Review of Pension Systems in Institutions of Higher Learning: Key Lessons for Zambia

Romeo Yohane[1], Bupe G Mwanza[2] and Taonaziso Chowa[3]
Graduate School of Business, University of Zambia,
G.E.R Campus, P.O. Box 32379,
Lusaka Zambia.
romeoyohane@gmail.com

Abstract

Old age poverty is inevitable in Africa, so is the need for pension provision. The three main public universities (UNZA, CBU and MU) in Zambia are facing financial challenges mainly due to the pension systems adopted by these institutions of higher learning. In order to curtail the high growth rate of the pension debt, the government expressed the need for pension reform in the three universities. The objective of this paper was to draw lessons from pension systems adopted by institutions of higher learning outside Zambia. This was a qualitative study that focused mainly on the number of pillars adopted by the institutions of higher learning of the selected countries. AN analysis of the results indicated that most institutions of higher learning have at least a two-pillar pension system. Further, the results revealed that the UK and USA have associations of universities and colleges that play a vital role in the pension reform process. The research concludes that saving for retirement is a collective responsibility of both employers and recommends for the work on pension reform to be continued in light of experiences of other countries.

Keywords
Pension Systems, Pillar, Reform, Higher Learning Institutions, Zambia

1.0 Introduction
During the year 2017, the Government of Republic of Zambia (GRZ) pronounced the new financing strategy for public universities whose aim was to improve the financial position of three public universities namely University of Zambia (UNZA), Copperbelt University (CBU) and Mulungushi University (MU), (Ministry of Higher Education, 2018). Amongst the objectives of the New Financing Strategy was to abolish the in-house pension schemes and remain with the National Pension Scheme Authority (NAPSA). The call to abolish the occupational pension schemes by GRZ, was a call for pension reform which inevitably affects the post-employment life of the employees of the universities. Higher education is part of the key factors that aids Zambia achieve its Vision 2030 as per the 7 National Development Plan (7NDP) 2017 to 2021 (Ministry of National Development Planning, 2017). Zambia has identified enhancement of human capital development as one of the five (5) pillars that can enable the country achieve its Vision 2030. The 7NDP clearly states that country needs to build appropriate skills that respond to the demands of the labour market. Building skills that respond to the demands of the dynamic labour market is one of the functions of higher education sector (The Higher Education Act, 2013). Consequently, policy reforms to the institutions of higher education in Zambia need to consider the possible impact of the pension reforms that may negatively affect the public universities. If the pension systems in the public universities point to a poverty-filled post-employment life of the current employees, the consequences of high employee turnover may become the norm in the public universities. Gradually, the national agenda is negatively affected.

The call for pension reform by the Government of Republic of Zambia was due to the financial challenges faced by both government and the public universities. For instance, the 2017 audited (latest) financial statements of the University of Zambia state that the institution owed K1.28 billion in pension related debt (Grant Thornton, 2017). The 2018 budget for the Ministry of Higher Education (MoHE) was approximately K1.970 billion of which 72.6% (K1, 430 million) was allocated to University Education (all public universities). Clearly, this shows that the pension systems are a source of financial challenges for the public universities and there is a need for pension reform. That need was further compounded by the impact of Covid-19 pandemic on the performance of pension schemes. Feher and de Bidegain (2020) argue that policy-makers should be prepared to face the impact of Covid-19 pandemic on the sustainability and adequacy of public pension expenditure. Feher and de Bidegain (2020) further note that this crisis exerts pressure on the funded pensions schemes due to a possibility of lower returns which invetiably diminish the asset values. Consequently, lower yields result in acturial deficits which financially constraint the sponsoring employers. Therefore, with current Covid-19 pandemic, it is invetable that the pension reform is necessary.

1.1 Objective

The objective of this paper is to draw lessons from the pension systems in other countries for policy-makers in the public universities (UNZA, CBU and MU) in Zambia. To achieve this objective, the paper seeks to answer two questions; w*hat pension systems (pillar system) exist in the institutions of higher learning in developed countries and what lessons can the public universities in Zambia draw from the developed world?*

2.0 Literature Review

The literature review focuses on the questions that this paper seeks to answer, however, it is imperative that the term pension is defined in the context of this paper.

