EFFECT OF RISK-BASED SUPERVISION ON THE MANAGEMENT OF PENSION FUNDS ASSET IN NIGERIA

Sogunro, A. B.[1], Olalude, G. A.[2], Aderibigbe, F. O.[3], and Olaniyan, S. M.[4]

University of Lagos, Nigeria.[1,4], Federal Polytechnic, Ede, Osun State[2], and Federal polytechnic, Ilaro, Ogun State[3].

asogunro@unilag.edu.ng[1], olalude.gbenga@federalpolyede.edu.ng[2], feyisayo.aderibigbe@federalpolyilaro.edu.ng[3], sunny_michael1988@yahoo.com[4]

This study investigates the impact of risk-based supervision on the asset management of Nigerian pension funds, using primary data collected through structured questionnaires. The study's participants include individuals within the pension fund sector and practitioners interested in the topic. The study employs descriptive statistics, such as frequency distribution and percentages, to analyze demographic data, while regression modeling is used to address research hypotheses. The findings reveal a significant and positive relationship between risk identification, risk evaluation, regulatory reporting, and the cultivation of a robust risk governance culture in the effective management of pension fund assets. In conclusion, this study emphasizes the importance of proactive risk management in safeguarding pension fund investments. To ensure long-term sustainability, we recommend that pension fund managers and regulatory authorities prioritize risk-based supervision, establish clear risk reporting standards, and implement training programs to enhance risk management competencies among practitioners. These measures are essential for the security and sustainability of pension fund assets and the financial well-being of retirees in Nigeria.

Keywords: Financial-market; Investment-portfolio; Pension-funds; Supervision; Risk-management.

1.0 Introduction

As financial markets continue to develop, non-bank entities including insurers, pension funds, mutual funds, and hedge funds have increased their exposure to market and credit risks. The influence of these non-bank particularly pension funds on financial stability has been noteworthy over the years as they constitute a substantial proportion of household wealth and have a wider outreach than other financial products through their investment portfolios (Thomas & Spataro, 2016). Consequently, it is vital to expertly and proficiently manage pension fund assets to obtain profitable and logical yields in the future (International Monetary Fund, 2004). Nonetheless, for these goals to be realized, it is essential that the assets be prudently assigned in a remunerative investment portfolio, competently managed by experts in the field, and effectively supervised by government entities.

In conjunction with other factors, pension funds' investment practices have a considerable impact on the stability of the financial markets. This investor class has the ability to influence markets on its own due to the sector's size and predicted growth on a worldwide scale. The stability of the financial markets could be impacted by any large reallocation of assets, such as between fixed income and stocks. Such methods are influenced by a variety of factors, including official laws in the areas of taxation, regulation, and financial accounting, as well as by cyclical dynamics, risk management considerations, and fundamental business models.

Longer-term effects are also caused by the evolving needs of aged pension fund participants. As such, a thorough examination of the pension funds' effect on financial stability must encompass all of the aforementioned elements.

Currently, the majority of nations, including Nigeria, implement a defined contribution pension plan. This is due to the fact that members are wholly engaged in the contribution and investment procedures, with their benefits mainly reliant on the investment returns during the accumulation phase. However, there are significant challenges that confront the management of these funds, such as investment risk, mortality risk, market risk, credit risk, and inflation risk (Osu, Akpanibah, & Oruh, 2017). As the population ages, pension fund administrators tend to diversify their portfolios, leading to an increase in the pension liabilities' magnitude and investment risk. Given that lifespan gains have repeatedly outpaced prior actuarial projections, the increase in liabilities has been more than expected. The investment risk associated with pension funds can be linked to the emphasis of Pension Funds Administrators on liquidity assets such as bonds and shares in the stock exchange market. This situation leads to lower investment income for pension funds, which traditionally hold a large amount of interest-bearing investments with low interest rates. As a result, it becomes more challenging for these funds to fulfill their existing benefit commitments (Jordan, 2019). On the other hand, the high inflation rate in Nigeria has led to price instability in the stock exchange market, including the foreign exchange market, which the Central Bank of Nigeria (CBN) has failed to bring down. This has ultimately resulted in a low return on investment for pension funds in the country.

