

Managing Pension Risks in Public Sector: A Study of Lagos State Government Public Service

Ahmed Ishola Kotun, Abayomi Olarewaju Adeoye, Waidi Adeniyi Akingbade

Department of Business Administration, Faculty of Management Sciences, Lagos State University, Ojo, Nigeria
Email: ahmedkotun@gmail.com, abayomi.adeoye@lasu.edu.ng, waidi.akingbade@lasu.edu.ng

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Abstract

This study examined contributory pension scheme and the risks entailed in management of retirement benefits of Lagos State Public Service workers. Although at the inception of the scheme in Nigeria, government workers were not duly informed and sensitized about the new pension scheme but they could not out-rightly refuse its acceptability with the fear of not losing their pensionable employment. This however, led to wrongly enrolment into the scheme by those who were exempted from the scheme as of the commencement date. Survey research design was adopted for the study. Population of the study covered potential retirees who attended bi-annual pre-retirement seminar organised by Lagos State Pension Commission. One Hundred and Eighty-Seven (187) was the sample size for the study and questionnaires were proportionately distributed to selected respondent, using convenient sampling techniques. Out of the total number of the copies of the questionnaires administered, One Hundred and Sixty-Six (166) copies of questionnaire were correctly filled and retrieved representing 88.77% and were used to analyse data. Analysis was done using Correlation Analysis with the aid of Statistical Package of Social Sciences (SPSS). The findings revealed that there is a positive correlation between employee's contributions and remittances. Also, there is a moderate positive correlation on influence of accrued rights on employees' retirement benefits. Likewise, escrow fund has positive relationship with employees' retirement plan. The study recommended that there should be adequate review of retirement benefit payment policy of those in active service before the commencement of the new contributory pension scheme to avoid old age syndrome and acquaintance of the pension to life after retirement. Also, the need for upward review of the meagre called salary for Public Service Workers compared with their counterpart in corporate organisation for them to have robust retirement package.

Keywords

Accrued Right, Actuarial Valuation, Escrow Fund, Group Life Policy and Remittance

1. Introduction

Retirement benefits have become thrilling affairs among employees' in many corporations and establishments to determine life after active service (Ameh, Ajie, & Duhu, 2017). It has significantly fascinated greater attention of policy makers, business moguls, multinational organisations as well as self-employed workers amongst others, following the adoption of contributory pension scheme in Nigeria and other parts of the world. In this modern and dynamic business environment, pension system in any social formation has always remained a form of social security, safety nets and an instrument for enhancing livelihood in a society by ensuring that workers enjoy an appreciable level of welfare after retirement (Ifeanyichukwu, Okafor, & Omeh, 2018). Pension systems are generally grouped into two areas; defined benefit and defined contribution. The defined benefit promised retirement pension pay-out on number of years of service (old pension) while the defined contribution elicits contributions from employers and employees' emoluments. Kotun, Adeoye, & Alaka (2016) posited that contributory pension scheme is defined as a fully funded pension scheme that generates adequate funds through certain percentage of contribution from monthly earnings by both employer and employee through a form of savings. The advent of pension scheme in Nigeria was credited to the period of colonial administration, when first public sector pension scheme was established under pension ordinance (Sunday & Ehiogu, 2014; Uzoh & Anekwe, 2018).

Odia & Okoye (2012); Nwanne (2015) mentioned that shortfall of previous pension schemes arise due to misappropriation of funds and inadequate funding amongst others, brought about the new contributory scheme to address the manifested loopholes in the old defined pension schemes. Amiens & Abusomwan (2020) stated that pension is a post-employment benefit as well as a form of social security that caters for certain class of citizens of a nation who have offered productive part of their lives in paid employment in public and private institutions. The new pension system consist amount of coffers set aside by employee or employer or both to ensure that at retirement, there is something to fall back on as income. On the part of employee, pension is the right and privilege to present and future benefits. The present benefits entail some current earnings and the future benefits demand deferred earnings often referred to as pension (Pension Watch, 2019).

