

THE ROAD TO STABILITY: FACTORS INFLUENCING PENSION FUND SUSTAINABILITY IN NIGERIA

Samuel Olawale Adeyemi¹, Abigail Chinyere Okonkwo², Emmanuel Oluwafemi Adebayo³

Article Info

Keywords: Pension Systems, Retirement Benefits, Ageing Workforce, Private Sector Compliance, Financial Safeguard.

Abstract

Pension systems, introduced by employers, stand as a crucial safeguard against financial hardship for retired employees. They have garnered significant traction globally, emerging as a pivotal topic for policymakers striving to foster privately-funded retirement savings in the face of an ageing workforce (World Bank, 1994). These schemes are meticulously structured to furnish retired workers with a financial cushion, ensuring the provision of their essential monetary requirements. As a result, governments worldwide have accorded paramount importance to retirement benefits, overseeing the establishment of robust pension schemes within their public service domains. Encouragement has also been extended to private sector employers to institute similar retirement benefit programs for their workforce, albeit with varying degrees of adherence compared to the public sector. The implementation of these retirement benefits, however, has encountered challenges necessitating periodic reviews and reassessments by nations.

Introduction

The idea behind the introduction of pension systems by employers of labour is the protection of employees against penury after retirement. Pension schemes have gained popularity in many countries in recent times. In fact, it has become topical for discussion by policymakers in many countries who seek to facilitate privately-funded retirement revenue savings for ageing labour force (World Bank, 1994). The pension scheme is designed to provide revenue for retired workers to cater for their fundamental pecuniary needs. Consequently, most governments have made retirement benefits a key objective by ensuring that pension schemes are set up in their public service. Employers in the private sector are also encouraged to establish some retirement benefit schemes for their workers, though levels of compliance may not be as stringent as for the public sector. The implementation of

¹ Human Resources, Dept. of Education, Babcock University, Ilishan Remo, Ogun State, Nigeria^{1,2&3}

retirement benefits has been fraught with challenges which have warranted the need for stock taking of pension schemes by many nations on numerous occasions.

There have been necessary modifications to the primary laws and regulations used in controlling the implementation of pension schemes, multiple adjustments are required to run efficient pension schemes necessitating an overhaul of the old schemes. Pension is the sum of money a retired worker receives after several years of work and has reached a predetermined, legal retirement age or is "unfit" to work under certain circumstances. This sum of money is paid on a monthly basis until the retiree dies on account of services over a period of time to the organization.(Adam, 2005). Another perspective of pension is that of a system in which workers contribute part of their income into a pension scheme during their active working years. These monthly contributions provide income (or pension) when the worker retires, and as such it is viewed as earned income. Tax on pension is often at a marginal rate of income tax. Pension is different from gratuity, which is a ballpark sum paid to a retiring worker who has served for a minimum specified period of time (five years since June 1, 1992).

Employers of labour give priority to both pension and gratuity since they believe that securing workers' future needs would reduce workers' fear of the future and as a result become more motivated to positively contribute to an organization. In the same vein, many labour unions and government organizations have emphasized the need for sound, functional and practical pension schemes (Adebayo, 2006; Rabelo, 2002).

An effective investment strategy results in more returns and lesser risks for pension funds (Leisako et.al, 2005: Kyiv, 2003). To accomplish pension fund effectiveness, pension fund managers must devise sound investment strategy and apply them reliably (Kyiv, 2003). The investment strategy prompts the achievement of the pension funds short-term (under three years), mid-term (three to ten years) and long-term (over ten years) objectives (OECD, 2009b). The investment strategy decides the short-term and long-term sustainability of the pension funds (Maurer et.al, 2008: OECD, 2009b). As it were, an investment strategy guarantees that fund is accessible to pay benefits and different expenses as they become due (Bikker et al., 2009). The investment strategy along these lines give a fitting blend between the long-term and transient money related instruments where the investments are made in light of the normal development of liabilities (Bikker et al., 2009).