The method to supervision is anticipated to change to become more inclusive, risk-based, and data-centric as global supervisors' attention moves to guaranteeing financial stability and controlling contagion risk in a market that is becoming more linked. Financial institutions have started a process to switch from their previous approach to a risk-based supervision approach, which is anticipated to fundamentally alter the way regulatory supervision is conducted. For the pension industry, this shift to risk-based supervision is a positive development that can help to improve financial stability and guarantee better results for retirees, pension managers, and supervisors who recognize the risk that comes with managing pension funds and find the most efficient ways to deal with it.

The risk base supervision makes sure that pension managers use solid risk management practices and maintain adequate capital levels. This will instruct pension sponsors on the flaws in the Nigerian pension system that requires immediate attention, including their identification, assessment, and regulatory reporting with good risk governance culture. It will also help to prevent the risk of future Nigerian retirees losing their retirement benefits so they can meet or exceed a satisfactory standard of living. Therefore, the study's objective is to ascertain how risk-based supervision affects the way assets are managed by pension funds in Nigeria.

The adoption of a risk-based supervision approach in the management of pension funds is expected to significantly minimize risk and transform the former regulatory monitoring process. This will equip the pension industry with the necessary tools to adapt to the revamped supervisory system. Furthermore, the strategy will enable pension fund managers and custodians to concentrate their efforts on the activities that present the highest risk to pension funds. In addition, the technique will aid in determining how pension supervisors can carry out their functions in a risk-sensitive manner by allocating the appropriate amount of attention to relevant sectors and entities within those sectors, as well as by identifying, evaluating, monitoring, and controlling risks in pension organizations through the use of an efficient risk management methodology.

The supervisory and pension industries face a variety of difficulties, including concerns about the quality of data, the scalability of regulatory reporting processes, the effectiveness of risk management systems, and the cost of compliance. The goal of this investigation was therefore restricted to examining the impact of risk-based supervision on the management of pension funds and the risk involved with pension funds using four risk-based supervision measures, including risk identification, risk assessment, regulatory reporting, and risk governance compliance. The study was restricted to pension fund administration organizations operating only in Lagos State in an effort to keep the investigation within a manageable range. This was done for the sake of convenience, accessibility, and proximity of study-related material.

2.0 Review of Literature

An in-depth explanation of the study is made possible by the conceptual framework for risk-based supervision (RBS) in Figure 1 below, which shows a web of interconnected variables. The Framework outlines the various factors evaluated in the study to implement risk-based supervision to efficiently monitor pension fund operations. It also identifies and evaluates the inherent risks of the pension industry, including operational risk, investment risk, inflation risk, exchange rate risk, and market risk, as well as the effectiveness of risk management control functions, including internal audit and risk management. Using a combination of risk assessment methods and strategic resource allocation, the framework can help pension fund supervisors monitor pension funds' operations and focus supervisory resources where risks are greatest.

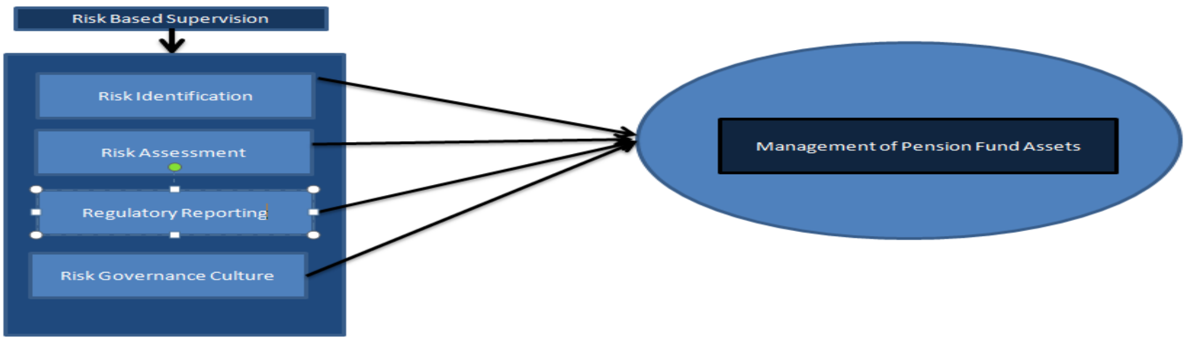

Figure 1: A simple Risk-based Supervision (RBS) Conceptual Framework
Source: Developed for study by Researcher

Empirical Review

Most nations have implemented regulations for pension businesses that share similar objectives with other segments of the financial sector (Meenakumari, 2008). However, the pension industry holds a unique responsibility in promoting and safeguarding social policies such as retirement income support. Consequently, this distinct characteristic of pension organizations necessitates the inclusion of appropriate measures in the regulatory framework. Meenakumari (2008) suggests that a potential crisis in the pension industry may lead to public scrutiny of government officials, regulatory bodies, and pension institutions, as well as negatively impact the quality of life for senior citizens. Therefore, to retain public trust and safeguard the viability of the pension system, proactive measures such as strong guidance and risk protection for pension funds may be necessary to prevent crises. The pivotal role of social policy necessitates an enhanced security in the regulatory approach, thereby creating a pressing impetus for the implementation of prudential regulation and supervision.

