

Gender Perceptions and Duration of Participation as Determinant of Contributory Pension Scheme Sustainability in Lagos State Nigeria

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Abstract

Considering the pension reform in Nigeria and the adoption of the Contributory Pension Scheme (CPS), establishing sustainability from the point of view of beneficiaries was an issue to be considered. With a focus on pension funds sustainability, this study assessed gender perceptions and duration of participation as determinant of contributory pension scheme sustainability in Lagos state, Nigeria.

The study was guided by a positivism paradigm. Quantitative data was collected by administering survey questionnaires to CPS beneficiaries from Lagos State civil service. Using a five-point Likert scale, questionnaire items measure respondents' perception of pension funds sustainability. Data were processed and analyzed using Statistical Package for Social Sciences (SPSS). Hypotheses were tested and confirmed using Student's T-test and Analysis of Variance (ANOVA).

Empirical findings showed that beneficiaries have a strong perception of the CPS in Lagos State, and that most beneficiaries are optimistic that the scheme would provide income, post-retirement. Female beneficiaries do not perceive pension funds sustainability differently from their male counterparts. This also indicates that there is no statistical association between gender status and perception towards pension fund sustainability. Also, The finding shows that on average, beneficiaries with more than five years' experience of participation in the scheme had superior perception of pension funds sustainability than

beneficiaries who had participated in the contributory scheme for five years and less. Lastly, there was an association between the age category of beneficiaries and their perception towards sustainability of the CPS. Therefore age seemed to exert a significant effect on pension funds sustainability.

Appropriate recommendations were made.

Keywords: Gender, Duration, Contributory Pension Scheme

Introduction

Pension is a fund set aside by an employer or a worker which is meant to sustain the worker after retirement (Cowdell, 2000). Pension reforms are constant paradigm shifts informed by a change in the political and economic climate of a country. Pension issues have generated debates and created banter in the context of funding, resource administration, disbursement of benefits and sustainability. A pension scheme can be in the variant of a defined benefit plan or defined contribution plan. The defined benefit plan sets aside a certain fixed percentage of the worker's earnings or salary during the first 3 years of worker's earning years. On the other hand the defined contribution plan is a fixed contribution rate which allows fund managers to invest the contribution and the earnings at retirements. It is a function of the return on investment (ROI) (Owojori, 2008).

In many nations, the pension plan is secured by an obligatory public scheme, which is normally supported by occupational pension plans. The degree to which occupational pension plans support public plans differ significantly among advanced countries. In advanced economies, assessing any of the pension schemes among the working populace is often adequately done (Schwarz, 2003).

The overarching objective of any pension plan is to give recipients a sufficient income stream amid the post-occupation period (Abatamarco, 2009). For funded pension plans, this requires evaluation of what the proper contribution rates (as a proportion of the monthly income) into the pension fund ought to be in order to meet sufficient earnings during retirement. For DB plan, any shortfall in the pension fund emerging from poor returns on investment pension resources turns into a liability for the sponsor of the pension plan. For DC plans, workers bear the risk that the post-occupation income can be lower than the expected or budgeted earnings. 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 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).

(Provide a definite date here e.g. in 2018), a new pension system commenced in Chile and some neighbouring Latin American countries. This was contributory in nature and it was run by authorized private sector bodies and being personalized to the contributor. The first African country to adopt a variant of the Chilean system is Nigeria which was adapted to have some African peculiarities. This commenced after the pension reform of 2004. Several other countries have also adopted various forms of the contributory pension schemes that warrant payment of a certain percentage of workers' monthly earnings to retirement savings accounts by both employers and their employees. It is from these accounts that retired workers would draw their pension benefits upon retirement. Besides, pension funds are a part of the most essential institutional investment in capital markets all over the world (Klumpes and Mason, 2000).

1. What are the predictors of sustainability of the contributory Pension Scheme in the context of Lagos State?
2. What is the relationship between beneficiaries' Age, Years of Participation, Gender and sustainability of the Contributory Pension Scheme in Lagos State?

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: Analysis of differences in the mean responses of female and male beneficiaries' perceptions on pension funds Sustainability

	Gender distribution of CPS beneficiary	Number	Mean	SD	Mean difference
pension funds Sustainability	Male	286	4.23	0.63	0.01
	Female	232	4.24	0.61	
Student T-test = 0.191		df = 516	P = 0.846 (not significant)		

Source: Field survey, 2017

From the analysis of the T-test result in Table 1, there was no significant difference in the mean scores on the perceptions of the male and female beneficiaries towards sustainability of pension funds. The analysis showed that although female beneficiaries have a slightly higher average score (mean=4.24) than male beneficiaries (mean=4.23); a difference of 0.01; this difference was not statistically significant (that is a non-significant value, P=0.846). In other words, female beneficiaries do not perceive pension funds sustainability differently from their male counterparts. This also indicates that there is no statistical association between gender status and perception towards pension fund sustainability.