An investment strategy guarantees that pension funds do not act heedlessly in times of securities exchange unpredictability (Springer and Cheng, 2006).The procedure guarantees that the administration knows about the methodology identifying with purchasing and holding of investments such that investments are acquired when costs are low and fleeting ones are discarded when costs are high (Kake, 2006). The investment strategy adds to better "reinvestment plan" (Eaton and Nofsinger, 2001). As indicated by Eaton and Nofsinger (2001), the reinvestment arrangements include furrowing back the profit to the same high yielding resources for exploit exacerbating impact. What's more, the investment strategy ought to bring about reserve funds as tax assessment on the investment returns produced since it concentrates on the more duty proficient investments (Kakes, 2006).Connected to pension funds, risks mirror any variable that keeps a pension fund from accomplishing its expected goals of giving satisfactory retirement earnings (Yermo 2007; Mangiero, 2006). The obstructions to pension fund goals may incorporate disappointment by the supporters to meet their guarantees; securities exchange volatilities and operational insufficiencies (Mangiero, 2006). According to Kakes (2006), "pension fund risk administration suggests administration of different risks sorts –, for example, money related, operational and lawful risks accept the utilization of derivatives". Bikker et al. (2009) along these lines, viewed pension fund risks as including both operational and monetary vulnerabilities.

Pension fund risk management includes five stages to be specific recognition proof (risks and opportunities), assessment, prioritization, treatment (acknowledge, alleviate, misuse or maintain a strategic distance from) and observing (Blake, 2007). As indicated by Blake (2007), pension fund risks management is an organized procedure that ought to be taken care of with the ability to improve pension benefits. It includes the estimation and evaluation of the hazards and the structure, checking and modification of the pension fund's parameters (commitments, advantages and investments) so as to address these risks in accordance with the reserve's destinations (Blome et al., 2007). The primary objectives of pension fund risks are the minimization of operating expenses and minimization of client's complaints (Blome et al., 2007)

The problem of this study is to look at some selected factors influencing pension funds sustainability in Nigeria" Hence the following hypotheses were raised:

Hypothesis One (H₁): Pension fund governance exerts a positive and significant effect on pension funds sustainability.

Hypothesis Two (H₂): Adherence to fund regulations exerts a significant effect on pension funds sustainability.

Hypothesis Three (H₃): Operational efficiency exerts positive and significant effect on pension funds sustainability.

Hypothesis Four (H₄): Effective investment strategy exerts positive and significant effect on pension funds sustainability.

Hypothesis Five (H₅): Proper risk management exerts significant effect on pension funds sustainability.

Hypothesis Six (H₆): The age of members exerts a negative and significant effect on pension funds sustainability.

Methodology:

Research Design

This study adopted a descriptive survey approach. The survey method is the most frequently used type of research method that provides opportunity for researchers to have a snap shot of a subject in a population of interest

Study Population

The target populations of the study are pension stakeholders including employees, pension operators and retirees of public service ministries, departments and agencies (MDAs) in Lagos state. They are beneficiaries of the Contributory Pension Scheme (CPS) in Lagos. All civil servants in Lagos state are statutorily mandated to hold a retirement and pension savings account registered under the Contributory Pension Scheme.

Inclusion criteria

☐ All respondents must be active users of the Contributory Pension Scheme (CPS) ☐ Respondents must have participated in the CPS for at least one year.

Sampling

Multistage sampling technique was employed to recruit respondents for the study. Multistage sampling technique includes dividing the study target groups into practicable categories until the final selection is made. Information from the Lagos State Pension Commission (LASPEC) was adequately explored to provide necessary baseline information needed for the sample in this study. The LASPEC is the statutory body saddled with the oversight function of regulating, supervising and monitoring the effective administration of pension matters in Lagos State. LASPEC keeps the information of pension operators and of all beneficiaries of the CPS in Lagos, drawn from the different public agencies in Lagos. For this study, the details of these beneficiaries and pension operators were obtained from LASPEC. The information obtained was used to create a sampling frame.

Sample Size Calculation

In determining the sample size, the most important concern among others is that the sample size should be large enough so that it will be representative of the population from which it comes and the researcher wishes to make inferences about (Simon, 2006). Information from the National Pension Commission showed that as at the third quarter of 2016 (Q3, 2016) civil servants participation in the CPS stood at 46.4% (PenCom, 2016). Additional information from the Lagos State Pension Commission showed that are over ten thousand beneficiaries participating in the contributory pension scheme. This number is fairly large and a sample size determination for the study adopted Cochran's formula for populations that are large enough to yield a representative sample for proportions (Kasiulevičius and Filipavičiūtė, 2006).

