



## **PENSION FUND AND INFRASTRUCTURAL DEVELOPMENT FINANCING IN NIGERIA**

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### **Abstract**

*Infrastructural Development (ID) financing is very important to economic washers, government, researchers and general public. Constant dearth of ID due to insufficient yearly budgetary allocation are perceived to have adversely affected nation's prospect for economic growth and development. Many studies have been conducted on ID, but not many considered the use of pension fund as alternative means of financing in their study. As a new form of financing opportunity, the key knowledge of the concept is lacking. This calls for better understanding of the concept and its usage by government. It is against this background that the study examined pension fund as alternative sources of finance for ID in Nigeria. The study employed an exploratory research design with focus on literatures on the field of accounting and finance relating to the topic. The study concluded that in Nigeria, the private sector participation in ID had been very low. However, there is need for government to guarantee infrastructure bonds along with tax incentive provided for Pension Fund Administrators. The regulatory agencies should be fair and transparent in overseeing project implementation. Governments should help infrastructure developers to tap into pension funds through upward review of percentage of total assets fund for ID.*

*Keywords: Economic growth, Financing, Infrastructure bonds, Infrastructure development, Pension Fund, Pension Fund Administrators, Tax incentives*



## INTRODUCTION

Infrastructural development financing is very important to economic washers, government, researchers and general public. In developed economies, infrastructure development is seen as a gateway for enhancing nation's economic growth, sustainable development and better Gross Domestic Product (GDP). Infrastructure embraces a turnaround power in the societies and economies by which construction of good road, provision of constant electricity supply for homes and businesses, good transportation system through which producers are connected to the markets, good telecommunications networks through which information are rapidly shared, will enhance business trade which might lead to competitiveness, economic opportunities, and quality of life (Amadou, 2017). Nigeria as a nation has a dearth of infrastructural development and this in recent time has probably been a major challenge to the nation's economic growth and developments. This huge infrastructure deficits are in respect of power, roads network, railways, airways, security and epileptic telecommunication system. The budgetary allocation on yearly basis for infrastructural development is not enough for the required capital development, therefore, this call for alternative means of financing capital development if the nation is to meet vision 2030 sustainable development goal of becoming among the 20 top economies in the world and also top economies in Africa.

Pension fund is regarded as a fund into which sum of money is added from monthly deduction from both the employee and employers from which monthly payments are drawn to support the employee's retirements. Adejoh (2013) viewed pension as a sum of money paid yearly to a retired employee due to age, disability or length of service or to a widow or the dependent children by the employer or from provident fund which both retired employee and his employer contributed. This contribution during the active working period of an employee is normally put in a fund for future payment of regular installments after retirements. Individual pension funds are relatively large in some countries likes United State of America (USA) with example likes California Public Employees Retirement System (CalPERS) \$238.5 billion, California State Teachers Retirement System (CalSTRS) \$166.3 billion and New York city combined Retirement system \$150.9 billion likewise United States Social Security Trust Fund \$2.8 billion. Netherlands with example likes ABP \$445.3 billion and PFZW \$189.0 billion. Japan with example likes Government Pension Investment Fund \$1.2 trillion. Brazil likes Previ \$72 billion. South Africa have the largest pension fund in Africa with Government Employees Pension Fund (GEPPF) of \$133.4 billion. Pension fund can be used for infrastructure developments and this can be achieved through Equity/Bonds investment in infrastructural projects. In developed economy, some of the individual pension funds had relatively contributed to infrastructure developments of such countries. OECD (2013) survey revealed that 35 large

scale pension funds invested US\$80 Billion in infrastructure development and this accounted for 3.4% of total assets. Infrastructure assets proportion to pension fund portfolio in Canada and Australia had achieved more than 10% of pension funds/investments performance (Xiang, 2018). Canadian and Australian pension funds had been investing in infrastructure developments for decades. This has increase the allocation to the sectors from 4% to 16% of total portfolio (DellaCroce, 2012). The five largest pension investors in infrastructure are National Pension Service 12.2%, Canadian Pension Plan 10.7%, Ontario Municipal Employees' Retirement System 10.4%, Ontario Teachers' Pension Plan 9.0%, Australian Super 6.7% (Pregin, 2016)