Financial regulators have traditionally depended on systems based on rules and have heavily used ratio-based financial analysis as a tool for oversight (Toronto Center, 2018). However, it has become clear that depending solely on financial metrics may not be an effective way of preventing financial crises. To encourage transparency, offer early warning signs, and enable regulated companies to periodically evaluate their status, the risk-based approach to supervision was created.

According to scholarly sources such as Momanyi (2009), Suleiman and Ashurov (2020), the Eastern Caribbean Central Bank (2017), Barth et al. (2004), Afolabi (2008), and Weinstein et al. (2002), the utilization of risk-based methodologies initially found its origins primarily in the oversight of financial institutions. Nevertheless, it has since been more broadly applied to non-bank entities, such as insurers (Kevin, 2013; Brainsford et al., 1999). The emergence of preemptive systems for financial institutions accounts for the shift towards risk-based supervisory approaches (Laura & Juan, 2019). The first of these systems was the Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity (CAMEL) method for risk assessment, which was implemented by the United States during the 1980s. The Basel Committee on Banking Supervision approved the implementation of the Capital Adequacy Accord (Basel) in 1988. This regulatory framework marked a notable advancement towards risk-based supervision. It incorporated a system of assigning weights to credit exposures, based on comprehensive risk categorizations, with the aim of ensuring that the banking industry maintained an acceptable level of capital. This led to the development of early warning and risk assessment systems by numerous regulators during the 1990s (Central Bank of the Republic of Kosovo, 2015).

The utilization of risk-based supervision in pension funds was first implemented in a collaborative research study conducted by the International Organization of Pension and Supervisors (IOPS) and the World Bank (Brunner et al, 2008). The study was initiated in response to the growing interest in innovative approaches to pension supervision from member countries of both institutions. The presented volume provides an initial evaluation of the development of risk-based supervision of pension funds in four countries (Australia, Denmark, Mexico, and Netherlands) that have been at the forefront of pioneering risk-based supervision methods in various forms.

A trend toward risk-based pension monitoring has emerged as a result of the banking and insurance industries' increased focus on risk management. This plan, which includes supervisory monitoring, minimum capital requirements, and market discipline, is similar to banking techniques; however, it has to be modified for use with pension funds, particularly defined-contribution plans that expose members to the risk associated with investments (Brunner et al, 2008). In order to effectively prioritize limited regulatory time, effort, and resources on the most important risks facing the pension industry, risk-based supervision must be able to both identify, evaluate, and report on these risks using sound risk governance practices. The ultimate objective is to create a stable economy (Basel, 2012).

Several nations worldwide, particularly in Africa, have initiated the process of restructuring their social security and pension systems in recent times. As per Makau (2014), this has been necessitated by the escalating retirement responsibilities' financial burden. Kenya's reform program has been primarily centered around risk management and monitoring of pension schemes. To ascertain the correlation between financial performance pre and post-implementation of risk-based supervision, Makau utilized quarterly data from Kenyan pension funds spanning the period from June 2008 to June 2013, encompassing details on the fund value and asset classes where the scheme funds were invested. The results of Makau's study show that the introduction of risk-based supervision has significantly and favorably affected the financial sector. After the adoption and implementation of risk-based monitoring, the study's findings indicated that the fiscal performance of pension funds in Kenya had improved. Additionally, the researcher offered policy modification recommendations. More academic studies on the subject of risk-based supervision in Kenya were conducted by Oluoch (2013), Gitau (2010), and Njuguna (2010).

