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Improving Pension Fund Administrators' Revenue through Efficient Pension Contribution Management

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Abstract

This study examines the effect of unreconciled pension contributions on the revenue of Pension Fund Administrators (PFAs) in Nigeria, given that PFAs are not permitted to charge management fees on contributions held in the Contribution Reconciliation Account (CRA). The study employs an ex post facto research design using secondary data from 17 of the 19 PFAs operating in Nigeria over the six-year period from 2018 to 2023, yielding 102 observations. Multiple regression analysis was used to estimate the effect of four independent variables, namely Fund Under Management (FUM), annual contributions (CON), number of Retirement Savings Accounts (RSA), and CRA balances, on PFA revenue (REV). The results show that the model explains approximately 98% of the variation in PFA revenue (adjusted $R^2 = 0.981$; $F = 1281.63$; $p < 0.001$). The number of RSAs has a positive and significant effect on revenue (coefficient = 19.40; $p < 0.001$), whereas CRA balances have a negative and significant effect (coefficient = −0.209; $p = 0.010$). FUM and annual contributions have no significant effect on revenue. The findings of this study suggest that unreconciled contributions held in the CRA directly reduce the earning capacity of PFAs, since these funds cannot be allocated to individual Retirement Savings Accounts and therefore generate no management fees.

Keywords: Pension Fund Administrators; Contribution Reconciliation Account; Transitional Contribution Fund; Revenue; National Pension Commission.

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1. Introduction

The desire to ensure a stable income after retirement has led to the development of pension systems as a means of income replacement in post-employment years. As highlighted by Adebayo (2023), pensions are designed to enable individuals to accumulate savings during their working life, which can later be drawn upon to meet consumption needs after retirement. The concept of pensions as a social and economic tool has evolved significantly over time, dating back to ancient Rome under Emperor Caesar Augustus, who introduced pension payments for soldiers. This move was strategically implemented to pacify and deter them from rebelling after military service.

Over the centuries, pension schemes have undergone transformations, shaped by both historical necessity and administrative reform. Dahiru (2023) notes that the pension system has developed from country to country and century to century, reflecting the changing economic and social needs of populations. In the 18th century, unfunded pension schemes—commonly known as defined benefit (DB) plans—were widely adopted by many nations. These systems were often managed under a "pay-as-you-go" model, where current contributions were used to pay current retirees. However, these DB plans were eventually found to be fiscally unsustainable due to growing pension liabilities and inadequate budget allocations. This exposed the inherent weakness of relying on future government payments without proper prefunding.

Consequently, the 19th century saw a shift towards defined contribution (DC) schemes. Broadbent, Palumbo, and Woodman (2006) observed that traditional defined benefit pension systems began to lose their dominance in occupational pension plans across several countries, with a growing preference for defined contribution arrangements. This shift was driven by the need for a more sustainable and fully funded pension system. Nwaiwu and Anurume (2019) also affirm this global trend.

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In Nigeria, the defined benefit model experienced significant challenges, especially in the public sector. The primary issues included inadequate funding due to poor budgetary releases, which led to a growing backlog of unpaid pension liabilities. Before the enactment of the Pension Reform Act (PRA) of 2004, the pension deficit had risen to an unsustainable N2 trillion (Balogun, 2006). Ovbiagele (2015) confirmed that the system was plagued by severe administrative inefficiencies, including difficulties in verifying pensioners, determining entitlements, reconciling payments, and widespread mismanagement of funds.

Although the Pension Reform Act of 2004 marked the transition to a contributory pension scheme and spurred the development of a private pension industry, it did not fully address the systemic inefficiencies of the previous system. According to Casey (2011), the reform did not substantially improve the foundational weaknesses of Nigeria's pension administration. One of the persistent challenges is the lack of reliable data. In Nigeria, it is common for civil servants to falsify their age to remain in service beyond the legal retirement age. Abdulazeez (2014) highlighted that inaccurate pension records and flawed disbursement processes have long characterized the public pension system. For example, at the military pension board, the lack of accurate data enabled administrators to include 23,000 fake pensioners.

Fee guidelines issued by the National Pension Commission (PenCom) detail the allowable charges for pension administration. Pension Fund Administrators (PFAs) are permitted to charge a flat administration fee of N100 per monthly remittance received through the Pension Fund Custodians (PFCs), which is then converted into accounting units. For retirees drawing pensions from Fund 4 (the Retirees' Fund), an admin fee of N50 is applicable. Under the Micro Pension Plan, contributions above N4,000 attract an N80 fee, while those below this threshold are charged N40.

In addition to flat fees, asset-based fees are another major revenue source for pension operators. A total fee of 1.65% is charged on the opening Net Asset Value (NAV) of the pension fund investment at the start of the charging period. This fee is shared among PFAs, PFCs, and PenCom in a ratio of 1.2:0.25:0.20, respectively. Fund 2, where the Contribution Reconciliation Account (CRA) is housed, is subject to this fee distribution.