Retirement is an inevitable stage where employees' statutorily withdraw from active service in a given organisation with the threat of unknown circumstances that might occur when they were not agile to strive for their needs and wants but

relied on benefits accrued to individual workers after retirement. [Adeniji, Akinnusi, Falola, & Ohunakin \(2017\)](#) pointed out that retirement ensues when an employee chooses to leave an employment permanently and this could occur by voluntary, involuntary or at death, it is a period whereby one's effort in an organisation and role as a paid worker ceases and generally coincides with the employee's eligibility to collect retirement benefits. Retirement benefit is a stipend extended to a retired employee due to length of years spent serving an establishment diligently ([Bassey, Etim, & Asinya, 2008](#)). These benefits in some cases could not be ascertained and were not obtainable at exit of the employees' from the organisation as a result of acclaimed paucity of funds by the public organisations

Risk management in this sense is a systematic process of identifying, analysing and responding to menace or threat and menace that might occur in the management of retirement benefits and stipends ensued to workers after retirement. It includes maximizing the probability and consequences of positive events and minimizing the probability and consequences of adverse events to management of benefit objectives ([PMI, 2016](#)). It is imperative to note that establishment of contributory pension scheme across all sectors in Nigeria, which was initially in contradiction by workers' in both public and private organisations to avoid uncalculated threat entrenched in its procedures has come to stay and generally accepted after thorough investigation and research on the risks embedded in the dealings, processing and administration of the scheme. It would be more appreciable to note that pension Act, 2004, 2014 at Federal government level and 2007 and 2019 of Lagos State became rights of the qualified and pensionable employees' against all odds as provided in the Nigeria 1999 Constitution, Section 210 (1) and (2) ([The Nigeria Constitution, Amended, 1999](#)).

The Lagos State Pension Reform Law (LASPR), 2019 ([LASPR Law, 2019](#)) ensures the new pension system encompasses the dealings in the contributory scheme in order to put into consideration, risks of gratifying payment of benefits for employees in active service of the State government before the commencement of the scheme. The employees include workers exempted from the scheme at its instance, personnel that wrongly enrolled into the scheme and unspecified employees. Therefore, the rationale behind this paper is to examine management of pension menaces and risks entails in the public service of Lagos State.

The Federal and State governments pension reform Act 2004, 2014, 2007 and 2019 respectively announced contributory pension scheme and made it mandatory on employees and employers in the public and private sectors of Nigeria. Despite dissonance of the scheme at inception by Workers' Union and recent insinuation that Nigerian government borrowed from the pension funds, [Amiens & Abusomwan \(2020\)](#); [PenCom \(2021\)](#) reported that it has recorded 20 million contributors in 2021 while pension fund assets have grown from N6 trillion in the year 2018 to N13.64 trillion in the year 2022. This predicts value of the pension funds to the Nigeria economy through direct contributions to gross domestic product (GDP) of Nigeria, accumulation of savings and reducing old

age poverty amongst others (Njugana, 2010).

Moreover, the pension report indicated that Lagos State government has been able to pay retirement benefits to 25,774 retirees' comprise of both accrued rights and present retirement system under contributory pension scheme (Obilana, 2021). Although, the 2019 pension reform Law states that 5% of monthly wage bill be set aside to offset accrued rights that should have been remitted into the individual worker's retirement savings account (RSA) at the expiration of the defined benefit system. It seems the State government has not been able to redeem the funds rather gives out bond certificates after exit of employees from the state establishments. Despite these narratives and the aspiration of contributory pension scheme vision of being exclusive in ensuring prompt payment of benefits and nurturing sustainable pension industry that have progressive influence on old age syndrome, Lagos State remains the leading State in Nigeria to comply with the instructions of the scheme. However, tackling the ambiguity embedded in the law become imperative to predict whether observed risks in the scheme are calculated indeed and well managed. Hence, the need to examine management of contributory pension risks in Lagos State Public Service.

The main objective of the study is to examine management of contributory pension risks in Lagos State Public Service. The specific objectives of the study are to:

- 1) Examine the influence of employees' contributions on remittances
- 2) Evaluate the rate of Retirement bond fund on employees' retirement benefits
- 3) Assess the relationship between escrow fund and workers' retirement plan

This study focused on managing the contributory pension risks in Lagos State Public Service, Nigeria. The scope of the study is limited to Lagos State Civil/Public servants. The location was purposively chosen as a focus owing to Lagos State government and all its affiliated agencies compliance with the new pension scheme.

2. Conceptual Review

2.1. Pension Management

The defined pension system was solely controlled by government without employees' intervention. The system ruined as a result of financial misappropriation, thus, the enactment of the new contributory pension system. Contributory pension is a fund into which a sum of money is saved during employment years and from which retirement fund is drawn to support the employee's retirement benefits. Pension management in this context is the amount of money set aside by an employer or employee or both to ensure that at retirement there is something to fall back on as income (Fapohunda, 2013). Sule & Ezugwu (2009); Egbe (2013) mentioned that it is a system in which an employer pays certain amount of money regularly into a pension fund while the employee also reciprocate same into the employee's pension fund which forms the cumulative of what the em-

employee gets at the time of retirement. Either the employee has worked in the public or private sector; it serves as a social welfare scheme for the aged and ensures workers save to cater for their livelihood at old age.