Risk-based oversight for pension funds in Nigeria is essential, as Ibrahim (2008) has investigated. His research reveals that privately managed pension systems have exhibited significant growth over the previous two decades, and on a global level, have grown to play a critical part in the provision of retirement income. The importance of providing retirees with a reasonable and sustainable source of income was highlighted, given the fact that the design and operation of these systems differ significantly from one another. Nevertheless, in light of the concerns posed by globalization and the quickening integration of financial markets, achieving this goal may prove to be a challenging endeavor. The primary focus of Ibrahim's (2008) analysis was the initial draft of the recommendations for the Auditing of Pension Funds, which sought to uniformly choose and report pension fund auditors and provide AES trustees with recommendations to help them turn their attention to risk-related concerns. In the comparison of the study to other statistical methods of identifying financial distress, there was no statistical acceptance of a more effective and logical foundation to detect pension funds' investment risks, which could potentially provide a solid foundation on which to build the risk-based supervisory framework.

The main objectives of risk-based supervision in defined contribution pension schemes are to guarantee that funds function at the forefront of risk and return while also safeguarding public guarantees. As a result, the principal goals of the study are to determine the effects of risk-based supervision on the management of pension fund assets in Nigeria, with an emphasis on risk identification, risk assessment, regulatory reporting, and risk governance culture. This can assist in the reduction of pension fund investment risk, thereby ensuring that retired individuals have access to reasonable and dependable income. The study's ultimate aim is to contribute to the development of an effective regulatory framework for pension fund management in Nigeria.

3.0 Methodology

The effect of risk-based supervision on the management of pension funds was investigated using a descriptive research design. This design enables the identification of observed phenomena characteristics and the exploration of possible correlations among variables. In order to establish a comprehensive sample frame area that can be deemed a legitimate representation of all pension fund administrators engaged in the management of pension funds in Nigeria, the study has encompassed all twenty-two listed pension fund administrators in Nigeria (Business-day, 2022). From this group, a selection of eight (8) top performing pension fund administrations with branches situated in Lagos state has been made to serve as the sample. The chosen entities, which consist of VERITAS, NLPC, STANBIC, FIDELITY, LEADWAY, TANGERING, NUPEMCO, and FIRST GUARANTEE PENSION LIMITED, have been selected based on their performance and the ease of accessibility of their information. Risk-related information was obtained from selected pension industries using the simple random sampling technique. Due to industry policy, the disclosure of staff numbers is restricted. Hence, an unknown population Cochran formula was utilized to determine the sample size of 385 from the eight selected companies.

A well-structured questionnaire utilizing a 5-point Likert scale and consisting of risk related questions pertaining to the study was developed to align with the objectives of the study. The questionnaire was then randomly distributed to respondents, with the intention of gathering the necessary data for the study. The aim of the questionnaire was to ascertain the perceptions of the respondents regarding the impact of risk-based supervision on the management of pension funds in Nigeria. The questionnaire was divided into two sections. Section A pertained to the demographic characteristics of the respondents, including gender, age, level of education, and years of experience, while Section B comprised closed-ended questions structured in a 5-point Likert scale format, encompassing the study variables, ranging from "5 strongly agree," "4 agree," "3 uncertain," "2 disagree," and "1 strongly disagree." Of the three hundred and eighty-five (385) questionnaires distributed, two hundred and eighty-three (283) completed questionnaires were returned and utilized for the analysis of the study.

A validity examination was conducted on the research tool to verify its capacity to accurately measure the intended variables and ensure the adopted instrument's precision. The validation test not only determines the tool's potential to measure the attainment of predetermined objectives but also identifies any uncertainties in the questionnaire's creation. To evaluate the instrument's reliability and measure the accuracy of readings, Cronbach's alpha was utilized to determine the survey tool's consistency. Nunnally (1978) suggests that internal consistency is attained when each construct's Cronbach's alpha score is 0.7.
The responses obtained from the questionnaires that were administered were subjected to analysis using correlation and regression statistical tools to verify the validity of the proposed hypothesis at a 0.05 level of significance. This was achieved with the help of the Statistical Package for Social Science (SPSS). The outcomes of the analysis were presented through the use of inferential and descriptive statistics, including frequency tables, mean, and percentage.

4.0 Data analysis and presentation

The data obtained was analyzed descriptively, presenting the findings in the form of percentages, while hypothesis testing was conducted through simple linear analysis.

