

Impact of Contribution Levels on Pension Fund Performance in Nigeria

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Abstract

Pensions provide a steady income source for employees after retirement, typically determined by factors such as age, salary, and years of service, and are generally paid monthly. They are essential for retirees' financial security and play a significant role in a country's economic growth, fostering development within the pension sector. This study examines the impact of contribution levels on the performance of pension funds in Nigeria. Using secondary data from twelve licensed Pension Fund Administration companies over a decade (2012–2023), the research applies a purposive sampling method to identify key factors influencing pension fund performance. It specifically investigates the relationship between financial indicators and pension fund outcomes. Interestingly, the findings challenge the common perception that larger funds with higher contributions naturally have superior investment resources and, therefore, better performance. Instead, while fund size and contribution levels are important, they do not directly determine performance; factors such as governance quality, management efficiency, and economic conditions play a more significant role. Pension funds with substantial contributions may still underperform if poorly managed or heavily invested in low-performing sectors. The study suggests that contribution levels should be evaluated in tandem with the macroeconomic context, ensuring performance expectations are not solely based on fund size.

Keywords:- Pension, Performance, Pension Funds, Nigeria

1. Introduction

Pilipiec, Groot, and Pavlova (2021) posit that retirement planning becomes increasingly essential as individuals age, requiring adjustments to financial strategies. Due to age-related limitations, work capacity declines over time, leading to reduced physical strength and productivity. This reality underscores the importance of pension schemes as a financial safety net for retirees. Pension schemes, commonly referred to as age allowances, provide social security against

old age, poverty, and uncertainties by requiring employers to contribute partial financial support for employees upon retirement.

Kumar and Mahalakshmi (2023) describe pensions as periodic income paid after retirement to employees who have worked for a specified number of years, with eligibility determined by factors such as earnings and length of service. These payments are typically made on a monthly basis. Pension funds are financial reserves set aside to support these payments and are accumulated through contributions from employers, employees, or both (Nwawolo & Nwogwugwu, 2019).

The International Labor Organization (2018) and Hinrichs (2021) observed that approximately 68 percent of people over retirement age globally receive an old-age pension. This percentage is expected to rise due to increasing urbanization, as noted by He et al. (2021). However, pension coverage varies significantly by region. For instance, Isaka and Ndanshau (2021) report that Europe and Asia have a pension coverage rate of approximately 95.2 percent, the United States has 86.2 percent, while only 29.6 percent of older adults in Africa receive pension benefits.

Jarner, Jallbjørn, and Andersen (2024) emphasize the importance of pension fund performance, as these funds play a critical role in ensuring financial stability for retirees and significantly impact national economies. Effective pension fund management is often reinforced by government regulations to maintain sustainability and encourage employee participation. Pension fund directors are responsible for safeguarding assets and ensuring that funds remain viable and effective in achieving their objectives.

In Nigeria, the pension sector has experienced sustained growth over the years. Adeyinka et al. (2018) reported that pension assets in Nigeria increased from 6.1 trillion Naira in December 2016 to 7.5 trillion Naira by December 2017, with a further rise to 12.78 trillion Naira by July 2021, as recorded in the National Pensions Commission's Pensions Industry Monthly Review. This upward trend highlights the sector's expanding role in the nation's economy. However, the performance of pension funds in Nigeria depends on several factors, including regulatory frameworks, macroeconomic conditions, and investment strategies. While pension reforms have led to improvements in governance and fund management, challenges such as market volatility, inflation, and limited investment opportunities persist.

To ensure the long-term sustainability of pension funds, continuous assessment and reforms are necessary. Aderibigbe (2021) notes that pension fund managers must evaluate financial performance based on key indicators such as alternative retirement income sources, public retirement plans, intervention rates, target replacement rates, and the relationship between operating income and stock returns. Strengthening pension fund governance and adapting to economic conditions will be essential in securing financial stability for retirees and supporting economic growth.

This study focuses on examining the relationship between return on investment (ROI) and the performance of pension funds in Nigeria. On the basis of the objective of the research the following hypothesis are formulated

H₀: There is no significant relationship between the level of contributions (CTN) and the performance of pension funds (PBT).

H₁: There is a significant relationship between the level of contributions (CTN) and the performance of pension funds (PBT).

2. Literature Review

2.1. History of Pension

The origins of pension systems are widely credited to Germany, as detailed by Njuguna (2010). In 1889, Chancellor Otto Von Bismarck introduced a compulsory savings program for employees in large companies, aiming to provide financial security in retirement—a response to the rising influence of socialist ideologies. This initiative laid the foundation for modern pension systems. A pension fund, as Rudolph (2014) describes, is a collective investment mechanism where members contribute to build a capital reserve to support them in retirement.