Cochran sample size formula for sample proportion; $n = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$

n = minimum sample size required for the study

Z = the standard normal deviate, corresponding to confidence level; at 95% confidence level, $z = 1.96$ p = proportion of CPS beneficiaries who are civil servants = 46.4% e = precision rate or degree of accuracy required; 5% (or 0.05) was adopted for the study following the confidence level chosen $n = \frac{(1.96)^2 \times 0.464 \times (1 - 0.464)}{(0.05)^2}$

$$= 382$$

The minimum sample size is 382. Taking into consideration a non-response rate of 20%, giving 76 which was added to the minimum sample size required for the study (382), $n = 458$. Therefore, a minimum of 458 respondents would be sampled for the study. This number of respondents is considered adequate and would provide robust data for sub-cell analysis and accommodate sampling error. However, it is important to note that the calculated sample size is only the minimum, the researcher has an opportunity to sample more than the minimum sample size, as increasing the sample size will enhance the chances of gaining a statistically significant result and the power of the study. However, the researcher cannot sample less than the calculated minimum sample size (Fox et al, 2007). In the study, more than the minimum sample size was sampled.

Data Collection Instrument

Data collection in the study was conducted with the use of questionnaire. The questionnaire in this study was designed in accordance with the study objectives. The questionnaire contained for the most part close-ended questions, except for a few open-ended questions. A 5-scale Likert option strategy was provided so that respondents could give their responses with the appropriate option. The Likert options were measured on agreement scales of 1-5: 1- Strongly Disagree, 2 – Disagree, 3 – Undecided, 4 – Agree, 5 - Strongly Agree. Respondents could only select one response per question. A five-point Likert scale was developed and used in gathering the facts as it is usually utilized in the field of management and the social sciences for empirical study. The questionnaire had an introductory section that provided detailed information on the study to the respondents, the voluntary participation and the respondents' option to exit the study whenever they are no longer comfortable to participate.

Section A contains screening questions such as participation in the CPS and (if yes) the duration of participation. **Section B** elicited information on participant's perception of the pension scheme. The section investigated respondent's level of understanding of the CPS, understanding of previous pension schemes, preference for the CPS or previous pension schemes and overall optimism of the CPS as a source of income in the future. The questions in section B were arranged as a battery of seven Likert type questions/items, with each question

independent on the other such that they do not combine to measure only one trait. These questions were discrete and mutually exclusive.

Section C elicited respondents' perception and overall assessment of the CPS under the following key areas: fund governance, fund regulation, operational efficiency, investment strategy and risk management of the Contributory Pension Scheme in Lagos State. Each of these key areas comprised four Likert scale items, except for investment strategy and risk management with three Likert scale items each. The underlying design of the questions in this section is very different from the design in section B. In essence, the items under each key area were designed to measure the same construct. For example, the four questions in fund governance are Likert-type items that can be combined into a single composite variable to measure perception of fund governance. The responses can be used to create a composite score/mean during the data analysis.

In **section D**, respondents assessed the sustainability of the pension funds in the Contributory Pension Scheme. The questions featured include overall confidence of beneficiaries in the sustainability of the pension funds in the CPS. The questions in section D also consist of Likert scale data but arranged as a series of ten Likert type items.

Section E elicited information on the socio-demographic status of respondent. Overall, this section featured questions on category of respondent (whether current employee or retiree), gender of respondent, age, marital status and highest level of education. The same questionnaire was used for both the employees and retirees, with specific questions to differentiate employees and retirees.

Sections F and G featured questions on the current employees and retirees respectively. For the current employee and pension operators, it featured questions on duration of work at the current place of work, current position at the organization and monthly income. For the retirees, questions were asked on duration of work before retirement, job position before retirement and the retirement savings as at the time of retirement.

Reliability of Items in the Measuring Instrument

The questionnaire designed and adopted for the study contained multiple Likert-type scales and items. The techniques usually employed in estimating reliability include test-retest and Cronbach's alpha. The test-retest approach measures the reliability "as the Pearson product-moment correlation coefficient between two administrations of the same measure"

In the present study, the Cronbach's alpha coefficient was utilized to estimate the internal consistency of the measuring scales which is a very accurate approach to estimating reliability.