Table 2: Analysis of differences in the mean responses of duration of participation in CPS and perceptions on pension funds Sustainability

	Duration of participation in CPS	Number	Mean	SD	Mean difference
pension funds Sustainability	5 years or less	142	4.13	0.65	0.14
	above 5 years	376	4.27	0.60	
Student T-test = 2.310		df = 516	p=0.021 (significant)		

Source: Field survey, 2017

From the analysis of the T-test result in Table 2, there was a difference in the mean scores of beneficiaries in terms of the duration of participation in the contributory pension scheme. The analysis showed a difference of 0.14 in the mean between beneficiaries who have participated in the scheme for less than five years (mean=4.13) and those who had participated for more than five years (mean=4.27). This difference was statistically significant (P=0.021). This finding shows that on average, beneficiaries with more than five years' experience of participation in the scheme had superior perception of pension funds sustainability than beneficiaries who had participated in the contributory scheme for five years and less.

Table 3: ANOVA test on relationship between age groups pension funds Sustainability

	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
≤39 years	246	3.92	0.83	3.77	4.07
40-49 years	151	3.88	0.65	3.77	3.98
50 years and above	121	3.80	0.78	3.70	3.90
Total	518	3.85	0.76	3.78	3.92
ANOVA (F) = 6.069		df = 2, 515		p= 0.038 (significant)	

Source: Field survey, 2017

Young people aspire for a future that can assure them of welfare especially for the future. Empirical finding from this study showed that there is a stronger perception among the younger beneficiaries towards the sustainability of the Contributory Pension Scheme. This perception may drive

participation in the pension scheme, more so because younger beneficiaries have a stronger motivation than the older population to participate in the pension scheme.

This observation was drawn from the result of the ANOVA presented in Table 3. The ANOVA result showed that the mean perception of the CPS is different for the different age brackets of beneficiaries; $F(2, 515) = 6.069$, $P = 0.038$. There is a statistically significant difference ($p = 0.038$) among the three age groups in terms of perception of the financial and operational sustainability of the pension funds. There is higher perception in the younger age group than the older which appeared to decline with increasing age. Perception was highest among beneficiaries less than 39 years old (mean = 3.92) compared to those between 40-49 years (mean = 3.88) and lowest among beneficiaries 50 years and above (mean = 3.80). In other words, these observations also indicated that there was an association between the age category of beneficiaries and their perception towards sustainability of the CPS. Therefore age seemed to exert a significant effect on pension funds sustainability.

This could be explained by the possibility that the younger beneficiaries feel more comfortable with the CPS because they have longer periods of contribution bearing the available market risks. The older age groups hardly have the luxury of time, so may be more cautious of risks that contributory pension funds are exposed to.

Discussion

This section discussed the link between study findings and the second research question. In response to the research question - what is the relationship between beneficiaries' Age, Years of Participation, Gender and sustainability of the Contributory Pension Scheme in Lagos State? – the finding was that there is a direct relationship between pension fund sustainability and the age of beneficiary. Also, pension fund sustainability was related to beneficiary's years of participation in the pension scheme. However, study findings did not show any justifiable evidence to suggest a direct/acceptable relationship between beneficiary gender and sustainability of the pension scheme.

Empirical findings showed a negative but significant relationship between age and pension funds sustainability. Perception was strongest in the younger than the older age groups. There was no significant evidence to conclude that male gender showed stronger perception towards pension funds sustainability than female gender (Table 1). Similarly, beneficiaries' years of participation in the CPS do not significantly influence the perception on pension fund sustainability though beneficiaries who have participated in the scheme for over five years had better perception, as highlighted in Table 2

Beneficiaries were more concerned about the outcome of the investment decisions made on pension resources and the financial outcome such as profitability and sustainability. Beneficiaries were also more particular about the governance, regulation, operational efficiency, investment strategy and risk management to which pension assets are subjected. The observation on gender participation is further evidenced by the study findings as male participation in the scheme is just marginally higher than female participation. The small gap in participation suggests that women have a competitive chance to participate in the pension programme and equally have livelihood and future economic concerns as men.

However, women may be slightly disadvantaged in terms of how long they stay in pension programs and this may affect their pension entitlements especially because of their reduced paid employment engagement when compared to men. This observation was noted by Arza (2015) in a United Nations women study. Arza explained that women labour market participation rates vary across the world – generally lower in many regions and higher in others – there is still a noticeable gender gap as women generally have intermittent work life and exit the labour market early, often times to take up family responsibilities - these compromise their earnings and pension benefits.

