

**EFFECT OF INTERNALLY GENERATED REVENUE ON INFRASTRUCTURAL
DEVELOPMENT OF NORTHERN STATE GOVERNMENTS IN NIGERIA**

BY

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**A PROJECT SUBMITTED TO SCHOOL OF POSTGRADUATE STUDIES, NASARAWA
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DECLARATION

I hereby declare that this Project has been written by me and it is a report of my research work. It has not been presented in any previous application for Master Degree in Public Sector Accounting. All quotations are indicated and sources of information specifically acknowledged by means of references.

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Sign.

Date

CERTIFICATION

This dissertation entitled “Effect of internally generated revenue on infrastructural development of northern state governments in Nigeria” meets the regulations governing the award of master in public sector accounting of the School of Postgraduate Studies of Nasarawa State University, Keffi for its contribution to Knowledge and literary presentation.

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DEDICATION

This project is dedicated to God the Father, God The Son and God the Holy Spirit. To Joshua 'Toluwani'

Olarewaju, son of my youth, I will always love you; you are always in my heart.

ACKNOWLEDGEMENTS

I do want to thank The Almighty God for His grace and favour, giving me strength throughout the course of this program.

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ABSTRACT

The study examined the effect of internally generated revenue on infrastructural development of northern state governments in Nigeria. The study adopted an Ex-post facto method of research. This is because data used for analysis already exist. The study covered selected states; a cross-sectional data will be used. Data relating to revenues from different tax components and infrastructural development will be collected for the years 2002-2016. The study will use a multiple regression to examine the relationship between the variables. The method used as earlier stated is Vector Error Correction Model (VECM) using the E-Views statistical package. The order of integration was examined using Augmented Dickey Fuller (ADF) tests. The empirical evidence derived from the regression indicates that States Taxation has a negative significant effect on Infrastructural Development. States Fines was found to be positive significant on external debt in Nigeria. The study also revealed that there is no long run influence of States Fines on Infrastructural Development, it was found that there is no short run effect of States Fines on Infrastructural Development. Based on the findings, it was concluded that there is a negative and significant relationship between Internally Generated Revenue and Infrastructural of north central state governments in Nigeria. on the basis of the findings, the study and the conclusion made above, it is therefore recommended that: For effective used of internally generated revenue, there should be equality in its allocation toward infrastructural development in the state. For instance, more IGR should be allocated to water than road. Good water provision will have a trickledown effect on healthcare because it will forestall and tackle bad water-related sickness like malaria that are commonly suffered by people of the state and extends their life span. Since more internally generated revenue collection will attract massive infrastructural development in the state, the use of tax consultants is recommended for efficient and effective collection of internally generated revenue as the continuous used of unskilled staff of the State Board of Internal Revenue Service can do very little to maximize internally generated revenue collection. And finally, government should crate tax appeal panel in each states of the federation so that tax payer can file petitions and complaints on issue relating to tax matters. The panel members should constitute experience and qualify tax personnel and non-tax officials that have the experience of law. These recommendations if consciously adopted will only rapidly help in the effective administration of tax revenue in Nigeria. Tax revenue constitutes a major component of national income in a modern economy. It is the dominant source of government recurrent revenue in most develops countries

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

With the recent fluctuation in the price of crude oil in the global market, and the shift from oil dependency in the global economy, Nigerian government has been preaching to various levels of governments on how to generate better means of financing their budgets. Most of the states in the country have imbibed the spirit of internally generated revenue, Internally Generated Revenue (IGR) is the revenue that state governments generate within the areas of their jurisdiction. The various sources of internal revenue available to state governments includes taxes, fines and fees, licenses, earnings & sales, rent on government property, interests and dividends, among others. The capacity of a state government to generate revenue internally is a crucial consideration for the creation of a state government. Similarly, Pearce (1986) defined government revenue as all the money received other than from issue of and debt, liquidation of investments. Government revenue includes tax collections, charges and miscellaneous revenues, utility and insurance trust revenue for all funds and agencies of a government. Public revenue according to Stephen and Osagie (1985) is concerned with various ways in which the government raises revenue. From the above definitions, it can be said that revenue is the total amount of income accruing to a state from various sources within a specified period of time. State government, like the other two tiers of government, has sources and uses of revenue. Osisami (1994) states that there are basically two types of revenue that accrues to state governments. These are internally generally generated revenue and revenue allocated from the Federation Account.

Internally generated revenue are those revenues that are derived within the state from various sources such as taxes (pay as you earn, direct assessment, capital gain taxes, etc), and motor vehicle license, among others. While the statutory allocation from Federation Account, Value Added Tax constitute the external source. Most states of the federation get the bulk of their revenue in form of statutory allocation from the federation account to finance their expenditure programmes. (Mukhtar, 1996; Isyaku, 1997; Abdulkadir, 1998; Ibrahim, 2002; Ishaq, 2002 and Hamid, 2008). State governments as the second tier of government in Nigeria derive its revenue from various sources. However, it should be noted that sources of revenue are by no means uniform among the states. States derive their revenue depending on the resources available to them; (Anyafu, 1996; Daniel, 1999; and Adam, 2006). The share of federation account to states constitutes 57.97% in 2002 of the total revenue plus grant and this rose to 65.82% in 2006; while the internally generated revenue declined from 13.38% in 2002 to 8.11% in 2006 (CBN,2006).