In Nigeria, the development of pension schemes began in the early 20th century, during the colonial era, as structured labor forces emerged in both the private and public sectors (Grünewald, 2008). The country's first pension legislation, the Pension Ordinance of 1951, was applied retroactively from January 1, 1946. This ordinance granted full pension rights to colonial administrators and partial rights to Nigerian civil servants, at the discretion of the colonial Governor-General. By 1958, this ordinance evolved into the Pension Act (Barrow, 2008).

Odia and Okoye (2012) explain that Nigeria's pension administration roots reach back to the 1950s. They note that the 2004 Pension Reform Act introduced a new pension structure in Nigeria—a defined contributory scheme, replacing the earlier defined benefit model. Under the previous system, mandatory pension participation was limited to public sector employees, with no legal requirement for private sector employers to establish pensions. Additionally, lump-sum payments, or "pay-offs," were not legally required for pension scheme participants (Nwanne, 2015).

In 1961, the National Provident Fund (NPF) scheme was established as the first legislation to address pension matters for private organizations (Ibikunle, 2021). Following this, in 1979, the Pension Act No. 102 (Udoji Commission) and the Armed Forces Pension Act No. 103 were established (Barrow, 2008). The pension plan for the police and other government agencies was enacted under the Pension Act No. 75 of 1987, along with the Local Government Pension Edict, which led to the establishment of the Local Government Staff Pension Board in 1987. The NPF scheme was replaced in 1993 by the National Social Insurance Trust Fund (NSITF) scheme, which aimed to provide financial security for employees in the private sector in their old age, in case of invalidity or death Sule et al. (2011). These decrees remained the operative laws for public service and military pension in Nigeria until July 2004, although there were various government circulars and regulations issued to modify their provisions and implementations. For example, in 1988, compulsory retirement was set at the age of 60 years or after 35 years of service, whichever came earlier. In 1992, the period required to qualify for gratuity and pensions was reduced from 10 years to 5 years and from 15 years to 10 years, respectively (Barrow, 2008). According to Barrow (2008), in 1997, parastatals were given the opportunity to have individual pension arrangements for their staff and were allowed to appoint Boards of Trustees (BOT) to oversee their pension plans. These BOTs had the freedom to decide whether to maintain an insured scheme or a self-administered arrangement. It is worth noting that prior to the enactment of the Pension Reform Act (PRA) in 2004, there were three regulators in the pension industry.

In 1961, Nigeria introduced the National Provident Fund (NPF) scheme as the first legislation to address pension needs within private sector organizations (Ibikunle, 2021). This was followed by the 1979 Pension Act No. 102, based on recommendations from the Udoji Commission, alongside the Armed Forces Pension Act No. 103 (Barrow, 2008). In 1987, the Pension Act No. 75 established

pension arrangements for police and other government bodies, while the Local Government Pension Edict created the Local Government Staff Pension Board in the same year. In 1993, the NPF scheme was replaced by the National Social Insurance Trust Fund (NSITF) scheme, which aimed to secure financial protection for private sector employees during retirement, disability, or upon death (Sule et al., 2011).

These legislative measures continued to govern public service and military pensions until July 2004, despite additional government updates to adjust eligibility and requirements. For example, in 1988, the mandatory retirement age was set at 60 years or after 35 years of service, whichever came first. In 1992, the qualifying period for gratuity and pension was reduced from 10 to 5 years and from 15 to 10 years, respectively (Barrow, 2008). Additionally, in 1997, parastatals gained the authority to establish independent pension schemes for employees and to appoint Boards of Trustees (BOT) to oversee these plans, with the flexibility to adopt either an insured or self-administered model (Barrow, 2008).

Before the Pension Reform Act (PRA) of 2004, the pension sector was governed by three primary regulatory bodies. The Securities and Exchange Commission (SEC) focused on licensing pension fund managers; the National Insurance Commission (NAICOM) regulated insurance companies; and the Joint Tax Board (JTB), authorized by Schedule 3 of the Personal Income Tax Decree 104 of 1993, approved and monitored private pension schemes. Meanwhile, public institutions operated a Defined Benefit (DB) scheme funded by the Federal Government and managed by the Pensions Department of the Office of the Head of Service of the Federation.