Okparaka (2018) asserted that management of contributory pension scheme is practice where employer and employee make regular contributions into the employee's retirement saving account (RSA). The contributions are usually specified as a predetermined fraction of salary that consists of basic salary, rent and transport allowances. Though, the fraction need not be constant over the course of career (as salary and other allowances changes so, the monthly contributions). Management of the pension contributions from both parties are tax-deductible, and investment incomes accrue tax-free (Ezugwu & Itodo 2014; Enache, Milos, & Milos, 2015). Obilana (2021) assumed that the scheme is a paradigm shift from defined pension, the employer and employee alike are to contribute 10%; 8% of employee's monthly emolument. The scheme also covers the private sector with five or more employees. In the event of loss of a particular employment and could not seek another within the waiting period of four (4) months, the benefits in the RSA could be accessed (PRA, 2014; LASPR Law, 2019).

Often, employee is given a choice of investment on his RSA contributions but in practice most investment options are on bond, stock and money market funds and return on investment are shared. Under the new act, operators who mismanage pension funds is liable, upon conviction; to not less than ten years imprisonment or fine of an amount equal to three times the amount so misappropriated or diverted, or both imprisonment and fine (Eme, Uche, & Uche, 2014; Odewole & Oladejo, 2017). Though, the old pension administration anomalies has been checkmated by the court of law, how real the conviction in this present pension reform Law has not been determined by the echelon.

2.2. Risk Management

Project Management Institute (PMI) and Association for Project Management (APM) defined risk as a process whereby decisions are made to accept known or assessed risk and/or implementation of actions to reduce the consequences or probability of occurrence. It is a systematic process of identifying, analysing and responding to risk. It includes maximizing the probability and consequences of positive events and minimizing the probability and consequences of adverse events to management objectives (PMI, 2016).

Aven (2016) asserted that risk assessment before making decisions was offered by the Athenians and intense research has been conducted on risk management to avert uncalculated risk for organisations' decisions to be effective in achieving its objectives. Pekkinen & Aaltonen (2015) asserted that every business function comes with risks and these risks can affect the business if not carefully monitored. The proponents affirmed such organizations often fail to create value added project risk management practices because they end up executing tick-the-box exercise only.

Pension is a regularly paid stipend as benefit to retired employee of a particu-

lar establishment. Ameh et al. (2017) defined pension as a method where person pays into pension scheme a proportion of his earnings during working life. Omoni (2013) stated that pension management is a retirement plan that requires an employer to make contributions to a pool of funds set aside for a worker's future benefit. The pool of funds is riskily invested on employee's behalf, and the earnings on the investments generate income to the worker upon retirement if the risk is well calculated. Pension management may be contributory and non-contributory; fixed or variable benefits; group or individual insured or trustee; private or public and single or multiple employer (Ilesanmi, 2006).

2.3. Employees' Contribution

Employees' contribution is any collective arrangement or scheme which has one of its main objectives; the provision of retirement benefits for working persons either in form of regular income during retirement years or as a lump sum at retirement (Babatunde, 2012). Employees' pension contribution is a pension plan in which both employee and employer jointly contribute regularly distinct amount as a proportion of worker's salary on monthly basis and invested upon. The contributions are therefore invested to provide income for the worker at retirement (Odo, Ani, & Agbo, 2021).

Employees' contribution is a pension system personalised to the contributor and managed by licensed private sector entities. Participants are allowed to open individual retirement savings account (RSA) where contributions are accumulated till retirement (Shaito, 2021). Employees' contribution is the feeling of having a proper job and the assurance of its continuance at a future date future as well as the absence of threatening factors (Amiens & Abusomwan, 2020). However, employees' contribution could not be accessed until such workers exit or at retirement from active service.

2.4. Remittance

It is an act of transferring contributed funds into a till for payment purposes. Remittance is the lodgement of contributions made by employee and employer for pension into retirement saving account of the employee. Such funds are deductible from source, lodged into contributory pension account through pension fund administrator and pension fund custodian (PRA, 2014; LASPR Law 2019). The Pension Commission (PenCom) computes the pension contributions and advises on credit of the contributions into the pension fund custodians (PFCs) for investment purposes. However, employees of Lagos State who are already on oracle data base remits their contributions deductible from source to their respective PFCs through individual registered pension fund administrators (PFAs) while the employer does same with paper evidence.

