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Effect of Pension Fund Investment on Pension Fund Performance in Nigeria

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Abstract

The study explored the intricate relationship between Pension Fund Investment (PFI) and the performance of pension funds in Nigeria, specifically focusing on Benefit Paid (BFP) and Investment Income (INVTI). The analysis employs regression models and statistical measures to unravel the dynamics at play within the pension fund ecosystem. The study employed ex post-facto research design to examine the effect of pension fund investment on pension fund performance in Nigeria. The regression analysis reveals a positive and statistically significant relationship between Pension Fund Investment and Benefit Paid, suggesting that increased investment positively influences the amount disbursed as benefits. In contrast, the study identifies a negative association between Pension Fund Investment and Investment Income, indicating potential challenges in generating income from investments. Given the positive relationship between Pension Fund Investment and Benefit Paid, pension fund administrators should continue to explore investment strategies that enhance fund performance, ultimately leading to increased benefits for pensioners.

Keywords: Pension Fund Investment, Benefit Paid, Investment Income, Pension Fund Performance

Introduction

The multifaceted nature of investments encompasses the foresight to forego immediate pleasures for future gains. The two-fold benefits of capital growth and income security, coupled with the understanding that assets appreciate over time and are securely managed, underscore the reliability of investments. Specifically, within the realm of pension funds, the strategic allocation of premiums across diverse financial instruments aligns with the principles of diversification and risk reduction, reinforcing the stability and dependability of these long-term investment vehicles. Globally pension industry had undergone a series of reforms during the last two decades, as it is considered as a catalyst of economic growth and development. These reforms are largely necessitated by the increase in the population ageing and shortcomings of old age support mechanisms. The main objective of the reforms in pension industry is to ensure income security in old age at a least cost manner (Davis 1998), the also targeted some macroeconomic benefits including aiding labour and financial markets developments. The resultants quality labour and efficient capital market are expected to facilitate economic growth and provide adequate

Vol. 8, No.08; 2024

ISSN: 2456-7760

resources for the elderly population in the economy without an undue burden on the working population.

Also, the Nigerian pension industry has witnessed significant growth over the years, driven by policy reforms and an increasing awareness of the need for retirement planning. In Nigeria, Pension Reform Act 2004 (PRA) was signed into law together with the Pension Reform Act 2014 and it is in effects. The act which introduced the New Contributory Pension Scheme and covers employees in the both public and private sector. Under the scheme, each employee and employer contribute a minimum of 7.5% of the employee's monthly emoluments but in the Military, an officer contributes 2.5% while the employer contributes 12.5%. An employer may elect to contribute on behalf of the employees provided that the total contribution shall not be less than 15% of the monthly emoluments of the employees. The scheme also allows for voluntary contributions to be made by employees (including those exempted by the Act) that could only be taxed at the point of withdrawal where the withdrawal was made before five years from the date the first voluntary contribution was made.

Nigeria's pension fund managers employ diverse investment strategies to navigate the complexities of the financial market. However, there is a research gap in understanding the effectiveness of these strategies, the factors influencing their selection, and their implications on pension fund performance. Examining the performance of different investment portfolios and strategies could offer valuable insights for fund managers and policymakers. This paper investigates the effect of pension fund investments on the overall performance of pension funds in Nigeria.

Given the identified research gaps in the effect of pension fund investment on pension fund performance in Nigeria, the study provides answers to the following research questions: what is the effect of pension fund investment on benefits paid in Nigeria?, and what is the effect of pension fund investment on investment income in Nigeria?. the objectives of the study includes: To examine the effect of pension fund investment on Benefits paid in Nigeria, and to evaluate the effect of pension fund investment on investment income in Nigeria.

Hypotheses of the Study

$H_0$1: There is no significant relationship between pension fund investment and benefits paid in Nigeria.

$H_0$2: There is no significant relationship between pension fund investment, and investment income in Nigeria.

Literature Review

Previous studies have explored the relationship between pension fund investments and fund performance in various global contexts.