2.1 Pension Systems

Okpaise (2005) views a pension as an arrangement that provides regular income to retirees. Pension is a voluntary benefit offered by employers to assist employees in providing for their financial security in retirement (Topoleski 2018). Cambridge Dictionary (2019) defines pension as a sum of money paid regularly to a person who has retired, meaning he/she stopped working because of having reached a certain age. According to the International Labour Organisation (2019) pension provides individuals with regular (periodic) income when they have reached retirement age and are no longer earning a steady income. Zambia Pension Scheme Regulation Act does not give a clear definition of pension but defines pension scheme as any private, occupational or personal defined benefit or defined contribution pension scheme or savings plan. A clearer definition is provided by the Public Service Pensions (PSP) Act 1996 that defines pension as an annual pension payable during the lifetime of the recipient. Therefore, this study is inclined to the definitions advanced by ILO and Cambridge Dictionary as these definitions place emphasis on income after retirement.

2.2 Pension Pillars

According to Holzmann et al. (2008), pension pillars are the modalities of achieving the objectives of a pension system, which includes reduction of old age poverty. The number of pension pillars differs depending on the framework an organisation chooses to adopt. The World Bank, International Labour Organisation (ILO), Organisation for Economic Co-operation and Development (OECD) having invested so much in pension research and recommend different pillar systems.

The World Bank and ILO have recommended different models of the pension system. The World Bank's Conceptual Framework recommends a Five-Pillar system while ILO's Multi-Pillar Pension Model recommends a Four-Pillar system (Holzmann 2008, ILO 2019). Although these two key players have slightly different models, they agree that the pillars deliver the promises of reducing old age poverty. OECD (2005) has developed a taxonomy that focuses more on the role and objective of each part of a pension system than the concept of the pillars. OECD therefore recommends two mandatory tiers and insurance part. This paper will focus on the multi-pillar models advanced by both the World Bank and ILO. The pillar system developed by the OECD, World Bank and ILO are summarised in Table 1 below:

Table 1: The World Bank and ILO Multi-Pillar Models

Pillar	OECD (the EU)	The World Bank	International Labour Organization(ILO)
0 Pillar		Non-contributory basic benefits financed by the state, fiscal conditions permitting.	Social protection floor for older persons. Non-contributory pension scheme financed by the national budget. This pillar guarantees a minimum level of income
1st Pillar	Publicly managed pension scheme with DB and PAYG finance, usually a payroll tax	Mandatory earnings linked DC with minimum pension guarantee or flat benefit. Publicly managed & PAYG.	Mandatory DB financed by employer and employee contributions. Provides at least a minimum pension at 40 per cent of pre-retirement insured income
2nd Pillar	Privately managed pension which are provided as part of an employment contract.	Mandatory personal savings (DC) or occupational plan (funded DB) plan privately managed.	Complementary pillar with contributory component. Can be voluntary or mandatory, employment-based occupational or non-occupational, defined-benefit or defined-contribution plans
3rd Pillar	A personal pension plan in the form of saving and annuity schemes.	Voluntary, individual account (personal savings plan or Occupational plan), privately managed.	Voluntary Personal Savings Pillar. Managed by private pension administrators under full market competition and government regulation.
4th Pillar		Informal support e.g. family support, (such as family), other formal social programs (such as health care or housing), and other individual assets (such as home ownership and reverse mortgages).	

Source: (OECD, 2005; World Bank, 2008 and ILO; 2019)

As indicated by the different pension models in Table 1 above, the design of the pension system is to reduce old age poverty through various pillars or tiers. Developed countries have gone a step further by improving the living standard of the retirees by introducing insurance in the pension design. The World Bank, ILO and OECD may differ on the approach, but certainly agree on the objectives of a pension model whose aim is to improve the pensioners' life.

2.3 Review of Selected Pension Systems

Understanding how other countries undertook their pension reform process is key to developing or reforming pension system. This section looked at some of the pension reform experiences from a few selected countries with bias towards the pillar system. Holzmann et al. (2008) states that pension pillars are the modalities of the achieving the objectives of a pension system. This discussion is relevant to the policy-makers in the institutions of higher learning in Zambia.