The introduction of contribution pension scheme in Nigeria through an Act in 2004 has made a large pool of fund available for investment. The pension fund assets had increased on yearly basis from 2004 to date with a value of ₦9.583 trillion as at 30<sup>th</sup> September 2019 and infrastructure fund of ₦34.895 billion at the same date (PENCOM, 2019). Pension fund is seen as alternative means of fund available for financing capital and infrastructural development as this is regarded as long term capital available for financing long term assets. It has become an effect in Nigeria economy as it is a catalyst in development of capital market due to long term nature of financial liabilities and therefore it becomes a unique sources of finance as long term capital for businesses and government. Christian and Wobiaraeri (2016) asserted that pension fund is a better means of financing infrastructural development in Nigeria if it could well be managed. Infrastructure development in Nigeria is a very important factor for economy development as this will accelerate development in various key sectors of the nation in terms of employment, industrialization, security, better living of citizenry, income generation, inflow of new investment and economic growth. National Pension Commission (PenCom) announced the strategic goal of pension industry in 2019 as the allocation of 40% pension fund assets invested in various types of infrastructure. This is backed up with regulations that 15% of pension fund assets could be invested in infrastructure bond. PenCom regulation (2019) section 5.2.3 stipulated that pension fund assets could be invested in infrastructure projects through bonds or Sukuk based on the fact that such infrastructure projects has a minimum value of ₦5 billion and must be a core infrastructure projects with economic and financial viability. The bond issued to finance infrastructure project shall have credit enhancement as well as being guarantee by the Federal government of Nigeria. Infrastructure project financed by means of infrastructure fund must be well defined and has publicized investment objectives and strategy with a minimum of 60% of infrastructure funds being invested in infrastructure development in Nigeria.

Infrastructure is key to transformative power in a country and its economies. In order to address infrastructure gap, there is need to mobilize both domestic and external financing resources to infrastructural developments. Infrastructure represents those capital projects or goods that will serve as the basis for the enhancement of industrialization and economy growth of a nation. This includes paved road, good railway system, constant electricity, operational sea port, good communication networks, effective financial system, good security system and good governance/ legal system that support business growth and good return on investment which aimed at the overall wellbeing of the populace and the economy of the nation. Infrastructure is the key driver of economic growth and developments and also as enabler of competitiveness. Nigeria Integrated Infrastructure Master Plan (NIIMP) of 2013 is a capital allocation framework identifying required investments in developing and maintaining national capital asset stock of physical fixed assets with long lifetime, such as transport lines, power plants and refineries, communication networks, water system, public utility buildings and similar (NIIMP, 2013). The master plan was approved by the executive council on 21<sup>st</sup> November, 2012 and the purpose is to address challenges in Nigeria infrastructure sectors from 2013 to 2043 a span of 30 years. The benefits of NIIMP is to enhanced economic growth through efficient allocation of resources and prioritized projects. Create an enabling environment for investors with robust framework for infrastructure developments. As infrastructure transformation will lead to job creation, poverty alleviation, developed institutions, sustainable economic growth and well beings of the citizens.

The NIIMP framework stipulated that Nigeria will required \$2.9 trillion to be invested on infrastructural developments for the span of 30 years. According to NIIMP (2013), this requirements will be in the form of an average of \$25 billion per annum at 7% of GDP for the first period of 2014-2018. This will be stabilized at 7.9% of GDP for the period 2019-2023 and remain around 7% of GDP for 2024-2043 to complete the 30 years projected plan cycle. The sectorial growth strategies and total investments plan analysis in respect of total projected investment of \$2.9 trillion for 2013-2043 comprises of investment in sectors likes transport \$800 billion (28%), agriculture, water and mining \$350 billion (12%), energy \$900 billion (32%), ICT \$300 billion (11%), social infrastructure \$150 billion (5%), vital registration and security \$50 billion (2%), Housing and regional developments \$300 billion (11%) (NIIMP, 2013; Onwuka & Nwafor, 2018). These projected investment cost as stipulated in the NIIMP (2013) framework were based on 2010 prices. Nigeria expected investment on infrastructure in order to close infrastructure investment gap are \$46 billion (2019–2023), \$70 billion (2024-2028), \$98 billion (2029-2033), \$140 billion (2034-2038), \$203 billion (2039-2043). The projected investments per zone based on 2013-2043 projection plan are North West \$465 billion (16%), North East \$305

billion (11%), North Central \$447 billion (16%), South West \$680 billion (24%), South East \$396 billion (14%), South-South \$557 billion (20%), Total \$2.9 trillion. (NIIMP, 2013).

