

## Personal Income Tax and Provisions of Education and Road Infrastructures in Lagos State, Nigeria



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**ABSTRACT:** Infrastructural provision has been the major point of concern to governments in all states of the federation in Nigeria. Government of Lagos State without exception has been facing serious challenges in provision of infrastructure to Lagosians. The state has been witnessing infrastructural deficit despite huge revenues accruing to the government monthly and this is actually affecting the standard of living of the citizens. Since the advent of civilian government in the state, internally generated revenue has been on the increase, yet the state is still witnessing many infrastructural deficits. This study examined the effect of personal income tax revenue on infrastructural provisions in Lagos state with respect to Education and Road Infrastructures.

The study adopted *ex-post facto* research design. The study covered Personal Income Tax and Infrastructures provisions on Education and Road by the government of Lagos State from 1997 to 2018. Data were obtained from Lagos State Internal Revenue Services (LIRS), Lagos State Ministry of budget and planning and Lagos State Ministry of Finance. The validity of data was premised on the statutory audit of the financial statements by the office of the Auditor General of Lagos State. Data were analyzed using descriptive and inferential statistics. The study found that Personal Income Tax has significant effect on infrastructural provision by the government of the state. On IFED, Adjusted  $R^2 = 0.372$ , Prob(F-stat) = 4.753, at 5% significance level [ $\beta = -0.815$ ; P – value = 0.036]. Also on IFDR, Adjusted  $R^2 = 0.315$ , F-stat = 3.915, Prob(F-stat) = 0.028, at 5% significance level [ $\beta = 0.352$ ; P – value = 0.154]. The study concluded that Personal income tax has impacts that are significant on infrastructural provisions of the state. The study recommended that, government should make it a top priority, the provisions of infrastructures on education to guarantee quality education of the pupils in the state. Also, government should embark on massive road network construction with proper maintenance of the existing ones so as to avoid frequent occurrence of carnage on the roads and government should make more effort to widen the tax net especially among the rural dwellers so that more revenues can be collected as personal income tax in the state.

**KEYWORDS:** Education, Government, Infrastructural Deficit, Infrastructural Provisions, Personal Income Tax, Revenues, and Road.

### 1.0 INTRODUCTION

In recent times, citizens are gradually holding government of the day accountable for their failure to improve their welfare. When measuring the performance of government, welfare benefits from infrastructural provisions is one of those metrics of performance measurements. According to Section 16(1b) of the 2011 Constitution of the Federal Republic of Nigeria, the government has the responsibility of ensuring the maximum welfare, freedom and happiness of its citizens (Federal Government of Nigeria, 2011). It is the primary responsibility of every government all over the world to ensure security, freedom and welfare, educations and social needs of its citizen through infrastructural provisions.

According to Cleave and Arku (2015), the population increases, the agitation for infrastructural needs is also increasing. "The inability of Government to fulfil its obligation in term of meeting the needs of its citizens is the bane of our societal low standard of living, infrastructural decay and by and large, total neglect of the populace. As Government responsibilities continue to increase over time especially in developing countries; because of growing population of citizens, and technological development, there is no linear growth in infrastructural provisions to support the growing population, (Madgavkar, Seong & Woelzel 2019).

Infrastructure is the basic physical and organizational structure needed for the operation of a society or enterprise, or the services and facilities necessary for an organization to function (Usman, 2014). It is a set of interconnected structural elements such as

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roads, bridges, water supply, electricity, education, good health care, telecommunications, that provides framework for supporting an entire structure of development (Ahmed, 2015). Infrastructure investment consists of capital-intensive projects, which in most countries are largely publicly owned and regulated by government, and which provides the backbone of the production and distribution and growth of the system (Ebuh, Ezike, & Shhittie, 2019). They are often regarded as the wheel of economic activity because of the crucial role they play in providing the foundation upon which production and distribution stands (Fidelis, Jude & Ighata, 2017).

Studies on Infrastructural provisions and its funding all over the globe abound and are much more revealing. From the global perspective, to the continent of Africa and even across Nigeria states and the federation, the issue of funds for government to finance infrastructures has always been an issue yet to be resolved the world over (Floster & Henrekson, 2018). It has been noted even when funds are available, allocation of such funds appropriately is also another issue. Studies from government budget yearly has shown that an infinitesimal percentage is often allocated to education which is even the bedrock of societal development (BugIT, 2018).

Africa continent has clear evidences of deficiency in infrastructure and this has inhibited growth and development in the continent. Poor funding on the part of governments have been identified as key factors contributing to infrastructural deficits. According to recent studies of Briceno-Garmendia, Cecilia and Karlis (2017), most African countries lag behind compared to developed countries. In Nigeria, Siyan, Eremionkhale and Makwe (2015) examined the impact of road construction and transportation on economic growth in Nigeria. Their results showed that road transport sector has a positive impact on the economic growth indicating that government funding of this infrastructure (Road Transportation) should always be adequate.

Nurudeen and Usman (2010) analyzed the relationship between government expenditure and economic growth in Nigeria over the period 1970-2008. Their results revealed that government total capital expenditure, total recurrent expenditures, and government expenditure on education have negative effect on economic growth. The result shows that government has been grossly under-funding education on every year budget appropriation. Alabi and Ocholi (2010) in describing Nigerian roads observed that the roads are the lowest in Africa in terms of density due to poor funding, neglect and poor maintenance. Recently, infrastructural development has been given central attention in the current development policy vision 2020 of the federal government of Nigeria (Adesoye, 2014).

In Lagos state, infrastructural deficit is glaring all over the place. The growth rate in the state calls for rapid infrastructural provision. Many part of the state lacks good roads, poor electricity, no good drinkable water; houses are not available, poor health care system, poor education for the young ones, and lack of security for lives and property. The state Revenues is on the increase with taxes collection, but this has not really reflected on infrastructural provisions. According to Fashola, (2009), Several efforts are being made by the government to cover the infrastructural deficit.

According to Fashola (2009), the project on the agenda of the state government requires huge funding. Over the next two decades, Lagos State would spend at least N390 billion (\$3 billion) annually to expand and improve its water supply network. N2.6 trillion (\$20 billion) to provide qualitative and efficient network of roads and drainage; N1.3 trillion (\$10 billion) for power supply; N650 billion (\$5 billion) for computer technology and education; and N1.2 trillion (\$9.3 billion) for inter-modal transportation system." (Fashola, 2009). The issue now is raising adequate funds to achieve all these and the major source of funding apart from central allocation to the state is Taxation.