Data Analysis:

The inferential statistical methods were used to further explore the data and also test for the study hypotheses. The inferential statistical methods employed include use of Student's T-test to test for the significance of differences between mean perception scores. Selected demographic variables such as age, gender, and duration of participation were inputted as control variables. The variables adopted for the summary MRA were the perception composite variables from the summation of the Likert scale multi-items questions. For all inferential analysis, statistical significance level for the study was determined at $p < 0.05$.

Results:

Table 1: Coefficients for pension funds sustainability

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
|------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-----|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 2.260 | 0.184 | | 12.265 | 0.000 | | |

| | | | | | | | |
|--|--------|-------|--------|--------|-------|-------|-------|
| Fund governance | 0.085 | 0.037 | 0.107 | 2.287 | 0.023 | 0.641 | 1.559 |
| Fund regulation | 0.033 | 0.036 | 0.042 | 0.925 | 0.356 | 0.698 | 1.433 |
| Operational efficiency | 0.314 | 0.032 | 0.402 | 9.772 | 0.000 | 0.836 | 1.197 |
| Investment strategy | -0.096 | 0.057 | -0.124 | -1.676 | 0.094 | 0.260 | 3.853 |
| Risk management | 0.137 | 0.054 | 0.192 | 2.559 | 0.011 | 0.252 | 3.967 |
| Age category 40-49 years (Dummy 2) | -0.087 | 0.058 | -0.064 | -1.497 | 0.135 | 0.767 | 1.304 |
| Age category 50 years & above (Dummy 3) | -0.195 | 0.063 | -0.134 | -3.075 | 0.002 | 0.748 | 1.337 |
| Gender of beneficiaries | -0.048 | 0.047 | -0.039 | -1.030 | 0.303 | 0.985 | 1.016 |
| years of participation in CPS | 0.093 | 0.058 | 0.067 | 1.605 | 0.109 | 0.814 | 1.228 |

Source: Field survey, 2017

Table 4.25 is a summary of all the regression results, from the independent regression analysis for each of the drivers of pension funds sustainability leading to the overall regression analysis. This table contains only the beta values and P values.

Hypothesis One (H₁): Pension fund governance exerts a positive and significant effect on pension funds sustainability.

The result of the multiple regression analysis showed a positive relationship ($\beta=0.085$) between fund governance and pension funds sustainability. Since the corresponding regression coefficient (fund governance) is statistically significant ($P=0.023$), with p-values less than the study significance level of 0.05; we therefore accept the hypothesis that fund governance exerts a positive and significant effect on the pension funds sustainability and reject the null hypothesis that fund governance does not exert a positive and significant effect on pension funds sustainability. Therefore, beneficiaries' perception of sound pension fund governance has a positive effect on their perception of the funds sustainability.

Hypothesis Two (H₂): Adherence to fund regulations exerts a significant effect on pension funds sustainability.

The result of the multiple regression analysis showed a positive relationship ($\beta=0.033$) between fund regulation and pension funds sustainability. However, the effect was not statistically significant ($P=0.356$) because the P-value is less than the study significance level of 0.05. We therefore reject the hypothesis that adherence to fund regulations exerts a significant effect on pension funds sustainability.

Hypothesis Three (H₃): Operational efficiency exerts positive and significant effect on pension funds sustainability.

Based on the result of the multiple regression analysis that is positive and statistically significant ($\beta=0.314$, $P<0.001$) with P value less than the study significance level of 0.05; we accept the hypothesis that operational efficiency exerts a positive and significant effect on pension funds sustainability.

Hypothesis Four (H₄): Effective investment strategy exerts positive and significant effect on pension funds sustainability.

Based on the multiple regression analysis that shows a negative and nonsignificant ($\beta=-0.096$, $P=0.094$) relationship (P value greater than the study significance level of 0.05), we reject the hypothesis that investment strategy exerts a positive and significant effect on pension funds sustainability.

Hypothesis Five (H₅): Proper risk management exerts significant effect on pension funds sustainability.