The PRA of 2004 introduced a standardized, contributory pension scheme for both public and private sectors, addressing many issues of the earlier system. It also extended the Fund's role to include Social Security Insurance services, further supported by the Employee Compensation Act of 2010, which assigned the NSITF with these responsibilities. The latest Pension Reform Act of 2014, enacted by the National Pension Commission (PenCom), replaced the PRA of 2004 and reinforced PenCom's regulatory authority over the uniform Contributory Pension Scheme for all sectors in Nigeria.

2.2 Pension fund

A pension fund is a financial structure designed to provide retired employees with income after they conclude their employment. Functioning as an institutional investor, it allocates significant capital across various public and private investments. Typically, pension funds are managed by employers, who administer these investment pools to meet the retirement needs of their employees.

2.3. Contributions to Pension Fund Performance

Several factors influence the effectiveness of pension funds in Nigeria. The regulatory framework established by the National Pension Commission (PenCom) has set standards to promote transparency, accountability, and effective risk management. By supervising pension fund administrators (PFAs) and custodians (PFCs), PenCom plays a critical role in ensuring pension assets are responsibly managed, with a focus on optimizing returns for contributors and minimizing risks.

Macroeconomic factors—such as inflation, interest rates, and exchange rate fluctuations—have a significant impact on pension fund investment returns. Due to Nigeria's reliance on oil, the economy is vulnerable to volatility, which can directly and indirectly affect pension fund performance. Strategic diversification of pension fund portfolios across government bonds, corporate bonds, equities, and real estate is essential to enhance returns and manage risk effectively. Numerous studies have examined the performance of Nigerian pension funds, focusing on the investment strategies of PFAs, regulatory impacts, and macroeconomic influences on financial markets. Researchers emphasize the need for continuous improvements in corporate governance, the adoption of advanced risk management practices, and broader portfolio diversification to strengthen the long-term stability and performance of pension funds.

2.4 Financial Performance of the pension Fund

In this study, unit price is used as the primary performance metric, a standard benchmark within the pension sector. Widely recognized in fund accounting, unit price serves as a key indicator of fund performance. It is calculated by dividing the net asset value of the pension fund by the total number of units held within it. This metric is updated daily to reflect changes in net asset value due to withdrawals and market fluctuations, thereby providing a dynamic measure of the returns generated by the fund's assets (Akbar, 2021).

2.5. Challenges Facing Nigerian Pension Funds

Nigerian pension funds encounter several challenges that limit their effectiveness, despite the positive impacts of recent reforms. Key issues include limited investment opportunities in the domestic market, volatility in the Nigerian Stock Exchange, and inadequate infrastructure, all of which restrict pension funds' ability to pursue high-yield investments. Additionally, administrative inefficiencies, difficulties in managing contributor data, and delays in employer contributions further hinder fund performance.

High inflation rates in Nigeria also pose substantial barriers to achieving real returns on pension fund investments. While efforts have been made to diversify portfolios, a heavy reliance on government securities continues to constrain potential returns, especially when compared to other emerging markets.

2.6. Statistical Evidence of Pension Funds and Economic Growth

The role of pension funds in fostering economic growth, expansion, and development within various economies is critically significant, as demonstrated by international metrics that highlight the essential function of pension assets in channeling savings into vital investment sectors (Nnaji, 2021). These funds contribute both directly and indirectly to the economic prosperity of nations globally, as noted by Njuguna (2010). The advantages derived from pension funds are manifold, encompassing direct enhancements to GDP, the accumulation of savings, the advancement of financial markets, the reduction of poverty among the elderly, and the promotion of financial services consumption, as discussed by Clark in Njuguna (2010). For example, Australia boasts pension assets totaling AU\$1 trillion, which represents about 20% of its GDP. In Belgium, pension assets were reported at 140 billion Euros in 2004 (Njuguna, 2010). In Canada, the valuation of pension assets in 2003 reached CAD 1.3 trillion, accounting for 30% of GDP, while China's pension assets were valued at RMB 714 billion, or 24% of GDP for the same year. The United Kingdom's pension assets contributed approximately 14% to GDP, amounting to 1.9 trillion in 2003. Furthermore, Njuguna (2010) indicated that in the United States, pension assets were valued at US\$14.5 trillion, representing 37.7% of total household financial assets. In Namibia, with around 15,000 employees under the CPS, total pension assets reached N25 billion (US\$3.5 billion), which constituted 68% of their GDP in 2004 (Nnaji, 2021). In Nigeria, the influence of pension funds on economic growth is evident not only in their increasing share of GDP but also in their contributions to Gross National Savings. As previously projected, the pension

sector under the 2004 old scheme was expected to generate over N900 billion in long-term loanable funds annually, thereby serving as a vital source of national savings for long-term loans.