In Nigeria the relevant tax authority responsible for the administration of Personal Income tax is State Internal Revenue Services (SIRS) and Federal Inland Revenue services (FIRS) for income of individuals that are in the purview of federal authorities. According to Adebisi and Gbegi (2017), Taxes/Levies that are collectible by State Governments in Nigeria include: Personal Income Taxes such as Pay-as-you-earn (PAYE), Direct (Sell and government) Assessment, Withholding Tax (individuals only), Capital Gains Tax (Individuals only) Stamp Duties (instruments executed by individuals), Pools Betting and Lotteries, Gaming, and casino Taxes, Business premises registration and renewal levy.

According to Raji (2015), the revolution to increase revenue in Lagos state through taxation started in 1999. One of the major objectives of the administration of Senator Bola Ahmed Tinubu in Lagos State then was to optimize the State tax potentials by achieving a very substantial, if not total, coverage of its taxpayer base. In simple terms, to bring all taxable persons into the tax net. To actualize this goal, the administration initiated the State's Tax Administration reform process. According to Ayodeji and Efunboade (2017), the tax payment process (which is part of re-engineering process), was reviewed and all payments to the Board were to be made directly to designated revenue collecting banks by the tax payers and payments into the Government coffers were electronically linked to data bases that issued electronic receipt to taxpayers and closely monitored by an independent consultant to the State.

Personal electronic tax clearance cards (e-TCC) were introduced for the first time in Nigeria and indeed in Africa. Tax collection was made more transparent to the taxpayers as they could access their records via the internet, and this made tax payments,

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more convenient and transparent to the taxpaying public. Taxes reforms have actually yielded considerable increase in Internally Generated Revenue (IGR) of Lagos state. Budget statistics shows that Lagos State IGR as at the end of 2016 was N302.4bn, between 2007 and 2017, Lagos' IGR came to N2.38tn and has been increasing in subsequent years (BudgIT, 2018). According to Omezi (2017), in an attempt to make Lagos State the most dynamic Megacity in Sub-Sahara Africa, Successive Government in the state has been embarking on massive infrastructural provision in the state but inadequate funding. Government focus to raise these funds is on internally Generated Revenue (IGR), and personal income taxes is one of those sources.

### STATEMENT OF THE PROBLEM

Over the years, revenues collection from taxes has been on the increase in Lagos State, but despite this increment, Infrastructural deficit is noticeable in all over the State. Due to this problem, it becomes highly expedient to look into the effect of tax contribution in form of personal income tax on the infrastructures provisions in the State especially in such area as Education and Road connectivity infrastructures. According to European Intelligent Council (EIC, 2018) Lagos state was rated poorly because of its infrastructural deficit, owing to inadequate funding on the part of government and considering the huge growth in population of the state. As the population increases, the agitation for infrastructural needs is also increasing. "The inability of Government to fulfil its obligation in term of meeting the needs of its citizens is the bane of our societal low standard of living, infrastructural decay and by and large, total neglect of the populace"( Cleave & Arku, 2015). To cover the gap created through infrastructural deficit, huge amount of fund is needed by the government

Lagos State has been facing many infrastructural challenges in recent time. This is partly due to high influx of people from other states in Nigeria to Lagos and this has increased the infrastructural needs of the citizen, and the inadequate provision of such is greatly affecting economy of the state (Hamzat, 2014). The state lacks good roads, most of the road within and suburb are not motor able, the standard of education is falling daily due to inadequate provision of educational facilities in public schools, poor education system and rural development is in total neglect (Babatunde, 2018).

Taiwo and Samson (2015) opined that revenue contribution from Tax System toward provision of infrastructures needs, such as; good road, good educational facilities is grossly inadequate as taxes collection is characterized with tax evasion, avoidance, corruption, arbitrariness, high-handedness, extortion, sabotage, frauds and general lawlessness, at local government, state and federal levels.

An enquiry into tax administration and contribution of tax revenues to Infrastructure development in Lagos State revealed many of these problems and the studies ever done are not exhaustive, there is need to comprehensively examine and evaluate the level of personal income tax contribution toward the provision of infrastructural needs of the citizen of Lagos State. This is actually a problem that everybody and well meaningful individual in the state is keenly interested to know the cause and proffer solution. Hence, the study examined the effect of Personal Income Taxes on infrastructural provision in the state with perspective of education and road network infrastructures.

### OBJECTIVE OF THE STUDY

The main objective of this study is to evaluate the effect of personal income tax on Infrastructural provisions in Lagos State. The specific objectives are to;

- i. Determine the impact of Personal Income tax on government infrastructural provision on education in Lagos State;
- ii. Examine the effect of Personal Income tax on government infrastructural provision on road network in Lagos State;

### 1.3 Research Questions

The following research questions were answered in this study.

- i) How does Personal Income tax impact government infrastructural provision on education in Lagos State?
- ii) In what way does Personal income tax affect government infrastructural provision on road network in Lagos State?

### 1.4 Research hypotheses

The following hypotheses were tested in this study;

- iii) H<sub>01</sub>: There is no significant impact of Personal Income tax on government infrastructural provision on education in Lagos State.
- iv) H<sub>02</sub>: There is no significant effect of Personal Income tax on government infrastructural provision on road network in Lagos State.

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## 2.1 Conceptual review

### Tax Revenue

There are certain functions and responsibilities that government must perform for the benefits of those it governs. Principal among these is the provision of public goods, which translate to infrastructural provisions. Tax is a burden, which every citizen must bear and comply with in order for government to have funds to provide these responsibilities. Ochiogu (2014) defined tax as a levy imposed by the government against the income, profit or wealth of the individuals and corporate organizations.

According to Adams (2001), taxation is the most important source of revenue for modern governments, typically accounting for ninety percent or more of their income. Aguolu (2004) defined taxation as a compulsory levy imposed by the government through its agencies on the income, consumption and capital of its subjects. These levies are made on personal income, such as salaries, business profits, interests, dividends, discounts and royalties. Tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic wellbeing of the society ( Ogbonna & Appah, 2016).

### OBJECTIVES OF TAXATION

The objectives of taxation are;

#### Taxation serves as an instrument to regulate or control the economy:

Musgrave (1980) stated that taxes is used to discourage certain forms of anti-social behaviour in the society, such as drinking of alcohol, smoking and pool betting can be controlled by imposition of higher taxes on production of such goods.