Despite this revenue framework, a growing concern within the Nigerian pension industry is the increasing volume of unreconciled contributions held in the CRA. According to the 2021 PenCom Annual Report, pension contributions totaling N73.97 billion remained uncredited in the CRA. These funds were remitted by employers but could not be assigned to employees' Retirement Savings Accounts (RSAs) due to submission of incorrect or incomplete schedules. Additionally, the Transition Contributors Fund (TCF), which holds pension contributions for employees who have not opened RSAs, held N19.52 billion.

The TCF was created under Section 4.1.1 of the Transitional Contributions Fund Guidelines. It mandates employers to choose a PFA to manage contributions for employees who have not opened RSAs. These contributions are temporarily housed in the TCF and are transferred to the employees' RSAs once they are created, including both the original contributions and any investment returns accrued.

Combined, the CRA and TCF held a total of N93.49 billion in unallocated funds as of the end of 2021. This has direct financial implications for the industry. Because no management fees can be charged on these unreconciled funds, pension operators lost approximately N1.543 billion in potential revenue (calculated as 0.0165 × 93.49 billion). Of this amount, PFAs alone lost an estimated N1.122 billion, based on their share of the fee split (1.2/1.65 × 1.543 billion). Alarmingly, this issue is worsening—by the end of 2022, the amount of unreconciled funds had exceeded N114 billion.

This situation is particularly concerning given that over 90% of PFAs' income is derived from fund management fees (PenCom, 2021). Unfortunately, both CRA and TCF funds are exempt from fee earnings. Section 6.1 of the Transitional Contribution Fund Guidelines states explicitly that PFAs "shall not charge any form of fees on the TCF." Similarly, Section 2.31 of the 2020 Revised Fund Accounting Guidelines restricts asset and income-based fees to specific fund categories: Already Existing Schemes (AES), Closed Pension Fund Administrators (CPFA), RSA Active, and Retirees' Funds. This means that the substantial sums locked in the CRA cannot legally generate revenue for PFAs.

In conclusion, while Nigeria has made considerable progress in reforming its pension system, significant challenges remain—chief among them being the management of unreconciled pension contributions. These funds not only reduce the returns available to contributors but also deprive PFAs of critical revenue needed to sustain their operations. There is a pressing need for employers to submit accurate schedules and for PFAs to implement more robust data tracking and reconciliation mechanisms. Furthermore, policymakers should revisit existing regulations to

explore feasible reforms that address this growing problem without compromising transparency or contributor protection.

1.1. Fund Under Management

As confirmed by the National Pension Commission, 90 percent of Pension Fund Managers comes from management fees which are derived directly from the value of Fund under management. Practically speaking, the value of Assets under management will positively affect the revenue of Pension Managers. This is so because for funds 1 to 3, 1.2 percent of the year end value of FUM goes to PFA as income while Fund 4 (Retiree fund) is computed based on income earned. The implication is that in any case where the Fund did not make income the PFA will not earn any management fee.

Table 1. Management fees sharing ratio amongst operators, 2006 to date

Operators	2006	2008	2009	2018	2019	2020
PFA	2.000	2.000	1.600	1.400	1.300	1.200
PFC	0.600	0.600	0.400	0.300	0.275	0.250
PenCom	0.400	0.250	0.250	0.225	0.215	0.200
Total	3.000	2.850	2.250	1.925	1.790	1.650

Culled from PenCom Circulars on Management Fees

1.2. Contribution

Contribution refers to the 18 percent of the contributor's basic salary, Housing and Transport remitted to the pension custodian on monthly basis. The new contributions for the employee and employers according to the Pension Reform Act of 2014 are 8% and 10% respectively. Large contributions provide the PFA with Economies of scale (Sabiya & Joel 2023) As earlier identified Pension Fund Administrator earn maximum of N100 administrative income from every monthly contribution made into the RSA of a Customer. If we go on the assumption that pension remittances come regularly and all RSAs are active, then it is to estimate the amount that can accrue to a Pension Fund Administrator to be total contributions received divided by the number of RSA multiplied by N100. Sabiya & Joel (2023), (Twalib, & Jilenga, 2024) confirmed that contribution density affects the financial performance of Pension Funds

1.3. Number of RSAs

The number of Retirement Savings Account opened in a PFA will likely increase the Revenue of that PFA if the employer is prompt enough to commence remittance. This is so because administration fee is taken per RSA per month so long as contributions kept coming into that account. The transfer window offers PFAs the opportunity to move RSA from other Pension Fund Administrators including the RSA balance and as the monthly pension remittance begins to flow in, the monthly administration fees is deducted as revenue for the managing PFA. The natural expectation is that as the number Pension account increases the revenue of the PFAs will increase. In the investigation of PFAs characteristics that affects its value by Adekoya, Nwaobia & Siyanbola (2022) Numbers of RSAs was found to have significant impact.