In 2014, the National Pension Commission (PenCom) reported that Nigeria's pension assets had reached N4.6 trillion. The growth of pension funds has shown substantial variability, shifting from a deficit of USD 16.3 billion in 2004 to a surplus of USD 19.3 billion by 2012, and further rising to about USD 23.2 billion in 2013. Barungi projected that total pension assets could reach USD 100 billion by 2020, potentially leading to asset bubbles. In 2010, pension assets represented 7% of Nigeria's GDP, climbing to 9.57% in 2013; however, following a GDP rebasing in 2014, this share dropped to 5%. Nonetheless, Mrs. Nike James estimated that pension assets could reach N38 trillion by 2024, highlighting the need for Pension Fund Administrators (PFAs) and Pension Fund Custodians (PFCs) to strengthen their capabilities in asset management and investment.

The pension sector has also experienced significant shifts in portfolio composition due to evolving securities market dynamics. There is now greater acceptance of alternative investments, including supranational bonds and private equity funds, as industry stakeholders develop expertise and confidence. Infrastructure bonds and funds have also enhanced diversification within the sector. As of March 2014, pension funds invested predominantly in Fixed Income Securities, comprising 81% of their portfolios, while Funds and Equities made up only 1% and 15%, respectively. The Pension Reform Act (PRA) of 2014 requires companies with at least three employees to adopt the Contributory Pension Scheme (CPS), a measure expected to drive future industry growth. The CPS aims to contribute to Nigeria's GDP and provide funding for infrastructure projects, such as electricity, railways, tourism, and real estate development.

3. Methodology

The data collection process employed a descriptive survey research design to analyze and interpret the current state of asset and liability management alongside pension fund administration in Nigeria. Secondary data, sourced from e-view, was selected as the primary instrument due to its capacity to access confidential information securely, avoiding the risks associated with methods like direct observation. This study focuses on examining the relationship between return on investment (ROI) and the performance of pension funds in Nigeria.

The study population included 12 Pension Fund Administrators (PFAs) licensed by PENCOM to operate in the Nigerian pension industry within the study period. Out of these, 10 PFAs met the criteria for the sample based on their availability of complete audited financial statements over the period from 2011 to 2023. Criteria for sample selection required companies to be in operation for the entire duration of the study period and to provide accessible financial reports. Among the PFAs meeting these criteria were FCMB Pension, ARM Pension, FUG PFA, Radix PFA, OAK PFA, Fidelity PFA, IEI Anchor PFA, Leadway PFA, Crusader Sterling PFA, Trust Fund PFA, IBTC PFA, and PAL PFA.

Data collection was conducted using purposive and convenience sampling, with secondary data sourced from the National Pension Commission Database and the websites of the selected PFAs. The collected data was analyzed using Pearson's correlation and logistic regression to investigate the relationship between the independent and dependent variables, with regression models developed to represent this relationship.

The variables analyzed in this research include contributions, profit before tax, profit after tax, investment income, total investment, and net assets. These variables will provide insights into ROI and enable an assessment of the significance of net asset value in relation to pension fund performance in Nigeria, following the methodology outlined by Oyedokun et al. (2022). The research utilizes secondary data sources, including official publications from the National Pension Commission (PenCom) and the Central Bank of Nigeria (CBN), as well as reports from Nigerian PFAs and their audited financial statements. Furthermore, World Bank reports on pension funds will be included. The application of secondary data analysis is a common practice in pension fund research, allowing for a comprehensive examination. The use of secondary data analysis is a prevalent approach in pension fund research, enabling a thorough examination of the data.

Model Specification

The following conceptual model was used:

$$Y=f(x)$$

Financial Performance=f (contribution, profit before tax, profit after tax, investment income, total investment and net Assets)

$$FPF = \alpha + \beta_1 AGR + \beta_2 HEAL + \beta_3 ENEG + \beta_4 INFR + \beta_5 TECH + \beta_6 NR + \varepsilon_{it}$$

- Contribution
- Total investment
- Investment income
- Profit before tax
- Profit after tax
- Net asset
- α - Constant Term
- $\beta_1, \beta_2, \beta_3, \beta_4, \dots$; are regression coefficients or parameters;
- ε - Error term