#### Taxation as a coverage for cost of Administration:

Abdullahi, (2016) the cost of internal and external defense, maintenance of law and order as well as social services required by citizens are provided through taxes paid by taxpayers

#### Taxation as Investment promotion:

In Nigeria, government sometimes introduces tax incentives and attractive tax exemptions as an instrument to woo and induce local and foreign investors in areas such as manufacturing of goods, export processing oil, gas, and utilities, which are critical and necessary for the economic development and growth of the nation.

#### Taxation as protection of companies at Infant Stages:

The reduction of tariffs, which will invariably reduce the cost of production relative to imported goods that are the substitutes

#### Taxation as a mean of distribution of Income and Wealth among the Populace:

The use of transfer payments and benefits to those members of the society who are less well-off according to Musgrave and Musgrave (2004) is to promote social equality.

#### Taxation as provision of subsidies in favour of preferred sectors:

Some sectors are more important to grow the economy. This include agricultural sector, manufacturing sectors.(Abdullahi, 2016), taxes are less imposed on these sectors so that they can attract investors and galvanize the economy,

#### Taxation paves ways for Countries Economic Harmonization:

According to Adegbemi, Babatunde and Ibukun (2017) tax Economic community of West African States (ECOWAS) to promote single market for the free movement of goods/services, capital and people among member states uses harmonization.

### PERSONAL INCOME TAX

Personal Income Tax is payment of tax on the income of individuals, partnerships, executors and trustees. The Income Tax Management Act (ITMA) 1961 as amended governs it and now referred to as personal income tax decree (PITD) 104 of 1993 as amended. It is also referred to as Cap P8 LFN 2004 and the latest amendment was in June, 2011.

In Nigeria, state governments are saddle with the responsibility of collection of personal income taxes. A large number of the prospective taxpayers reside and work in the rural areas with difficult terrain and pay no tax at all on their earnings. The peculiar nature of rural communities require that government should be up and doing in terms of provision of public goods and infrastructure. Akintoye and Tashie (2013) remarked that the peoples' willingness to pay tax is greatly influenced by their perception of the government's delivery.

#### Pay As You Earn (PAYE)

This is a method of collecting tax due on Employment Income, (Abudullahi, 2016). The employer is required to deduct tax on all the employment income, such as salaries and wages, bonuses, allowances and other benefits in kind. The employer is an unpaid

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agent of the tax Authority. In this regards failure of the employer to deduct tax by the employer will attract penalty at 10% and interest at the prevailing commercial rate. The employer using the monthly graduated individual tax rate deducts the monthly PAYE at source. These items are deducted from employees' income before calculating PAYE. Deduction allowed in calculating PAYE includes Social Security and National Insurance Trust-5.5% of basic salary, Mortgage Interest paid on only one residential premises of the employee' lifetime, Provident fund up to 16.5% of your basic salary either paid by the employer or employee or both and Contributions and donation to a worthwhile cause. According to Personal Income Tax amendment act of 2014, (PITA, 2011), all the allowable deductions have been collapsed to N200, 000 plus 20% of gross income.

### **Withholding Tax (Individual)**

Withholding tax is another method of effective collection of taxes and which has been tested overtime toward reduction of the incidence of tax evasion and attendant loss of revenue to the government. Withholding tax deduction is governed by section 63 of Companies Income Tax(CITA) and section 72 of PITA have similar provision. Withholding tax is charged on Rent, Interest on Investment, dividends, Directors' fees and contract of supplies. According to Ilaboya (2016) withholding tax, is a retention tax, and it is being paid to the government by the payer of the income rather than by the recipient of the income. The tax is thus withheld or deducted from the income due to the recipient.

### **Direct (Self and Government) Assessment**

Broadly under the self-assessment regime, PITA, (2011), taxpayers (self-employed) are required to compute their tax liabilities, file and make payment concurrently on or before the due dates. Any breach is liable to fines and interest as prescribed under the Regulations or the relevant laws. The key changes introduced by the Regulations include filing of tax returns to be done by the taxpayer in person or through an accredited agent being a person certified by ANAN, CITN or ICAN. To perform the filing, the agent must have the accompanying seals of the relevant professional bodies, and must be tax compliant (has paid taxes as and when due as evidenced by production of current tax clearance certificate). The relevant tax authority may assess the competence and professionalism of the agent in accordance with standards of the relevant professional body.

### **Tax law applicable to self-employed taxpayer**

The tax regulations relating to self-employed persons in Nigeria is governed by the Personal Income Tax Act (PITA) Cap P8 LFN 2004, as amended in 2011. Section 3 of the Act specifies among others that tax is payable on: Gains or profits from any trade, business or vocation. Any salary, wages, fees, allowance or other gains or profits from an Gains or profits including any premiums arising from a right granted to any other persons for use or occupation of any property. Dividends, interests or discounts, and any pensions, charge or annuity

### **Challenges of Tax Administration in Lagos State Leading to low Government Revenue**

Oduola (2002) opined that tax administration in Lagos State is similar to what is obtainable in other parts of the country. The tax administration problems encountered in Lagos State are also evident in other states of the federation. The incessant review of revenue capacity of all revenue units is a major challenge, which has affected negatively on efficient collection of tax. Naiyeju (2005) pointed out that most of the tax authorities in Lagos State Local Government lack the desired institutional capacity to administer tax system effectively. Only the employees pay the bulk of tax today and less privileged individuals in the state.

According to Ekpo and Ndebbio (1998) other problem of tax administration centers on inadequate personnel in terms of quantity and quality. The shortage of qualified tax personnel is partly responsible for the poor enforcement. At the local government level, tax collectors include messengers and the tax clerks who are not knowledgeable in tax practices supervise some daily-rated employees.

### **Tax Reforms in Lagos State, 1994 until date**

The dwindling nature of revenue coming to states governments from the federal governments and challenges of meeting the infrastructural needs of timid population of Lagos state led to diversification of the income generation base of the state. Before civilian rule, the revenue accruing to the state was grossly inadequate because revenue was coming from one source, and that is federal government. This necessitated diversification of revenue generation of the state. Immediate remedy then was to re-engineer the collection of taxes to provide the necessary funds for government to meets its obligation. Even the taxes collection during this period too was poor and being corruptly accounted for. There was no enlightenment as regard payment of taxes. The State Board of Internal Revenue then was not functioning, everything was wrong in term of taxes assessment, collection, contribution and remittances to government purse.