According to Babalola (2009), the provision of public schools, public health and public infrastructure require huge government spending, especially in these modern times. Also, state government incurs expenditure for the provision of adequate security, fulfills its commercial functions and administration. Therefore, the need for adequacy of revenue at all levels of government has become imperative, given the expenditure profile of government aimed at reducing poverty, infrastructural development, generating employment, boosting growth and creating wealth. State governments now face more challenges in terms of struggling to be less dependent on the Federal government for financial resources. Though, the revenue allocation system mandates that a certain fraction of the Federation Account be allocated to state governments, these funds are not enough to meet expenditure requirements. This is because the size of the account is related to revenue from oil which is subject to fluctuations and the

expenditures of state government far exceed available resources. The problem of lack of fiscal transparency as a result of mismanagement of funds, corruption, poor internal control and lackadaisical attitude to government work and property still abounds. The question that comes to mind is assuming the statutory allocation is not forthcoming because oil is de-emphasized in the economy what would be the lot of state governments? How would they survive fiscally? (Olusola,

2011)

One of the striking features of the 36 states in Nigeria is that they differ in terms of economic, demographic, geographical, socio-cultural and fiscal characteristics. While some of the states are classified as urban states because of their level of economic, agricultural, infrastructural, industrial and technological development, others are classified as rural states because of the preponderance of absolute poverty, economic, agricultural, infrastructural, industrial and technological backwardness. Examples of urban states in Nigeria include Lagos, Rivers, Oyo, Enugu, Anambra, Kaduna, Kano, etc, while Ekiti, Ebonyi, Nasarawa, Zamfara, Yobe, etc, fall under the rural states. It is important to know that the level of economic development of a state in Nigeria has a significant impact on her fiscal capacity and viability. For instance, the capacity of a state to generate revenue from internal sources is determined by the level of economic, commercial, industrial, infrastructural and agricultural development of such a state. It follows therefore from assumption that urban states generate more revenue from internal sources and by extension incur more expenditure than rural states. This shows that fiscal capacity and viability differ between urban and rural states in Nigeria. The question is, do urban states have a higher growth rate of IGR than rural states in Nigeria? Can urban states IGR finance their recurrent expenditures than it does in rural states?

Development is very important for modern civilization. In order to carryout development at all nooks and crannies of the society, it is the responsibility of the Lagos State Government to provide direct development to people to a certain level. Development is associated with funds and much revenue is needed to plan, execute and maintain infrastructures at the state level. The needed revenue generated for such developmental projects, like construction of accessible roads, building of public schools, health care centres, construction of bridges is generated from taxes, royalties, haulages, fines, and grants from the states, national and international governments. These funds could either be obtained internally or externally. Thus, the Lagos State Government cannot embark, execute and possibly carryout the maintenance of these projects without adequate revenue generation. (Adesoji & Chike 2013)

Akpo (2009) further highlighted the importance of using IGR to fund infrastructures. According to the authors,

IGR does not develop hyper-inflation, it is free and does not carry any burden of repayment and interest like domestic borrowing and loan; through tax, IGR serves as the nerve centre of the social contract, it makes government more responsible and more responsive to the needs of the people, it serves as a tool for economic development, it is an important consideration in the planning of savings and investment and a powerful fiscal weapon to plan and direct the economy. IGR also serves as a tool for social engineering, it goes a long way to keep the society moving, because as government gets more revenue and commission more projects, more money is put in circulation, more employment opportunities arise and more business opportunities are created which impact positively on generality of the society. And above all it serves as tool for infrastructural development.

1.2 Statement of the Problem

The Nigeria state is blessed with both material and human resources. Despite the numerous sources of revenue available to the various tiers of government as specified in the Constitution of Nigeria, still over 80% of the annual revenue of the government comes from petroleum and has been so since the 1970s. However, the serious decline in the price of oil in recent years has led to a decrease in the funds available for distribution to the states. As the price of crude oil in the global market plunges, moving from about \$115 in June 2014 to less than \$60 in September 2015, governments across the three tiers are experiencing fiscal crunch. Federally collected revenues and consequently amounts of federal transfers to States have significantly reduced. This poses significant challenges to the State governments in managing their budgets as a significant reduction in revenue hampers the ability of State governments to deliver basic public services (education, health, and others) to citizens. The situation is particularly acute in States where internally generated revenue is low. Such States have been in arrears of civil servants' salaries, pension, suppliers and contractors' payment for several months. Recently, States using the NGF platform requested for urgent financial support from the federal government. While the request was granted, they were advised to improve efficiency of public spending by cutting waste and duplications as well as mobilizing internally generated revenue. Furthermore, the fall in global oil prices has now made diversification of the Nigerian economy from overdependence on oil a crucial policy move.