2.5. Redemption Bond Fund

Redemption bond fund account is a pension protection fund created under Lagos State pension reform Law, 2019 to include an annual subvention of 5% of

total monthly wage bill payable as accrued right to employees in employment before the commencement of the scheme Section 41 (1 - 8) (LASPR Law, 2019). Sub Section (7 & 8) stated that the said deduction is sourced from subventions or budgetary allocations for the purpose of funding the retirement benefits redemption bond fund. The fund is meant to clear the accrued rights of employees in the Lagos State public service before the commencement of the contributory pension scheme.

Ameh, Ajie, & Duhu, (2017) indicated redemption bond fund as a switch from “pay-as-you-go” pension system to the new contributory pension scheme to create a financing gap for workers who have earned pension rights. The retirement benefit redemption bond fund is issued to concerned employee, the value of which will be equal to the accrued pension benefits up till commencement of the new pension scheme. The fund shall cease to exist after all affiliates in the old scheme had their bonds.

2.6. Retirement Benefit

Retirement is a phase in life that every employee must experience either prepared for or not. It is the point in time when an employee chooses to leave his or her employment permanently which could be voluntary, involuntary or at death, it is a period whereby one’s effort in an organization and role as a paid worker ceases and generally coincides with the employee’s eligibility to collect benefits (Adeniji, Akinnusi, Falola, & Ohunakin, 2017).

It is an inevitable stage in someone’s life either in the private or public service employment for reward purposes (Ahmed, 2007; Yunusa, 2009). Retirement benefit is a monthly payment made to someone who retired from active service or work due to length of years spent or old age (Bassey et al., 2008). Retirement benefit refers to a regular stipend extended previous employee of an organisation to allow his subsistence without working. Oyedele (2014) asserted that the main aim of retirement benefit is to guarantee that retired employee receives pension promptly to help safeguard and provide for their later life.

2.7. Escrow Fund

These are contributions deducted from the emolument of the employees but not remitted into their retirement savings account. Such funds were kept into escrow account for reconciliation purposes. Section 13 of LASPR Law (2019) stipulates that contributions of employees wrongly enrolled into the scheme, employees without RSA pin, employees with double pin and unspecified contributions should be kept in an escrow account. Such funds were meant to be reconciled and thereafter paid with interest element into the affected employee or employer as the case may be. The escrow account is created for refund purposes. It is however explained thus;

2.7.1. Wrongly Enrolled

It is the contribution of those that were exempted from the scheme in accor-

dance with Section 13 (1 - 5) of the Law. This includes those who have three years or less to retire from active service upon commencement of the scheme and those whose employment are not pensionable (contract appointment) but rather unknowingly registered with pension fund administrators (LASPR Law, 2019).

2.7.2. No Pin

It is the contribution of the employees without retirement savings account (RSA) pin or workers who refused to register with one of the approved PFA. LASPEC 2017 guidelines specified such employees contributions (employee and employer portion) are kept in escrow account until provision of such employee's his/her RSA pin to the organisation.

2.7.3. Double Pin

This ranges from employee's registration with two or more PFAs whereby more than one RSA pin was generated. Such employee's contributions hanged in the balance. As such, the first pin rule prevails. Such contribution is returned into escrow account by affected PFAs till when reconciliation is concluded and employee's RSA credited (PenCom, 2017).

2.7.4. Unspecified

Unspecified contributions refers to as pension deductions that could not be specified as monthly pension contributions for pensionable employee, contract employee, exempted and or deceased employee (Onanuga, 2019). This could occur from PFAs, such funds are meant to be reserved in escrow account for reconciliation purposes.

It is the duty of appointed pension desk officer (s) in Ministries , Agencies and Directorates (MDAs) to inform the affected PFAs and contributors for proper reconciliation of the funds in the escrow account in order to remit it against the correct employee's unique pin number (LASPR Law, 2019). Those exempted from the scheme will be issued cheque in their name and account details. The funds in the escrow till is expected to e under watch in an interest yielding account and payments are made with interest element to either the employee or employer as the case may be after due diligence. Moreover, Section 13 (4) of the Law explained that, where an employee fails to open RSA within a period of six (6) month after assumption of duty, employer shall request a pension fund administrator to open nominal RSA for such employee to remit the employee's pension contributions. However, the law has not considered the risk therein on dependents of the affected employee in any of these categories.