The coming of civilian regime marks the advent of serious revenue generation drive in the state. There was serious demand from government to meet the infrastructural needs of people, therefore the need to generate sufficient revenues from internal sources becomes a serious issue to avoid governing a failed state. Lagos state therefore embarked on several reforms to avoid a lot of

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problems and distractions arising from revenue generation and collection. Some of the early reform embarked on includes; Accelerated revenue generation programme (ARGP), CITI Bank direct monitoring and reporting of internal revenue system, Electronic banking system of revenue collection and monitoring (EBS-RCM), Granting full autonomy to Lagos Board of Internal Revenue, Tax Payer Education and Enlightenment, Payment Process, Transparency and Convenience, Self-Assessment System, Tax Payment closer to the People, Creation of New Operational Units, Creation of Enforcement unit and LIRS Collaborations with other Ministries, Departments and Agencies (MDAs)

### **Infrastructure Developments in Lagos state**

The influx of people from other part of Nigeria led to threatening of the existing infrastructures in Lagos state. The aspiration of the government to make Lagos the commercial hub of West Africa led to further development called mega city therefore necessitating infrastructural provisions. Infrastructure development has emerged as a popular strategy for attracting private capital. In this context, large-scale urban development or mega projects have been described as some of "the most visible and ubiquitous urban revitalization strategies" initiated by city elites in search of economic growth and market competitiveness (Swyngedouw, Moulaert & Rodriquez, 2002). It is also worth noting that contemporary urban infrastructure is also a prerequisite to modern civilization and embodiment of Western Enlightenment ideas (Graham, 2011).

Lagos state government rolled out a development plan on infrastructural provision since the advent of civilian rule since 1999. Fashola (2009), Speaking during the town hall meeting of the Lagos State Internal Revenue Service (LIRS) for market associations, general merchants, skilled technicians among others, the Governor of Lagos State, Fashola disclosed that huge funds are required to put in place the necessary infrastructure that will make life easier in the state. He said, "The project on the agenda of the state government requires huge funding. Over the next two decades, Lagos State needs to spend at least N390 billion (\$3 billion) annually to expand and improve its water supply network. N2.6 trillion (\$20 billion) to provide qualitative and efficient network of roads and drainage; N1.3 trillion (\$10 billion) for power supply; N650 billion (\$5 billion) for information and computer technology; and N1.2 trillion (\$9.3 billion) for inter-modal transportation system." To this end, he called on the artisan and other professionals in the state to ensure they pay their tax so that the government can meet up with plans to develop and improving on social amenities in the state.

Various infrastructural developments have emerged in Lagos state. Successive government have recorded some milestones achievements in providing infrastructural needs to the citizens, but more are still needed because as the population of the state keeps increasing the agitation for more infrastructures is also increasing. To make thing worse some infrastructural projects are being abandoned due to funding. Some of the infrastructural developments in recent time include;

### **Government Infrastructural Provisions on Education in Lagos State**

It has been emphasized that dearth of infrastructure and shortage of personnel are huge challenges to inclusive education in all public schools in Lagos state, other challenges to learning, are high ratio of pupils to teachers and inadequate instructional materials. Lagos State is the most economically viable state of Nigeria. Asides its economic importance, Lagos is also the most populated city in West Africa – 21 million people call the bustling metropolis their home. The state has 339 Public Junior Secondary Schools and 319 Senior Secondary Schools (LASG 2017). In the primary education sector alone, we have 1,045 schools (public and private schools) with 466,201 pupils and 16,351 teachers. 319 junior secondary schools have 9,215 teachers grappling with 326,171 students. This figure includes 12 junior secondary schools established by the then Fashola administration in developing areas of the State, which hitherto had no such schools.

The state has 319 senior secondary schools with 9,625 teachers and 322,242 students. One hundred and twenty-two thousand, four hundred (122,400) pupils have been placed into the 317 Junior Secondary schools of the state and, out of the 317 junior secondary schools, 313 usually presents nothing less than 98,624 candidates for the Junior School Certificate Examination yearly. Besides, the state has a State University, a Polytechnic and several teachers' and technical colleges Odiba (2012) which are even now arguably inadequate for the state teeming population. Successive government has been calling for inclusive educational system that allows private sector to participate. Komolafe (2013) noted that special need children who spend time with their peers tend to show increase in social skill and academic proficiency.

In accordance with the National policy on education, Lagos State runs a free and compulsory Universal Basic Education; the state also provide free senior secondary education. School management system is decentralized for efficiency, there are six Education Districts spread across the 20 Local governments and 37 Local Council Development Areas. A Tutor-General/Permanent Secretary heads each of these districts. The state recently provided 75 schools with completely new laboratories while 92 others and the five Technical Colleges were supplied with Science materials. Six Multi-lingual laboratories were completed, one in each of the Education Districts. 33 schools were also supplied with integrated science equipments for Junior Secondary Schools while 339 schools were provided with new toilet facilities. These are in addition to sundry undertakings like the provision of school fence,

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repairs and rehabilitation of other school facilities, provision of generators for 30 model colleges, 31,580 new students' furniture, 5,069 new teachers' furniture,.

### **Government infrastructural provision on Road in Lagos State.**

Road network and transportation system forms the most important means of transport throughout Lagos State. The increased urban population, the expansion of road longer urban journeys and increased urban trip volumes have all placed a great burden on land use, urban planning and on city's transport system, which becomes an urban mobility problems (Owoputi, 2016)). The primary road network (Federal and State Roads) which link the major population centres cover some 4,921 kilometres. Majority of the primary roads are 3-lane, while some are 2-lane with width of 1.32 metres. In terms of road surface about one third of the roads in Lagos State are made of concrete deck, 43.0% are asphaltic concrete while some 23.2% are bituminous (Lagos Urban Transport Project, 2002).

## **2.2 THEORETICAL REVIEW**

### **The Benefit Theory of Tax Revenue.**

This theory propounded by Adam Smith in seventeen century as coined from the cannon of taxation but John Locke principally expanded the theory in the year 1690. He emphasized that taxes are to be imposed on individuals as revenue for government according to the benefit conferred on them. The theory suggested that the more benefits a person derives from infrastructures provisions by government of the state, the more he should pay tax to the government (Cooper, 1994).