But while many State governments are genuinely eager to grow their internally generated revenue base, they seem largely unable to harness available opportunities to do so. Many legitimate sources of revenue remain unexploited, while procedures for collecting, remitting and accounting for the ones exploited often fall short of expectations, giving room for avoidable

leakages. Similarly, many States adopt revenue collection approaches that stifle instead of promote business competitiveness. In some instances, exigencies and need seem to override rationality and care in the design of processes for collection of internally generated revenue. Many lack the database for taxation, leading to reliance on unscientific procedures for tax collection and over-taxing of the few individuals and firms that are accessible to government institutions and representatives. Kiabel and Nwokah (2009) are of the view that the need for state governments to generate adequate revenue from internal sources has therefore become a matter of extreme urgency and importance. This need underscores the eagerness on the part of state governments to look for new sources of revenue or to become aggressive and innovative in the mode of collecting revenue from existing sources. The increasing cost of running government coupled with dwindling revenue has led various state governments in Nigeria to formulate strategies to improve their revenue base. They further said that, the 2007-2009 Global financial crises' effects in Nigeria further created serious financial stress for most states in the country. Hardest hit are the state governments, all of whom have experienced unusual reduction in their share of the revenue from the Federation Account.

Interestingly, while a lot has been written about the need for improved allocation to states and local governments from the federation Account, as well as how to boost IGR of state governments in Nigeria, not much attention has been paid to the effect of internally generated revenue on infrastructural development of the states. Hence, this study seeks to investigate the effect of internally generated revenue on infrastructural development of northern states in Nigeria.

1.3 Research Questions

- i. How does the revenue from taxes in the state government affect the infrastructural development of northern states in Nigeria?
- ii. What is the relationship between state government fines and infrastructural development of northern states in Nigeria?
- iii. What is the relationship between statutory allocation to state government and infrastructural development of northern states in Nigeria?

1.4 Objective of the Study

The main objective of this study is to examine the effect of internally generated revenue on infrastructural development of northern state governments in Nigeria and the specific objectives are to:

- i. Examine how revenue from taxes in the state government affect the infrastructural development of northern states in Nigeria,
- ii. Evaluate the relationship between state government fines and infrastructural development of northern states in Nigeria.
- iii. Examine the relationship between statutory allocation to the local government and government developed effort in the northern states in Nigeria.

1.5 Research Hypotheses

H₀₁ The revenue from taxes in the state government does not affect the infrastructural development.

H₀₂ There is no significant relationship between state government fines and infrastructural development.

H₀₃ There is no significant relationship between statutory allocation to the state Governments and infrastructural development.

1.6 Significance of the Study

With the recent challenges faced by the state governments of Nigeria and the outcry by the people, there is need for state governments to improve their performance. However, the research is significantly considering the closeness of state governments to the people and the need to utilize substantial revenue for its various sources in addition to federal and state statutory allocation for developmental purpose. The study will help to identifying some means of generating revenue that has been neglected over years. It will also be beneficial to the masses because improved revenue generation means improved standard of living in form of provision of social amenities such as road, hospital, park, drinkable water, rural electrification etc. The study will be educative as it will be a reference point for researchers.

1.7 Scope of The Study

The study would appraise the revenue generation for the period of 15 years (2002-2016) in selected states from north geopolitical zones in Nigeria. The research is intended to be carried out using secondary data. Secondary data will be obtained from the annual statutory allocation from the federation account, NBS, and CBN bulletin.

The choice of this period is based on the time Nigerian moved from m and the period also cover when the price of oil went up and drop down. The period also experienced recession.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of Revenue

The term revenue has been defined by various authors in different ways. Adam (2006) defined revenue as the fund required by the government to finance its activities. These funds are generated from different sources such as taxes, borrowing, fine, fees etc. It is also defined as the total amount of income that accrues to an organization (public or private) within a specified period of time (Hamid, 2008). States revenue comprises of receipt from taxation as well as those which are not the proceeds of taxation, but of either the realization from the sale of government properties or other interests and returns from loans and investment earning. Bhatia (2001) contends that revenue receipt includes “routine” and “earned” income. For these reasons, according to him, revenue do not include borrowing and recovery of loans from other parties, but it includes tax receipts, donations, grants, fees and fines and so on. Similarly, Pearce (1986) defined government revenue as all the money received other than from issue of and debt, liquidation of investments. Government revenue includes tax collections, charges and miscellaneous revenues, utility and insurance trust revenue for all funds and agencies of a government. Public revenue according to Stephen and Osagie (1985) is concerned with various ways in which the government raises revenue. From the above definitions, it can be said that revenue is the total amount of income accruing to a state from various sources within a specified period of time. State government, like the other two tiers of government, has sources and uses of revenue. Osisami (1994) states that there are basically two types of revenue that accrues to state

governments. These are internally generated revenue and revenue allocated from the Federation Account.