Concept of Pension Fund Investments

Pension Fund Investment represents a fully funded pension scheme designed to generate sufficient funds through savings, as outlined by Orbunde et al. (2020). The genesis of investments stems from various sources, including savings, borrowing, or the issuance of shares

Vol. 8, No.08; 2024

ISSN: 2456-7760

to the public. Recognized as institutional investors, Pension Fund Investments play a pivotal role in generating long-term contractual savings and fostering the growth of securities markets, according to Mesike and Ibiwoye (2012). These institutions, commonly referred to as pension fund custodians, operate under the management of pension funds administrators, managing the pension funds of savers and investing these funds to ensure a equitable return for the savers. Functioning as limited liability companies, these custodians receive pension funds from employees and invest them in tradable assets as specified by the National Pension Commission.
The investments made by pension funds are characterized as long-term channels since they are overseen by experts possessing more extensive knowledge compared to individual investors, as highlighted by Bakare (2021). Companies specializing in pension funds investment, responsible for pooling funds, operate under the scrutiny of the National Pension Commission. However, it is crucial to acknowledge that investment decision-making is a complex process marked by numerous uncertainties related to market factors.

Concept of Pension Fund Performance

Pension performance, according to Van Horne et al. (2010), is defined as the earnings that members receive subsequent to investing their contributions. On the other hand, portfolio return refers to the overall reward an investor gains from investing in a specific pool of assets or securities within a given market or environmental risk. Investors aim to maximize their expected portfolio returns while maintaining individually acceptable levels of portfolio risk, as articulated by Modigliani and Pogue (1974). An optimal or high-level portfolio is one that offers the best return possible.

Within the framework of the Efficient Market Hypothesis (EMH), where adding value is considered challenging for managers, it is not uncommon to observe that various pension schemes exhibit performance akin to their benchmarks (Walker & Iglesias, 2010). In situations where financial markets deviate from strong form EMH characteristics, Walker et al. (2010) elaborate that fund managers can indeed contribute value. Evaluating performance involves assessing the extent to which fund managers have succeeded in delivering investment returns commensurate with the assumed risk level.

Empirical Review

Madukwe and Okeke (2022) used time series data from 2007 to 2019, employing an ex-post facto research design to examine the impact of inflation on pension fund investment in Nigerian federal government securities. The findings suggested that inflation did not significantly affect pension fund investment, indicating that monthly contributions into these securities may mitigate the impact of inflation, ensuring a resilient return on investment.

Oyedokun et al. (2022) employed an ex-post facto research design to investigate the impact of pension investment on financial depth in Nigeria over a 14-year period (2007-2020). Utilizing time-series data from the Pension Commission, Central Bank of Nigeria, and World Bank Database, the study employed the Autoregressive Distributed Lag (ARDL) bounds testing approach. The findings revealed a positive relationship between pension investment in equities and financial deepening, while investments in FGN securities, local money market securities,

Vol. 8, No.08; 2024

ISSN: 2456-7760

and mutual funds were negatively associated. In the short run, pension investments in equities and mutual funds showed positive but insignificant relationships with financial depth, while FGN securities and local money market securities had negative and insignificant relationships.
Benson and Erick (2022) assessed the impact of investment portfolios on the financial performance of pension funds in Tanzania, utilizing a mixed-methods approach with 53 purposively sampled respondents. Primary data were collected through interviews, and secondary data from annual reports spanning 1997 to 2017. Descriptive and inferential statistics were employed for analysis, revealing that treasury bonds and estate investments positively influenced financial performance.

Gómez-Deniz et al. (2022) investigated the significance of the reserve fund for the sustainability of the Spanish public pension system, utilizing data from 2000 to 2019 with a focus on key variables. The study analyzed variables such as registered workers, social security contributions, Reserve Fund balance, and annual payments of contributory pensions. Results indicated an inverse relationship between the probability of unsustainability and the size of the reserve fund, moderated by the heterogeneity of pension system members. Additionally, the study found that the probability of unsustainability rises with the pension system deficit, and sustainability duration shortens as the Reserve Fund balance decreases.

Vincent et al. (2021) investigated the impact of fixed income securities on the growth of the capital market in Nigeria from 2010 to 2020, utilizing an ex-post facto research design. The study employed quarterly time series data from the Central Bank of Nigeria Annual Statistical Bulletin. Descriptive statistics, ordinary least square multiple regression techniques, unit root tests, and co integration tests were employed for data analysis. The regression results indicated a significant positive effect of government bonds on capital market growth. However, treasury bills showed an insignificant effect on capital market growth in Nigeria.