4.1 Presenting the socio-demographic information of the participants.

Table 1: Socio-demographic details of the respondents

Variables	Response Classification	N	%
Gender			
	Male	165	58.3
	Female	118	41.7
Age			
	21-30 years	108	38.2
	31-40 years	77	27.2
	41-50 years	77	27.2
	51-60 years	21	7.4
Qualification			
	HND	21	7.4
	B.Sc	125	44.2
	M.Sc	116	41.0
	Others	21	7.4
Years of experience			
	0-5 years	80	28.3
	6-10 years	98	34.6
	11-15 years	52	18.4
	16-20 years	53	18.7

Source: Field Survey, 2023

According to Table 1 above, there were 53.3% more men than women who participated in this survey, showing that men make up the majority of survey respondents. Based on the information in the table provided, it can be observed that 38.2% of the respondents fall within the age bracket of 21 to 30. Following this, 27.2% of the respondents belong to the age group of 31 to 40, another 27.2% are in the age range of 41 to 50, and the remaining 7.4% are aged between 51 and 60. The bulk of respondents (44.2%) come into the category of BSc level of study, followed by (41.0%), M.Sc., and HND, and other credentials (7.4%), respectively. As a result, it may be argued that the survey population is literate and capable of offering an unbiased evaluation of the problems addressed by the questionnaire utilized. As a result, reliable data should be elicited from this group of respondents. 34.6% of the respondents have worked for between six and ten years, 28.3% for one to five years, 18.4% for eleven to fifteen years, and the remaining 18.7% for sixteen to twenty years. As a result, it may be concluded that this group of respondents is expected to produce accurate and relevant data for the study's topic because they are presumed to be deeply knowledgeable about the topics discussed therein.

4.2 Analysis of the research constructs using mean score

To provide an overview of the research constructs, it is common to employ the mean score. The tables provided in the upcoming section adhere to the following calibration: A rating of '1' corresponds to "Strongly Disagree," '2' signifies "Disagree," '3' represents "Uncertainty," '4' denotes "Agreement," and '5' stands for "Strong Agreement." It's important to note that an average score below '3' signifies either "Strongly Disagree" or "Disagree," while a mean score above '3' indicates "Agreement" or "Strong Agreement."

Table 2: Distribution addressing Risk base supervision Measures

S/N	*Risk Identification*	*Mean*	*Std. Deviation*
1.	Risk identification is done by pension fund managers	4.3286	.91566
2.	Our organization uses financial analysis which enhances risk identification of pension funds	4.3074	.88377
3.	Our company uses risk rating to classify the risks pension funds and sets clear standard to improve identification	4.3816	.94678
4.	There is a good risk rating which enhances risk identification of pension funds	4.4558	.78143
5.	Our company develops a risk management framework to identify the level of pension funds risk exposure	4.5689	.79316
S/N	*Risk Assessment*	*Mean*	*Std. Deviation*
1.	Pension funds risks are evaluated in our company with assumptions and uncertainties being clearly considered and presented	4.2933	.88056
2.	Our company uses quantitative and qualitative methods to assess the level of pension funds risk exposure in the pension industry	4.1979	.96924
3.	Measurement of both of the quantities in which pension fund risk assessment is concerned - potential loss and probability of occurrence – is carried out by the company	4.3216	.79835
4.	Our company reduces pension risks occurrence that may affect its effectiveness	4.3993	.74824
5.	Pension fund risks are subdivided into individual levels for further analysis	4.2226	.99818
S/N	*Regulatory Reporting*	*Mean*	*Std. Deviation*
1.	Our company conducts training on risk management to its employees	4.4134	.75001
2.	Our company structure defines key areas of responsibility and establishes accountability.	4.6431	.47993
3.	Assignment of authority and responsibility clearly establishes the degree to which individuals and teams are authorized and encouraged to act to address issues, solve problems and take advantage of presented opportunities.	4.3498	.72535
4.	The assignment of authority and responsibility clearly establishes limits of authority.	4.3922	.77520
5.	There are dedicated people who act as risk identification champions	4.6290	.63593
S/N	*Risk Governance Culture*	*Mean*	*Std. Deviation*
1.	Our risk management program is well documented.	4.5053	.68090
2.	Our company develops a regular reporting system regarding its pension fund risk exposure.	4.3286	.90004
3.	There is an agreed process for reporting, managing and analyzing risk associated with pension funds	4.3887	.81485
4.	Formal reports are submitted to board level at least annually on the current state of risk and effectiveness of risk management of pension funds	4.5265	.66458
5.	Our company have defined and documented strategies for managing pension funds risks	4.4205	.71697