2.8. Retirement Plan

Retirement plan is the preparedness for superannuation by workers in an organisation. The life-cycle models often make simplifying assumptions that retirement plan prepares individuals employees to understand lifetime path of annual earnings and the amount of retirement income needed to provide the desired

levels of consumption in retirement (Greenspan & Kellermann, 2002). It is the rates of return on various types of investments, present value calculations, and the process of compounding returns. A lack of retirement plan may cause workers to start saving too late in life to realize stated retirement goals. As a result, employees are unlikely to achieve an optimal balance between current consumption while in active service and future consumption at retirement. Individual employee desires a level of consumption during the retirement years that is closely related or similar to consumption in the immediate pre-retirement years. This supposition is reliable with reactions of individual worker concerning income goals after exit from service. It is the mode of matching basic structure of many pension plans.

2.9. Theoretical Review

Several theories have been developed in relation to pension reform globally such as Assumption theory, Maslow theory and Life cycle theory amongst others. This study anchored on two theories that are relevant and essentially germane to the variables discussed in study which are endogenous “AK” growth theory and life cycle. The essence of using the theories is to emphasis justification of their usage in relation to the study.

2.9.1. Endogenous “AK” Growth Theory

The Growth Theory propounded by Pagano (1993) quoted in Nwanne (2015) recognises that economy’s long-run growth rate depends on its saving rate for the future livelihood. It stated that financial intermediation could affect changing productivity, saving funnel to investment and savings rate old age syndrome. The theory assumes that financial development reduces the loss of resources needed to allocate resources, encourage greater savings ration and increase productivity ability.

$$Y_t = AK_t \quad (1)$$

where Y_t = output, t = Time, K = capital, and A = Capital Productivity.

This implies that capital stock in time $t + 1$ is given as:

$$K_t = I_t + (1 - d)K_{t-1} \quad (2)$$

where d = rate of depreciation and I = investment. The implication is that if a fixed fraction (s) of output (y) is saved and there is fixed rate depreciation (d), the rate of aggregate net investment is given as:

$$\frac{dk}{dt} = sy - dk \quad (3)$$

This implies that the growth rate (g) is driven by:

$$g = \frac{1}{y} \frac{dy}{dt} = \frac{1}{k} \frac{dk}{dt} = SA - d \quad (4)$$

2.9.2. Life Cycle Theory

This theory relates to consumption pattern and savings decision of individuals

who involve in administering social security plan. The theory associated with [Modigliani & Brumberg \(1954: 1980\)](#) cited in [Idowu \(2006\)](#); [Kotun et al. \(2016\)](#) states that consumption is a function of life time wealth at one's disposal. This wealth (financial, real assets and expected value of future income) is not affected by changes in the pattern of income that comes to one over time and the pattern of consumption is not also affected. The life cycle theory argues that pension reform can affect savings rate of a pension plan participant by affecting the average wealth of the person. This is because a sustainable pension plan can grow huge financial resources for further investment earnings which can cause significant redistribution of income, leading to increased wealth to pension participants. However, its provision is that the pension plan be institutionalized and sustainable while the pension reform has the power to change or affect the life cycle.

2.10. Empirical Review

[Okparaka \(2018\)](#) carried out a study on effect of contributory pension scheme on Nigerian capital market. The study used Ex-post facto research design, ordinary Least Square Regression as analytical technique. The study revealed that pension assets under Management of the Nigerian Pension industry has positive and significant effect on total market capitalisation and total number of deals per year of the Nigerian Capital Market. The study concludes that an increase in total pension assets under management would boost upwards, the total market capitalisation and total Value of deals per year by making more fund available for trading in the Nigerian Capital Market.

[Amiens & Abusomwan \(2020\)](#) compared challenges and prospect of the contributory pension scheme as well as vision achievement of pension commission in Nigeria. The study reviewed secondary data of published annual reports of National Pension Commission (PenCom). The researchers concluded that reluctance and disbelief by workers to register with Pension Funds Administrator, compliance, benefit inadequacy, low capital formation, non-inclusion of the informal sector, overlapping regulations, and coverage are persistent challenges confronting recent pension reforms in Nigeria. The study recommended that stakeholders in pension industry should adopt best processes and technologies that would influence workers positively and change the unwillingness and disbelief by workers to register with Pension Funds Administration (PFAs).

[Ameh, Ajie, & Duhu \(2017\)](#) studied impact of contributory pension scheme on retirement benefits. The study was embarked upon to provide empirical evidence on the impact of contributory pension scheme on retired employees. Data for the study were sourced from various issues of PenCom Annual Reports and World Bank Development Indicators (database). The study established that pension fund assets and pension contribution/savings mobilized over the years are risk free and thus have positive impact on economic growth. The study therefore recommended that, there should be more emphasis on the management of pension assets in the capital market as well as government bond, real estate and investment trust to boost Gross Domestic Product (GDP) of the

country (Nigeria).

