (2019) who argued that risk control is a crucial part of risk management procedure which involve execution of strategies to either mitigate or minimize risks that have been identified. However, the findings disagreed with Al-Nimer, Abbadi, Al-Omush and Ahmad (2021) who noted that risk control had a negative effect on performance of Jordanian firms.

The research found that a unit change in risk control leads to 0.844 change in financial performance of pension funds in Nairobi, Kenya. Results agree with Mutuku (2016) who revealed that risk control significantly affected financial performance of Kenyan banks and indicated that the most substantial factor affecting banks' financial performance is effective management of risks, favourable risk control environment and robust internal control. Effective risk control practices can also improve transparency and accountability of pension fund operations, which can assist in building trust and confidence among shareholders. However, the findings disagree with Aduloju and Akindipe (2022) who noted that risk control technique had no substantial effect on performance of Nigerian SMEs and concluded that small and medium-sized enterprises (SMEs) must adopt cost-effective measures to mitigate risks that could jeopardize SME survival.

The study revealed that pension funds in Kenya have been conducting at least 4 internal audits every year. Internal audits are significant because they help organization to identify

and assess risks associated with pension fund operations, investments and compliance. Internal audits ensure compliance with regulatory requirements and standards hence reducing the risk of penalties and legal issues that could impact financial performance. Further, internal audits play a crucial role in detecting and preventing fraudulent activities within the pension fund which safeguards fund assets and enhance financial performance. Results agree with Sam and Khudhair (2019) who argued that risk control is a crucial part of risk management procedure which involve execution of strategies to either mitigate or minimize risks that have been identified. The findings also concur with Solomon (2020) who noted that risk control in firms can be assessed through conducting internal audits, asset allocation strategies, active management strategies and increased financial investments.

The study found that most pension funds in Nairobi, Kenya have financial investments for its members as a way of controlling risks. Financial investment assist in risk control through diversification by investing in a variety of financial assets such as stocks, bonds, real estate and commodities helps spread the risk and reduces the impact of adverse events affecting any single investment or asset class. Financial investments offer potential for higher returns compared to keeping money in low-risk, low-return assets like savings accounts and allow members to participate in the growth potential of companies and economies over time. The findings agree with Njuguna (2019) who argued that risk prevention substantially affected projects' performance and recommended that project managers should incorporate risk management strategies in the execution of projects.

5.4 Risk Transfer and Financial Performance

The research examined the influence of risk transfer on financial performance of pension funds in Nairobi, Kenya. The study rejected null hypothesis and revealed that risk transfer has a significant influence on financial performance of pension funds. The research established that there is strong and significant relationship between risk transfer and financial performance of pension funds in Nairobi, Kenya ($r=0.860$; $p=0.000$). The results agree with Biira, Tukei, Tukei and Mboma (2021) who affirmed that there is a strong connection between implementation of risk transfer tactics and performance of the

organization. The findings disagree with Onyele and Ariwa (2019) who established that risk transfer negatively affected growth of Nigerian insurance industry.

The research also found that a unit change in risk transfer leads to 0.717 change in financial performance of pension funds in Nairobi, Kenya. The findings agree with Younes (2022) who deduced that risk transfer did not show a substantial effect on stability and performance of banks. The findings also agree with Ondu (2020) who found that risk transfer positively affected performance of SACCOs in Nakuru County and that the majority of SACCOs opt for risk mitigation through a practice called reinsurance, wherein they secure operations with insurance companies. Moreover, the results agree with Thuku and Muchemi (2021) who argued that risk transfer can take various forms, such as the purchase of insurance policies, use of third-party guarantees, longevity reinsurance and buyouts. In addition, results concur with Caleb and Macharia (2018) who noted that transfer of risks can vary among different parties such as clients, subcontractors, contractors and designers depending on the specific attributes of the risks involved.

The study found that pension funds have insured various assets by purchasing insurance policies at a ratio of 0.13 to the asset insured. Insurance policy has been used by pension funds as a way of transferring risks in an effort to enhance financial performance. Low ratio of insurance policy value to asset value insured provides a cushion against potential losses and also protects assets and investments, mitigating potential financial losses that could otherwise destabilize the financial position. The results agree with Macharia and Kirui (2018) who concluded that strategies for transferring risks significantly affected the performance of construction projects. Additionally, a correlation analysis revealed a positive association between use of risk transfer strategy and project performance. The findings agree with Burke and Demirag (2017) who argued that risk transfer occurs when an individual or organization deliberately shifts the burden of risk to another party, typically by obtaining insurance policies.