Source: Field Survey, 2023

The analysis conducted in Table 2 utilizes the mean score of risk-based supervision factors, including risk identification, risk assessment, regulatory reporting, and risk governance culture, to provide a summary. The findings reveal that all variables score above the required threshold of "3" for accepting the assertion. The results pertaining to risk identification factors indicate that the Nigerian pension business has a proficient process for identifying risk, utilizing financial analysis, risk rating, and risk management frameworks to identify potential risks associated with pension funds. The findings indicate that the Nigerian pension industry employs a comprehensive approach in assessing risk, which incorporates both quantitative and qualitative methods, and factors in uncertainties. Moreover, the sector has established a multi-tiered framework for analyzing pension fund risks, taking into account potential loss amounts and their likelihood of materializing. Additionally, Nigerian pension firms equip their personnel with risk management skills to identify critical areas of responsibility and foster accountability. Consequently, the sector has a robust regulatory reporting system, as evidenced by its distribution addressing regulatory reporting. The risk management program, which has been thoroughly documented, encompasses the management, analysis, and regular reporting of pension risk exposure, along with the current state of risk and the efficacy of risk management for pension funds. Consequently, the constructs of the risk governance culture evince an operational risk governance culture within the Nigerian pension industry.

Table 3: Distribution addressing Management of Pension Fund

S/N	*Statement*	*Mean*	*Std. Deviation*
1	There is an efficient management of pension funds in over the last three years	4.3816	.75509
2	There is an effective risk mitigation of pension funds over the last three years	4.7420	5.27948
3	There is now a better investment of pension funds with a minimum level of risk	4.3604	.67697
4	The level of risks faced by the organization has reduced in the last three years	4.1625	.89625
5	The management of pension funds is properly protected by PENCOM Act	4.5300	.74017

Source: Field Survey, 2022

Based on the findings of Table 3, the Nigerian pension industry has demonstrated effective management of pension funds over the course of the previous three years. The research further indicates that during this time, pension funds have successfully mitigated their risk exposure, thereby significantly reducing the risk associated with pension businesses. Moreover, a newfound methodology for investing pension funds without risk has emerged.

Test of Hypothesis

In order to test the formulated hypotheses for the study, this study adopted the simple linear regression to capture the effect of each of the risk-based supervision components on the asset management of Nigerian pension funds

Hypothesis One:

H_0: Risk identification does not have a significant effect on the management of pension fund assets.

Table 4: Regression Result for Risk identification vs. Management of pension fund assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.389[a]	.151	.148	1.09556

a. Predictors: (Constant), Risk Identification

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.135	1	60.135	50.102	.000[b]
	Residual	337.271	281	1.200		
	Total	397.407	282			

a. Dependent Variable: Management of Pension Fund
b. Predictors: (Constant), Risk Identification

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.636	.401		4.083	.000
	Risk Identification	.635	.090	.389	7.078	.000

The findings from Table 4 reveal a correlation coefficient of 0.389, signifying a positive and statistically significant relationship between the predictor variable, which is "Risk identification," and the response variable, "Management of pension funds." The R-squared statistic of the model implies that approximately 15.1% of the total variation in pension fund management measurements can be attributed to variations in risk identification. Furthermore, when examining the regression coefficient, the t statistic, and the p-value for the model, they collectively indicate that risk identification has a favorable and statistically significant impact on pension fund management. Consequently, the null hypothesis is rejected, and it can be concluded that risk identification plays a substantial role in influencing the management of pension funds.

Hypothesis Two:

H_0: Risk assessment does not have a significant effect on the management of pension fund assets.

Table 5: Regression Result for Risk assessment vs. Management of pension funds assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.332[a]	.110	.107	1.12179

a. Predictors: (Constant), Risk Assessment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.796	1	43.796	34.803	.000[b]
	Residual	353.611	281	1.258		
	Total	397.407	282			

a. Dependent Variable: Management of Pension Fund
b. Predictors: (Constant), Risk Assessment

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.059	.408		5.043	.000
	Risk Assessment	.554	.094	.332	5.899	.000

a. Dependent Variable: Management of Pension Fund

Based on the results reported in Table 5, a statistically significant and positive association (r=0.332) exists between the Risk assessment, and Management of pension funds. The R-squared statistic of the model indicates that changes in risk assessment can account for approximately 11.0% of the total variation observed in measures of pension fund management. The regression coefficient, t statistic, and p value of the model demonstrate the favorable and statistically significant impact of assessment on pension fund management. With the null hypothesis being disproved, it is possible to conclude that risk assessment has a significant impact on the management of pension fund assets.