Hepworth (1976) described revenue as an income or funds raised to meet the expenditure. He added further that revenue is a raising resources needed to provide government services. He also stated that there are two aspect of finance Income and Expenditure. In other words, the sources of fund and utilization.

Fayemi (1991) defined revenue as all tools of income to government such as taxes, rates, fees, fines, duties, penalties, rents, dues, proceeds and other receipt of government to which the legislature has the power of appropriation. He further classified government revenue into two kinds recurrent revenue and capital revenue.

2.1.2 Concept of Internally Generated Revenue

Internally Generated Revenue (IGR) is the revenue that state governments generate within the areas of their jurisdiction. The various sources of internal revenue available to state governments includes taxes, fines and fees, licenses, earnings & sales, rent on government property, interests and dividends, among others. The capacity of a state government to generate revenue internally is a crucial consideration for the creation of a state government (Abiola & Ehigiamusoe, 2014) According to Babalola (2009), the provision of public schools, public health and public infrastructure require huge government spending, especially in these modern times. Also, state government incurs expenditure for the provision of adequate security, fulfills its commercial functions and administration. Therefore, the need for adequacy of revenue at all levels of government has become imperative, given the expenditure profile of government aimed at reducing poverty, generating employment, boosting growth and creating wealth. State

governments now face more challenges in terms of struggling to be less dependent on the Federal government for financial resources. Though, the revenue allocation system mandates that a certain fraction of the Federation Account be allocated to state governments, these funds are not enough to meet expenditure requirements. This is because the size of the account is related to revenue from oil which is subject to fluctuations and the expenditures of state government far exceed available resources. The problem of lack of fiscal transparency as a result of mismanagement of funds, corruption, poor internal control and lackadaisical attitude to government work and property still abounds (Olusola, 2011).

Internally generated revenue are those revenues that are derived within the state from various sources such as taxes (pay as you earn, direct assessment, capital gain taxes, etc), and motor vehicle license, among others. While the statutory allocation from Federation Account, Value Added Tax constitute the external source. Most states of the federation get the bulk of their revenue in form of statutory allocation from the federation account to finance their expenditure programmes. (Mukhtar, 1996; Isyaku, 1997; Abdulkadir, 1998; Ibrahim, 2002; Ishaq, 2002 and Hamid, 2008). State governments as the second tier of government in Nigeria derive its revenue from various sources.

However, it should be noted that sources of revenue are by no means uniform among the states. States derive their revenue depending on the resources available to them; (Anyafu, 1996; Daniel, 1999; and Adam, 2006). The share of federation account to states constitutes 57.97% in 2002 of the total revenue plus grant and this rose to 65.82% in 2006; while the internally generated revenue declined from 13.38% in 2002 to 8.11% in 2006 (CBN,2006). The average percentages of internally generated revenue in relation to the federal allocation were between 5-9 percent for most non-oil producing states in the recent past. Kano was able to slightly exceed 10% in 2004 to

date due to aggressive revenue generation efforts, with Lagos state as the only exception. Recurrent expenditure according to Jimoh (2007) is the type of expenditure that happens repeatedly on daily, weekly or even monthly basis. The amount involved is charged to some operating account (e.g. profit and loss account or income and expenditure account). This includes for example payment of pensions and salaries, administrative overhead, maintenance of official vehicles, payment of electricity and telephone bills, water rate and insurance premium, etc.

Agu (2010), examined the performance of internally generated revenue in Nigeria using the five south-eastern states as his case study, and discovered that the performance of IGR in this region was substantially poor in relation to the total revenue of these states. Results from the study posit that the inconsistencies in the fiscal management of these states translated to the inconsistencies in IGR management and overall performance. He further discovered that there was a significant skewness in the internal revenue sources of the states. Nonetheless, there exists inadequate exploitation of many of the sources of internal revenue and over exploitation of others in the states. While taxes constitute the major source of internal revenue, other sources such as earnings and sales, rent, interests, dividends, etc, are under-exploited by the state governments. The non-performance of other sources of internal revenue has more to do with a faulty IGR management system than it has with availability of such sources.

The challenge of IGR in states is obviously the need for a full overhaul and a reassessment of government-private sector relationship. Such reassessment should improve government's role as a facilitator of private enterprise and a partaker of its profits. A number of studies have been conducted on improving states revenue. Recommendations of these studies include improving efficiency in revenue collection from existing sources, increase in the rate of existing taxes and broadening the revenue base by introducing new taxes, increasing financial transfers and

additional revenue sources from the centre to the state governments, greater fiscal discipline, among several means to increase revenue of state governments (See Anyanwu, 1999; Alade, 1999; Ekpo, 1999 & Agu 2010).