### **The Socio-Political Theory of Taxation.**

This theory as propounded by Adolph Wagner (1883) stated that social and political objectives, which culminated meeting the needs of the people and by inference, refer to as infrastructure provisions by government should be the major factors in selecting taxes. The theory advocated that a tax system should not be designed only to serve individuals, but should be used to cure the ills of society as a whole.

### **Resource Dependency Theory (RDT)**

An Argentine Economist propounded this theory in the late 1950 and Statesman called Raul Prebisch. The theory was later supported by some other philosophers and economists like; Aiken and Hage, (1968), Weiss, (1987), O'Toole, (1997), Lowndes and Skelcher, (1998), and Agranoff and McGuire, (2003). The concept of Resource Dependency Theory (RDT) is that organization is seeing as an open system, which means, it continually exchanges resources with the environment. Different organizations and individuals are part of this exchange process and influence outcomes of the organization. Power of these stakeholders could be a derivative of their resources, which the organization tries to gain by continuous bargaining.

## **2.3 Empirical Review**

### **2.3.1 Personal Income Tax and Infrastructure provision on Education**

Khalil and Adelabu (2016), in their study on funds allocation to local authorities, especially from funds generated internally (IGR) from state of which Personal Income tax form significant value. Their result showed less than 5% of the statutory allocations accruing to local governments under study were being expended on Education and primary Health care infrastructural provision, with the bulk used for personnel expenditure. Hasan and Lincoln (1997) carried out a research on the issue of taxes and government spending in the area of education, housing and other infrastructure for United Kingdom by using cointegration technique and quarterly data from 1961-93 was used for this purpose. This study reveals that government tax revenue Granger causes government expenditures and vice versa.

### **2.3.2 Personal Income Tax on Housing, and Road Infrastructure**

Edogbanya and Ja'afaru (2013) examined the extent to which internal revenue generation such as personal income tax had affected the development of infrastructures like housing, roads and others in some selected local governments. Primary and secondary data were used and analyzed using simple least square regression method. The analysis reveals that there is a significant relationship between revenue generated from internal sources and level of infrastructures provisions.

2.4 Conceptual Model

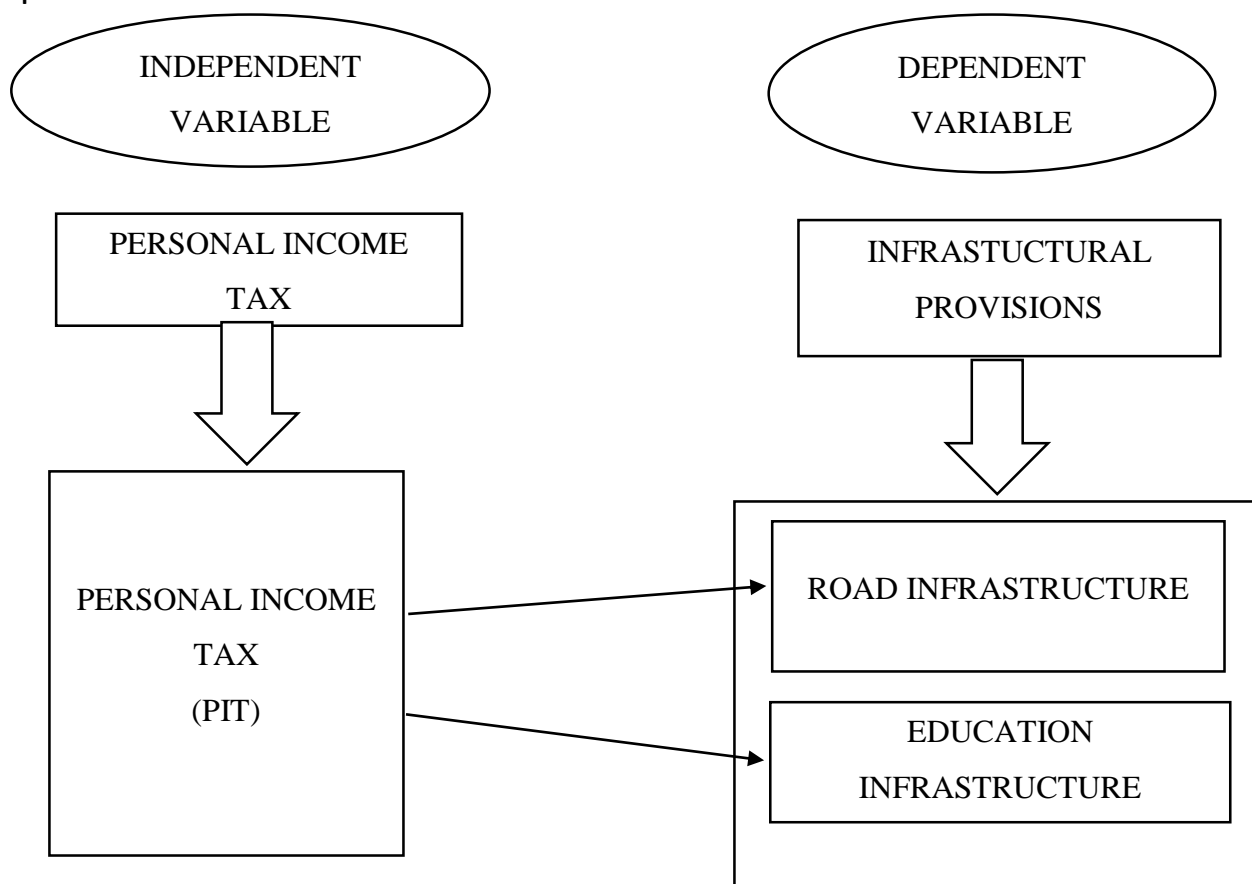


Figure 2.1 Researcher Conceptual Model (2023)

3.0 METHODOLOGY

3.1 Research Design

The Focus of this study is personal income tax and infrastructural provisions in Lagos state with respect to educations and road infrastructures. The study adopted ex post facto research design, using secondary data. Aslam (2016) examined the co-integration relationship between the tax revenue and the government expenditure for the period of 1950 to 2013 in Sri Lanka and Babatunde (2018) who investigated government spending on infrastructure, using secondary data comprising reported annual spending on selected infrastructure and annual Gross Domestic Products for 1980 to 2016 for Nigeria.