According to Christian and Wobiaraeri (2016), infrastructure is regarded as a major factor for economy development in Nigeria and this is classified into social and economic infrastructure. The economic infrastructure is regarded as those factors helpful for nations and businesses economic development and advancement such as roads, railway, telecommunication, energy, airport, seaport, security and electricity while the social infrastructure are those provisions required for human developments such as health care service, housing, educational facilities, justice, good environment, recreation facilities and good governance. Improving Nigeria infrastructure can benefit the country and the continent through a number of channels such as better performance in the agriculture sector and increased regional and global trade. Increase investment in rural infrastructure such as irrigation, roads, and energy can help reduce Nigeria dependence on rain-fed agriculture, improve access to markets for agricultural produce, and increase resilience to climate change. Through better and more affordable information and communication technologies (ICT) infrastructure, farmers can register their land and have access to credit, use land and water more efficiently, obtain weather, crop, and market information, and trace food and animals. Infrastructure is regarded as the lifeblood of any nation as no nation or economy can grow without investing in infrastructural development. Infrastructure developments enhances economic growth and development in such a manner that it promote good security of life and properties, social wellbeing and good health, job provision and economic power of the citizens. This means that in a defective infrastructural developed economy, growth will be affected and the standard of living of the populace will be low with high rate of poverty and economic menace. According to Amadou (2017) only 30 percent of Africa's population has access to electricity, 34 percent has access to roads, and internet penetration rate is wobbly low, a mere 6 percent compared to 70-90 percent for other developing countries. In sub-Saharan Africa, the infrastructure deficit is particularly acute, with the poorest countries in Africa falling far below other low-income countries on all infrastructure-related indicators.

The current level of Nigeria infrastructure development is inadequate for economic development drive of achieving a vision of being a top economy in Africa. The Nigeria low level of infrastructural development is attributed to the past years of low investment capital in some of these capital goods due to insufficient budgetary allocation and menace of corruption (Christian and Wobiaraeri, 2016). The continuous shortage of fund from budgetary allocation on yearly basis required an alternative means of funding infrastructural development for purpose of economic growth and development. According to World Bank (2011) infrastructure strategy, it

was stated that one percent increases in infrastructure development will leads to one percent increase in the economy GDP. Nigeria weak infrastructure base hinder increase opportunity for jobs and wealth creation for the citizens. The growing population of the country has outweigh the infrastructure facilities on ground. The infrastructure shortage necessitated the development of NIIMP as a policy documents for enhancement of infrastructural developments. The essence is to increase the current infrastructure stock from 20-25% of GDP to 70% by 2043. Nigeria has a very high infrastructure gap due to shortage of fund allocated through yearly budgetary allocation. Therefore, there is need to look beyond annual revenue from taxes and oils for financing infrastructural developments in line with economic and social growths. Mohammed (2011) reported that pension fund could be considered for financing infrastructure in a country experiencing shortage of fund from yearly budgetary allocation in order to enhance developments and economic growth. Christian and Wobiaraeri (2016) also stated that Nigeria need significant investment in infrastructure using internal finance such as pension fund due to the impressive economic growth achieved as a result of the fight against corruption and show of transparency in government by present administration in the country.

The Nigeria 2004 pension Act highlighted the various core assets areas in which the pension fund could be invested, these are ordinary shares, money market, corporate bonds, and federal government bonds, open and closed bonds. In order to enhance economic development through infrastructure, 2014 pension Act gives further approval on areas of pension fund investment. The pension fund 2014 Act allowed the pension fund administrator to invest in infrastructure bonds and projects. In order to achieved this, certain conditions had to be followed and abided with in order to guarantee the safety and fair investment returns. The objective of this study is to assess the investment and management of contributory pension scheme fund with a view to determining its contribution to the economy through the investment of excess pool of fund in infrastructural development in order to accelerate economic growth and development and also to enhance the productive capacity of the nation's economy. The theoretical implication of the study is the contribution to knowledge and literatures as pension fund investments on infrastructures is still an emerging issue with less related research.