Hypothesis Three:

H_0: Regulatory reporting does not have a significant effect on the management of pension fund assets.

Table 6: Regression Result for Regulatory reporting vs. Management of pension fund assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.122[a]	.015	.011	1.18031

a. Predictors: (Constant), Regulatory Reporting

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.937	1	5.937	4.262	.040[b]
	Residual	391.470	281	1.393		
	Total	397.407	282			

a. Dependent Variable: Management of Pension Fund
b. Predictors: (Constant), Regulatory Reporting

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.012	.693		4.344	.000
	Regulatory Reporting	.317	.154	.122	2.064	.040

a. Dependent Variable: Management of Pension Fund

According to the results presented in Table 6, a statistically significant and positive relationship (r=0.122) exists between the regulatory reporting and management of pension funds. The fitted model indicates that changes in regulatory reporting account for approximately 1.5% of the total variation in the management of pension funds. Moreover, the model's regression coefficient, t-statistic, and p-value all indicate that regulatory reporting has a favorable and statistically significant impact on pension fund management. Consequently, the null hypothesis is rejected, and it can be concluded that regulatory reporting significantly affects the management of pension fund assets.

Hypothesis Four:

H_0: Risk governance culture does not have a significant effect on the management of pension fund assets.

Table 7: Regression Result for Risk governance culture vs. Management of pension fund assets

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401[a]	.161	.158	1.08939

a. Predictors: (Constant), Risk Governance Culture

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.927	1	63.927	53.867	.000[b]
	Residual	333.480	281	1.187		
	Total	397.407	282			

a. Dependent Variable: Management of Pension Fund
b. Predictors: (Constant), Risk Governance Culture

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.856	.492		1.739	.083
	Risk Governance Culture	.807	.110	.401	7.339	.000

a. Dependent Variable: Management of Pension Fund

Table 7's results reveal that there exists a statistically significant and favorable association between Risk governance culture, and Management of pension funds, with a correlation coefficient of 0.401. The R-squared statistic of the fitted model indicates that approximately 16.1% of the total variation in measures of pension fund management can be attributed to changes in risk governance culture. Furthermore, the model's regression coefficient, t statistic, and p value demonstrate that regulation reporting has a statistically significant and favorable impact on pension fund management. Consequently, the null hypothesis is countered, affirming that risk governance culture significantly affects the management of pension fund assets.

Discussion of Findings

Several research inquiries and suppositions were formulated to facilitate the achievement of the study's objective. The aim was to appraise the influence of risk based supervision on the management of pension fund assets in Nigeria.

(i) **Objective One**: The findings evince that risk identification has a constructive and significant impact on the management of pension fund assets ($p = 0.635, p < 0.05$). The conclusions of this investigation are congruent with those of Njuguna's (2010) exploration, which discovered that effective pension system oversight affects management oversight, financial control, and legal compliance.

(ii) **Objective Two**: To what degree does the evaluation of risk impact the management of assets within Nigerian pension funds? The outcomes of the study evince that the assessment of risk has a positive and statistically significant influence on the administration of pension fund assets ($p = 0.554, p < 0.05$). This outcome is in keeping with the discoveries of Momanyi (2009) and Barth et al. (2002), who observed that the appraisal of risk by financial institutions was augmented by a method based on risk, leading to cost savings and the prompt identification of new risks.

(iii) **Objective Three**: The present study investigates the impact of regulatory reporting on the management of pension fund assets in Nigeria, specifically in relation to the extent of its influence (iii). The findings indicate a noteworthy and positive relationship between regulatory reporting and pension fund asset management, with a coefficient of determination of 0.317 and a statistical significance of $p < 0.05$. These results are in line with the research conducted by Ibrahim (2008), who also highlighted the importance of risk-based supervision as a means of ensuring the provision of secure and affordable income for retirees in Nigeria.

(iv) **Objective Three**: To determine the impact of risk governance culture on the management of pension fund assets in Nigeria? The findings reveal a significant and constructive correlation between risk governance culture and the management of pension fund assets$(\beta = 0.807, p < 0.05)$. These results endorse the argument posited by Makau (2014) that the implementation of risk-based supervision has led to a noticeable enhancement in the financial performance of pension funds in the post-adoption period.