The study found that the pension payouts effectively help the pension fund to avoid responsibility of managing pension and paying out future benefits. In addition, pension buyout plays crucial roles in enhancing financial performance as it eliminates financial risk

associated with managing pension and frees up capital by offloading pension liabilities. Pension buyout also reduces pension funds' exposure to volatility due to fluctuations in interest rates leading to stable financial performance. The findings agree with Aduma and Kimutai (2018) who argued that risk transfer significantly impacts performance of NHIF projects. The findings also concur with Thuku and Muchemi (2021) who established that mplementation of strategies for transferring risks positively affected operational performance of insurance firms located in Nyeri County.

5.5 Risk Monitoring and Financial Performance

The study sought to assess the influence of risk monitoring on financial performance of pension funds in Nairobi, Kenya. The study rejected null hypothesis and revealed that risk monitoring has a significant influence on financial performance of pension funds in Nairobi, Kenya ($r=0.857$; $p=0.000$). The research established that a unit change in risk monitoring would lead to 0.918 change in financial performance of pension funds in Nairobi, Kenya. The findings agree with Aghe and Agustia (2023) who argued that having a risk monitoring committee negatively impact banks' financial performance and recommended that risk monitoring unit committee's need to have a robust oversight of risk disclosure to enhance the banks' financial performance, particularly Islamic banks in the ASIA region. However, the findings disagree with Mukayisinga (2018) who established that there is a negative association between adopting practices for monitoring risks and financial performance of RSSB firms.

The study revealed that most pension funds in Nairobi, Kenya conducts at least 3 risk evaluations as a strategy for monitoring risks. It is important to conduct risk evaluations as it assists in identification of potential threats to pension funds' assets such as market volatility and interest rate fluctuations and come up with appropriate measures to protect the assets and ensure they can meet long-term obligations. Further, risk evaluations allow pension fund managers to identify specific risks and develop strategies to mitigate them like diversification of investments across different asset classes, adjustment of asset allocation based on market conditions and implementation of hedging strategies to protect against adverse movements in markets. The findings concur with Algremazy, Ideris, Alferjany and Akram (2023) who established that risk monitoring had a negative and

substantial impact on project performance in construction industry of Libya. The results also agree with Kiprop and Tenai (2017) who argued that risk monitoring had positively affected financial performance of financial entities and that effective risk monitoring procedures were implemented to align risks with the management goals of the financial entities, with the aim of detecting errors in early stages.

The study also established that pension funds in Nairobi, Kenya have been complying with various regulatory requirements. Some of the existing regulations include Pensions Act CAP 189, The Finance Act-2021 and Retirement Benefits Act. Complying with regulatory requirements safeguards the interests of pension fund members and ensure transparency, fairness and appropriate risk management practices, protecting investors from fraudulent activities. Adherence to regulatory requirements helps pension funds to maintain market stability by preventing excessive risk-taking which significantly enhance financial performance. The findings agree with Osiemo (2016) who found that the practice of monitoring risks had the least impact on financial performance, indicating that a one-unit increase in risk monitoring resulted in only a marginal increase of 0.156 in financial performance. In addition, the findings concur with Eikenhout (2015) who noted that risk monitoring is an essential element of the entire risk management process, as it is tasked with ensuring that positive changes occur. Moreover, the results concur with Kiprop and Tenai (2017) who argued that risk monitoring in firms is carried out through risk evaluations, self-regulatory processes, development of risk response plans and tracking the identified risks. The results also agree with Moon (2016) who argued that risk monitoring entails routine assessment of potential risks and impact on organizational operations detection of emerging threats and adjustment of risk mitigation plans and strategies as necessary.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents conclusions made from the study and the recommendations for policy and for further research. The conclusions and recommendations were deduced from the findings based on objectives of the study.

6.2 Conclusions

Based on the research findings, the following conclusions were made

The study concluded that risk assessment significantly influenced financial performance of pension funds in Nairobi, Kenya. Risk assessment helps in determining the appropriate allocation of assets within the portfolio which make pension funds achieve the desired level of return and helps in understanding the nature and timing of long-term liabilities and enables pension funds to match them with suitable assets. Having more than 3 internal and external cross checks conducted every year assist in minimization of errors and ensures that the financial information provided to pension fund members and regulators is reliable and assist in ensuring compliance with internal policies and procedures. Cross checks also assist in detecting potential fraud and mismanagement of pension funds which protect interests of pension fund members and ensures that retirement savings are managed prudently. The study also deduced that most pension funds conducted at least 2 compliance reviews every year. This is very important in pension funds because compliance reviews ensures that pension funds adhere to regulations set forth by RBA which assist in avoiding legal issues and penalties for non-compliance. In addition, conducting compliance reviews ensures that pension funds are managed prudently and in the best interest of the members in an effort to prevent mismanagement, fraud, or misuse of funds that could jeopardize financial security of pensioners.