## REVIEW OF EXTANT LITERATURE

### Conceptual review

**Pension:** The concept of pension is of important as it relates to many areas of economic and social policies. Pension is a fund that provide regular monthly payments to retired employee in order to make him/her active and also achieved good standard of living in retirement. Akpan and Ukpong (2014) opined that pension scheme was created based on the desire to assist an

employee achieve a regular income over lifespan thereby providing a stream of income that will ensure that the standard of living of an employee after retirement is not much different from when in active work. The purpose of the scheme is to provide a regular and monthly income for a retired employee in order to make a living. In other words, it is an arrangement between the employer and the employee to ensure a basic standard of living for employee after leaving the service. This is achieved by a means of transferring present day resources to post retirement days when income flow dries or of little amount (Modigliani & Muralidhar, 2004). Robelo (2002) stated that pension is a form of payment into a pension scheme in respect of a proportion of employee's salaries over his working years. This is to provide a stream of income on yearly basis through a lifespan. Ozor (2006) asserted that pension consists of lump sum money payable on monthly basis to an employee who had been disengaged from active service due to age, length of service or incapability. According to Eme, Uche and Uche (2014), a pension is a fixed sum contract payable regularly to a retired worker. This is different from severance because pension is a regular payment while the other is a one lump sum payment. Ugwu (2006) classified pension into four main classification and these are:

1. Retiring Pension- this is type of pension payable to worker on regular basis as a result of attaining the required length of service (30-35 years) or maximum age (60-65 for public service) and (70 years for professors and judges) in Nigeria.
2. Compensatory Pension- this is pension payable to workers whose post has been abolished and government is unable to provide an alternative post or employment.
3. Superannuating Pension- this a type of pension payable to worker who retires at the prescribed age as highlighted in the condition of service.
4. Compassionate Allowance- this is payable to worker when a pension scheme is not permissible or allowed on account of sacked worker due to misconduct, inefficiency, incompetence or insolvency.

**Historical development of pension in Nigeria:** Pension scheme was introduced into Nigeria by the colonial government in order to provide stream of income to British citizen working in Nigeria at old age after their retirement. The pension ordinance of 1951 was the first ever legislative instrument on pension matters in Nigeria (Nwite & Perpetua, 2014). In 1954, the first private sector pension scheme was set up by Nigerian Breweries for its employees and this was followed by United African Company (UAC) pension scheme in 1957. This was followed by the establishment of National Provident Fund (NPF) in 1961 as the first formal pension scheme for non-pensionable private sectors workers. The NPF was a saving scheme whereby both

employee and employer contribute a sum of ₦4 each on monthly basis. It provide for one-off lump sum benefits (Ene, Uche & Uche, 2014). The other enabling legislation on pension scheme between 1961 and 2014 are Military pension Act Cap (No 119), Pension Act Cap (Chapter 147), War pension Act Cap (No 212), Pension (special pensions) Act 1961 (No 15), Widows and Orphans pension Act Cap 220, Police pension decree 1966 No 60, Military Pensions( Amendments) Decree 1975 No. 13, The Armed Forces Pension Act 1974 No. 103, The Pension Right Judges Act No. 5 of 1985 and The Amendments Act No. 51 of 1988, 29 of 1991 and 62 of 1991, the Nigeria Social Insurance Trust Fund (NSITF) which was established by the pension Act 1993. (Ahmed, 2008 and Abubakar, 2014).

The enactment of 2004 pension Act which established the contribution pension scheme (CPS) for Nigerian workers was done to replace the defined benefit scheme which was characterized with various problems such as lack of funding and non- contributory in nature, lack of adequate and budgetary provision, weak and inefficient administrative process, bureaucracy and open liable to corrupt practices, inability to cover private sector employee, various malpractices by fund managers and administrators, lack of proper records of employee and contribution and other multifarious problems affecting the management and administration of the pension scheme.