Adekoya and Nwaobia (2021) assessed the impact of pension fund investment in Federal Government Securities on Nigeria's economic growth, represented by the Gross Domestic Product (GDP). Employing an ex-post facto research design, the study encompassed 31 pension fund operators regulated by the Nigeria Pension Commission (PENCOM) as of December 31, 2019, utilizing a total enumeration method. Secondary data from PENCOM and the National Bureau of Statistics for the period 2010–2019 underwent analysis through trend analysis, descriptive statistics, and inferential statistics, including regression analysis. The results demonstrated a significant and positive effect of pension fund investment in Federal Government Securities on Gross Domestic Product.

Sanusi and Kapingura (2021) investigated the influence of accumulated pension funds on investment levels and economic growth in South Africa, utilizing a Bayesian Linear Regression (BLR) model with time series data from 1990(Q1) to 2019(Q3) on Gross Domestic Product (GDP), total official pension funds, and gross fixed capital formation (as a proxy for total investment). Employing the Markov Chain Monte Carlo algorithm for obtaining regression model parameters, the BLR results suggested that the mean effects of pension funds on economic growth and investment levels in South Africa are approximately zero.

Vol. 8, No.08; 2024

ISSN: 2456-7760

Nnaji (2021) investigated the impact of pension industry delays on pensioners in Nigeria, employing an Ex-post facto research design. The study focused on variables such as Pension Fund Investment in Federal Government Bonds, Pension Fund Investment in State Government Bonds, and Pension Fund Investment in Private Sector Bonds as they relate to financial intermediation in Nigeria. Ordinary Least Square regression was utilized for analysis. The results indicated that Pension Fund Investment in Federal Government Bonds had a positive but not significant effect on financial intermediation, Pension Fund Investment in State Government Bonds had a negative and not significant effect, and Pension Fund Investment in Private Sector Bonds had a positive but not significant effect.

Papík and Papíková (2021) conducted a thorough examination of the regulatory impacts on the performance of Slovak pension funds, utilizing the Carhart four-factor model, Bollen and Busse four-factor model, and Fama and French five-factor model. The study covered 23 pension funds in Slovakia from September 2012 to September 2019, categorizing pension fund investment proxies into equity, mixed, bond, and index funds. The analysis incorporated additional variables describing bond market factors and the impact of regulatory interventions on pension fund performance. The results demonstrated that legislative interventions significantly influenced the performance of the examined pension funds.

Babalos and Stavroyiannis (2020) examined the dynamic relationship between stock market development and pension funds' investment in equities across 29 OECD countries. Market capitalization represented stock market development, while the share of pension fund assets invested in equities reflected pension fund investments. The study employed Fisher-type augmented Dickey-Fuller and Phillips Perron unit root tests, with panel VAR analysis. Findings indicated that pension fund investments in equities positively influenced stock market development, revealing significant bidirectional Granger causality between the two. Forecast error variance decompositions emphasized the pivotal role of pension funds in stock market development.

Okparaka and Makwe (2019) investigated the impact of pension industry investments on financial intermediation in Nigeria, utilizing Ex-post facto research design and data from 2006 to 2017. The study considered Pension Fund Investment in Federal Government Bonds, Pension Fund Investment in State Government Bonds, and Pension Fund Investment in Private Sector Bonds as variables. Ordinary Least Square regression was employed for analysis. Results indicated that Pension Fund Investment in Federal Government Bonds had a positive but not significant effect on financial intermediation, Pension Fund Investment in State Government Bonds had a negative and not significant effect, and Pension Fund Investment in Private Sector Bonds had a positive but not significant effect.

Usman and Nwala (2019) investigated the influence of pension fund investments in listed securities, including local ordinary share capital, federal government bonds, and corporate debt securities, on the development of the Nigerian capital market measured through market capitalization. Utilizing quarterly data from 2011 to 2018, the study employed Vector Error Correction Model (VECM) for analysis. The research findings revealed that pension fund

Vol. 8, No.08; 2024

ISSN: 2456-7760

investments in listed securities had both positive and insignificant short-term effects on the Nigerian capital market. Specifically, federal government bonds exhibited a substantial inverse effect over time, while corporate debt securities had a significant favorable impact.