Ifeanyichukwu, Okafor, & Omeh (2018) examined the position of contributory pension scheme and management of retirement benefits in the University of Nigeria, Nsukka. Data were collected from the University of Nigeria Bursary Department, Pension Fund Administrators and Pension Commission (PenCom). The study utilized qualitative method in generating data. The findings revealed that there is a marked departure in the retirement benefits of retirees in the old and new pension schemes. The study recommends the right to gratuity and pension for life for public servants and a comprehensive accounting standard for retirement benefits to protect the pension funds.

Uzoh & Anekwe (2018) researched on contributory pension scheme and the fate of retired and retiring Nigerian workers. The researchers mentioned that laudable as the new contributory pension scheme is only the Federal Government and its agencies have fully keyed into it. There are also a few states such as Lagos, Anambra, Delta, Osun, Niger, Ogun, and Zamfara which have braced the odd to migrate workers into the new scheme from the old one that was full of encumbrances and government interference. While the Federal Government and some states are remitting their counterpart funding to add to that of workers regularly to the pension administrators, not many employers in the private sector can be said to be doing the same. The study therefore contends that the regulatory agency, the National Pension Commission must ensure that employers do not continue to short change their workers. However their findings are able to prove that management of risk in the new contributory pension serves as tool which organisations can use to cater for existing employees toward their old age needs and wants as well as to serve as a catalyst for economic growth, cater for the fear of old age syndrome, destitution and poverty.

2.11. Conceptual Model of the Research

The conceptual model was derived from literature. The model shown below in **Figure 1** depicts variables considered as the independent variable based on the dimensions of Pension Scheme (CPS) which include; employees' contribution, redemption bond fund (RBF) and escrow fund while Pension Risks (PR) is: remittance, retirement benefit and retirement plan.

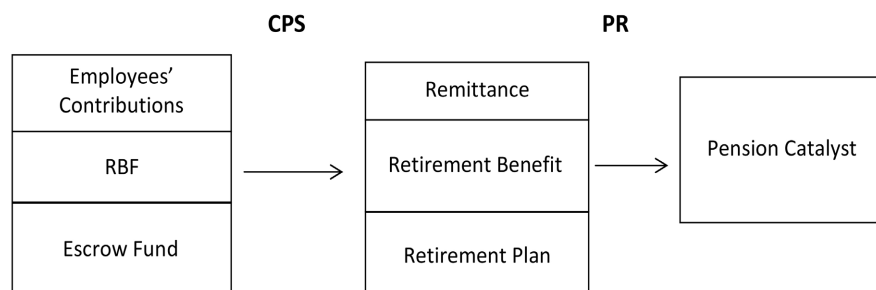


Figure 1. Conceptual model of Contributory Pension Scheme (CPS) and Retirement Benefit (PR). Source: Adapted from [Mohammad & Mollaei \(2014\)](#).

The conceptual review of the study enunciated and discussed various variables associated with contributory pension scheme (employees contribution, redemption bond fund and escrow funds) while risk management elucidated on (remittance, retirement benefit and retirement plan). Both theoretical and empirical reviews were explained in relation to the subject under review.

3. Research Methods

A descriptive survey design was adopted for the study because it gives accurate account of characteristics of the population such as behaviour, opinion, abilities and knowledge of a particular situation. The population of the study covers expected retirees that were sensitized at bi-annual pre-retirement seminar organised by the Lagos State Pension Commission for those expected to retire from active service of Lagos State Public Service. The study was carried out in Lagos State because of its fully adoption and implementation of the contributory pension scheme in all her Ministries, Agencies and Directorates (MDAs) (Uzoh & Anekwe, 2018). The total number of would-be retirees that attended the sensitization is 352. The target population of the study covers would-be retirees' that attended the last bi-annual pre-retirement seminar by the Commission.