The result of the multiple regression analysis showed a positive ($\beta=0.137$) and statistically significant ($P=0.011$) relationship between risk management and pension funds sustainability. Since the P-value is less than the study significance level of 0.05, we therefore accept the hypothesis that proper risk management exerts significant effect on the pension funds sustainability.

Hypothesis Six (H₆): The age of members exerts a negative and significant effect on pension funds sustainability.

The multiple regression analysis ($\beta= -0.195$, $p=0.002$) showed a significant negative relationship between age and pension funds sustainability. Results from ANOVA also showed that there is a significant difference ($F=6.069$, $p=0.038$) among the three age groups in terms of perception of beneficiaries towards pension funds sustainability, with perception strongest in the younger age group than the older. Both results revealed a negative relationship. Therefore, we accept the hypothesis that age of beneficiaries exerts a negative and significant effect on pension funds sustainability.

Discussion

The empirical results of the study showed that fund governance exerts positive and significant effect on pension fund sustainability and there was a value increase for fund governance for every one unit increase in beneficiaries mean perception of the predictor (Table 4.24). This was also supported by other finding that fund governance is a good independent variable to be included in the relationship tests of significance in pension fund sustainability (Table 4.16). Beneficiaries of the Lagos pension scheme believed that the governance style adopted by the LASPEC and other licensed pension entities have been positive and compelling enough to address any concerns beneficiaries may have as regards sustainability of pension funds in the state. The sustainability of the pension funds is also strongly affected by the level of work regulators put in to ensure that information of monthly activities and market outlook are promptly reported. However, beneficiaries are still showing concern about the transparency of pension fund governance; this was evident in a significant fund sustainability perception reduction as shown in Table 4.16.

Stewart (2009) supports the claim that fund governance improves pension fund productivity. The observation that CPS is transparent was one of the governance anchor points that influenced perception about pension funds sustainability in the empirical study (Table 4.7). This view is shared by Qureshi and McKay (2007) who proposed that pension governance is about “transparency, conflict resolution and judicious management of the organizational resources that contribute to value adding for the pension fund”. These authors also observed that strategies adopted for pension and retirement management schemes could to a very large extent strengthen employees’ confidence in the management of the schemes.

The empirical results presented above revealed that one of the drivers of CPS adoption is operational efficiency. The results from the multiple regression analysis also showed that operational efficiency of the pension scheme exerts positive and significant effects on pension sustainability and the value for operational efficiency increased for every one unit increase in beneficiaries mean perception of this predictor (Table 4.24). This was also supported by other finding that operational efficiency is a good independent variable to be included in the relationship tests of significance in pension fund sustainability (Table 4.18). This outcome implies that the operational efficiency of the pension fund administrators, fund custodians and other regulators foster participation in the contributory pension scheme while exerting positive and significant effects on pension sustainability. It also indicates that a reduction in the benefits processing period has resulted in improving the method of information gathering and processing.

However, more could be done in the areas of structuring an apt internal control system, regular communication with pension beneficiaries and among regulators, stakeholders role definition clarity, service providers fee regulation, default risk control by the sponsor and implementation of investment strategies founded on necessary market research which could improve the sustainability index of CPS in Lagos state.

Earlier research findings are supportive of the report that operational efficiency improves pension system outcomes (Lusardi and Mitchell, 2007; Kimball and Shumway, 2006; Nyce, 2005).

Another implication of the empirical results that operational efficiency has significantly influenced pension funds sustainability is that pension funds regulators under the CPS arrangement may have been efficient in their offerings on account of better decision-making, transparency and member involvement; more cost competitive nature; and the reduced default risk for members (Bikker and Dreu, 2009; Mahon and Donohoe, 2006).

The study however showed that even though fund regulation appeared to positively influence pension fund sustainability with a marginal increase, the relationship was not statistically significant (Table 1, $p=0.356$). This suggests that beneficiaries in Lagos State may not sufficiently perceive the regulatory framework of the Contributory Pension Scheme as adequate and satisfactory enough to exert much effect on their perception about the sustainability of the pension scheme.

Often times, beneficiaries desire to be conversant and in agreement with rules and regulations guiding their participation in the pension scheme. However, when participants are uncertain about such rules and regulations, they may have negative perceptions which could hinder acceptance and participation in the scheme. These views have been observed and explicated by pension experts and research studies. Leonie (2012) in an effort to study the impact of regulation on the Performance of Private Pension Funds in Jamaica concluded that though regulations to some extent safeguard the assets of pension funds, there by securing retirement benefits for members, these regulations tend to place a limit on the potential earnings of pension funds, which could yield a much greater benefit for members.