2.3.1 Chilean Pension Reform

FIAP (2019) reveals that Mercer Global Pensions Index ranks Chile pension system eighth in the world. The sub-indices used for this ranking comprise of adequacy, sustainability and integrity. The 2018 Mercer Global Pensions Index show that Chile has good sustainability indicators, but the adequacy indicators were below the average of the countries included in the analysis. The recent structural reforms are evidence of the attempt by Chile to address the adequacy issues. According to OECD (1998), Chile had a pay-as-you-go or unfunded pension system that was driven by different occupational pressure groups, each with unique benefits entitlement. The Chilean pension system faced sustainability challenges which gradually resulted in increase of contributions rates, and inevitably the evasion of contributions and fiscal challenges, forced the pension reform of the 1980s. The major reforms included raising the retirement age to sixty-five (65) and setting uniform rules for all members of the pension schemes (OECD, 1998). More importantly, Chile liberalised the pension system by introducing capital accounts managed by private companies, (OECD, 1998). To preserve the pension savings, the Chilean government introduced high regulation of the pension funds and financial markets (OECD, 1998). OECD (1998) states that Chile introduced guarantees to the scheme members in terms of the minimum pension benefits entitlement to ensure that the financial obligation of the pensioner was fulfilled in an event that a fund manager was declared bankrupt. According to ICPM (2018), Chile undertook another structural reform to enhance its pension system by introducing two more pillars. Chile introduced the first pillar, which is mainly redistributive meant to provide social security to 60% of the most impoverished population (ICPM, 2018). ICPM (2018) notes that Chile later undertook another structural reform by introducing a voluntary third pillar for individuals wishing to increase their pension savings. The two other pillars introduced, compensate for the shortcomings of the second pillar which before the recent reform, and was the only pillar.

2.3.2 United Kingdom's Decades of Pension Reform

Blake (2000) states that the UK was the first country in the western world to confront a head-on crisis of the state pension provision. Blake (2000) notes that the major reforms included the linkage of state pension growth to prices rather not national average earnings (Social Security Act, 1980). Furthermore, the UK raised the state pension age from sixty (60) to sixty-five (65) for women over a ten-year period commencing in 2010 through the Pensions Act of 1995. Blake (2000) states that another key reform was the relaxation of the occupational pension schemes by abolishing the requirement to guarantee minimum pensions. Additionally, the UK enabled members of the occupational pension plans to join personal pension plans through the introduction of Social Security Act of 1986. The UK introduced more structural reforms by introducing the automatic enrolment of employees into National Employee Savings Trust (NEST) an occupational pension schemes (World Economic Forum, 2017). World Economic Forum (2017) notes that the UK planned for further parametric reforms by raising contribution rates on qualified earnings from 2% to 5% (2018) and 8% (2019). Crawford, et al (2020) state that there has been major pension reforms to the pension policy in the UK, however, the major reforms undertaken relate to increases in the pension age; introduction of the new state pension; pension freedoms, automatic enrolment and public service pension reforms. Crawford et al (2020) argue that consequently, this reduces government's burden on the old-aged as employees would have saved for their retirement.

2.3.3 Denmark

The 2019 Melbourne Pension index places the Danish pension system in Grade A together with the Dutch pension system rated using the sub-indices of adequacy, sustainability and integrity. World Economic Forum (2017) states that Denmark introduced a statutory defined contribution fund, ATP in 1964 in order to supplement the tax-funded old-age pension system. Kangas, et al. (2010) and the Danish Insurance Association (2012) argue that the major structural reforms were implemented from 1987 onwards by introducing mandatory private occupational pension schemes to all employees in the country. Kangas et al. (2010) argue that these reforms were motivated by the deficit on the balance of payments which in a way called for low to no salary increments. Kangas et al. (2010) state that the loss of salary increment required a trade-off, which was introduced in the form of the occupation pension schemes. Kangas et al (2010) states that for this reform to be successful, the private occupational pension schemes were made available to all employees through their various collective agreements. Holzmann et al. (2008) notes that there are a number of planned parametric changes to the Danish pension system which will be implemented between 2019 to 2027 such as raising the statutory pension age by two years in the period 2024–27.