A number of studies have also been conducted on Nigeria's fiscal federalism. These range from analyzing revenue and expenditure decentralization and financial autonomy of the different tiers of government as in (Agba and Obi, 2006; Ekpo 2004; Adesopo and Asaju, 2004; Jimoh 2003) to Local government financing. In Nigeria, the term 'resource control' has almost come to assume a life of its own, defining the contention between proponents of increased revenue devolution and federalists who fear that accountability is still too weak at the state government level to allow for such high devolution. Agba and Obi (2006), for example, analyzed data on the federation account in relation to the unending contention about allocations to the different tiers of government. They calculated indices of revenue and expenditure decentralization and financial autonomy of the three tiers of government and concluded that expenditure power is concentrated at the federal government. They identified the usual non-correspondence between revenue and expenditure assignment especially to other tiers apart from the federal government and recommended conscious effort to allocate more revenues to the state governments.

Kiabel and Nwokah (2009) in their study on Boosting internally generated revenue by state governments in Nigeria and submitted that IGR performance was abysmally poor before the introduction of External Tax Consultants in Nigeria. He therefore advocated for the retention and efficient use of the External Tax Consultants in order to increase the internally generated revenue of the states. Citing Rivers state as a case study, the authors discovered that judicious use of External Tax Consultants drastically increased her IGR from N204,750,800 in 1991 to

N7,657,340,922 in 1998. This astronomical increase was as a result of the innovation brought into the tax system by the External Tax Consultants.

Ekankumo and Braye (2011) examined how to stimulate internal revenue by state governments in Nigeria. They submitted that the dependence on taxation as the major source of internal revenue may not be the way out of increasing revenue to meet the consistently increasing capital and recurrent expenditures of the state governments. They discovered the failure of the use of taxation as the major source of internal revenue but revisited the entrepreneurial option as the only viable means to sustainable development, eradication of poverty and improving the fight against unemployment. To increase internal revenue in the states the authors therefore recommended the need for human capacity development in the areas of entrepreneurship, systematic sensitization process through constructive training and retraining of government officials and development of agriculture.

Olusola (2011) in his study “boosting internally generated revenue in Ogun state” discovered that the yield from IGR of the state was poor. The author went further to identify the following as some inherent factors responsible for the low yield of IGR: porous sources, negligence, human resource problems, non-remittance of income collected, poor internal control measures, lack of accountability, etc. He therefore recommended that revenue sources that are found to be significant should be re-structured and re-engineered through increased public awareness, keeping of accurate data and methodical manner of collection.

2.1.2 Concept of Infrastructural Development

According to the Online Etymology Dictionary, the word infrastructure has been used in English since at least 1927, originally meaning "The installations that form the basis for any operation or

system". Other sources, such as the Oxford English Dictionary, trace the word's origins to earlier usage, originally applied in a military sense. The word was imported from French, where it means subgrade, the native material underneath a constructed pavement or railway. The word is a combination of the Latin prefix "infra", meaning "below", and "structure". The military use of the term achieved currency in the United States after the formation of NATO in the 1940s, and was then adopted by urban planners in its modern civilian sense by 1970. The term came to prominence in the United States in the 1980s following the publication of *America in Ruins*, which initiated a public-policy discussion of the nation's "infrastructure crisis", purported to be caused by decades of inadequate investment and poor maintenance of public works. This crisis discussion has contributed to the increase in infrastructure asset management and maintenance planning in the US. The public-policy discussion was hampered by lack of a precise definition for infrastructure. A US National Research Council panel sought to clarify the situation by adopting the term "public works infrastructure", referring to: "... both specific functional modes highways, streets, roads, and bridges; mass transit; airports and airways; water supply and water resources; wastewater management; solid-waste treatment and disposal; electric power generation and transmission; telecommunications; and hazardous waste management and the combined system these modal elements comprise. A comprehension of infrastructure spans not only these public works facilities, but also the operating procedures, management practices, and development policies that interact together with societal demand and the physical world to facilitate the transport of people and goods, provision of water for drinking and a variety of other uses, safe disposal of society's waste products, provision of energy where it is needed, and transmission of information within and between communities." In Keynesian economics, the word infrastructure was exclusively used to describe public assets that facilitate production, but

not private assets of the same purpose. In post-Keynesian times, however, the word has grown in popularity. It has been applied with increasing generality to suggest the internal framework discernible in any technology system or business organization. The term “infrastructure” could be defined in various aspects but, the researcher will define it as the provision of essential services and amenities to the industry and households in the society (Martini and Lee 1996). Hence, investment in infrastructure development projects is a key input in the development of the economy and a panacea to economic activity and growth. However, what is regarded as “essential”, “key” and “panacea” changes from one country to another and from one period of time to another. For instance, the massive production of steel, coal and iron ore was once regarded as indispensable infrastructure.