The study covered total Personal Income tax revenue in the state for all the years of coverage (1997-2018) and the infrastructural provisions. On this note, the population of the study is the entire Lagos State. Personal income taxes are collected at source from all workers working in different sectors of the state. The sample size of the study is the entire Lagos State. Personal Income tax revenues are being reported by the Lagos State Internal Revenue Service for all the tax payers in the state. The sample size was achieved through the use of purposive sampling technique. Purposively, as all the personal income tax revenues for the period under review was collected from Lagos State Internal Revenue Services(LIRS).

3.2 Model Specification

To establish the relationship between Personal Income tax and infrastructural provision in Lagos State with respect to education and road infrastructure, the models stated below were used. The essence is to establish relationship and correlation among the variables of the study for the samples selected as well as the sample period of study.

i) Hypothesis 1

$$Y=f(x)$$

$$IFED_t = \alpha_0 + \beta_4 PIT_t + u_t \dots \dots \dots \text{Model 1}$$

ii) Hypothesis 2

$$Y=f(x)$$

$$IFRD_t = \alpha_0 + \beta_2 PIT_t + u_t \dots \dots \dots \text{Model 2}$$

Where;



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PIT=Personal Income Tax at time  $t$

IFED= Government Infrastructural Provision on Education at time  $t$

IFRD= Government Infrastructural Provision on Road at time  $t$

$\alpha$ - constant

$\beta_1$ - $\beta_2$  specify the coefficient of the parameters

$N_i$ = the standard error term of the linear model.

$\alpha$  = The constant of the variables

$\beta_1$ - $\beta_2$  =Coefficients of the parameter estimates

$\varepsilon$  = the error term of the linear model

### 4.0 DATA ANALYSIS/TESTING HYPOTHESES AND DISCUSSION OF FINDINGS

#### 4.1 Hypothesis Testing

##### Hypothesis 1

**Research objective one:** Determine the impact of Personal Income tax on government infrastructural provision on education in Lagos State;

**Research question one:** How does Personal Income tax impact government infrastructural provision on education in Lagos state?

**Research hypothesis one:** There is no significant impact of Personal Income tax on government infrastructural provision on education in Lagos State.

#### Bounds Co-Integration Test for Personal Income tax and Government Provision on Education

Table 4.1: F-Bounds Test for Personal Income tax and Government Provisions on Education

Signif.	I(0)	I(1)	F-statistic
10%	4.04	4.78	5.793
5%	4.94	5.73	
2.5%	5.77	6.68	
1%	6.84	7.84	

Source: Researcher's Computation Result from Eviews 10.

#### Short-run and Long-run Models for Personal Income tax and Government Infrastructural Provision on Education

The bound test used to examine the presence of long-run relationships among the variables is presented in this subsection. This becomes necessary to avoid mixed result. The test is conducted on the variables considered for this model and the result is presented in Table 4.1 above. From the table, the computed F-statistic value is 5.793. This is more than the upper critical bound values of 5.73. Thus, the null hypothesis of no cointegration is rejected at 5% significance level and the study concludes that there is cointegration. On the other hand, this implies that there is long run relationship among the variables.

Table 4.2: Short-run and Long-run Models for Personal Income tax and Government Infrastructural provision on Education

Variable	Coefficient	Std Error	t-Stat.	Prob.
<b>ECM Regression</b>				
C	-3.782126	1.176115	3.215779	0.0058
DLOG(PIT)	-0.815109	0.354511	2.299247	0.0363
DLOG(PIT(-1))	0.284686	0.396104	0.718716	0.4834
CointEq(-1)*	-0.792778	0.248719	3.187449	0.0061
<b>Long Run Coefficients</b>				
LOG(PIT)	-1.334782	0.327842	4.071424	0.0010
$R^2$	0.450			
Adj. $R^2$	0.347			
F-Statistic	4.364			
Prob.(F-Stat)		0.020		
<b>Post Estimation Tests</b>				
Durbin-Watson	1.94			

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Jarque-Bera (P-Value)	1.024 (0.599)
Serial Correl. LM Test (P-Value)	0.284 (0.757)
Heteroskedasticity Test (P-Value)	0.322 (0.859)

Source: Researcher's Computation Result from Eviews 10.

### Interpretation, Decision and Discussion of Findings

IFED<sub>t</sub> = α<sub>0</sub> + β<sub>4</sub>PIT<sub>t</sub> + u<sub>t</sub>.....Model 1

From Table 4.1, the computed F-statistic value is 5.793. This is more than the upper critical bound values of 5.73. Thus, the null hypothesis of no cointegration is rejected at 5% significance level and the study concludes that there is cointegration. On the other hand, this implies that there is long run relationship among the variables.

As can be confirmed in Table 4.2, the ARDL model with Adjusted R<sup>2</sup> = 0.347, F-stat = 4.364, Prob (F-stat) = 0.020, has the estimated coefficients of error correction model for all the explanatory variables considered in this study as expected, the coefficient of error correction term (CointEq(-1)) is negative and statistically significant at 5% alpha level. This confirms presence of long-run relationship among the series. Furthermore, the result shows that the coefficients of current Personal Income tax (PIT) is negatives though statistically significant [β = -0.815; P – value = 0.036]. This indicates that current PIT is determinants of Government Infrastructural provision on Education (IFED) in the short-run and it has a significant effect on IFED.

### Hypothesis 2

**Research objective one:** Examine the effect of Personal Income tax on government infrastructural provision on road network in Lagos State.

**Research question one:** In what way does Personal income tax affect government infrastructural provision on road network in Lagos State?

**Research hypothesis two:** There is no significant effect of Personal Income tax on government infrastructural provision on road network in Lagos State

**Table 4.3: F-Bounds Test for Personal Income tax and Government Infrastructural Provision on Road Network in Lagos state.**

Signif.	I(0)	I(1)	F-statistic
10%	4.04	4.78	5.830
5%	4.94	5.73	
2.5%	5.77	6.68	
1%	6.84	7.84	

Source: Authors Computation from Eviews 10.

### Short-run and Long-run Models for Personal Income tax and Government Infrastructural Provision on Road Network in Lagos state.

The bound test result that is used to examine the presence of long-run relationships among the variables is presented on above table 4.3. This becomes necessary due to unit root result in that shows mixed result. From the table above, the computed F-statistic value is 5.830. This is more than the upper critical bound values of 5.73. Thus, the null hypothesis of no cointegration is rejected at 5% significance level and the study concludes that there is long run relationship among the variables.