2.3.4 Ghana

Ghana introduced a three-tier pension system in the year 2009 by merely adding two more tiers in addition to the already existing first tier (Kpessa, 2011 and IOPS, 2011). According to IOPS (2011), the 2009 reforms were driven by the need for universal pension coverage. Consequently, Ghana introduced a mandatory DB social security pension scheme managed by a statutory body. According to Kpessa (2011), the second mandatory tier operates in the same way as the Chilean second pillar. Kpessa (2011) argues that though this is a positive step, Ghana's financial markets are not highly developed to yield the desired pensions benefits. Kpessa (2011) further explains that there is a need to restrict the administrative expenses that are charged to contributors' funds. The reason being, this reduces the plan assets that liquidate the pension financial obligations when they fall due. The third tier is voluntary and takes the form of an individual capital accounts. Although this tier is a voluntary one, the regulations have set the minimum contributions for employees in the formal sector at 16.5%. Participants from the informal sector contribute 35%. Anke-Tsede et al. (2015). The pension reform in Ghana has achieved the required universal coverage though the coverage is restricted mainly to the employees in the formal sector. The parametric change of introducing a higher contribution from the employers, reminds employers of their obligation towards the post-employment life of their employees. The structural reforms of introducing a mandatory second tier and a voluntary third tier with a statutorily prescribed minimum contribution enhances adequacy.

2.3.5 Zambia

Stewart and Yermo (2009) argue that Zambia commenced its major structural pension reforms in the 1990s that transformed the provident fund system into a pension system. The provident system operated under the name Zambia National Provident Fund (ZNPF) and was in effect from 1966 soon after the country attained independence. Zambia commenced phasing out of ZNPF by the enactment of the National Pension Scheme in 1996. The National Pension Scheme Authority through NAPSA Act of 1996 administers NPS which was implemented in 2000, the same year the country also enacted the Pension Insurance Authority Act (PIA Act). The national social security targets employees both in the formal and informal sector as long as one earns K15 or more. It is a contributory scheme, with employee and employer each contributing a maximum of 5% bringing the total contribution to 10%. However, the contributions are tied to a ceiling, for instance the 2021 ceiling is either the highest of the 5% or K1, 149.60 per month. Although PIA (2018) acknowledges the role played by the 1990s reforms, the regulator expresses concern over challenges faced by retirees such as delayed liquidation of pension income. Retirees always experience endless long queues, thereby eroding the people's confidence in the pension system. PIA (2018) argues that there exist corporate governance challenges that must be addressed by skills gap analysis among trustees for occupational pension schemes. The regulator also bemoans the delays in the promulgation of legislation. Furthermore, PIA acknowledges that the actuarial assumptions are not being realised due to the volatility of the economic environment, which results in the underperforming of plan assets. On a positive note, Zambia's young population gives the country opportunities for reform. PIA (2018) argues that there is room for expansion of economic activities, which can result in more scheme members. The regulator is of the view that micro pension schemes can be introduced to reach out to the informal sector.

2.3.6 Pension System in Institutions of Higher Learning in Other Countries

This section discussed some of the pension systems existing in the institutions of higher learning in the UK, Israel and United States of America. The selection criteria was based on the detailed research undertaken by these countries in relation to the pension systems in the institutions of higher learning.

2.3.7 United Kingdom

In the United Kingdom, Universities (UUK) and the Universities and Colleges Employers Association (UCEA) are responsible for ensuring that the pension provision for its members is sustainable and attractive (EPF, 2017). EPF (2017) states that the higher education sector provides the superannuation scheme for academics and self-administered trusts for non-academics. The schemes are DB plans with different contribution rates across all the institutions. EPF (2017) reports that the Universities Superannuation Scheme (USS) is a multi-employer scheme, with a subscription of three hundred and fifty-four (354) employers. These schemes have continued to face challenges such as actuarial deficits, to which the EPF recommends pension reform in the higher education sector in line with the principles of pension reform set out by EPF. These principles include long-term sustainability, predictability, stability, choice and control of a pension from employees' perspective. One of the key recommendations from EPF's survey is that pension reform is subject to discussion and negotiation. EPF (2017) further recommends that pension reform should focus on sustainability, the needs of the current and future employees. University and College Union and UUK (2019) state that the USS continues to face challenges, but, the stakeholders are committed to resolving the problems collectively.