1.4. Contribution Reconciliation Account (CRA)

Although the new contributory pension plan shows a lot of improvement over the old define benefit scheme the challenge of reliable records is still rearing its ugly in this new dispensation. Report from PenCom in her 2021 Annual Report indicates that N93.49 billion representing Pension contribution remittances meant for employees have not been credited to their individual Retirement Savings Account. This amount comprises N73.97 domiciled in Contribution Reconciliation Account CRA and N19.52 billion in Transitional Contribution Fund TCF. Nyang'oro and Njenga (2022) observed that absence of accurate data in Sub Sahara Africa of which Nigeria is part of remains a major hindrance in understanding the performance of pension funds as it relates to Asset under management, Number of Contributors, Fund Investment and Contribution

Transitional Contributions are contributions received for employees who did not register with any PFA while in employment with the paying employer. These contributors have been assigned a Temporary PIN which is unique to the individual with his/her contributions processed into those accounts. If you have ever worked with any employer and pension deductions were made on your behalf, but you cannot trace the fund, click here to search for your name.

Partially Processed Contributions are contributions received with incorrect PINs or no PIN on the schedule received from the employer for some employees. If you have ever worked with any employer and pension deductions were made on your behalf but not credited to your RSA account, click here to search for your name.

Fully Unprocessed Contributions are payments received from employer without a matching schedule or the payment narrations are unclear and cannot be traced to any employer owing to non availability of employer code.

Table 2. Pension contributions of PFAs in Nigeria, 2014–2023 (₦ billion)

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Private	237.8	200.1	225.9	257.1	266.8	331.6	537.0	491.8	533.8	714.9
Public	344.0	358.9	262.3	353.7	340.7	369.1	371.1	387.4	504.2	604.3
Total	581.7	559.0	488.2	610.8	607.6	700.7	908.1	879.2	1038.0	1319.2

Culled from PenCom Annual Report

Accurate and timely pension contribution data is very important and inaccurate or late returns entails additional administration costs which the fund can recharge to employers. It also led to delays in services to pension scheme members such as computing monthly retirement payments and providing basis for determining pension enhancement estimates.

Fund administrators need to work with the employer to set their contribution parameters. They must prepare and maintain a schedule of contributions and check that the employer makes the correct payments as it relates to rate and description i.e. employer and employee remittances. Where there are payment failures, you should contact the employer promptly to resolve the issues while material late payments are reported to PenCom who in collaboration with recovery agents follow up with employers to retrieve unremitted pension contributions from defaulting employers of labour.

2. Literature Review

2.1. Conceptual Framework

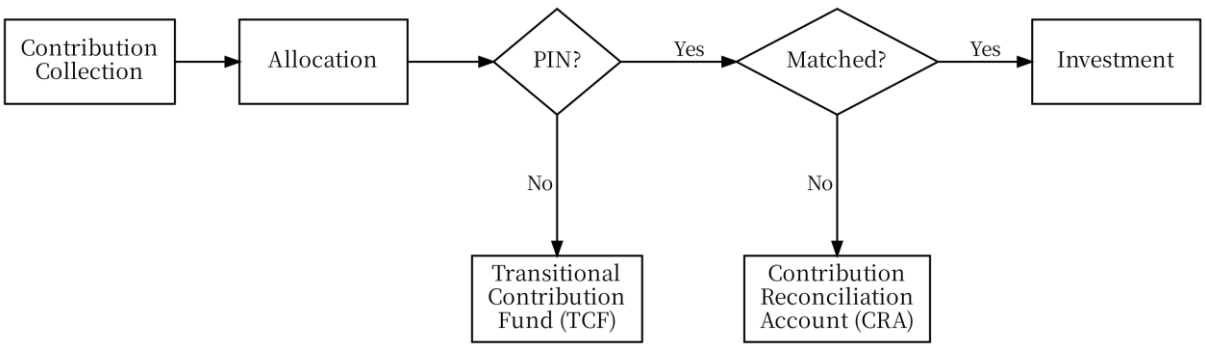

Figure 1. Conceptual framework of fund reconciliation process

Source: Author's construct

In Nigeria's Contributory Pension Scheme, several transit accounts exist to ensure proper routing of pension contributions from employers to employees' Retirement Savings Accounts (RSAs). These accounts, managed by Pension Fund Custodians (PFCs) and Pension Fund Administrators (PFAs), are critical to the operational flow and integrity of the pension process.

The **Contribution Collection Account** is the first point of entry for pension contributions. It is domiciled with a PFC selected by the employer and is designated as a zero-balance account. This means it is not intended to hold funds

permanently. All amounts deposited into this account are automatically swept on a daily basis into the **Allocation Account**, where further sorting and matching of the contributions occur.

