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

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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

INTRODUCTION

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

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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 transfer framework (Kissi, 2016).
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. Like any other financial institutions, pension funds need an effective risk management strategy to transfer and minimize effects of risks (Grigoli, Koczan & Topalova, 2018).

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). 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 Africa, pension funds are financed by both employees and employers, especially in nations with mandatory retirement savings programs (Guven, 2019). 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 transfer and sustainable financial performance of publicly traded deposit money banks.

In Kenya, there are various pension funds in Kenya 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

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practices affect financial performance of pension funds in Kenya which was the gap the study intended to bridge.

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 transfer 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 transfer 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 transfer 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 transfer 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 transfer 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 transfer which was covered in this study. Hence, the study intended to fill these research gaps by examining how risk transfer influenced financial performance of pension funds in Nairobi, Kenya.

LITERATURE REVIEW

Conceptual Review

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.

Theoretical Underpin Review

The study was grounded on 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 supports objective that seek to examine the effect of risk transfer on financial performance of pension funds. This is because modern portfolio theory (MPT) has significant implications in regard to transferring risk through investment in portfolios that have reduced risks. Pension funds invest on behalf of respondents in the pension plan, so their goal is to seek portfolios that provide the highest possible returns while mitigating risks through risk transfer. This theory highlights how risk transfer affect financial performance of pension funds and provides an adequate study lens to view and comprehend the rationale and elements of risk transfer.

Empirical Review

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

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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.

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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 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.

METHODOLOGY

Research Design

This study employed descriptive survey research design. This specific design was well-suited because it involves gathering and juxtaposing data from the phenomenon simultaneously during the research process. This design involved collecting quantitative data and analyse it by use of inferential analysis to establish the influence of risk transfer on financial performance of pension funds.

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Study Population

The study targeted 36 pension funds in Kenya. The study collected data from 36 chief risk officers drawn from 36 targeted pension funds in Kenya.

Sample size and Sampling Techniques

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.

Sources of Data

Primary data was collected using questionnaires administered to chief risk officers in the selected pension funds in Nairobi, Kenya. 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.

Method of 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. The panel regression model assumed the following form:

$$\mathbf{Y = \alpha + \beta_1 X_1 + \varepsilon}$$

Where;

Y= Financial performance

α = the model intercept; β_1 =Coefficient of independent variable

$\mathbf{X_1}$= Risk transfer

ε= Error Term assumed to have normal distribution

DATA ANALYSIS AND INTERPRETATION OF RESULTS

Descriptive Statistics

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 1.

Table 1: 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 1, 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.

Inferential Statistics

The research conducted panel regression analysis to test null hypothesis which is, "***H_{03}**: Risk transfer has no significant influence on financial performance of pension funds in Nairobi, Kenya*". Hypotheses were tested at 95% confidence level and findings are shown in Table 2.

Table 2: Results for Panel Regression Analysis

				Number of obs = 252		
				R-square = .756		
				F-statistic = 191.266		
Log likelihood = 180.847				Sig. = .000		
	Coef.	**Std. Err.**	**z**	**P>|z|**	**[95% Conf. Interval]**	
Risk Transfer	.717	.019	26.658	.000	.477	1.199
_Constant	8.090	.909	2.965	.003	6.299	9.881

From the results in Table 2, 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 transfer. 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.

From the study outcomes in Table 2, the research established that a unit change in risk transfer leads to 0.717 change 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.

DISCUSSION OF FINDINGS

The research established that there is strong and significant relationship between risk transfer and financial performance of pension funds in Nairobi County, Kenya (r=0.860; p=0.000). The research also found that a unit change in risk transfer leads to 0.717 change in financial performance of pension funds in Nairobi County. 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 implementation of strategies for transferring risks positively affected operational performance of insurance firms located in Nyeri County

CONCLUSION

The study further 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.

RECOMMENDATIONS

The study recommended 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.

There is need to assess the risk-return profile of potential investments and ensure alignment with the pension fund's objectives and risk tolerance. 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. This would empower individuals to make informed decisions regarding their pension contributions and investment options.

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