2.3.8 Israel

At national level Israel runs a two pillar pension system consisting of universal pension in pillar one and compulsory relative pillar two for occupational pension schemes (Spivak and Troitsky, 2013). According to the European Commission (2017), Israel runs a 'cumulative pension' system for employees in the institutions of higher education. The employee's benefits are based on accrued pension contributions from the employees and employers. In a nutshell, the institutions of higher learning in Israel have a two pillar pension system.

2.3.9 United States of America

United States of America (USA) offers a three-pillar pension system consisting of public (social security and means-tested top-up) pensions in pillar one while pillar two consists of voluntary occupational plans (IOPS, 2017; OECD, 2019). IOPS (2017) further notes that the third pillar is a voluntary one for private pensions. A survey conducted by the National Education Association (NEA) in 2016 reveals that most Universities in the USA offer DB plan under pillar two. Seventy-three percent (73%) of the surveyed institutions were on purely DB plans. 27% of the institutions were either on the pure DC or hybrid plan. According to NEA (2016), the retirement systems surveyed consists of employer-funded DB and employee funded DC. Generally, the NEA recommends the DB plan because it is a funded promise that provides adequate and secure retirement income than a DC plan. The survey further notes that migration from DB to DC fails because of the perceived risk of DC schemes.

2.3.10 Pension System in Nigeria's Public Universities

A study by Onukwu (2017) revealed that Public Universities in Nigeria run a contributory pension system aligned to the Federal Republic of Nigeria Pension Reform Act of 2014. This pension scheme is mandatory to all employees regardless of the form of employment in both public and private sectors of the economy. Aibieyi and Christopher (2016) state that the Nigerian pension system is managed by private sector fund managers referred to as pension fund administrators (PFAs). Aibieyi and Christopher (2016) further argue that the contributory pension system was set up to address the failures of defined benefit scheme that was reformed in 2004. Onukwu (2017) notes that this contributory pension system continue to encounter various challenges. Most prominent challenges include non-remittance of contributions by government, non-compliance to the Pension Act by state universities, negative perception of the contributory scheme by staff. Onukwu (2017) argues that despite these challenges, the introduction of the DC pension system was a positive shift from the DB scheme with retirees now earning reasonable retirement income. However, Onukwu (2017) recommends that National Pension Commission should seek the enabling of laws that ensures compliance by both federal and state universities. Ekwunife, et al. (2019) states that the private tertiary institutions in South East Nigeria adopted this scheme. This study discovered that the contributory pension system was widely accepted by both public and private workers in Nigeria. The study further revealed that the pension scheme boosts the morale of the academic staff in the private tertiary institutions. Ekwunife, et al. (2019) argue that the DC scheme can be enhanced by other intricate work conditions to ensure substantial and sustainable commitment of employees. Arising from the above discussion, the universities in Nigeria run an effective one pillar pension system.

3.0 Methods

This study adopted a qualitative approach that employed literature review strategy. The focus of this research was to draw lessons for policy-makers in Zambia from the pension systems in institutions of higher learning in selected countries. The first part of this study reviewed studies that have looked at pension reform with a bias towards the pillar system from both developed and developing economies. The study also reviewed articles that focused on pension in the institutions of higher learning from both developed and developing economies. The second part of this study involved identification and analysis of the pension pillar system adopted by the reviewed countries and institutions of higher learning. Pension pillar systems were analyzed and lastly a research gap was identified for future research purposes.

4.0 Results and Discussion

Since this was a desk study, the results and discussion are presented simultaneously in this section. The results and discussion focused on pension reforms and pensions systems in the institutions of higher learning.