**Table 4.4: Short-run and Long-run Models for Personal Income tax and Government Infrastructural Provision on Road Network**

Variable	Coefficient	Std Error	t-Stat.	Prob.
<b>ECM Regression</b>				
C	-3.967962	1.167970	-3.397314	0.0040
DLOG(EDHR(-1))	0.351816	0.234469	1.500476	0.1542
DLOG(PIT)	-0.093385	0.366017	-0.255139	0.8021
CointEq(-1)*	-0.869711	0.255532	-3.403536	0.0039
<b>Long Run Coefficients</b>				
LOG(PIT)	-0.755692	0.345533	-2.187030	0.0450
R <sup>2</sup>	0.423			
Adj. R <sup>2</sup>	0.315			

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<i>F-Statistic</i>	3.915
<i>Prob.(F-Stat)</i>	0.028
<b>Post Estimation Tests</b>	
<i>Durbin-Watson</i>	2.09
<i>Jarque-Bera (P-Value)</i>	0.182 (0.913)
<i>Serial Correl. LM Test (P-Value)</i>	1.231 (0.324)
<i>Heteroskedasticity Test (P-Value)</i>	0.035 (0.997)

Source: Researcher's Computation Result from Eviews 10.

### Interpretation, Decision and Discussion of Findings

IFDR<sub>t</sub> =  $\alpha_0 + \beta_1 \text{PIT}_t + u_t$ .....Model 2

The tables 4.3 above depicted the result of the Autoregression analysis. From the table, the computed F-statistic value is 5.830. This is more than the upper critical bound values of 5.73. Thus, the null hypothesis of no cointegration is rejected at 5% significance level and the study concludes that there is long run relationship among the variables. The short run and long run model to test relationship between Personal Income tax and Government Infrastructural provision on road and also the diagnostic test conducted to assess the fitness of the model. The short-run and long-run results as shown in Table 4.4, with adjusted R-squared = 0.315, F-stat = 3.915, Prob(F-stat) = 0.028. The result shows that the coefficient of the lagged CointEq(-1) (error correction term) is -0.870 (P = 0.004). Based on the estimated coefficient of the model, the result shows that the coefficient of current Personal Income tax (PIT) in the short run is negative but statistically insignificant at 5% level [ $\beta = -0.093$ ; P – value = 0.802]. This means that the current PIT does not affect the Expenditure of Government on Road Infrastructure in the short run.

However, the coefficient of Personal Income Tax (PIT) appears to be negative and statistically significant at 5% level [ $\beta = -0.756$ ; P – value = 0.045]. This means that in the long run current PIT affect the Expenditure of Government on Road Infrastructure.

The above result is similar to test conducted by Siyan, Eremionkhale and Makwe (2015) using both primary and secondary data, examined the impact of road transportation on economic growth in Nigeria. Probit model was used to analyse the primary data while multivariate model was used for analysing the secondary data to determine the long run relationship between growth and road transportation infrastructures. Their results showed that road transport sector has a positive impact on the economic growth indicating that government funding of this infrastructure (road provision) should always be adequate.

## 5.0 CONCLUSION AND RECOMMENDATIONS

### Conclusion

The purpose of this study is to determine the contribution of Personal Income Tax to provision of Infrastructural provision in Lagos state with respect to education and road infrastructure. The study covered 22years period between 1997 to 2018. In achieving this lofty objective, several measures were undertaken to determine relationship between the Dependent and the Independent variables, and also the impact Personal Income Tax (Independent variables) has on Infrastructural Provisions (Dependent Variables).

The study concluded that there is causal relationship between Personal Income Tax (PIT) and Infrastructural provision in Lagos state over the period of the study. This is seen from the significant relationship exhibited between Personal Income Tax (PIT) and the Expenditure of Government on Education (IFED), Expenditure of Government on Road IFDR.

In Hypothesis one, the result of F-statistic shows a cointegration between PIT and IFED indicating a long run significant relationship. With this the Null hypothesis is rejected to accept the alternate.

In hypothesis two, a cointegration exist and significant relationship between PIT and IFDR leading to rejection of Null hypothesis. This shows that PIT has significant impact on IFDR.

From all the findings as shown above, the conclusion of this study is that there exist a positive relationship and positive impact in the long run between PIT and all the Dependent Variables; IFED and IFDR, but by and large inadequacy of government spending is still being witnessed in some of the Expenditure variables not covered in this study.

### Recommendations

Based on the findings and conclusion from this study the following are recommended;

1. On Infrastructure Provisions, findings from this study revealed that government expenditure on Education and Road Network is not adequate as deficit can be seen all over; government should focus attention on this as the provision for these infrastructures serve as the bedrock of development in the state. According to European Intelligent Council (EIC, 2018). Lagos state is still being

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rated poorly because of its infrastructures inadequacy that is being witnessed in the area of Education. Road network, Health care and others.

2. On Infrastructural development and revenue drive, given the positive significant relationship demonstrated between PIT and infrastructural provisions in this study, government should extend the present urban development under the umbrella of Lagos mega city to rural area. The provision of amenities in all the rural area should be improved. There should be massive rural development with good road network, provisions and quality education, this will encourage rural dwellers to pay taxes to government.

3. On generation of income to meet the infrastructural needs, finding from this research shows that government has been recording successive increment in personal income tax revenue collection. Government should now take it with all the priority it deserves and diversify the revenue collection from oil revenue to non-oil revenue and a living example in this regard is Personal Income Tax collection. The dwindling income from oil has affected global economies including federal government of Nigeria. This is also leading to lower income distribution to states hence the need to improve on internally generated revenue such as PIT. This is one major area that government can earn the much desired income to improve on its infrastructural provisions to the citizens.

4. Furthermore, it should be noted that to increase government internally revenue generation through PIT, it will involve increasing tax net which has been the major advocacy of successive government in Lagos state. However, the benefit theory of tax will come to play here, as long as people receive the desired benefits, to include all eligible tax payers in the tax net will not be a problem, this is one of the reasons why rural development should be massively embraced by the government.

5. Lastly the study also recommended that government should continue to improve on its PIT collection drive. Enforcement unit of the LIRS should be well equipped. All impediments to collection and administration of PIT in the state should be looked into and be removed. This is to ensure more taxes are being collected and government is having enough funds for the provisions of infrastructural needs of the citizen.