Theoretical Framework

The Arbitrage Pricing Theory (APT): The Arbitrage Pricing Theory (APT) provides a framework for understanding the relationship between pension fund investments and pension fund performance in Nigeria. APT, developed by Stephen Ross in 1976, offers a departure from the traditional Capital Asset Pricing Model (CAPM) by considering multiple factors that may influence asset returns. In the context of assessing the effect of pension fund investment on pension fund performance in Nigeria, the APT becomes a valuable tool for a more nuanced analysis.

Methodology

This study employed expo-facto research design to examine the effect of pension fund investment on pension fund performance in Nigeria. The choice of this design is informed by the effectiveness of the method in grouping qualities with similar traits that already exist and compared on some dependent variable. The study used secondary data sourced from CBN statistical bulletin, and the quarterly publications of the Pension Commission of Nigeria as well as the National Bureau of Statistics Economic reports. The data will be collected from the sources is a time series data for the period of ten years (2013 - 2022).

Unit Root Test was conducted to ascertain the stationarity of the time series data. And the study employed Ordinary Least Square (OLS) regression technique as is useful for estimation. Since the variables are more than one, multiple regressions will be employed.

Model Specification

Therefore, the econometric models of the study are mathematically expressed as follows;

$BP = f(PFI)$ ……. (1)

$IVIN = f(PFI)$ ……. (2)

Where:

BP= Benefit Paid

IVIN = Investment Income

PFI = Pension Fund Investment

The regression model becomes

$BP = \alpha + \beta_1 PFI_t + \varepsilon.$ ……..… (3)

$IVIN = \alpha + \beta_1 PFI_t + \varepsilon.$ ……..…… (4)

The linear regression model will serve as the decision tool on the criteria that if the p-value < 5%, then the null hypothesis is rejected otherwise the null hypothesis is accepted.

Vol. 8, No.08; 2024

ISSN: 2456-7760

Table 1: Measurement of Variables

Variables	Type	Measurement	Sources
Benefits paid	Dependent	Amount paid yearly to those who have retired from service	Adeoye and Lourens (2023)
Investment income	Dependent	Yearly amount accrued as a return on the investment of pension contributions of members	Adeoye and Lourens (2023)
Pension Fund's Investments	Independent	Aggregate of Pension Fund's Assets investments	Bakari et al. (2021)

Source: Authors Computation, 2024

Results and Discussion of Findings

The performed a unit root test, employing the Augmented Dickey-Fuller (ADF) test to determine the stationarity of the variables. The examination involved testing the variables in both their original form and in log form, both at their base level and after applying the first difference, with a significance level of 5 percent. The results of the test indicated that certain variables were stationary at their initial level, while others achieved stationarity only after undergoing the first difference. The detailed test outcomes are presented in Table 2.

Table 2: Descriptive Statistics

	BFP	INVTI	PFI
Mean	266.1769	223.2876	1.06E+08
Maximum	349.7000	441.8100	1.50E+09
Minimum	164.5400	38.13000	1965629.
Std. Dev.	51.47780	108.0473	3.06E+08
Skewness	0.160433	0.179814	3.545312
Kurtosis	1.977332	2.149787	15.10459
Jarque-Bera	1.914675	1.420326	327.9969
Probability	0.383914	0.491564	0.000000
Observations	40	40	40

Source: Eview Output 2024

The descriptive statistics presented in Table 2 offer a comprehensive overview of the three variables under consideration: Benefit Paid, Investment Income, and Pension Fund Investment. The mean value of Benefit Paid, standing at approximately 266.18, serves as a central reference point for the distribution. This implies that, on average, the observed values of Benefit Paid tend to hover around this figure. The range from the minimum (164.54) to the maximum (349.70) underscores the variability in BFP values. The standard deviation of 51.48 provides a quantitative measure of how dispersed the values are from the mean. A lower standard deviation signifies less variability, while a higher value suggests greater diversity. With a skewness of 0.16, the distribution of Benefit Paid appears nearly symmetrical. However, a kurtosis value of 1.98 indicates a moderate level of peakedness, suggesting that Benefit Paid distribution has

Vol. 8, No.08; 2024

ISSN: 2456-7760

slightly heavier tails compared to a normal distribution. The Jarque-Bera statistic of 1.91, coupled with a probability of 0.38, suggests that Benefit Paid distribution is not significantly different from a normal distribution. This indicates a relative adherence to normality.