The expected retirees' of Lagos State public service were purposively chosen for the study to examine the level of managing pension risk of its workforce through CPS. Accordingly, in this study, the researcher adopted Taro-Yamani (1967) formula to determine the sample size

Taro-Yamane Formula:

$$n = \frac{N}{1 + N(e)^2}$$

where n = sample size

N = Total population

e = Error margin (0.05)

To determine the sample size using the formula above, thus:

$$n = \frac{352}{1 + 352(0.05)^2}$$

$$n = 187$$

A sample size of 187 was selected for the study. Convenience sampling technique was used to engage and distribute questionnaire to the available would-be retirees' at the pre-retirement seminar centre. The research instrument designed by Lagos State Pension Commission in 2019 was adapted in this study. The instrument was modified to include other aspects of pension management in pension industry. The research instrument was structured into two sections. The first section of the questionnaire contains general questions relating to the respondents' bio-data information, while the second section focused on information relating to management of pension risk under CPS in Nigeria. The question-

naire was designed in such a way that alternatives were provided for the respondents to choose from and options were expected to be expressed. The research instrument was structured in four (4) Likert scale instruments, 4 representing strongly agreed (SA), 3—agreed (A), 2—disagreed (D), and 1—strongly disagreed (SD).

Method of Data Collection

The study used primary source, questionnaires were used to gather data from respondents. One Hundred and Eighty-Seven (187) copies of the questionnaire were administered to various participants at the pre-retirement seminar. The questionnaires were proportionately distributed among would-be retirees who cut across all management levels of the State Public Service. One Hundred and Sixty-Six (166) copies of the questionnaires were correctly filled and retrieved representing 88.77% and were used for the analysis in this study. Content validity was employed in this study to ascertain the content of the research instrument in the measurement of CPS in the public sector. This study adapted the research instrument by LASPEC (2019). The research instrument was designed for retirement benefits in the pension industry. The instrument was modified by the researcher to include other aspects of contributory pension in the public sector.

The test of reliability measures the internal consistency of the research instrument. **Table 1** above, presents the Cronbach's α result. The coefficients of the Cronbach's α of the variables; employees' contribution and remittance is (0.753), RBF and retirement benefits is (0.757) and escrow, and retirement plan (0.771). Since each of the coefficients lies between 0.7 and 1.00, this is an indicator of consistency that the responses measure the same characteristics of the same construct (employees' contribution and remittance, RBF and retirement benefit and escrow fund & retirement plan). Therefore, there is consistency in the measurement scales given by responses. This implies that 75.3%, 75.7% and 77.1% of variance in these scores of the variables respectively is reliable.

Analysis was done using descriptive and inferential statistical tools. Descriptive analysis includes frequencies, percentage, mean and standard deviation to represent the response rate and information on the other variables that the study considered. The inferential analysis employed correlation analysis to test the hypotheses. The statistical Package of Social Sciences (SPSS) was used to analyse the data.

Table 1. Results of the Cronbach's α test.

S/N	VARIABLES	NO. OF ITEMS	COEFFICIENT ALPHA
1	Employees' contributions and remittances	5	0.753
2	RBF and retirement benefit	5	0.757
3	Escrow fund and retirement plan	5	0.771

Source: Researcher's computation.

4. Data Analyses and Interpretations

4.1. Test of Hypothesis I

Ho: Employees' contribution has no significant influence on remittance

Table 2 presents the correlation between employees' contribution and remittance. The Pearson Correlation coefficient ($r = 0.706$, $N = 166$) indicates that there is a substantially positive correlation between employees' monthly contribution and remittance of such contributions to appropriate pension fund administrators onward pension fund custodians for investment purposes. The test of the correlation is also significant since the p -value (0.030) is less than 5% (0.05) indicating the rejection of the null hypothesis while the alternative hypothesis was accepted. This implies that there is a significant positive relationship between employees' contributions and its remittances for managing pension risk of Lagos State workers.

4.2. Test of Hypothesis II

Ho: Rate of redemption bond fund (RBF) has no significant influence on retirement benefit

Table 3 presents the correlation test between redemption bond fund and retirement benefit. The Pearson Correlation coefficient ($r = 0.541$, $N = 166$) indicates

Table 2. Result of correlation analysis between employees' contributions and remittances.

		Employees' contribution	Remittance
Employees' Contribution	Pearson Correlation	1.000	0.706*
	Sig. (2-tailed)		0.030
	N	166	166
Remittance	Pearson Correlation	0.706*	1.000
	Sig. (2-tailed)	0.030	
	N	166	166

Source: Researcher's computation using SPSS **. Correlation is significant at the 0.05 level (2-tailed).

Table 3. Result of correlation analysis between RBF and retirement benefits.