The **Allocation Account** functions like a clearing house. Contributions are reviewed here, and if they come with complete and accurate information—including the employee's name, PIN, amount, and employer details—they are transferred into the **Investment Account**, where they begin to earn returns. If the contribution has a valid PIN but does not fully match with the records, it is sent to the **Contribution Reconciliation Account (CRA)**. If there is no PIN attached, the funds are transferred to the **Transitional Contributions Fund (TCF)**.

The **CRA** holds contributions that could not be credited to the employee's RSA due to errors or omissions in the schedule submitted by the employer. These discrepancies may include mismatches in employee names, PINs, or contribution amounts. Although these funds are legitimately part of the pension assets, they remain idle and unallocated until proper reconciliation is carried out. As of the most recent report, approximately ₦94 billion is held in the CRA, representing about 0.89% of the total Assets Under Management (AUM).

The **TCF** was created to accommodate contributions for employees who fail to comply with Section 4:11 of the Pension Reform Act (PRA), which mandates every worker to open an RSA and submit their Pension Identification Number (PIN) to their employer. If an employee fails to do so, the employer is expected to generate a Temporary PIN (TPIN) and remit their contributions to the TCF. According to Adewunmi (2024), one of the key constraints to efficient pension administration is the frequent occurrence of incomplete biodata and the failure of employees to select a PFA to manage their contributions.

The implications of holding funds in either the CRA or TCF are significant. These contributions do not generate management fees for the PFAs, even though the funds are still under their custody and require administrative effort similar to that of fully invested RSA funds in Funds 1 to 7. Moreover, contributors whose funds are held in CRA or TCF are unlikely to receive competitive returns, as investment options for the TCF are heavily restricted to low-risk, low-yield instruments.

Dahir-Umar (2023) observes that the persistence of uncredited and unreconciled balances in the CRA and TCF continues to grow, largely due to the failure of pension operators to successfully reconcile these contributions. This poses both a financial and reputational challenge for the industry.

According to PenCom guidelines, unmatched contributions in the Allocation Account must be transferred to the CRA within five working days at the prevailing unit price, under the instruction of the PFA. This emphasizes the importance of timely and accurate reconciliation by fund administrators.

Section 55 of the PRA 2014 stipulates that PFAs are responsible for maintaining comprehensive records of all pension-related transactions. This underscores the critical role of account reconciliation, which helps ensure accuracy, compliance, and transparency in financial reporting. Effective reconciliation is not only a regulatory requirement but also a foundation for stakeholder trust. Investors, regulators, and employees rely on accurate records to assess performance and make decisions.

Additionally, Section 11(4) of the PRA 2014 mandates that once the PFC receives contributions, it must notify the PFA, who in turn must ensure that the employee's RSA is credited accordingly. Failure to comply with this requirement contributes to the backlog of uncredited funds, negatively impacting both contributors and the revenue stream of PFAs.

In conclusion, while the pension framework in Nigeria includes mechanisms to route and safeguard contributions, systemic issues such as incomplete data, administrative delays, and inaccurate remittances continue to hinder effective fund management. Addressing these challenges requires stricter enforcement of data compliance by employers, enhanced reconciliation processes by PFAs, and possibly regulatory reform to allow PFAs limited fee income on funds held in transit, as these also incur operational costs.

Why account reconciliations are necessary:

1. Accuracy and integrity of financial accounts – Reconciliations and intercompany reconciliations ensure that the balances and transactions recorded in an account accurately reflect the true financial position and activities of the organization.
2. Detection of errors and fraud – By comparing transactions recorded in the account with external sources or documentation, reconciliations can uncover mistakes, missing transactions, double-entry accounting, or

fraudulent activities, allowing businesses to take corrective action and prevent financial misstatements or fraud.

3. Compliance and accountability – Reconciliations provide assurance that financial statements comply with regulatory standards, such as GAAP or IFRS, and facilitate internal and external audits by providing evidence of accurate and reliable sets of records.
4. Enhanced financial decision-making – Account reconciliations help ensure that financial data used for decision-making purposes, such as budgeting, forecasting, and s6trategic planning, is trustworthy and reflects the true financial position and performance of the organization.
5. Risk management – Regular reconciliations provide visibility into financial transactions and activities, enabling businesses to monitor for potential risks, such as errors in recording, unauthorized transactions, or inadequate segregation of duties, and implement corrective measures to mitigate these risks

2.2. Theoretical Framework

The Cobb Douglas theory of Production Efficiency formed the basis to anchor this research. The theory of production was coauthored by Paul Douglas and Charles Cobb in 1927 and was a perfection of an idea initiated by Knut Wicksell. (Biddle 2012) The duo presented a mathematical representation of the relationship between capital, labour, and output. It calculates the impact of changes in the input, the relative efficiency and the yields of a production activity. In the context of pension remittance management Contributions received reflects Capital the investment activity represents Labour while the Management Fees is the Output produced. We can view the activity of collating pension remittances, crediting individual Retirement Savings Account, investing the funds as a production process that invest contributors' money and earn fees as a percentage of the fund value under management. Therefore, obtaining maximum management fees from processed contributions is a task every PFA, PFC and even PenCom should aim at. The higher the value of contributions from Contribution Collection Account successfully processed through Allocation Account into investment account the higher accruable revenue.