Investment Income exhibits a mean value of around 223.29, signifying the central tendency of the distribution. The range between the minimum (38.13) and maximum (441.81) indicates substantial variability. The standard deviation of 108.05 quantifies the dispersion of values around the mean, highlighting the diversity within the dataset. The skewness of 0.18 indicates a slight rightward skew, implying that the tail on the right side is longer. The kurtosis value of 2.15 suggests a moderate degree of peakedness, but not as pronounced as in Benefit Paid. With a Jarque-Bera value of 1.42 and a probability of 0.49, the distribution of Investment Income closely resembles normality. These statistics imply that deviations from a normal distribution are not significant.

The mean value of Pension Fund Investment, standing at 1.0608, indicates the central point around which observations cluster. The substantial range from the minimum (1.9706) to the maximum (1.5009) underscores the considerable variability in Pension Fund Investment values. The standard deviation of 3.06E+08 quantifies this variability. Pension Fund Investment skewness of 3.55 suggests a highly right-skewed distribution, indicating a longer tail on the right side. The kurtosis value of 15.10 implies a very peaked distribution, emphasizing the concentration of values around the mean. The Jarque-Bera statistic for Pension Fund Investment is considerably high at 327.99, accompanied by a probability of 0.00. This indicates a significant departure from normality, suggesting that the distribution of Pension Fund Investment is not well approximated by a normal curve.

The descriptive statistics provide crucial insights into the characteristics of the variables. Understanding the central tendency, variability, and distribution shape aids in interpreting the nature of the data. While Benefit Paid and Investment Income exhibit characteristics indicative of relatively normal distributions, Pension Fund Investment deviates significantly, displaying a highly right-skewed and peaked distribution. This departure from normality in Pension Fund Investment should be considered in subsequent analyses and modeling.

Table 3: Correlation Matrix

Correlation Probability	BFP	INVTI	PFI
BFP	1.000000		
INVTI	-0.610199	1.000000	
	0.0000	-----	
PFI	0.373745	-0.417051	1.000000
	0.0175	0.0074	-----

Source: Eview Output 2024

Vol. 8, No.08; 2024

ISSN: 2456-7760

Table 3 presents the correlation matrix among the variables BFP (Benefit Paid), INVTI (Investment Income), and PFI (Pension Fund Investment). A strong negative correlation exists between Benefit Paid (BFP) and Investment Income (INVTI). As BFP increases, INVTI tends to decrease, and vice versa. The correlation is statistically significant with a probability of 0.0000 ($p < 0.05$), suggesting a reliable relationship.

A moderate positive correlation is observed between Benefit Paid (BFP) and Pension Fund Investment (PFI). As BFP increases, PFI also tends to increase, and vice versa. The correlation is statistically significant with a probability of 0.0175 ($p < 0.05$), indicating a meaningful association. A strong negative correlation exists between Investment Income (INVTI) and Pension Fund Investment (PFI). As INVTI increases, PFI tends to decrease, and vice versa. The correlation is statistically significant with a probability of 0.0074 ($p < 0.05$), indicating a reliable relationship.

The negative correlation between BFP and INVTI suggests an inverse relationship, indicating that higher Benefit Paid is associated with lower Investment Income and vice versa. The positive correlation between BFP and PFI implies a concurrent increase in Benefit Paid and Pension Fund Investment, suggesting a potential connection between these variables. The negative correlation between INVTI and PFI suggests an inverse relationship, indicating that higher Investment Income is associated with lower Pension Fund Investment and vice versa.

Table 4: Model One Regression Analysis

Dependent Variable: BFP1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PFI1	0.043461	0.016163	2.688861	0.0106
C	4.869186	0.260604	18.68427	0.0000
R-squared	0.159849	Mean dependent var		5.565618
Adjusted R-squared	0.137740	S.D. dependent var		0.196215
F-statistic	7.229976	Durbin-Watson stat		1.522247
Prob(F-statistic)	0.010587			

Source: Eview Output 2024

Table 4 presents the results of Model One Regression Analysis with Benefit Paid (BFP1) as the dependent variable and Pension Fund Investment (PFI1) as the independent variable. The coefficient indicates that a one-unit increase in Pension Fund Investment (PFI1) is associated with an increase of 0.043461 units in Benefit Paid (BFP1). The positive t-statistic and low p-value suggest that this relationship is statistically significant. The R-squared value of 0.159849 suggests that approximately 15.99% of the variability in Benefit Paid (BFP1) can be explained by the variation in Pension Fund Investment (PFI1). The adjusted R-squared value of 0.137740 accounts for the number of predictors in the model, providing a more accurate reflection of the model's explanatory power.The F-statistic of 7.229976 tests the overall significance of the model. With a probability of 0.010587 ($p < 0.05$), the model is considered statistically

Vol. 8, No.08; 2024

ISSN: 2456-7760

significant. The Durbin-Watson statistic of 1.522247 checks for autocorrelation in the residuals. A value close to 2 indicates no significant autocorrelation.