5.0 Summary, Conclusion and Recommendations.

A strong pension system should be one of the pillars of a retiree's success because it is essential to ensuring social cohesion. The Nigerian pension system is rapidly developing and will soon be essential to the provision of retirees' retirement income. By keeping a sizable portion of the savings of active workers, the retirement and pension fund sector contributes significantly to the world economy (including Nigeria). Pension funds contribute to boosting investor confidence, which benefits the economy as a whole. It makes considerable market investments and holds a sizeable portion of the stock in some corporations.

For the retirement and pension fund sector, there eventually develops an accumulation of varied, uncoordinated, and isolated processes. Some of the issues are brought on by the introduction of investments and risk measurement by pension fund managers, as well as the opposition of pension supervisors to modern and technological development. Finding a new, superior method for managing retirement and pension funds has necessitated major adjustments due to the uncertain economy and continually changing risk of investment. The system is beset by macroeconomic volatility, a dearth of investment vehicles, exorbitant capital market lending rates, inadequate risk evaluation methodologies for fund investment, insufficient benefits, and a paucity of awareness regarding the merits of retirement schemes. The arduousness of augmenting investment levels to effectuate change, the unfavorable exchange rate between the Naira and the Dollar, and assorted hazards such as actuarial, operational, market, governance, compliance, and legal risks are additional concerns.

The retirement and pension fund industries make it challenging to undertake organizational reforms. However, because of shifting beneficiary profiles and preferences, volatile markets, and increased vulnerability to newly emerging legislation, this is essential for pension organizations. Adherence to the best standards and finding innovative ways to flourish are necessary in an unusually competitive environment.

To guarantee that retired individuals can maintain their current standard of living in a suitable manner post-retirement, it is imperative for pension supervisors that employers are able to fulfill their constitutional obligation, especially during the old age of surviving beneficiaries. Strong funding and proactive risk prevention are essential elements for a financially stable and risk-free pension system, which is crucial for instilling trust in the populace. This trust is fundamentally important to ensure that the pension system can fulfill its significant economic role. Consequently, it is essential to provide individuals with the reassurance that the assets accumulated in their pension plan during their working years will be accessible to them in their later years.

A robust pension system not only fosters security for individuals and societal stability, but also facilitates predictability in future material necessities. This renders it an indispensable prerequisite for the expansion and economic success of modern-day economies, while effectively managing risk for pension funds. However, ensuring the integrity and excellence of these institutions' processes is a daunting task that demands due attention.

Pension fund managers and supervisors are obliged to recognize the inherent risks associated with pension fund management. They must then determine the most efficient means to address these risks in order to achieve the study's objectives and goals. By doing so, they can enhance financial stability and ensure better outcomes for pensioners. The study's preliminary results indicate that effective risk identification, regulatory reporting, adherence to established rules by pension fund managers, and proper monitoring and supervision by regulatory authorities (PENCOM) are all vital for the efficient management of pension fund assets.

In order to mitigate the potential for future losses and thus safeguard the investment portfolios of pension funds, it is imperative to proactively identify, assess, monitor, and effectively supervise risks at an early stage. With this objective in mind, the following recommendations are deemed necessary:

i. In order to provide a sense of security to the general public in regards to their post-retirement income, it is imperative that asset managers of pension funds prioritize risk management methodologies.
ii. The authorities should conduct risk-based audits on a quarterly basis to ensure compliance and to monitor how pension managers are managing and investing pension funds. It is also essential that fund management choices align with the regulatory requirements of the National Insurance Commission (NAICOM), are congruent with the pension funds' liabilities, and satisfy the retirement income objectives of the pension funds.
iii. Furthermore, it is imperative for pension fund providers to direct their attention towards risks that are unquantifiable in terms of monetary value.
iv. In addition, regulatory bodies must ensure that pension fund administrators possess the necessary proficiency to assess the worth of the assets under their control, irrespective of the kinds of investments held within the pension fund. The methodologies employed to evaluate pension fund assets ought to be transparent to the governing board of the pension fund and all other stakeholders involved in the investment management process. It is also essential for the members and beneficiaries to have access to, or be informed of, the valuations and methodologies implemented. Consequently, regulatory agencies must prioritize the appropriate supervision of pension funds in order to gain insight into how these businesses manage their funds.

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