## REFERENCES

- 1) Adebisi, J. F., & Gbegi, D.O. (2017). Effect of tax avoidance and tax evasion on personal Income tax administration in Nigeria: *American Journal of Humanities and Social Sciences*, 1(5), 113-125.
- 2) Adesoye, A.B. (2014). Infrastructural financing in Nigeria: Growth implications. *Journal of Economics and Sustainable Development*, 5(5), 8-17.
- 3) Alabi, M.O., & Ocholi, I. (2010). State of infrastructure and funding in Kogi state, Nigeria: *Current Research Journal of Social Sciences*, 2(3), 209-213.
- 4) Ahmed, M.(2015). Universities infrastructure and services: Concession Options Consideration and Methodologies. Retrieved from: [www.unilorin.edu.ng](http://www.unilorin.edu.ng). Accessed on August 15,2019.
- 5) Akintoye I. R., & Tashie, G. A. (2013).The effect of tax compliance on economic growth development in Nigeria, West-Africa. *British Journal of Arts and Social Science*,11(11), 222-231.
- 6) Ariwodola, J. A. (2001). Personal taxation in Nigeria, (4th edition). Lagos: JAA Nigeria Limited. Ilupeju, Lagos Nigeria.
- 7) Ayodeji, O.,& Efunboade, O.(2017). Tax evasion and Nigeria system: An overview. *Research Journal of Finance and Accounting*, 6(8), 202-211
- 8) Briceño-Garmendia, C., Karlis S, & Vivien, F. (2017). Financing public infrastructure in Sub-Saharan Africa: "Patterns, Issues, and Options." Background Paper 15, Africa Infrastructure Country Diagnostic, World Bank, Washington, DC.
- 9) Budget,(2018).Lagos state budget: Available from: <http://www.budgetoffice.gov.ng/index.php/2017-approved-budget?task=document.viewdoc&id=647>. Accessed on: September 15, 2019
- 10) Cleave, E., & Arku, G. (2015). Place branding and economic development at the local level in Ontario. Canada. *GeoJournal*, 80(3), 323–338
- 11) Edogbanya, A., & Ja'afaru, G.S. (2013). Revenue generation: It's Impact on Government Developmental Effort : A Study of Selected Local Council in Kogi East *Senatorial District*), *Global Journal of Management and Business Research*, 111(4),211-215.
- 12) Ekpo, A.H., & Ndebbio, E.U. (1998). Local government fiscal operations in Nigeria: *African Economic Research Consortium (AERC) Research Paper 73, Nairobi March 1998*. Available from: [http:// www. Aercafrica. Org/ documents/rp73.pdf](http://www.aercafrica.org/documents/rp73.pdf) Accessed on: November 11, 2019
- 13) European Commission, (2016). An investment plan for Europe. Bruxelles: *European Commission Review*, 18, 346-349.
- 14) Fashola, B.R. (2009). My Fellow Citizens of Lagos State: Speech Delivered at the Inauguration and Fund Raising Ceremony of Eko Club (London) *of Nigeria Official Gazette*, Act 27 (86) Lagos.

## Personal Income Tax and Provisions of Education and Road Infrastructures in Lagos State, Nigeria

- 15) Fidelis, O. N., Jude, O. O., & Ighata, J. A. (2017). Infrastructural development and economic growth in Nigeria: Using Simultaneous Equation. *Journal of Economics*, 5(3), 325-332.
- 16) Floster, S., & Henrekson, M. (2018). Growth effects of government expenditure and taxation in rich countries: *European Economic Review*, 45, 1501-1520.
- 17) Hamzat K.O. (2016). Light rail; our plan is to move Lagosians around with Ease: available in [www.osundefender.org](http://www.osundefender.org) (Retrieved on Tuesday March 12, 2019)
- 18) Ilaboya, O. J. (2016). Taxation and the Nigerian informal sector. *Journal of taxation and Economic Development*, 13 (1), 60-75.
- 19) Khalil, S., & Adelabu, A. (2016). Fiscal planning and local government administration in Nigeria: The quest for sustainable rural development. *African Journal of Business Management* 6(9), 3482-3489,
- 20) Madgavkar, A., Seong, J., & Woelzel, J. (2019). How government in emerging economies can help boost and sustain growth. McKinsey Global Institute.
- 21) Naiyeju J. K. (2010). Nigerian speaks on taxation: A tool for social change administration in Nigeria and the issue of tax refund. A paper presented as part of Nigerian 50<sup>th</sup> Anniversary Celebration at Aso Hall Oct1, 2010.
- 22) Nurudeen, A., & Usman, A. (2010). Government expenditure and economic growth in Nigeria, 1970-2008: A Disaggregated Analysis. *Business and Economics Journal*, 20(10), 1-11.
- 23) Odiba, I. A. (2012). Strategic planning as a tool for managing nigeria's tertiary education for national economic development: *International Journal of Economic Development Research and Investment*. 3(2), 118-123.
- 24) Odusola, A. F. (2002). Kwara State public expenditure review: A Technical Report on State Public Expenditure Review in Nigeria, Submitted to the World Bank. Abuja, May, 2002.
- 25) Omezi, G. (2018). Lagos City of concrete. In M. Gandy (Ed.), urban constellations. Berlin: Jovis Verlag GmbH. *Geo Journal*. 83(2), 257-274.
- 26) Owoputi A. E. (2015). The impact of road development and expansion on urban cities; A case study of Akure metropolis: *Worldwide Journal of Multidisciplinary Research and Development*, 8(4), 46- 48
- 27) Raji, A. O. (2015). Revenue generation as a major Source of Income for the state government: An Empirical Analysis of two Parastatals. *International Journal of Economics, Commerce and Management*. 3(6), Issue 6,
- 28) Usman, B. (2014). Infrastructural challenges to the Study of physics in tertiary institutions. *JORIND 12(1) Pp 191-19* [www.transcampus.org/journals](http://www.transcampus.org/journals);  
[www.ajol.info/journals/jorind](http://www.ajol.info/journals/jorind) [webometrics.org](http://webometrics.org) (2012). Retrieved on; May, 10 2019
- 29) Siyan, P., Eremionkhale, R., & Makwe, E. (2015). The impact of road transportation infrastructure on economic growth in Nigeria. *International Journal of Management and Commerce Innovations*, 3 (1), 673-680.



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