Development is a sine qua non for modern civilization. In order to carryout development at all nooks and crannies of the society, it is the responsibility of the Lagos State Government to provide direct development to people to a certain level. Development is associated with funds and much revenue is needed to plan, execute and maintain infrastructures at the state level. The needed revenue generated for such developmental projects, like construction of accessible roads, building of public schools, health care centers, construction of bridges are generated from taxes, royalties, haulages, fines, and grants from the states, national and international governments. These funds could either be obtained internally or externally. Thus, the Lagos State Government cannot embark, execute and possibly carryout the maintenance of these projects without adequate revenue generation (Adesoji & Chike, 2013).

Awoseyila (1996) thus saw economic development to entail a rising level of social and scientific consciousness and advancement in science and technology for the society in question. Development embraces growth but growth is not synonymous with development because

poverty, unemployment, and inequalities may continue to persist due to the absence of technological and structural changes. According to Meier, (1984) A Many studies of economic growth in advanced countries confirm the importance of non-material investment. These statistical investigations according to her, indicate that output has increased at a higher rate than can be explained by an increase in only the input of labour and physical capital. The residual difference between the rate of increase in output and rate of increase in physical capital and labour encompasses many unidentified factors, but a prominent element is the quality of inputs. Although some of this progress may be incorporated in physical capital, the improvement in intangible human qualities is more significant.

This lends credence to Todaro (1982) who regards development as a multidimensional process involving the reorganisation and reorientation of entire economic and social systems. In addition to improvements in incomes and output, it typically involves radical changes in institutional as well as in popular attitudes and, in many cases, even customs and beliefs. Todaro agrees with the earlier position of the earlier school of thought by further pointing out that, in strictly economic terms, development for the past two decades has meant the capacity of a national economy, whose initial economic condition has been more or less static for a long time, to generate and sustain an annual increase in its gross national product at rates of perhaps 5 -7% or more. Emphasizing his point further, Todaro declared that development in its essence, must represent the entire gamut of change by which an entire social system tuned to diverse basic needs and desires of individuals and social groups within that system moves away from a condition of life widely perceived as unsatisfactory and toward a situation or condition of life regarded as materially and spiritually better.

2.2 Empirical Review

Ibeogu and Ulo (2015) studied the relationship between Internally Generated Revenue in the Local Government System and Sustainable Community Development is aimed at identifying strategies to improving the sources and utilization of internally generated funds in the local government system in Nigeria. The study adopted survey research design. The study is anchored on the theory of structural functionalism. The study established that inefficient monitoring of revenue officials led to poor revenue generation; that absence or poor entrepreneurial skill among revenue officials led to poor revenue generation; that absence or poor entrepreneurial skill among revenue officers brought about inadequate revenue generation capacity of the local government. The implication of findings is that the internal sources of revenue to the local government are not fully tapped, while the available revenues are not properly utilized in carrying out the constitutional functions of the third tier government. The study equally concluded that the over dependency on statutory allocation have incapacitated the local government from effective revenue drive. It recommends thus; the institution of disciplinary measures so that any council worker (revenue officers) who violates established rules regarding revenue generation should be dealt with, that honest staff (revenue officers) should be rewarded through giving them fringe benefits or promotion.

Edogbanya, Adejoh and Ja'afaru (2013) analyzed the extent to which revenue generation had affected the development of the selected local Governments. The researcher used both primary and secondary methods of data collection to generate the needed data. The data obtained through secondary data were analyzed using simple least square regression method. The following were some of the findings which included the following; there is a significant relationship between revenue generated and developmental effort of government, poor development of the areas, lack

of basic social amenities to the rural people and lack of revenue to maintain the existing infrastructures. The researcher therefore recommended that the local government should provide basic amenities of high quality. By doing so, the people's interest would be geared towards giving their maximum support to the local government which would lead to the development of the rural area?

Abiola and Ehigiamusoe (2014) examines the growth rate of state governments Internally Generated Revenue (IGR) in Nigeria between 1999 and 2011. It also compares the growth rate of IGR in urban and rural states as well as investigates the ability of IGR to finance state governments' expenditures. Using descriptive approach, the results of the paper revealed that on the overall, the growth rate of state governments IGR was 20.1 per cent which is very low, and this growth rate of IGR is higher in rural states than in urban states. It was also discovered that the growth rate of State governments' recurrent and total expenditures was 30.0 per cent and 34.2 per cent, respectively, and these growth rates are higher than the growth rate of IGR. It was further discovered that the IGR of urban states financed a greater proportion of their recurrent and total expenditures than the IGR of rural states. A direct relationship was found to exist between the growth rates of IGR and capital expenditures and, it was therefore recommended that more revenue should be given to rural states to finance capital projects to enable them grow their IGR, so as to promote economic development.