Overall, younger people feel more comfortable with the CPS because they have longer periods to contribute and bear the risks that are available in the market. The older age groups hardly have that luxury of time, so are very cautious and careful of risks that may befall the pension fund in the CPS. In this study, age exerts significant influence on pension funds sustainability and this is in agreement with

the extant literature as some authors posited that age of individual beneficiary influences pension outcomes significantly especially in terms of investment strategy. Whelan (2005) and Charles et al (2006) agree with this finding as they reported greater efficiency in pension funds with younger members than those with older members due to aggression in the latter's investment strategies. Charles et al. (2006) further confirmed that pension funds with younger members yield robust investments while those with older members have a conservative nature, hence restraining their returns on investments. Whelan (2005) concluded that pension funds with more youthful individuals can put more in values and more unsafe resources instead of the ones with more ageing individuals who put more in altered return securities and ensured funds. The age of the individuals in pension funds can influence the investment strategy and the ensuing levels of effectiveness.

Conclusion

The study established that age of a beneficiary and the number of years the beneficiary has participated in the scheme. Beneficiaries who have participated in the scheme for more than five years have superior perception of pension funds sustainability) are also predictors of participation in the Lagos State contributory pension scheme. Study findings showed that the younger participants in the Lagos State pension scheme have stronger perception of the financial and operational sustainability of the pension funds than the older population. The influence of age as a predictor of pension fund participation appeared more evident by the large representation of youthful population in the national pool. PenCom (2016) report showed that about three quarter of pension beneficiaries are below fifty years of age.

Recommendations

Despite the success story, more can still be done to improve the Contributory Pension Scheme in Lagos state. One of which is to ensure workers and retirees are continuously and adequately enlightened on the scheme and benefits. Moreover, there must be consistent monitoring and continuous implementation of guiding policies to ensure effective operations and transparency in investment, as all these promote participation and funds sustainability.

Also, there should be periodic training and annual strategic retreats for pension fund managers, pension fund custodians and key stakeholders in charge of managing pension funds especially in the context of investment decisions. These recommendations will contribute to the forward moving momentum in ensuring pension sustainability in Lagos State and Nigeria as a whole.

References

- [1] Abatamarco, A. 2009. *Measurement issues for adequacy comparisons among pension systems*. ENEPRI Research Report No. 64. Brussels: Centre for European Policy Studies.
- [2] Adams, R.A. 2005. *Public Sector Accounting and Finance, Lagos*, Corporate Publisher Ventures.
- [3] Adebayo, Y.K. 2006. *Essentials of Human Resource Management, Benin City*. Weliscops services.
- [4] Arza, C. 2015. *The Gender Dimensions of Pension Systems: Policies and Constraints for the Protection of Older Women*. Discussion Paper, UN Women flagship report *Progress of the World's Women 2015-2016*, Interdisciplinary Centre for the Study of Public Policy and CONICET, Argentina
- [5] Cowdell, J. 2000. *Investment*. 5th Edition, Bankers Books, CIN Publishers
- [6] Fox N., Hunn A., & Mathers N. 2007. *Sampling and sample size calculation*. The NIHR RDS for the East Midlands / Yorkshire & the Humber.

- [7] Kasiulevičius V., Šapoka V., Filipavičiūtė R. *Theory and practice: Sample size calculation in epidemiological studies. Gerontologija* 2006; 7(4): 225–231.
- [8] Klumpes, P.S.M. and S. Mason (2000): Fair Value Reporting by Pension Fund Managers: UK Evidence; Research Report ACCA
- [9] Owojori, A. (2008). *Risk Management in Pension Fund Administration in Nigeria*. Adekunle Owojoro & Co. Nigeria.
- [10] PenCom (2016). PenCom third quarter report 2016
- [11] Rabelo, M.F. (2002): Comparative Regulation of Private Pension Plans.
- [12] Weller, D. (2005). *Sensible Funding Rules to Stabilize Pension Benefits*. Center for American Progress.

ach's alpha "reliability coefficient ranges from 0 to 1" (George and Mallery, 2003). Consequently, the closer the alpha coefficient is to 1.0, the more prominent the inward consistency of the items in the scale.

The general evidence from literature suggests that a Cronbach's alpha coefficient of 0.70 and higher can be considered adequate and acceptable, as this agreed with the practice in most social science research situations, although some authors are of the opinion that higher values of scores from 0.90 should be the norm (Tavakol and Dennick, 2011). However, some authors suggested that a Cronbach's alpha coefficient of 0.50 was adequate for fundamental exploration (Pierce and Dunham 1987; Tharenou 1993). Having considered the different schools of thought on an alpha score that could be considered adequate, this study agreed with the generality of literature that suggest an alpha score of 0.70 and above should be accepted for a social science study. Therefore, a Cronbach alpha score of 0.70 was adopted for the study.

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. A One Way Analysis of variance (ANOVA) was conducted to test for the mean difference in the age group category.

A Multiple Regression Analysis (MRA) was used as the final test for hypothesis testing and to determine the relationship between the perception items and pension funds sustainability. In the summary Multiple Regression Analysis for the study; the pension fund sustainability was the dependent variable, while fund governance, fund regulation, operational efficiency, investment strategy and risk management were inputted as the independent variables. 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 $p < 0.05$.