4.1 Comparative Analysis of the Findings

Pension system plays a vital role in reducing old age poverty and lessoning the state's burden on looking after the vulnerable. The pension system of the countries discussed in section 2 above depends on the history and values of each society. Holzmann et al. (2008) argues that pension pillars are modalities that are used to achieve the aim of a pension system. As revealed by this study, Chile, UK, Denmark and Ghana have mandatory pillar one and pillar two. These countries have made it mandatory for employers to provide additional pension income by enrolling their employees in workplace pension schemes. Most of these schemes are DC in nature. This strategy as much as it is mandatory on employers, a DC scheme reminds employees of their personal responsibility of saving for their future. Although pillar two is voluntary in Zambia, most public institutions are in the process of phasing out occupational schemes such as Local Authority Superannuation Fund (LASF). The number of pillars in a pension system lean towards better adequacy provision. The reforms that took place in Chile, UK, Denmark and Ghana resulted in more than one-pillar pension system which indicate that these countries were more concerned with high pension adequacy. However, the situation in the institutions of higher learning is different for Zambia when compared to the national pension system. Table 2 below shows the pension system that exists in the institutions of higher learning considered in this paper.

Table 2: Pension Systems in Institutions of Higher Learning

Details	UK	Israel	USA	Nigeria	Zambia

Pillar 1	Basic Pension	Public pension	Social security plus means-tested top-up	Mandatory contributory pension scheme	Mandatory National Pension Scheme
Pillar 2	Mandatory occupational Pension Schemes	Mandatory occupational pension scheme	Mandatory occupational pension scheme		Occupational pension plans.

Source: (EPF, 2017; NEA, 2016; EU Commission, 2017; Ekwunife, et al. 2019)

Based on Table 2 above, it is clear that the institutions of higher learning have mostly a two-pillar pension system with the exception of Nigeria. It is clear that the occupational pension schemes seek to achieve adequacy of the post-employment income. The Nigerian pension system inevitably invites questions of adequacy because of the one-pillar system. Unique feature exist in both the UK and USA which plays a crucial role in pension reform in the institutions of higher learning. Both countries have bodies that solely exists to monitor and review the conditions of service in the institutions of higher learning. In the UK there is the Universities UK (UUK), Universities and Colleges Employers Association (UCEA) while in the USA there is the National Education Association (NEA). For instance, the UUK and UCEA have the responsibility of providing for its members a sustainable and attractive pension system (EPF, 2017). In the US, the NEA values an adequate and secure retirement package for its members. The presence of these bodies contributes towards a pension system that considers the needs of both the current and future employees.

5.0 Conclusion

The call for pension reform in public universities in Zambia, is an indicator of both affordability and sustainability of the pension systems in the public universities (Ministry of Higher Education, 2018 and Grant Thornton, 2017). The aim of this paper was to draw lessons from other countries for the policy-makers in the institutions of higher learning in Zambia. The paper adopted a comparative approach by analysing the pension pillar system in Chile, UK, Denmark, Ghana, USA, Israel, Nigeria and Zambia. More importantly, the paper discussed the pension system in the institutions of higher learning in UK, Israel, USA, Nigeria and Zambia. Arising from the comparative analysis undertaken, the following were revealed;

Firstly, Chile, UK, Denmark and Ghana have a mandatory two-pillar pension system while Zambia has a mandatory one-pillar pension system. Secondly, most of the occupational pension system in pillar-two, are DC plans operating under highly regulated financial markets in order to protect the retirees' savings. Third, the institutions of higher learning in UK, Israel, USA and Zambia all have a minimum of two-pillars. Lastly, the UK and USA have associations that review the conditions of service of the member institutions. Therefore, the following key lessons can be drawn from the comparative analysis.

First, pension adequacy can be achieved by having more than one-pillar pension system. For instance, the UK basic pension is considered the most generous system, but the UK seeks to achieve better adequacy by having mandatory workplace pension schemes. In Denmark the occupational pension schemes are enshrined in the collective agreements of all employers as a legal requirement for pillar two. Second, saving for retirement is a collective responsibility of both the employers and the employees. This is evidenced by the wide existence of DC occupational pension schemes in the countries considered in this study. Third, the Government of Republic of Zambia should consider reforms in the laws that govern pension administration and financial markets with a view of protecting retirees' savings. This encourages participation from more players. Last, having associations of universities and colleges enhances unit of purpose amongst the institutions of higher learning and plays a key role in pension reform. For instance, in the UK, the UUK and UCEA work together in promoting the interests of both the employees and employers.