Worlu and Emeka (2012) examined the impact of tax revenue on the economic growth of Nigeria, judging from its impact on infrastructural development from 1980 to 2007. To achieve this objective, relevant secondary data were collected from the Central Bank of Nigeria (CBN) Statistical Bulletin, Federal Inland Revenue Service (FIRS) and previous works done by scholars. The data collected were analyzed using the three stage least square estimation

technique. The results show that tax revenue stimulates economic growth through infrastructural development. That is, it highlights the channels through which tax revenue impacts on economic growth in Nigeria. The study also reveals that tax revenue has no independent effect on growth through infrastructural development and foreign direct investment, but just allowing the infrastructural development and foreign direct investment to positively respond to increase in output. However, tax revenues can only materialize its full potential on the economy if government can come up with fiscal laws and legislations and strengthen the existing ones in line with macro-economic objective s, which will check-mate tax offenders in order to minimize corruption, evasion and tax avoidance. These will bring about improvement on the tax administration and accountability and transparency of government officials in the management of tax revenue. Above all, these will increase the tax revenue base with resultant increase in growth.

Owolabi and Okwu (2011) examined the contribution of Value Added Tax to Development of Lagos State Economy, using simple regression models as abstractions of the respective sectors considered in the study. The study considered a vector of development indicators as dependent variables and regressed each on VAT revenue proceeds to Lagos State for the study period. Development aspects considered included infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development. The results showed that VAT revenue contributed positively to the development of the respective sectors. However, the positive contribution was statistically significant only in agricultural sector development. On the aggregate, the analysis showed that VAT revenue had a considerable contribution to development of the economy during the study period. Also

Unegbu and Irefin(2011) in their paper, the impact of value added tax (VAT) on economic and human developments of emerging Nations from 2001 to 2009 , using regression, discriminant analysis and ANOVA, found out that VAT allocations have a very significant impact on expenditure pattern of the state during the same period. Also observed that, the perceptions by the citizenry across the administrative areas of the state suggest that VAT has minimum impact level on the economic and human developments of Adamawa State from 2001 to 2009.

Adegbie and Fakile(2011) concentrated on the Company Income Tax and Nigeria Economic Development relationship. Using Chi-square and Multiple Linear Regression analysis in analyzing the primary and secondary data respectively and concluded that there is a significant relationship between company income tax and Nigerian economic development. And that tax evasion and avoidance are major hindrances to revenue generation.

Akinrotimi and Lateefat (2017) analysis of internally generated revenue and infrastructural development of public universities in Ondo state, Nigeria. The study populations are the principal officers in the management and administrative cadre of the Universities in Ondo State Purposive random sampling method was used to pick the two oldest universities out of the three public Universities in Ondo State. A total number of fifty (50) management staff was used. An inventory tagged ‘Inventory on Internally Generated Revenue in Ondo State Public Universities (IIGROSPU) was used to gather data. Two research questions were raised and one hypothesis tested. Centre for Diploma and Pre- Degree Studies got the highest percentage (49.04%)in AAUA and (44.23%) in FUTA of the total IGR obtained on average for the ten years under consideration. A negative and significant relationship between Internally Generated Revenue and Amount Spent on Infrastructural in public universities in Ondo State in the study period. ($r = -.038$, $P < 0.05$). The study concludes that, each university management should create an IGR

coordination centre and university managements should make attractive the profit sharing formula between the central administration and the departments where IGR is generated.

Adesoji and Chike (2013) assessed the effect of internal revenue generation on infrastructural development. The research methodology entailed the use of survey research design and purposive sampling method to select respondents from Lagos State Inland Revenue Office. Questionnaires and statistical data were instruments used for the study. Descriptive and inferential statistics were the statistical tool used for the analysis. The descriptive statistics involves the use of simple percentages while the inferential statistics involved the use of Spearman's Rank, which is to show the direction of relationship between variables in the study and to show the scale for the data that is interval. Two hypotheses were formulated and the Spearman's rank correlation analysis was used to test the relationship between internally generated revenue and infrastructural development. The result showed that there is a positive relationship between internally generated revenue and infrastructural development. The study also revealed the various methods of generating internal revenue, which are the enforcement of tax personnel, contribution, and creating awareness to the public. The findings of the study however show that revenue administration agencies need to be reviewed to generate more revenue in the country.

Edame and Okoi (2014) examines the impact of taxation on investment and economic growth in Nigeria from 1980-2010. The ordinary least square method of multiple regression analysis was used to analyze the data. The annual data were sourced from the central bank of Nigeria statistical bulletin and NBS. The result of the analysis showed in conformity to our prior expectation because the parameter estimates of corporate income tax (CIT) and personal income tax (PIT) appears with negative signs, this means that an inverse relationship exists between

taxation and investment. The economic implication of the result is that a one percent (1%) increase in CIT will result in decrease in the level of investment in Nigeria. Consequently, an increase in PIT will result in decrease in the level of investment. Finally, the result therefore showed that taxation is negatively related to the level of investment and the output of goods and services (GDP) and is positively related to government expenditure in Nigeria. We also observed that taxation statistically is significant factor influencing investment, GDP and government expenditure in Nigeria. Based on the result of our findings, it is recommended that the government of Nigeria should use taxation to achieve its set target that will enhance economic growth and development.