2.3. Empirical Review

A consistent theme emerging from the literature is the critical role of accurate data and contributor compliance in ensuring effective pension fund management. Adewunmi (2024) and Abdulazeez (2015) both underscore the persistent challenge of incomplete biodata and the non-appointment of Pension Fund Administrators (PFAs), which hinder proper allocation of contributions. These lapses contribute significantly to the accumulation of uncredited funds in the Transitional Contribution Fund (TCF) and Contribution Reconciliation Account (CRA), suspending employee savings and denying PFAs the ability to earn management fees. Abdulazeez (2015) links this issue to historical flaws in pension recordkeeping, noting that the legacy of poor documentation continues to impact the current system despite reforms introduced in 2004. Kida & Sambo (2018) similarly advocate for system automation to eliminate the biodata bottlenecks, proposing automatic PIN assignment at employment onset to prevent contributions from being warehoused in TCF. These arguments collectively point to a systemic data integrity issue, suggesting that while institutional reforms exist, their efficacy is undermined by operational inefficiencies and low digital integration.

Furthermore, several studies explore the financial and administrative impact of these unallocated funds on pension scheme performance and the revenue of PFAs. Afolabi & Erasmus (2023) highlight that although higher contribution inflows generally increase administrative costs and boost PFA revenues, this potential is curtailed when a large portion of contributions remain unallocated due to mismatched schedules or unremitted funds. Adekoya, Nwaobia, & Siyanbola (2022) reinforce this by identifying contribution density and the number of contributors as having a negative effect on the net asset value of PFAs—an outcome directly related to the volume of contributions suspended in CRA and TCF. Oyoo & Ochieng (2022), drawing on the Kenyan context, add a comparative lens by emphasizing how poor economic performance and inconsistent remittances, especially from quasi-government bodies, complicate reconciliation and diminish returns on contributors' RSAs. They also argue that penalties levied on defaulting employers are insufficient to recover the full value lost due to delayed remittances. This situation mirrors Nigeria's experience, where the rising volume of CRA balances—despite regulatory deadlines—indicates weak enforcement capacity, as corroborated by Kpessa (2013), Ijeoma, Oghoghomeh & Aronu (2013), and Abdulazeez (2014).

Finally, a broader systemic critique emerges regarding regulatory capacity and institutional trust in the pension system. Casey (2011) warns that the structural importation of the Chilean pension model into Nigeria, without contextual adaptation, has fostered skepticism among workers, who often delay or avoid opening RSAs—further

escalating unreconciled contributions in CRA and TCF. Ijeoma & Nwufo (2015) and Ayuba, Adeleke & Nafiu (2023) stress that the sustainability of the Contributory Pension Scheme (CPS) hinges on strict compliance monitoring, recommending enhanced sanctions, consistent auditing, and the use of independent remittance audit firms. Although PenCom issued directives in 2023 mandating that all CRA funds be reconciled by year-end, the subsequent 24% increase in unreconciled balances (from ₦101 billion to ₦125 billion) reflects a concerning implementation gap. This reinforces the call for a more proactive regulatory approach, better technological integration for data accuracy, and institutional strengthening to address reconciliation delays and their adverse implications on contributors and PFAs alike.

Based on the above, we hypothesise that:

> Ho: PFAs Attributes have no significant effect on the Revenue per unit of Pension Fund Administrators in Nigeria

2.4. Why Remitted Funds Remain Unallocated

2.4.1. Non-Availability of Schedules

The remittance process requires that pension contribution payments must be accompanied with schedule specifying the employee's name Personal Identification Number PIN. Employers Contribution, Employees Contribution including Voluntary Contribution where applicable and Total Contribution. In some instances, employers transfer money to pension custodians without the corresponding schedules. To this end, the funds transferred will remain uncredited. Non-remittance of workers contributions will impact negatively on workers' economic well being at retirement. (Adeyele & Maiturare 2012). In line with extant guidelines such fund will be moved from the initial Contribution Collection Accounts to Allocation Account and if with 2 days the correct schedule is not retrieved that fund will be transferred to Contribution Reconciliation Account waiting to be reconciled and subsequently moved back to Allocation Account from where it came from.