Table 3.1: Showing the operationalization of research variables

Variables	Nature of the Variable	Notations	Measurement
Financial performance	Dependent	FP	Return on investment of pension fund
Contribution	Independent	CNT	Asset value and the performance of pension funds
Total investment	Independent	NET	Asset value and the performance of pension funds
Investment income	Independent	TIT	Asset value and the performance of pension funds
Profit before tax	Independent	PBT	Asset value and the performance of pension funds
Profit after tax	Independent	PAT	Asset value and the performance of pension funds
Net asset	Independent	NET	Asset value and the performance of pension funds

4. Result and Discussions

Table 4.1: Descriptive Statistics

	CTN	NET	PBT	PBT_REL_IN...	TIT	TIT_REL_IN...
Mean	1.55E+08	19538673	5669262.	224.7612	1.41E+09	105732.1
Median	5669392.	5516535.	2084115.	82.62594	1333289.	100.0000
Maximum	3.72E+09	3.24E+08	67953176	2694.044	3.44E+10	2577802.
Minimum	3497.000	57655.00	89282.00	3.539637	13827.00	1.037060
Std. Dev.	5.98E+08	61463879	13662337	541.6514	6.43E+09	481969.5
Skewness	5.321574	4.325560	3.768362	3.768362	4.450631	4.450631
Kurtosis	31.78370	20.18831	16.14269	16.14269	21.38487	21.38487
Jarque-Bera	1648.111	647.9897	401.6818	401.6818	730.1626	730.1626
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	6.50E+09	8.21E+08	2.38E+08	9439.971	5.92E+10	4440747.
Sum Sq. Dev.	1.47E+19	1.55E+17	7.65E+15	12028835	1.69E+21	9.52E+12
Observations	42	42	42	42	42	42

The statistical analysis of pension fund performance data in Nigeria reveals several important findings. The mean values provide insights into the average levels of each variable: the average contribution (CTN) is approximately 155 million, net asset value (NET) averages around 19.5 million, pension fund performance (PBT) has a mean of about 5.67 million, and the average return on investment (TIT) is notably high at 1.41 billion. Additionally, the average values for performance and investment relative indices (PBT_REL_IND and TIT_REL_IND) are 224.76 and 105,732.1, respectively.

The median values, which mark the midpoint of the data, show that for variables like NET and PBT, median values are notably lower than the mean, suggesting a skewed distribution. High standard deviations across all variables indicate significant variability in the data, particularly for TIT and CTN, where the large spread of data points is evident.

The data also includes extreme values, as shown by the substantial gaps between maximum and minimum values. For instance, contributions (CTN) reach a maximum of 3.72 billion, while the minimum is only 3,497; similarly, TIT has a maximum of 34.4 billion compared to a minimum of 13,827. These outliers contribute to high skewness across the dataset, with all variables displaying positive skewness. This means the distributions are weighted towards lower values, with a long tail stretching towards higher ones.

The kurtosis values in the dataset are notably high, indicating that the distributions exhibit heavy tails and sharp peaks. This finding aligns with the presence of outliers or extreme values that deviate significantly from the mean. The results of the Jarque-Bera test further confirm that none of the variables adhere to a normal distribution, as evidenced by p-values of 0.000000 for all variables. This non-normality, combined with the observed skewness and kurtosis, suggests that the data is highly irregular, with certain periods or entities demonstrating markedly different performance characteristics compared to the majority.

Additionally, the aggregated figures for each variable provide a clearer understanding of the overall scale of the dataset: total contributions (CTN) amount to 6.5 billion, the net asset value (NET) totals 821 million, the overall performance of pension funds (PBT) across all observations is 238 million, and the cumulative return on investment (TIT) reaches an impressive 59.2 billion. These totals offer valuable insights into the extent of the data being analyzed.

Dependent Variable: PBT				
Method: Least Squares				
Date: 09/01/24 Time: 11:17				
Sample: 1 42				
Included observations: 42				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5611376.	2206105.	2.543567	0.0149
CTN	0.000374	0.003613	0.103510	0.9181
R-squared	0.000268	Mean dependent var		5669262.
Adjusted R-squared	-0.024726	S.D. dependent var		13662337
S.E. of regression	13830210	Akaike info criterion		35.76906
Sum squared resid	7.65E+15	Schwarz criterion		35.85180
Log likelihood	-749.1502	Hannan-Quinn criter.		35.79939
F-statistic	0.010714	Durbin-Watson stat		1.686541
Prob(F-statistic)	0.918076			

The regression analysis aimed to examine the relationship between the level of contributions (CTN) and the performance of pension funds (PBT). The coefficient of the Intercept (C) is 5,611,376, with a standard error of 2,206,105. This

coefficient is statistically significant with a p-value of 0.0149, indicating that the performance of pension funds is significantly different from zero when the level of contributions is zero.