The positive coefficient for PFI1 suggests a positive relationship between Pension Fund Investment and Benefit Paid. The statistical significance of both coefficients and the overall model (as indicated by the F-statistic) supports the hypothesis that Pension Fund Investment has a significant impact on Benefit Paid. However, the R-squared value indicates that the model may not explain a large proportion of the variability in Benefit Paid, and further investigation or additional variables may be needed to enhance predictive accuracy.

Table 5: Model Two Regression Analysis

Dependent Variable: INVTI1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PFI1	-0.195454	0.043623	-4.480502	0.0001
C	8.393624	0.703345	11.93386	0.0000
R-squared	0.345673	Mean dependent var		5.261598
Adjusted R-squared	0.328453	S.D. dependent var		0.600071
F-statistic	20.07490	Durbin-Watson stat		1.213313
Prob(F-statistic)	0.000066			

Source: Eview Output 2024

Table 5 shows the results of the regression analysis for Model Two, with Investment Income (INVTI1) as the dependent variable and Pension Fund Investment (PFI1) as the independent variable. The negative coefficient suggests that a one-unit increase in Pension Fund Investment (PFI1) is associated with a decrease of 0.195454 units in Investment Income (INVTI1). The negative t-statistic and low p-value indicate that this relationship is statistically significant. The R-squared value of 0.345673 suggests that approximately 34.57% of the variability in Investment Income (INVTI1) can be explained by the variation in Pension Fund Investment (PFI1). The adjusted R-squared value of 0.328453 accounts for the number of predictors in the model, providing a more accurate reflection of the model's explanatory power. The F-statistic of 20.07490 tests the overall significance of the model. With a probability of 0.000066 ($p < 0.05$), the model is considered statistically significant. The Durbin-Watson statistic of 1.213313 checks for autocorrelation in the residuals. A value close to 2 indicates no significant autocorrelation.

The negative coefficient for PFI1 suggests a negative relationship between Pension Fund Investment and Investment Income. The statistical significance of both coefficients and the overall model (as indicated by the F-statistic) supports the hypothesis that Pension Fund Investment has a significant impact on Investment Income. The R-squared value indicates that the model explains a moderate proportion of the variability in Investment Income. However, further investigation or additional variables may be needed for a more comprehensive understanding of the relationship.

Vol. 8, No.08; 2024

ISSN: 2456-7760

Conclusion and Recommendations

The analysis of the data using regression models has provided valuable insights into the relationship between Pension Fund Investment (PFI) and Benefit Paid (BFP) as well as Investment Income (INVTI). The regression analysis for BFP1 as the dependent variable revealed a positive and statistically significant relationship with Pension Fund Investment (PFI1).The model's R-squared value suggests that approximately 15.98% of the variability in Benefit Paid can be explained by variations in Pension Fund Investment. The analysis for INVTI1 as the dependent variable demonstrated a negative and statistically significant association with Pension Fund Investment (PFI1). The model's R-squared value indicates that around 34.57% of the variability in Investment Income can be attributed to variations in Pension Fund Investment.

Recommendations:

i. Given the positive relationship between Pension Fund Investment and Benefit Paid, pension fund administrators should continue to explore investment strategies that enhance fund performance, ultimately leading to increased benefits for pensioners.
ii. Acknowledging the negative relationship between Pension Fund Investment and Investment Income, fund managers should carefully assess and diversify investment portfolios to mitigate potential negative impacts on income.
iii. Pension fund managers should implement risk mitigation strategies to address the potential negative effects of Pension Fund Investment on Investment Income.
iv. Continuous monitoring of market conditions and adjustments to investment portfolios can help navigate changing economic landscapes.
v. Stakeholders, including pensioners and contributors, should be provided with transparent and clear communication regarding the dynamics between Pension Fund Investment, Benefit Paid, and Investment Income.