		RBF	Retirement Benefit
RBF	Pearson Correlation	1.000	0.541*
	Sig. (2-tailed)		0.016
	N	166	166
Retirement Benefit	Pearson Correlation	0.541*	1.000
	Sig. (2-tailed)	0.016	
	N	166	166

Source: Researcher's computation using SPSS **. Correlation is significant at the 0.05 level (2-tailed).

that there is a moderate positive correlation between RBF and its benefit on retired employees'. The test of the correlation is also significant since the p -value (0.016) is less than 5% (0.05) indicating the rejection of the null hypothesis and accept alternative hypothesis. This implies that there is a significant positive relationship between creation of RBF for payment of accrued right and benefit therein as value of what employees have put in to the Public Service of the State before the commencement of contributory pension to serve as part of retirement benefit.

4.3. Test of Hypothesis III

Ho: There is no significant relationship between escrow funds and retirement plan.

Table 4 presents the correlation test between escrow fund and retirement plan. The Pearson Correlation coefficient ($r = 0.637$, $N = 166$) indicates that there is a moderate positive correlation between escrow fund in an account created for those without RSA pin and the growth of such funds in the retirement savings account of such employee in Lagos State Public service. The test of the correlation is also significant since the p -value (0.01) is less the 5% (0.05) indicating the rejection of the null hypothesis. This implies that there is a significant positive relationship between element of interest in the employee's fund without RSA pin in escrow funds and the funds in RSA.

Analyses and interpretation of the results of the study; employees' contributions and remittances, redemption bond fund (RBF), and escrow funds and retirement plan measures test of reliability of the internal consistency of the research instrument. The coefficients of the Cronbach's α of the variables; (0.753), (0.757), (0.771) measure the characteristics of the construct. This implies that 75.3%, 75.7% and 77.1% of variance in these scores of the variables respectively is reliable.

4.4. Discussion of Findings

The main purpose of this study was to stare at the contributory pension scheme

Table 4. Result of correlation analysis between escrow fund and retirement plan.

		Escrow Fund	Retirement Plan
Escrow fund	Pearson Correlation	1	0.637**
	Sig. (2-tailed)		0.001
	N	166	166
Retirement plan	Pearson Correlation	0.637**	1
	Sig. (2-tailed)	0.001	
	N	166	166

Source: Researcher's computation using SPSS **. Correlation is significant at the 0.05 level (2-tailed).

and management of pension risk in Lagos State Public Service. The findings shows that risk of adopting and implementing CPS by Lagos State government on her workers has positive effect on would-be retirees'. Result of hypothesis one (1) showed that there is significant positive relationship between employees' contribution and its remittance for retirement benefit purposes and it is aligned with the study of [Ameh, Ajie, & Duhu \(2017\)](#) which posited that employee and employer contributions/savings mobilized over the years have braced the odd to migrate workers into the new scheme have positive impact on economic growth in the management of pension assets in the capital market as well as government bond, real estate and investment trust to boost Gross Domestic Product (GDP) of the country (Nigeria).

Hypothesis two (2) revealed that there is a moderate positive correlation between payment of accrued right and its benefit on retired employee. The finding collaborates with the study of [Uzoh & Anekwe \(2018\)](#). They suggested that the new contributory pension scheme migrate workers from the old one with fully payment of entitlement therein and monthly pension to protect posterity of retired and retiring Nigerian workers.

Hypothesis three (3) also revealed that there is a moderate positive correlation between escrow fund in an account created for those without RSA pin/exempted from the scheme and the growth of such funds in the retirement savings account of such employee. The findings also corroborates with the study of [Okparaka \(2018\)](#). The study pointed out that pension asset under management of the Nigeria pension industry has positive and significant effect on total market capitalisation and total number of deals per year of the Nigerian Capital Market as a plan against old age syndrome.

5. Conclusion and Recommendations

5.1. Conclusion

This study explained technicalities of the contributory pension and methods of managing the risk entailed in the betterment of workers' lives after retirement in order to avoid old age syndrome and destitution.

1) It is evident that the scheme was implemented to correct the observed anomalies of the defined pay as you go pension system as it concerns infinite inclusion of pension in budgetary allocation which apparently turns retirees to destitution.

2) It was also observed that its partial rejection from Nigerian workers' union was due to lack of adequate sensitization of entire workforce on its dealings and processes.

3) The study however maintained that adequate consideration and preparation towards managing the risk imbedded or observed in the scheme cannot be overemphasized.

5.2. Recommendations

The following recommendations were made.

1) Operational modalities and widely dispersed nature of the contributory pension scheme need to be publicised.

2) The scheme operators should intensify more effort in sensitizing employees and employers alike of a given establishment on cognizance of the pension scheme to life after retirement.

3) It is important to mention that worker's monthly emolument need to be upwardly reviewed to improve contributions deductible from three parameters of monthly salary as workers' contributions were meagre compared with those in corporate organisations.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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