The coefficient of Level of Contributions (CTN) is 0.000374, with a standard error of 0.003613. The p-value for this coefficient is 0.9181, which is well above the typical significance level of 0.05. This suggests that the level of contributions does not have a statistically significant effect on the performance of pension funds.

The R-squared value is 0.000268, indicating that the model explains virtually none of the variability in pension fund performance based on the level of contributions. The adjusted R-squared is -0.024726, further suggesting that the model does not fit the data well. The standard error is 13,830,210, highlighting the extent of variability in the performance of pension funds not explained by the model. The F-statistic is 0.010714, with a p-value of 0.918076, suggesting that the overall regression model is not statistically significant. The Durbin-Watson Statistic's value is 1.686541, indicating that there is no significant autocorrelation in the residuals.

Based on the analysis, the p-value for the level of contributions (CTN) is 0.9181, which is significantly higher than the conventional threshold of 0.05. This indicates that the level of contributions does not have a statistically significant impact on the performance of pension funds. Additionally, the poor fit of the model, as evidenced by the low R-squared and the non-significant F-statistic, supports this conclusion. Therefore, we fail to reject the null hypothesis (H0) and conclude that there is no significant relationship between the level of contributions and the performance of pension funds in Nigeria.

Discussion of Findings

The findings of this analysis resonate with existing literature on pension fund performance, investment dynamics, and associated financial metrics. Notably, the descriptive statistics of the dataset reveal significant skewness and kurtosis, which are consistent with the observations made by Abdullahi et al. (2021). They highlighted the irregularities and inefficiencies prevalent in financial markets, particularly within developing economies like Nigeria. The heavy-tailed distributions identified in this study, indicative of outliers, echo the challenges addressed by Abdullahi et al. regarding the application of the efficient market hypothesis in Nigeria's financial landscape.

Furthermore, the regression analysis indicates no significant relationship between the level of contributions (CTN) and the performance of pension funds (PBT), with a p-value of 0.9181. This finding suggests that higher contributions do not inherently result in enhanced fund performance, which contradicts the common assumption that larger funds with substantial contributions possess better investment resources and, consequently, superior performance. The low R-squared value reinforces this conclusion, indicating that contributions account for very little of the variability in pension fund performance.

This outcome aligns with the perspective offered by Ben Dhiab (2021), who posited that factors such as governance, management efficiency, and broader macroeconomic conditions are more critical determinants of pension fund performance than mere fund size or contribution levels. This implies that even pension funds with significant contributions may struggle to perform well if they lack effective management or are disproportionately invested in underperforming sectors of the economy. Overall, these findings underscore the complexity of pension fund dynamics, suggesting that a multifaceted approach that considers various influencing factors is essential for understanding and improving fund performance.

5. Conclusion and Recommendations

This analysis provides valuable insights into the performance of pension funds within Nigeria's developing economy, reflecting trends found in both local and global studies. The observed skewness and kurtosis in financial metrics corroborate the irregularities and inefficiencies characteristic of Nigerian financial markets. While a moderate positive correlation exists between return on investment and pension fund performance, it also underscores the importance of other determinants, such as asset allocation, risk management, and prevailing market conditions, as emphasized by Fali et al. (2020). The lack of a significant relationship between contribution levels and fund performance indicates that fund size alone does not guarantee superior results, supporting Ben Dhiab's (2021) assertion regarding the critical role of governance and macroeconomic influences.

To enhance the performance of pension funds in Nigeria, a multi-faceted strategy is essential, concentrating on asset allocation, governance, and risk management. Pension fund administrators should prioritize diversification in their investment strategies to mitigate risks and optimize returns, adapting to the fluctuating market conditions inherent in Nigeria's economy. Implementing effective governance

frameworks that emphasize transparency, accountability, and consistent oversight will be vital in addressing the inefficiencies and irregularities present in the financial sector.

Moreover, contribution levels should be evaluated in the context of the broader macroeconomic environment to ensure that expectations of performance are not solely based on fund size. While larger funds have the potential to generate better returns, the focus should remain on robust managerial practices and strategic investment decisions that prioritize sound

governance and effective asset management. This approach will not only enhance the performance of pension funds but also contribute to the overall stability and growth of Nigeria's financial landscape.

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