Additionally, the study further concluded that risk control significantly influenced financial performance of pension funds in Nairobi, Kenya. Efficiency in controlling risks ensure that pension funds are in a position to attain sustainable financial performance. This is because

it improves the ability of the pension funds to generate returns, meet their obligations and maintain shareholders trust and confidence. Pension funds in Kenya conduct at least four internal audits annually to identify, assess and mitigate risks associated with operations, investments and compliance, thereby safeguarding the fund's financial health. Internal audits help ensure adherence to regulatory requirements and standards, thereby mitigating the risk of penalties and legal issues that could affect financial performance. Most pension funds in Nairobi, Kenya engage in financial investments on behalf of the members to control risks. Financial investment help in risk control by diversifying across various assets like stocks, bonds, real estate and commodities, thus spreading risk and mitigating the impact of negative events on any single investment.

Also, the study concluded that risk transfer significantly influenced financial performance of pension funds in Nairobi, Kenya. Transferring risks decreases the pension fund's total liability exposure, resulting in more predictable cash flow management, less volatility in funding needs and an overall improvement in financial performance. Risks in pension funds are transferred by buying insurance policies for the assets to improve financial performance. Pension buyouts relieve companies' obligation to manage pension plans and pay future benefits. Pension buyouts significantly improve financial performance by eliminating financial risk tied to pension plan management. Furthermore, pension buyouts decrease pension funds' susceptibility to interest rate fluctuations resulting in more stable financial performance.

Further, the study concluded that risk monitoring significantly influenced financial performance of pension funds in Nairobi, Kenya. Risk monitoring allows pension funds to identify and assess different types of investment risks hence reducing the likelihood of losses and enhance financial performance. Effective risk monitoring guarantees that pension funds adhere to pertinent regulations and guidelines, thereby preventing potential penalties that could harm financial performance. Risk evaluations help identify potential threats like market volatility and interest rate fluctuations to pension fund assets and develop measures to protect these assets by ensuring that they fulfil long-term obligations. The study found that pension funds in Nairobi, Kenya adhere to regulatory requirements, which protect members' interests by ensuring transparency, fairness and effective risk

management, thereby shielding investors from fraud. Complying with regulatory requirements helps pension funds maintain market stability by curbing excessive risk-taking and ensures legal operation, which can greatly improve financial performance.

6.3 Recommendations

Based on the conclusions, the following recommendations were made.

The study recommends that management of pension funds need to establish a robust risk assessment framework tailored to the specific needs and dynamics of pension funds in Nairobi, Kenya. These frameworks should establish the minimum and maximum number of internal and external cross checks and compliance reviews that needs to be conducted every year. This would ensure that every pension fund conducts risk assessment to enhance financial performance. The study further recommends that the government of Kenya through the Retirement Benefits Authority should enhance regulatory oversight to ensure that pension funds adhere to prudent risk assessment practices. This could involve regular internal and external audits, stress testing and conducting regular compliance checks. There is also a need for management of pension funds to implement effective asset-liability management strategies to match the long-term nature of pension liabilities with appropriate investment assets in an effort to mitigate mismatch risks and ensures the fund's ability to meet future obligations.

There is need to assess the risk-return profile of potential investments and ensure alignment with the pension fund's objectives and risk control. The study recommends that management of pension funds in Nairobi, Kenya needs to carry out regular internal audits of the investment portfolio. This will ensure effective risk control. Further, regular audits by the management of the pension funds will mitigate the probable risks in a portfolio.

Conclusions were made that Kenyan government through RBA needs to develop comprehensive guidelines for pension funds in regard to risk transfer arrangements. This can be done by providing a clear guidance on the types of risks that can be transferred, permissible risk transfer instruments and risk-sharing mechanisms. In addition, managers at pension funds should perform thorough due diligence before making any investment decisions.