2.4.2. Wrong PIN/PIN Mismatch

A standard Personal Identification Number PIN comes as an alphanumeric 15-digit number starting with PEN and 12 figure numbers commencing with 1 or 2 while PIN for male starts with 1 and the female counterparts starts with 2. Situations exist where instead of 12 numbers some pension desk officers will write 11 or thirteen digits. Making it impossible to appropriately credit the remittances received on behalf of the contributor

2.4.3. Unclear Effect

Payments made via cheques are subject to bank clearing house and may take days to obtain value sometimes the instrument may be returned for various reason ranging from insufficient fuds to clerical errors like amount in word differing from amount in figure

2.4.4. Over Remittance

If the sum in the schedule submitted to the bank is different from the amount written on the instrument over or under remittance occurs. In that case the processing PFA may credit PINs in schedule and credit the employer account with the excess and send a written advice to enable the employer to apply the excess in the next monthly pension submission.

2.4.5. PINs Not in Recipient PFA Database

The Pension Reform Act 2014 gives the employee the right to choose a Pension Fund Administrator that will manage his or her funds. To this end different empoyees in one organization belong to different PFAs. Where the finance and Accounts department of the remitting organization is not meticulous enough in preparing the schedule where they are expected to sort and classify employees according to their pension fund managers and then raise or transfer the sum in each PFA schedule to their respective pension custodian bank account. In some instances, employers are seen mixing up names for example pension contribution meant for employees registered with Sterling are sent to Stanbic or Funds for Premium sent to Pal pensions. Secondly even when the names and PFAs are properly captured the remittances received may be sent to the wrong custodian i.e. pension contributions that are supposed to be posted to Zenith Pension Custodian are transferred to First Pension Custodian. When this type of error is committed the resultant outcome will be PIN not in database

2.4.6. Duplicate PINs

At the inception of the contributory pension scheme over 26 pension fund administrations were in existence to compete for customer and thus agents were employed to scan for would be contributors and were paid according to number of RSA opened. This made some agents to open multiple accounts for one person in their bid to earn more commission.

2.5. Implications of Unreconciled Contribution

Low Returns: remitted funds warehoused in Contribution Reconciliation Account or Transitional Contributory Fund are not maximally invested. The regulator recommends that TCF be invested in fixed income instruments only. This is recommended to avert possible rapid depletion in value arising from bullish investment route obtainable in equity and other high risk investment platforms. Indirectly, the returns obtained under pays the beneficiary eventually even when in the real sense the beneficiary of the uncredited fund might be an aggressive investor who may want to make more from his fund. Imhanlahimi & Idolor (2017) recommends regular checking of the operations of the PFAs and PFCs in the CPS, in order to ensure that the contributors' money is well manged.

Denial of Management Fees: although PFAs invest these uncredited funds just like other funds like Fund 1, Fund 2 etc. But while they earn management fees from the regular funds, they administer the procedure guiding the operation of CRA and TCF prohibits them from that management fees from funds in suspense accounts belonging to customers. 90 percent of revenue made by Pension Fund Administrators is derived from 1.2 percent charged on the value of the FUM except for Retiree fund where charges are based on income made by the fund. Since the regulator does not allow pension operators to earn management fees from funds in TCF and CRA the 1.2, 0.25 and 0.2 percent accruable to Pension Fund Administrator, Pension Fund Custodian and PenCom for managing TCF and CRA are lost. b

Delay in Benefit Processing: One of the low points of the defined benefit scheme practiced in Nigeria pre 2004 Pension reforms was the duration between retirement date and pension payment date. Casey (2011) recorded that Retirees under the legacy system might well have encountered delays in payment. But one of the four objectives of the pension reforms act 2014 is to ensure that retiree are paid as at when due. However, most retires are shocked to see that at the point of retirement some of their monthly pension remittance did not reflect in their RSA statement. As the benefit processing guideline requires, every missing pension remittance must be tracked and recorded so that retiree will have accurate value of his entitlement. Sometimes, these missing funds are in Contribution Reconciliation Account.

3. Research Method and Materials

Ex Post Factor research approach was adopted because data used were obtained after the activities has been concluded and a researcher, cannot manipulate these variables (Nworie & Orji-Okafor, 2024; Elom et al., 2025). Although, the population of PFAs in Nigeria is 19 data sample applied were from 17 of them owing to availability of data. The data span covered 6 years from 2018 to 2023. Multiple Regression from Excel was used to measure the impact of independent variables consisting Fund Under Management (FUM), Contribution (CON) Number of RSAs (RSA) and Contribution Reconciliation Account (CRA) on the Dependent Variable Revenue

3.1. Formulating the Equation

$$REV = FUM + CONT + RSA - CRA \quad (1)$$

$$Y = f(X) \quad (2)$$

Y = Dependent variable
X = Independent variable
$X = x_1, x_2, x_3, x_4$.
$Y = y_1$

Where:

Y = Revenue
y_1= Revenue of PFA (REV)

and:

X = Components of Revenue of Pension Fund Administrators
x_1= Fund Under Management (FUM)
x_2= Contributions per Year (CON)
x_3= Number of Retirement Savings Account (RSA)
x_4= Contribution Reconciliation Account (CRA)

$$REV = f(FUM_{it}, CON_{it}, RSA_{it}, CRA_{it}) \quad (3)$$

$$REV_{it} = \beta_0 + \beta_1 FUM_{it} + \beta_2 CON_{it} + \beta_3 RSA_{it} + \beta_4 CRA_{it} + \varepsilon_{it} \quad (4)$$

β_0 is the intercept for each model
$\beta_1 - \beta_4$ are the coefficients of the explanatory variables
ε is the error or disturbance term that absorb the influence of omitted variables in the proxies used.
i represents the Pension Fund Administrator
t represents the period of study.

The model is to determine the relationship between PFAs Attributes and Revenue per unit (REV), that is to ascertain if these attributes has any direct relationship with REV for the period under review

3.2. A Priori Expectation

Hypothesis acceptance criteria: H01; if p-value < 0.05, reject null and accept alternate

4. Results and Discussion

Table 3. Test of hypothesis

Regression Statistics					
Multiple R	0.990672				
R Square	0.98143				
Adjusted R Square	0.980664				
Standard Error	1486901				
Observations	102				
ANOVA					
	df	SS	MS	F	Significance F
Regression	4	1.13341E+16	2.8335E+15	1281.62854	5.29499E-83
Residual	97	2.14455E+14	2.2109E+12		
Total	101	1.15485E+16			
	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	273516.8	288007.2305	0.94968713	0.344631452	-298097.8545
X Variable 1	-0.6805	0.871915694	-0.7804675	0.437016201	-2.411013105
X Variable 2	2.26E-05	0.000348992	0.06486861	0.948412114	-0.000670013
X Variable 3	19.39998	1.359452423	14.2704393	1.45459E-25	16.70184663
X Variable 4	-0.20949	0.079907322	-2.6216883	0.010159492	-0.368086001

Excel regression result

The regression model shows a very high Adjusted R^2 of 0.9807, indicating that approximately 98.07% of the variation in the revenue (REV) of Pension Fund Administrators (PFAs) is explained collectively by the four predictor variables: Fund Under Management (FUM), Contributions (CON), Number of Retirement Savings Accounts (RSA), and Contribution Reconciliation Account balances (CRA). This level of explanatory power demonstrates a very strong fit of the model to the data.

The F-statistic is 1281.63, and the corresponding Significance F is 5.29E-83, which is far below the 5% threshold (0.05). This means that the model is statistically valid, and there is a significant overall effect of the independent

variables on the dependent variable (Revenue). Therefore, we reject the null hypothesis that all coefficients are simultaneously equal to zero.

4.1. Interpretation of the Constant (Intercept)

The intercept (β_0) is ₦273,516.80 with a p-value of 0.345. This value is not statistically significant at the 5% level, suggesting that when all independent variables (FUM, CON, RSA, CRA) are zero, the expected revenue is ₦273,516.80, but this base level has no meaningful effect in this context because it lacks statistical significance.

4.2. Interpretation of Independent Variables (Marginal Effects and Significance)

X Variable 1 – Fund Under Management (FUM): Coefficient = -0.6805, p = 0.437

The coefficient of -0.6805 implies that for every additional naira in funds under management, the revenue of PFAs is expected to decrease by ₦0.68, holding other variables constant. However, this effect is not statistically significant at the 5% level ($p = 0.437 > 0.05$). This means we fail to reject the null hypothesis and conclude that FUM has no significant effect on PFA revenue within the study period.

X Variable 2 – Contributions per Year (CON): Coefficient = 2.26E-05, p = 0.948

The coefficient of 0.0000226 suggests a marginally positive effect: for every additional naira contributed annually, PFA revenue is expected to increase by ₦0.0000226, assuming other factors remain constant. However, this effect is extremely weak and not statistically significant at the 5% level ($p = 0.948 > 0.05$). Hence, we fail to reject the null hypothesis and conclude that annual contributions do not have a significant effect on revenue.

X Variable 3 – Number of Retirement Savings Accounts (RSA): Coefficient = 19.39998, p = 1.45E-25

This coefficient means that for every additional RSA opened, the revenue of PFAs increases by ₦19.40, holding other factors constant. The effect is statistically significant at 5% since $p = 1.45E\text{-}25 < 0.05$. We reject the null hypothesis and conclude that the number of RSAs has a strong and significant positive effect on PFA revenue. This suggests that expanding RSA enrollment directly enhances revenue.