The regulation of the CPS could be a favourable development. However, beneficiaries generally become sensitive when they perceive a system as becoming bureaucratic and over regulated with administrators overinvolvement in all decision making processes. Unfortunately, this is the current situation in the pension management of Nigeria. The national pension commission is at the centre of any major decision making process, such that pension funds administrators must channel all processes through the PenCom. This portrays the PFAs as not having the capacity to take initiatives on funds investment. Also, in the current pension practice by Nigeria, the final decision on when benefits are disbursed is authorized solely by PenCom, even after individual clearance by the Lagos State Pension Commission. Unfortunately, this most times causes delay in beneficiaries' receipt of their entitlements; accounting for the outcome of negative perception on pension sustainability by some participants in this study (Table 4.6).

There should be avenues for more feedback to beneficiaries regarding management of funds. It may appear that the pension funds administrators are too distant from beneficiaries and when otherwise, the beneficiaries are unable to access the administrators. One key access avenue is the presence of a transfer window in the PRA. A transfer window provides opportunity for an unsatisfied beneficiary to migrate from one pension funds administrator to another. It gives beneficiaries a pathway to react when they are dissatisfied about decisions regarding terms or returns on investment.

Unfortunately, the transfer window is yet to be opened in the scheme. Its availability would provide competition amongst PFAs as they constantly employ strategies to retain beneficiaries on client-basis. The availability of the transfer window would be a huge advantage for the contributors as they will constantly evaluate the best

performing administrator. Therefore, the national pension commission might be doing a great disservice to the scheme and the beneficiaries by delaying opening of the transfer window which has the potential of revolutionizing the scheme. Kemna (2015) posited that in order to foster opportunities for long-term investment while ensuring stable, sound, and safe financial markets, pension funds and regulators must work together. When drafted and applied correctly, fund regulations can be used as effective tools for restoring and maintaining confidence, whilst paving the way for citizens to meet their future financial needs. Fund regulators must also endeavour to avoid unintended consequences of regulations at all times. The total impact on long-term investment of all individual pieces of regulation must be well understood and unnecessary rules which cause needless constraints and ultimately a loss of return for pensioners be removed. The empirical findings indicated that there is a negative relationship between investment strategy and funds sustainability, with beneficiaries perception of funds sustainability reducing for every unit increase in investment strategy (Table 4.24) – the chance of Lagos contributory scheme reduces for every poor decision pension administrators take on how and what to invest pension funds in - beneficiaries also lose confidence in the ability of the scheme to provide future financial needs. Every fund should be able to preserve value by benchmarking inflation in terms of growth of the funds. In the Nigerian context, investment strategy is not significantly contributing to employee perception of pension funds sustainability because there is no preservation of values. Every good investment strategy should support good funding. In Nigeria, the assets classes appear to be government-related and investments are in government bonds, treasury bills and related assets. This is reflected in Table 1.2, which provides a summary of Pension Fund Assets as at February 2017 where about 59.0% of investments were in government bonds, 13.5% in treasury bills and barely 1.0% in foreign assets; all of which may be unable to benchmark inflation.

Conclusion and Recommendations

In summary, the study found a strong and positive perception of the Contributory Pension Scheme (CPS) among beneficiaries in Lagos and most beneficiaries are highly optimistic that the CPS scheme will provide pension income post retirement. Motivation and continuous participation in the Contributory Pension Scheme are driven by beneficiaries' satisfaction with the pension fund governance, regulation, operational efficiency, investment strategy and risk management. In conclusion, beneficiaries' perception of funds sustainability by the Lagos State Contributory Pension Scheme is significantly predicted by fund governance, operational efficiency and risk management, while fund regulation and investment strategy exert positive and negative effects respectively, though not significantly. The Lagos Contributory Pension Scheme can be taken as an example of the success story of pension reform and obviously a possible template for scale-up to other states of the Federation.