The Pension Reform Act of June 2004 brings about a sustainable scheme that will provide a stable and adequate source of income for retired workers in Nigeria in form of pension. The Act established contribution pension scheme (CPS) that is fully funded, established Pension Fund Administrators (PFA), established Pension Fund Custodians, it also established the National Pensions Commission (PENCOM) for the regulation, licensees and monitor of pension activities and operations. The further massive mismanagement and fraud in the pension fund which 2004 Act failed to address lead the stakeholders to look at the loopholes and certain issues in 2004 Act and these reached a point in 2014 with the signing into law on 1<sup>st</sup> July 2014 a new Pension Reform Act 2014. This repealed the 2004 Act and brings about better reform for more assurance and safety of retired workers contribution and future pension payment with ease.

**The Nigeria Perspective:** The Nigeria pension system and administration has been characterized with modest growth since the Pension Reform Act of 2004 was passed into law. The Act which replaced the defined benefit scheme with contributory pension scheme has grown the pension asset from ₦265 billion in 2006 to ₦9.6 trillion as at September, 2019.



Table 1. Pension Fund Assets as at 30<sup>th</sup> September 2019

S/N	ASSET CLASS	AMOUNT	PERCENTAGE
		₦'000	Weight %
1	Domestic Ordinary Shares	492,082.59	5.13
2	Foreign Ordinary Shares	65,141.76	0.68
3	FGN Securities	6,844,876.52	71.43
4	State Government Securities	125,242.84	1.31
5	Corporate Debt Securities	621,955.85	6.49
6	Supra-national Bonds	4,030.98	0.04
7	Local Money Market Securities	1,074,563.09	11.21
8	Foreign Market Securities	8,417.81	0.09
9	Mutual Funds	21,813.43	0.23
10	Real Estate Properties	231,482.33	2.42
11	Private Equity Funds	32,053.89	0.33
12	Infrastructure Fund	34,895.96	0.36
13	Cash and Other Assets	26,472.77	0.28
<b>Total Asset Value</b>		<b>9,583,029.81</b>	<b>100</b>

Sources: PenCom (2019).

Table 2. Types of pension fund as at 30<sup>th</sup> September 2019

S/N	TYPES OF FUND	AMOUNT
		₦'000
1	Existing Schemes	1,009,900.62
2	CPFAs	1,180,747.78
3	RSA Fund I	19,308.56
4	RSA Fund II	4,228,283.05
5	RSA Fund III	2,376,409.61
6	RSA Fund IV	768,380.18
<b>Total Asset Value</b>		<b>9,583,029.81</b>

Sources: PenCom (2019).

The pension Reform Act (2014) and regulation on investment of pension fund Assets (2012) provides the modalities, rules and regulations and threshold for pension fund investments. Section 86 of Pension Reform Act stipulates the modes of investing pension funds subject to National Pension Commission (PENCOM) regulations and guidelines. The modes of investing pension funds includes but not limited to bills and securities, Federal, State and Local

government bonds, banks deposits and securities including real estate financing and developments. Although the Pension Reform Act does not make reference to infrastructure investment such as economic and social projects, but reference was made in the Act to specialist investment funds and other financial instruments which must be approved by the PENCOT from time to time. The PENCOT regulation give meaning to specialist funds as interactive and private equity which are regarded as being approved and registered by the Securities and Exchange Commission (SEC). The regulation stipulated the approach to pension fund investment in infrastructure and this can be achieved through bonds or debts instrument and infrastructure funds. At presents, 5% of total pension fund assets can be invested in infrastructure funds.

**Infrastructure Assets:** The infrastructure investment definition seems instinctive. The OECD (2011) used a simple and general definition for infrastructure as the system of public works in a country, state or region, including roads, utility lines and public buildings. Infrastructure assets are conventionally defined by their physical characteristics. This can be categories into two and with a range of sectors; these are economic infrastructure and social infrastructure.

Economic infrastructure are:

1. Transport such as toll roads, airports, seaport, tunnels, bridges, metro and rail systems.
2. Utilities such as water supply, sewage system, energy distribution networks, power plants, pipelines and gas storage.
3. Communication such as TV/ telephone transmitters, towers, satellites and cable networks.
4. Renewable energy.