Moreover, recommendations were made that, government of Kenya through RBA needs to continue implementing regular monitoring and reporting mechanisms to track performance of pension funds against predefined risk metrics. This should include periodic reviews of investment portfolios, stress testing and scenario analysis to assess the potential impact of adverse events on the financial health of the pension funds. The government should strengthen regulatory oversight of pension funds to ensure compliance with risk monitoring regulations and guidelines.

6.4 Recommendations for Further Studies

The current study focused on risk management practices and did not focus on risk regulatory frameworks. It is recommended that further studies be carried out to ascertain the effects of regulatory of framework governing pension funds on financial performance. Future studies should also investigate how market risks affect financial performance of pension funds. Such includes, market volatility and prevailing macro-economic conditions. Further, studies on the topic under the study can employ a mixed method approach to enhance comparative and holistic generalization of the research findings.

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APPENDICES

Appendix I: Introductory Letter

South Eastern Kenya University
P.O. Box 170-90200,
Kitui, Kenya.

Dear Respondent,

Re: Request to Participate in Data Collection

I trust this letter finds you well. My name is Salome Kathini Wambua and I am a currently pursuing MBA (Finance option) at South Eastern Kenya University. I am writing to you as part of my academic research project, which focuses on the "*Influence of Risk Management Practices on the Financial Performance of Pension Funds in Nairobi*."

I believe that your insights and experiences in the pension fund would greatly contribute to the depth and comprehensiveness of my study. The gathered information will be handled with complete confidentiality and utilized exclusively for academic objectives. Your cooperation will be immensely cherished and I am confident that your participation will enrich the findings of this research. Thank you very much for considering my request. I look forward to the possibility of your participation in this study.

Yours Sincerely,

Salome Kathini Wambua
SEKU

Appendix II: Research Questionnaire

The questionnaire is meant to collect data solely for academics only. The study intends to assess how **risk management practices influence financial performance of pension funds**. Kindly, do not indicate your name.

Part A: General Information

1) Gender?

   Male [ ]

   Female [ ]

2) Kindly specify period of working at this pension fund

   Less than 2 yrs [ ]

   2 to 5 yrs [ ]

   6 to 9 yrs [ ]

   Above 9 yrs [ ]

Part B: Risk Assessment

3) Please fill in the data in regard to risk assessment indicators for the last seven years.

	2017	2018	2019	2020	2021	2022	2023
Number of external cross checks							
Number of compliance reviews annually							

Part C: Risk Control

4) Please fill in the data in regard to risk control indicators for the last seven years.

	2017	2018	2019	2020	2021	2022	2023
Number of internal audits							
Value of financial investments							

Part D: Risk Transfer

5) Please fill in the data in regard to risk transfer indicators for the last seven years.

	2017	2018	2019	2020	2021	2022	2023
Ratio of insurance policy value to asset value insured							
Value of pension buyouts							

Part E: Risk Monitoring

6) Please fill in the data in regard to risk monitoring indicators for the last seven years.

	2017	2018	2019	2020	2021	2022	2023
Number of risk evaluations conducted							
Number of regulatory requirements complied with							

Section F: Financial Performance of Pension Funds

7) Kindly fill in the data in regard to financial performance indicators for the last seven years.

	2017	2018	2019	2020	2021	2022	2023
Annual return							
Total profits							

Thank you for your Participation

Appendix III: Letter of Introduction from SEKU

SOUTH EASTERN KENYA UNIVERSITY
OFFICE OF THE DIRECTOR
BOARD OF POST GRADUATE STUDIES

P.O. BOX 170-90200
KITUI, KENYA
Email: info@seku.ac.ke

TEL: 020-4213859 (KITUI)
Email: directorbps@seku.ac.ke

Our Ref: D61/KIT/20712/2016

DATE: 13th March 2024

Salome Wambua
Reg. No. D61/KIT/20712/2016
Masters of Business Administration
C/O Dean, School of Business & Economics

Dear Wambua

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Master in Business Administration Proposal document entitled:*"Influence of Risk Management Practices on Financial Performance of Pension Funds in Nairobi County, Kenya".*

Following a successful presentation of your Masters Proposal, the School of Business & Economics Board of Examination in conjunction with the Directorate, Board of Postgraduate Studies (BPS) have approved that you proceed to research data collection in accordance with your approved proposal.

During the research work, you will be supervised by Dr. Jephitha Kirimi and Dr. Peter Kamoni. You should ensure that you liase with the supervisors at all times. In addition, you are required to fill in a Progress Report *(SEKU/ARSA/BPS/F-02 & SEKU/ARSA/BPS/F-14)* which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and successful research data collection, analysis and project report writing.