There are several lessons available to policy-makers from this comparative study apart from the ones identified above. As the public universities undertake pension reform process, it is imperative for the policy makers to consider the drivers of the proposed reform and the impact on the current and future employees. The policy-makers may wish to consider some of the lessons highlighted in this paper especially on the pillar approach without ignoring the income replacement ratio regardless of the number of pillars in the pension system. However, more pillars demonstrate a good risk management approach in managing the pension related risks.

This study had its own limitations which can be addressed by future studies. First, the impact of Covid-19 pandemic was not intensively considered in this paper but its impact on retirees' savings is inevitable. Second, the paper adopted a qualitative approach leaving room for a quantitative approach. Furthermore, this study can be enriched by including more countries and inclusion of replacement ratios for a better comparative study.

Biographies

Romeo Yohane is a part-time PhD student with the Graduate School of Business at the University of Zambia and is employed by the University of Zambia. He is a holder of a BSc in Applied Accounting from Oxford Brookes University, MSc in Strategic Management from University of Derby and Association of Certified Chartered Accountants (ACCA) professional qualification. He has research passion in pension reform, finance and accounting. He has taught financial accounting, financial reporting, advanced financial reporting and other finance courses at the University of Zambia. Romeo has over ten (10) years of experience in the Higher Education sector in both administrative (12 years) and academic (5 years) work. Romeo has over twenty (20) years of experience in the accounting profession during which he has designed and implemented accounting systems for various private entities. He is a fellow of both Zambia Institute of Chartered Accountants ZiCA and Association of Certified Chartered Accountants (ACCA).

Bupe Getrude Mwanza has over 10 years of experience in the Higher Education Sector. She has practical experience in teaching and learning, academic administration and research, and quality assurance in the Higher Education Sector. Bupe has teaching and learning experience in Zambia, Zimbabwe and South Africa. She has experience in Quality Assurance in the Manufacturing Sector. She worked for Best Oil Products and Konkola Copper Mines were she was designated in the Quality Assurance Departments. Bupe has a Bachelor of Science in Production Management, Master of Engineering in Manufacturing Systems and Operations Management and PhD in Engineering Management.
Bupe has published a number of papers on Waste Management, Operations Management, Manufacturing Systems and Engineering Management. She has presented in countries such as Zambia, Zimbabwe, South Africa, Ghana, Colombia, Singapore, Malaysia, Indonesia, Macao, Thailand and India. She has contributed to the Research Output of the University of Johannesburg, University of Zambia, Copperbelt University, Cavendish University Zambia and Harare Institute of Technology. Because of her passion in research, Bupe has won best paper awards in Zambia, Zimbabwe, South Africa and Malaysia. Her profile has been used to mentor young ladies pursing their careers in Science, Technology, Engineering and Mathematics (STEM) programmes

Taonaziso Chowa earned a PhD in Business Administration (Actuarial Science), MSc in Operations Research and Bachelor of Commerce Honours in Actuarial Science over the years 2002 to 2016 all from NUST – Zimbabwe. Dr. Chowa is a published scholar with academic, consulting and research works on capital preservation and accumulation areas of financial product development, insurance, pensions, financial markets, investment analysis, management strategy, policy advisory, fund management and financial education. He is an established Actuarial Science educator with a full-time appointment at the University of Zambia and holds visiting teaching and research supervision appointments at NUST, University of Lusaka and Tanzania's Institute of Finance & Management.

References

The Higher Education Act, No. 4 of 2013. Available from http://www.parliament.gov.zm/node/3097
Aibieyi, S. & Christophe, O., 2016. An Overview of the Nigerian Contributory Pension Scheme (2004) and 2014 Pension Act. *European Journal of Business and Management*, 18(31), pp. 2222-1905.
Public Service Pension Act of 1996. Available at http://www.parliament.gov.zm/sites/default/files/documents/acts/Public%20Service%20Pensions.pdf
Danish Insurance Association., The Danish Pension System in a class of its own. *www.forsikringogpension.dk*, 2012.
Blake, D., Two decades of pension reform in the UK: What are the implications for occupational pension schemes?. Emerald Publishing, Employee Relations, pp. 223-245, 2000.
Cambridge Dictionary, Cambridge Dictionary. Cambridge Dictionary, Available: https://dictionary.cambridge.org/dictionary/english/pension, (2019).