Social infrastructure. These are:

1. Education facilities
2. Health such as hospitals and health care centers.
3. Security such as prisons, police, military stations.
4. Others as parks.

**Method of investing in infrastructure:** Pension fund investment in infrastructure can be achieved in many ways likes purchased of shares or bonds of listed companies operating in the economic and social sector and owing property also in the sector. In the modern day, infrastructural investment can be undertaking using primary or secondary market, the primary market involve financing of a start-up or new infrastructure in form of build and deliver while the secondary relates to operational phase of capital asset. Equity or debt finance is another form

by which pension fund can be used for infrastructure development. This is in the form of equity participation or purchased of infrastructure bond issued by infrastructure companies.

**Barriers to pension funds' investment in infrastructure:** Inherent risks and other issues with infrastructure investment act as barriers to pension fund investments. Barriers to pension fund investment in infrastructure can be categorized into three which are investment opportunities, investor capability and conditions for investment.

1. The Investment Opportunities- these are lack of political commitment over the long term, regulatory instability, fragmentation of the market among different level of governments, no clarity on investment opportunities, high bidding costs and also infrastructure investment opportunities in the market are perceived to be too risky.
2. The Investor capability – these are lack of expertise in the infrastructure sector, problem of scale of pension funds, misalignment of interests between infrastructure funds and pension funds, regulatory barriers and short term of investors.
3. The Conditions for Investment – these are negative perception of the infrastructure value, lack of transparency in the Infrastructure sector and shortage of data on infrastructure projects.

**Opportunities:** In some of the developed countries, pension assets are used to finance infrastructure developments for the enhancements of nation's economic growth and developments. Other opportunities are:

1. Use of pension fund for financing infrastructural developments may lead to multiplier effects of positive economic growth and development in all sectors thereby creating jobs for the citizens.
2. A good investment of pension fund in infrastructural projects might bring a higher return on investment.
3. The use of pension fund for financing infrastructure developments will release the country from the burden of excessive payment of high interest rate on foreign loans which in most cases fluctuate with exchange rate from time to time.
4. Use of pension fund will address Nigeria annual budget deficits on capital expenditure whereby enough resources on yearly basis from the budgetary allocation can be channeled to other competing needs and sectors.

### **Theoretical review**

This study anchor on the theory of capital accumulation which stipulated that proportion of present income is saved for the purpose of ensuring future output and income. This could be

achieved by investing the surplus fund from domestic savings into economic and social infrastructure which in turn enhances the economy growth and development (Todaro & Smith, 2009). The pension fund is important for growth and sustainable development when used for financing infrastructure projects. Mohammed (2011) posits that pension fund is very important for financing infrastructure and eventually leads to economic development. Lack of or shortages of infrastructure development affects the economy negatively and lead to low GDP and economy distress. Mohammed, (2011) stated that the World Bank estimates indicate that poor Infrastructure all over Africa countries reduces economic growth by 2%. This is a clear indication that infrastructure development is pivot to sustainable growth and development of any country. Although expenditure on infrastructural development is highly capital intensive and therefore it requires large sum of long term finance.

### **Empirical review**

Tule, Okafor, Obioma, Okorie, Oduyemi Muhammad and Olaoye (2015) focused on how to leverage on pension funds in order to finance infrastructure in Nigeria. The study concluded that the Federal Government of Nigeria can offer special purpose infrastructure bonds whose funds can be ring-fenced and ear-marked for infrastructural projects. Given the nature of pension funds, it would provide long-term financing at reduced interest rates and thus free the pressure to borrow at high interest rates from banks to finance such projects. The study recommends the adoption of the framework which would be beneficial to the CBN, Pensioners and ultimately propel economic growth and development of the Country. Gunu and Tsado (2012) studied the effect of introduction of Contributory Pension Scheme (CPS) on savings mobilization, capital market development and economic growth stimulation in Nigeria. Using secondary data which were analyzed using descriptive statistics, charts and percentages, the study noted that pension funds investment as a percentage of the total market capitalization raised consistently from 2.36 per cent in 2007 to 4.53 per cent at 2010. The study therefore inferred that through the capital market, the CPS had contributed to the general economic development in Nigeria. Hu (2012) studied the impact of Asian pension funds, in particular, the key transmission mechanisms from pension reform to financial development. With the aid of the panel error correction model, a statistical relationship between pension asset growth and development of financial and capital markets was established. The study found that contractual savings institutions, like pension funds, granger-cause capital market development. The study used data on capital market capitalization and value traded from 26 countries, six of which were developing economies.