X Variable 4 – Contribution Reconciliation Account (CRA): Coefficient = -0.20949, p = 0.0102

This coefficient indicates that for every additional naira in the CRA (i.e., unreconciled contributions), PFA revenue decreases by ₦0.21, assuming other variables are held constant. This effect is statistically significant at 5% ($p = 0.0102 < 0.05$). Thus, we reject the null hypothesis and conclude that CRA has a significant negative effect on revenue, meaning unreconciled funds are directly detrimental to the earning capacity of PFAs.

4.3. Discussion of Findings

The result indicating that the Contribution Reconciliation Account (CRA) has a negative and statistically significant effect on Pension Fund Administrators' (PFAs) revenue is both expected and revealing. The negative coefficient (-0.20949) shows that for every additional unit increase in the amount held in the CRA, the revenue of PFAs decreases by ₦0.21. This is due to the fact that funds in CRA are not yet allocated to individual Retirement Savings Accounts (RSAs), and therefore cannot be invested or used to generate management fees, which are PFAs' main source of income. The statistical significance ($p = 0.0102$) confirms that this effect is not due to chance, but is consistently observable in the data. Operationally, CRA funds are effectively dormant from an income-generation perspective—they cannot accrue investment returns or support administrative growth. Instead, they represent opportunity costs, delays in service delivery, and a bottleneck in pension fund management, undermining the efficiency of the entire contributory pension system. This finding aligns strongly with several empirical studies that link CRA accumulation to poor data integrity and systemic inefficiencies. Adewunmi (2024) and Abdulazeez (2015) emphasize the consequences of incomplete biodata and failure to appoint PFAs, both of which directly cause contributions to be warehoused in CRA instead of being invested. Abdulazeez (2015) points out that these issues stem from historical documentation flaws that predate the 2004 reforms, showing that unresolved administrative weaknesses continue to produce unreconciled contributions. Kida & Sambo (2018) advocate for system automation and automatic PIN generation at the point of employment, noting that without such measures, contributions inevitably land in CRA, where they stagnate. Further confirming this, Afolabi & Erasmus (2023) explain that while higher contribution inflows generally benefit PFAs, this potential is neutralized when inflows are suspended in CRA due to data mismatches or incomplete schedules. Adekoya, Nwaobia, & Siyanbola (2022) also identify that high contribution

density and a large number of contributors can adversely affect net asset value, especially when these contributions are unallocated and dormant. Oyoo & Ochieng (2022), referencing the Kenyan context, highlight how delayed or irregular remittances lead to reconciliation issues that erode contributors' RSA balances. Finally, the regulatory dimension is also critical: studies by Ijeoma, Oghoghomeh & Aronu (2013) and Abdulazeez (2014) note that PenCom's limited enforcement capacity hampers effective reconciliation, while Kpessa (2013) argues that both Nigeria and Ghana lack the administrative muscle to manage pension systems with high data demands. The CRA's growth from ₦101 billion to ₦125 billion, despite regulatory deadlines, further confirms the systemic nature of this challenge. Therefore, the literature broadly supports the study's finding that CRA negatively and significantly affects PFA revenue by obstructing fund utilization and profitability.

5. Conclusion and Recommendations

The findings of this study clearly reveal that unreconciled pension contributions have a negative effect on the revenue of Pension Fund Administrators (PFAs), primarily due to the loss of management fees. Based on this, we propose the following recommendations:

First, employers must intensify efforts to identify employees whose contributions remain uncredited. This can be achieved by using reliable unique identifiers such as the National Identification Number (NIN), Bank Verification Number (BVN), or registered phone numbers. In addition, the availability of digital technology and the Internet of Things (IoT) should be fully leveraged. Social platforms such as Facebook, LinkedIn, and Meta offer new ways of tracing contributors and should be explored in collaboration with PFAs and employers.

The National Pension Commission (PenCom) has consistently cited the failure of employers and employees to provide complete and accurate documentation as a major obstacle preventing PFAs from crediting Retirement Savings Accounts (RSAs). To address this, stricter enforcement measures should be introduced. Sanctions must be imposed on defaulting organizations to discourage negligence and ensure that pension contributions are managed with the seriousness they deserve.

Furthermore, the mandate of recovery agents currently engaged by PenCom to pursue employers with outstanding remittances should be expanded to include funds trapped in the Contribution Reconciliation Account (CRA). This will ensure that these funds are recovered and credited appropriately. In addition, there is a pressing need to standardize the naming conventions used for uncredited contributions. Currently, PFAs refer to these funds differently—as "Deposits for Units," "Other Liabilities," or "Investment Liabilities"—which complicates monitoring, comparison, and regulatory oversight.

Finally, uncredited contributions should not continue to be reported under Fund 2, as this results in inflated balances and misrepresents the actual fund composition. In reality, some of the owners of these uncredited contributions belong to other funds, such as Fund 1, Fund 3, or Fund 4 (retirees). To resolve this, uncredited contributions should be housed in a separate fund category, similar to the Transitional Contributions Fund (TCF), and managed with the same level of transparency and administrative rigor.

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