References

Adekoya, O.M. Nwaobia, A.N. (2021). Pension fund investment in federal government securities and economic growth of Nigeria. International Journal of Creative Research Thoughts, 9 (1), 2320-2882

Babalos, V., & Stavroyiannis, S. (2020). Pension funds and stock market development in OECD countries: Novel evidence from a panel VAR. Finance Research Letters, 34, 101247. https://doi.org/10.1016/j.frl. 2019.07.02

Bakare, J.L. (2021).Effect of contributory pension funds on capital market performance in Nigeria. *Bingham University Journal of Accounting and Business, 7*(1): 2346-7428

Bakar, M.A., Gurowa, S.U. & Olayinka, G. (2021). Efficiency of Pension Fund Investment in Shares, Bonds and Treasury Bills. International Journal of Accounting and Finance, 1(1): 28811-2709.

Benson, J.L. & Erick, G. J. (2022). Effectiveness of investment portfolio on financial performance of pension fund in Tanzania. Olva Academy – School of Researchers, 4(1):96 – 110

Vol. 8, No.08; 2024

ISSN: 2456-7760

Davis, E.P. (1988), "Financial market activity of life insurance companies and pension funds", Economic Paper No. 21. Bank for International Settlements.

Davis E P (1998a), “Policy and implementation issues in reforming pension systems”, Working Paper, European Bank for Reconstruction and Development, London

Davis E P (1998b), "Investment of mandatory funded pension schemes", forthcoming Discussion Paper, the Pensions Institute, Birkbeck College, London.

Davis E P (1998c), “Regulation of pension fund assets”, in "Institutional Investors in the New Financial Landscape", OECD, Paris

Davis E P (1998d), "Pension fund reform and European financial markets - a reappraisal of potential effects in the wake of EMU" LSE Financial Markets Group Special Paper, forthcoming

Gómez-Déniz, Emilio, Jorge V. Pérez-Rodríguez, and Simón Sosvilla-Rivero (2022). Analysing How the Social Security Reserve Fund in Spain Affects the Sustainability of the Pension System. Risks 10: 120. https://doi.org/ 10.3390/risks10060120

Madukwe, O.D. & Okeke, D.C. (2022). Effect of inflation on pension fund investment in federal government securities in Nigeria. *World Journal of Advanced Research and Reviews, 14*(03):074–085 DOI: https://doi.org/10.30574/wjarr.2022.14.3.0471

Mesike, G. & Ibiwoye, A. (2012). Pension Reform and Financial Market Development Nexus: Evidence from Nigeria. *International Journal of Academic Research in Business and Social Sciences, 2*(6) 22-29

Nnaji, C. P. (2021). Effect of delay in pension funds on Nigerian pensioners. *Contemporary Journal of Psychology and Behavioural Science*.

Okparaka, V. C., & Makwe, D.M. (2019). Effect of pension industry investments on financial intermediation in Nigeria (2006 -2017). *Advance Journal of Management, Accounting and Finance, 4*(2), 40-48.

Orbunde, B. Lambe, I. & Bako, I. (2020). Impact of pension fund investment on capital market performance in Nigeria. *Bingham International Journal of Accounting and Finance*.

Oyedokun, G.E, Akingunola, R.O, Somoye, R.O.C. (2022). Effect of Pension Investment on Financial Depth in Nigeria: Empirical Investigation. SunText Rev Econ Bus 3(2): 159. DOI: https://doi.org/10.51737/2766-4775.2022.059

Papík. M. & Papíkova, L. (2021). Comprehensive analysis of regulatory impacts on performance of Slovak pension funds. *Journal of Business Economics and Management*, 22(3): 2029-4433. https://doi.org/10.3846/jbem.2021.14481

Sanusi, K.A. & Kapingura, F.M. (2021). Pension funds as fuel for overall investment level and economic growth: An empirical insight from South African economy, Cogent Business & Management, 8(1), 1935661, DOI: 10.1080/23311975.2021.1935661

Usman, J., & Nwala M. N. (2019). Effect of pension fund on Nigerian capital market development. *NSUK Journal of Finance and Banking Research, 4*(2)

Vincent, H.S., Mairafi, S.L. & Abdullahi, Y.U. (2021). effect of fixed income securities on capital market growth In Nigeria. *Social and Administrative Sciences Review, 7*(1):262-283, 2545-5826