Farayibi (2016) studied the funded pension scheme and economic growth in Nigeria and the study provided evidence on the effect of the operation of the funded pension scheme since its inception in 2004 on economic growth in Nigeria using error correction mechanism (ECM) and Ordinary Least Square (OLS) methodologies. Findings revealed that the pension fund contributions from both private and public sectors in Nigeria increased greatly and constituted a huge investment fund in the capital and money markets. The study concluded that with good risk and portfolio management by pension fund administrators and custodians, the contributory pension has the capacity to boost the Gross Domestic Product (GDP) in Nigeria. Nwane (2016) studied the impact of contributory pension scheme on economic growth in Nigeria for the period 2004-2012 to determine the impact of pension funds on economic growth and as well as to ascertain the impact of pension savings mobilized on economic growth. The study used Ex-post-facto research design and ordinary Least Square Regression method for data analysis. The study reported that pension funds have negative and significant impact on economic growth while pension savings had positive and significant impact on economic growth. The implication of the finding is that the contributory pension scheme has achieved the objective of using pension funds to provide long term capital that will promote economic growth. It was recommended that investment outlets of pension funds should be increased and efforts should be intensified to ensure greater compliance and mobilization of savings from contributors.

Werigbelegha and Ari (2017) studied the relationship between pension funds development and economic growth in Nigeria; for the period (2004-2016). Secondary data were used and collected from the PENCOM Annual Statistics/Reports. Hypothesis was formulated and tested using Ordinary Least Square (OLS) estimation method. The findings revealed that total assets contributions from both private and public sector in Nigeria has a negative significant relationship with Gross Domestic Product in Nigeria. The study concluded that total assets of pension fund have not contributed positively to the growth of the Nigerian economy. Christian and Wobiaraeri (2016) studied pension fund administration and infrastructure financing in Nigeria. The study used correlational research design with all the licensed pension fund administrators in Nigeria as population. Findings from the study showed that there was a Relationship between Retirement Pension Account and Return on Economic and Social Infrastructural Financing while there is a significant Relationship between Superannuation Pension Account and Economic and social Infrastructural Financing in Nigeria. The study concluded that with the pool of pension funds, investment in infrastructure projects will be very meaningful and relevant to the growth of Nigeria's economy. Onwuka and Nwafor (2018) studied tackling infrastructural gap in Nigeria, the pension fund option. The study recommends

the need to review regulatory and investment framework for pension funds administrators in order to facilitate pension fund to fund infrastructural developments.

## **METHODOLOGY**

The study employed exploratory research design whereby relevant literatures in the field of accounting and finance relating to the subject matters were reviewed, conclusion drawn and recommendation made.

## **DISCUSSION AND CONCLUSION**

### **Country discussion**

In some developed countries, pension assets are used to finance infrastructure developments (Beeferman, 2013). In country likes Canada, United State of America and Australia, the proportion of pension fund usage for economic growth and development are 5, 3 and 5 percent respectively (Alonso *et al*, 2010).

**Canada:** The government of Canada invests more on capital infrastructure in the year 1960 and 1970. There was a down turn in infrastructure development in the 80s and 90s due to worsening fiscal imbalance. Canada pension fund had grown steadily from year to year. Various type of Canadian pension scheme had been involved in infrastructure funding. These pension fund scheme are Ontario municipal employee's retirement system (OMERS). This scheme invested C\$8.3billion into infrastructure in 2010, this represent 15% of the assets. OPTrust is an active pension fund that invested C\$13.3billion in infrastructure in 2010. According to pension investment Association of Canada (2016), Caisse, the Canadian second largest pension fund invested \$10.3 billion in Australia trans-grid electricity network. In order to achieve these laudable achievements, the Canadian government launched a plan to build Canada with effect from 2007 using public private partnership (PPP). The intension is to build the country infrastructure using gateway and border crossing funds in conjunction with Building Canada Fund and infrastructure bond. Canadian funds managers over the years has shown high interest in infrastructural projects financing as the government guarantee on expected future returns and assurance on planned capital expenditures.