The major investigative contribution of this study is the all-inclusive and internally-consistent manner of pension reforms. When all the constituent elements are considered together, it becomes easy to comprehend the ambiguities which can be explored and the inherent risks posed by specific policies. Most extant literature has chosen to focus on how best the pension systems can combat the scourge of outdated transition. This study has chosen to focus on discussing the actual vital question: what are the achievements of the contributory pension scheme in Lagos State, and at what costs have these been realized? The "at what costs" part of the question seems varied from what seems normal *ab initio*. Rather, policymakers are expected to focus on what pension funds can genuinely achieve and respond in a manner that alters individual behaviour so that public provision changes are compensated for by private actions.

This study proposed a pension sustainability framework which permits analyses of numerous other questions engendering extensive and thorough analysis of the effects of reforms on pension stakeholders. The framework leverages on several facets, but it is not considered as a point of reference. The major objective of the framework

is to capture as many potential implications for reform as possible in order to estimate latent burdens which could weigh down future policymakers. The framework also helps to map the premeditated strategic decisions of policymakers in achieving lasting stability.

Furthermore, the assessment framework in this study has made sustainability the central focus of its analysis. Despite being the major long-term determinant of pension size transfers, sustainability has often been ignored in many of the extant literature which dealt with the issue of pension reforms. By focusing on „point-in-time“ indicators such as potential theoretical replacement rates at retirement and spending as a percentage of the national output in some future years, this study has limited insight on the complete effects of the increase of longevity on pension adequacy and financial sustainability. The failure of most studies to use pension wealth raises the debate that pension transfers to future generations have declined due to recent reforms and that the reforms have tackled the extra financial costs brought about by ageing. The findings in this study deviate from previous conclusions as it shows that while many governments have tried to alleviate future burden on taxpayers, the increase in longevity implies that the relative size of pension transfers will be largely the same, excluding countries with very large projected spending (where policymakers have aggressively made reductions). A look at the projected levels of pension wealth is also an indication of the fact that some systems remain very defenseless to longevity shocks.

References

- Adams, R.A. (2005). *Public Sector Accounting and Finance*, Lagos, Corporate Publisher Ventures.
- Adebayo, Y.K. (2006). *Essentials of Human Resource Management*, Benin City. Weliscops services.
- Bikker, J., & Dreu, J., (2009). *Operating Costs of Pension Funds: The impact of scale, governance and plan design*. Journal of Pension Economics and Finance. (8)63-89.
- Bikker, J., & Dreu, J., (2009). *Operating Costs of Pension Funds: The impact of scale, governance and plan design*. Journal of Pension Economics and Finance. (8)63-89
- Eaton, T.V., & Nofsinger, J.R. (2001). *An Examination of ERR and Asset Allocation in Public Pension Plans*. Financial Accountability and Management. 17(2):119-132
- Kakes J. (2006). *Financial Behaviour of Dutch Pension Funds: A disaggregated approach*. DNB Working Paper. No. 108.
- Kasiulevičius V., Šapoka V., Filipavičiūtė R. *Theory and practice: Sample size calculation in epidemiological studies*. Gerontologija 2006; 7(4): 225–231.
- Kemna, A., (2015). The impact of regulation, April 2015 commentary, McKinsey & Company
- Kyiv(2003). Pension Investment Regulation: Collection of Data and Recommendations. USAID.

- Leonie, A.N., (2012). *The Impact of Investment Regulation on the Performance of Private Pension Funds in Jamaica*. University of the West Indies, Mona.
- Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement planning: New evidence from the Rand American Life Panel.
- Mangiero, S. (2006). Pension Risk Management: Necessary and Desirable. *Journal of Compensation and Benefits*. March – April pp. 7-11.
- Maurer, R., Mitchell, O. & Rogalla, R., (2009). *The Effect of Uncertain Labor Income and Social Security on Life-cycle Portfolios*. Pension Research Council PRC WP2009-06.
- Nyce, S. (2005). The Importance of Financial Communication for Participation Rates and Contribution Levels in 401 (k) Plans. Pension Research Council PRC WP 2005-3.
- PenCom (2016). PenCom third quarter report 2016
- Rabelo, M.F. (2002): Comparative Regulation of Private Pension Plans.
- Springer, T & Cheng, P. (2006). *Real Estate Property Portfolio Risk: Evidence from REI*