Prof. Elliud Muli
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Innovation (Note on File)
Dean, School of Business & Economics
Chairman, Department of Business & Entrepreneurship
Dr. Jephitha Kirimi
Dr. Peter Kamoni

Appendix IV: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 158112

Date of Issue: 13/April/2024

RESEARCH LICENSE

This is to Certify that Ms.. Salome Kathini Wambua of South Eastern Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: INFLUENCE OF RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF PENSION FUNDS IN NAIROBI COUNTY, KENYA for the period ending : 13/April/2025.

License No: NACOSTI/P/24/34499

158112

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix V: Journal Publication

British Journal of Multidisciplinary and Advanced Studies:
Business and Management Sciences 5(4),27-39, 2024
Print ISSN: 2517-276X
Online ISSN: 2517-2778
Website: https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

Influence of Risk Transfer on Financial Performance of Pension Funds in Nairobi, Kenya

Salome Kathini Wambua
MBA Student, South Eastern Kenya University
P.O. Box 170-90200, Kitui, Kenya

Dr. Jephitha Kirimi Karuti
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doi: https://doi.org/10.37745/bjmas.2022.04135 Published July 26, 2024

Salome Wambua K., Karuti J.K. and Kamoni P. (2024) Influence of Risk Transfer on Financial Performance of Pension Funds in Nairobi, Kenya, *British Journal of Multidisciplinary and Advanced Studies*: Business and Management Sciences 5(4),27-39

ABSTRACT: *Pension funds in Kenya have been recording poor performance which could be attributed to exposure to unmanaged risks due to weak enforcement of pension laws. The objective of this study was to examine the influence of risk transfer on financial performance of pension funds in Kenya. Research was guided by modern portfolio theory. Research adopted descriptive survey research design, using objectively prepared questionnaires, collected data from 36 chief risk officers of the 36 targeted pension funds in Kenya. Pilot study was conducted in Machakos county pension fund to test for reliability and validity of research instruments. Data obtained was analysed through descriptive statistics and inferential statistics. Descriptive statistics included mean, frequency, percentage as well as standard deviations. Inferential statistics was conducted through Pearson correlation analysis and multiple regression analysis. The research found that risk transfer (β=0.717) lead to significant changes in financial performance of pension funds in Kenya. The study concluded that risk transfer significantly influenced financial performance of pension funds in Kenya. Further, the study recommended that Kenyan government through RBA needs to develop comprehensive guidelines for pension funds in regard to risk transfer arrangements. The study recommends that management of pension funds in Nairobi, Kenya needs to launch public awareness campaigns to educate pension fund members about implications of risk transfer on financial performance.*

KEY WORDS: risk management practices, risk transfer, pension funds, financial performance

LINK: https://bjmas.org/index.php/bjmas/article/view/999

Appendix VI: List of Pension Funds in Nairobi County

1. CPF Individual Pension Scheme
2. GA Life Personal Pension Plan
3. Amana Personal Pension Plan
4. Apex Pension Limited
5. Benefits At Work Personal Pension Scheme
6. Boresha Maisha Retirement Plan
7. Britam Pension Scheme
8. CFC Life Individual Pension Plan
9. Cytonn Personal Retirement Benefits Scheme
10. Dry Associates Personal Provident Plan
11. Enwealth Diaspora & Expatriates Retirement Fund
12. Fahari Retirement Plan
13. Gencap Individual Pension Plan
14. ICEA Lion Individual Retirement Benefits Scheme
15. Jubilee Kenya Personal Pension Plan
16. KCB pension scheme
17. Kenindia Assurance Co. Ltd. Personal Pension Plan
18. Kenya Power Pension Fund
19. Madison Insurance Personal Pension Plan
20. Mafao Fund
21. Mbao pension scheme Kenya
22. Mercantile Personal Provident Fund Scheme
23. Minet Individual Pension Plan
24. Mwavuli Pension Fund
25. Nairobi County Pensions Fund
26. NSSF
27. PCK Pension Scheme
28. Prudential Individual Retirement Benefits Scheme
29. Stanlib Individual Pension Plan
30. TelPosta Pension Scheme
31. The Kenya Orient Individual Pension Plan
32. The Monarch Personal Pension Plan
33. UAP Life Assurance Individual Retirement Benefits Plan
34. Wakili Personal Retirement Benefits Scheme
35. Zamara Vuna Pension Plan
36. Zimele Personal Pension Plan

Source: Retirement Benefits Authority (2022).