**United State of America:** The USA adopted public private partnership in the funding of some of the major economic and social projects. The public private partnership has experienced growth in infrastructure investment. Some of the projects are Indiana toll road Chicago skyway to Ohio Turpike at a value of \$278billion in 2015 funded by California Public employee retirement

system (CalPERS). The LBJ Highway Dallas value \$27billion in 2009 was funded by Dallas Police and Fire pension system. According to Dalla Croce, Kaminker and Stewart (2011), California Public Employee Retirement Scheme invested \$155 million representing 12.7 percent stake in London Gatwick Airport.

**Australia:** In Australia, private sectors are the major driver of infrastructure developments and this accounted for about half of the capital expenditure investments in infrastructure developments in the areas of water, transportation and telecommunication with 35, 45 and 100 percent investments respectively. The Australian pension scheme which are involved in financing infrastructure developments are Military Superannuation pension fund, UniSuper and MTAA (Tule *et al*, 2015).

**African pension funds infrastructure investment:** Available data indicate that a few pension funds in Africa are relatively large. When ranked by their assets as a share of GDP, pension funds in South Africa (87.1 percent), Namibia (76.6 percent), and Botswana (47.3 percent) rank among the four largest in a sample of 38 emerging economies. Kenya (18.3 percent), which has the fourth rank (Amadou, 2017).

**Nigeria:** The private sector participation in infrastructure development had been at low level. It had been estimated that the Nigerian had an infrastructure deficits of ₦23trillion as stated by PENCON (2017). This called for concerns as these requirements cannot be funded by the budgetary provision as government budget on infrastructure development is minimal. As the need for investment in infrastructure continues to grow, private sector financing for infrastructure projects has developed around the world. Such investments cover a wide spectrum of projects of economic infrastructure such as transport and social projects such as hospitals. However, if governments wish to help infrastructure developers to tap into potentially important sources of financing such as pension funds, certain steps required to be taken.

1. Investment environment. The government should enhance the investment environment by providing a sound institutional and regulatory environment for infrastructure investment through quick access to capital markets by phasing out of unnecessary bottleneck to capital movements and restrictions on access to local markets. Ensure public and institutional support for the project and choice of financing and also make the co-operation between the public and private sectors work by promoting transparency and appropriate contractual arrangements.
2. Others. The other step that can be taken are to support stronger efforts in independent data collection and objective information provision in the field of infrastructure investment

Upgrading of national statistical data collection with a view to better capture infrastructure data and promote higher transparency standards in private equity vehicles and direct investments  
Encourage improvements in knowledge and understanding of pension fund stakeholders and supervisors on infrastructure assets.

## RECOMMENDATIONS

1. Government should consider infrastructure bonds which is dedicated to infrastructural developments and this should be guaranteed by the government in order to make it successful.
2. Infrastructure concession regulatory commission should be independent and ensure fairness and transparent bidding in the award of infrastructure projects.
3. There should transparency in project implementation with proper due diligence appraisal on risks and benefits in investing in infrastructure.
4. The infrastructure concession regulatory commission should always provide necessary data base with full information that would enable pension fund administrator's make informed decision on infrastructural projects investments.
5. Tax incentive and rebates could be considered for PFAs in order to encourage PFAs investment in infrastructure developments.
6. There should be upward review of the percentage of the total funds asset that can be invested in infrastructure development. This will enhance future investment in infrastructure by PFAs.
7. The government and stakeholders on infrastructure development should be engaged to generate ideas towards the use of pension funds for infrastructure development.

## SCOPE FOR FURTHER STUDIES

The outcome of the research shows that infrastructural development financing is very germane to enhancement of economic growth and development. In the future, researcher could consider the impact of pension fund finance on infrastructure development. Also other form of finance such as crowdfunding, infrastructure fund and Bank finance could be considered for infrastructural development.

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