Crawford, R., Cribb, J. & Emmerson, C. &. S. P., Retirement expectations, attitudes and saving behaviour: how have these changed during a decade of pension reforms?, London: *The Institute for Fiscal Studies*, 7 Ridgmount Street, London WC1E 7AE, 2020.

Ekwunife, F. C., Egunlusi, F. B. & Chikwe, G. C., Contributory Pension Scheme and Academic Staff Commitment in Private Tertiary Institutions in South-East, Nigeria. *International Journal of Academic Research in Progressive Education and Development*, 8(2), p. 349–360, 2019.

EPF, Suitability and sustainability: pensions in the higher education sector: *Employers Pensions Forum for Higher Education*, 2017.

European Commission, Overview of the Higher Education System: Israel, s.l.: *European Union. Education*, Audiovisual and Culture Executive Agency (EACEA), 2017.

European Commission, Pension Adequacy Report 2018. Country Profiles, European Union, Volume Vol 2, 2018.

Feher, C. & de Bidegain, I., Pension Schemes in the COVID-19 Crisis: Impacts and Policy Considerations. *International Monetary Funds, Fiscal Affairs*, 2020.

FIAP, Pension Notes. 2018 Mercer Global Pensions Index: Lessons for Latin America, s.l.: s.n., 2019.

World Economic Forum, Case Studies in Retirement System Reform. *World Economic Forum*. Available at: www.weforum.org, 2017.

Government of Zambia, n.d. NAPSA Act. Available at: http:\\parliament.gov.zm.

Holzmann, R., Landis, M. & Ja Repansek, e., Pension Reform in Southeastern Europe Linking to Labor and Financial Market Reforms.. s.l.:*The World Bank*, 2008.

ICPM, Summary of the Chilean Pension System. The International Centre for Pension Management, 2018.

ILO, The ILO Multi-Pillar pension model: Building equitable and sustainable pension systems. Social Protection,available at: www.social-protection.org, www.ilo.org, 2019.

IOPS, 2017. IOPS Countries Profiles: United States, s.l.: *IOPS*. Available at: https://www.google.com/search?client=firefox-b-d&q=IOPS+United+states.

Kangas, O., Lundberg, U. & Ploug, N., Three Routes to Pension Reform: Politics and Institutions in Reforming Pensions in Denmark, Finland and Sweden. *Social Policy & Administration*, 44(3), pp. 265 – 284, 2010.

Kpessa, M., (2011). Retirement income security under Ghana's Three-Tier Pension Model: Assessment of Risks and Options for Reform. Pensions, 16(2), pp. 127-136.

Leiser, W., Pensions. International Journal of Manpower, Vol 10(Issue 5), pp. 11-15, 1989.

Ministry of Higher Education, Report on Meeting on the New Financing Strategy with Key Stakeholders Held at Fresh View Hotel, Siavonga. Ministry of Higher Education, Lusaka, Zambia, 2018.

NEA, Characteristics of Large Public Education Pension Plans. NEA Collective Bargaining & Member Advocacy, 2016.

OECD, Maintaining Prosperity In An Ageing Society: the OECD study on the policy. The Chilean Pension System, s.l.: OECD, 1998.

Okpaise, R., Effects of pension reform Act, 2004 on investment opportunities and Retirement planning in Nigeria. *Edu.Reconstruct*. J, pp. 119-127, 2005.

Onwuku, J., Challenges of implementing the contributory pension scheme in public universities in Nigeria. *International Journal of Educational Administration and Policy Studies,* 9(11), pp. 146-151, 2017.

PIA, Pensions Industry in Zambia. Conference Proceedings, Mulungushi University, Kabwe, Zambia,2018

Spivak, A. & Troitsky, R., Pension reform in Israel. *Public and Municipal Finance*, 2(1), 2013.

Stewart, F. & Yermo, J., Pensions in Africa. OECD Working Papers on Insurance and Private Pensions. *OECD* 2009.

Topoleski, J. J., Multiemployer Defined Benefit (DB) Pension Plans: A Primer. *Congressional Research.* Available at :Service,www.crs.gov, 2018.