Samuel and Gabriel (2016) evaluated the effects of electronic internally generated revenue (e-IGR) on infrastructural development of Ebonyi State. The main objective of the study is to determine the degree of manual and electronic internally generated revenue's impact on infrastructure using capital expenditure as proxy. The dwindling revenue from oil and continued need for public utilities caused the need to empirically determine this relationship. To achieve the main objective of this study, three hypotheses were formulated. Ex-post facto research design was used in this work which involved the use of existing data. Data components of manual and electronic revenue and capital expenditure (infrastructure) of Ebonyi State government between 2011 and 2014 was collected and analyzed using regression and Pearson correlation method with the help of SPSS version 17.0. Results show that the extent of relationship between each independent variable (IGR and eIGR) were very low on the dependent variable which is Infrastructure development using capital expenditure, but cannot ignore the rate at which their degree changed, signifying an increase in associations. In general, it was discovered that there exists no significant degree of relationship of variables studied. This implies that capital

expenditure on infrastructure did not largely depend on electronic internally generated revenue in Ebonyi State within the years studied, rather on monthly statutory allocations which is largely from oil revenue. The study therefore recommends that the electronic approach to internally generated revenue be reviewed as a matter of urgency because of the dwindling oil revenue to the State. The executive arm of the state should also take implementation of state revenue laws more seriously.

Adesoji, (2013), studied the effect of Internally Generated Revenue on infrastructural development of Lagos State. The research design used by the researcher is purposive and survey sampling methods to sampled respondents from the State Internal Revenue Board (SIRB). The data collection instrument used in the study was questionnaire whereas Descriptive (Simple Percentages) and Inferential (Spearman's Rank) statistical tool was used to analyze data collected. Two hypotheses were formulated to ascertain the correlation between internal generated revenue and infrastructural development. The result obtained shows that there was a positive relationship between the dependent and independent variables. The study however recommended that; the revenue administration agencies need to be revived if additional and improved revenue is to be generated in the state.

Michael and Sunday, (2013), studied the effects of internally generated revenue on infrastructural development in Akwa Ibom State. This is because the State as the second tier of government needs revenue to provide basic social amenities to the people. Thus, the researcher specifically sought to ascertain the extent to which IGR has contributed to the provision of such infrastructures as water, electricity, and road. An ex-post facto research design was adopted and the data used were obtained from secondary sources. The research data were analyzed with simple percentage statistics while simple regression statistics was used in testing the hypotheses.

The result showed that IGR contributed significantly and positively to the provision of water, electricity and roads. However, these contributions were skewed more to roads than electricity and water. The study concluded that IGR has made positive, but uneven contribution to the development of infrastructures in the State as some aspect of infrastructure like road was found to receive more boost from IGR than other infrastructures. Consequently, a balanced approach to IGR appropriation for infrastructural renaissance in the state was recommended. By this, IGR allocation would be redirected to such infrastructures as water that is directly and away from such infrastructures like roads that are not directly linked with the life of the common people who incidentally are the majority. It is by this that the people will fully benefit from their contributed revenue that forms the bulk of internally generated revenue for the government.

Akabom-Ita, (2013), conducted a study into the Revenue base and Social Assets creation. The study focused on local government areas of cross River State. The researcher conducted this study to unveil the ultimate cause of the local government areas' inability to discharge its obligations. To achieved the purpose of the study, data on social assets and components of revenue base of sampled local government areas between 1997 and 2011, were obtained and analyzed with the used of regression analysis. The study revealed that there is a positive relationship between revenue base and the creation of social assets. Furthermore, the study shows government neglect of the internal revenue generation which has shown improvement as a result of over dependent on the share of statutory allocation from the distributable pool account. Conclusion drawn from the study showed that local government areas' lack of commitment and poor revenue base which is caused by the neglect of revenue generation among others are the reasons for their inability to discharging their grass root functions. The study recommended that local government areas should not neglect internal revenue generation because of over-

dependent on statutory allocation. Rather, the third tier of government should strive to generate adequate revenue to assist the discharge of its responsibilities to the urban dwellers.

Sani, (2013), studied Automated Internal Revenue Processing System in Kogi State. Research design used by the researcher is survey and purposive sampling method to select respondents among the Staff of Kogi State Internal Revenue Board. Interviews, group discussion, direct observation and document study were instruments used for information and data collection for the study. From the information gathered a number of problems inherent in the manual method of operations were extracted. These problems include: delay in the remittance of collected revenue to the State Consolidated Revenue Fund due to huge computation involved in bringing together all revenue collected from thirty Area Offices within the State, diversion of the revenue collected into private pockets by staff of the Board, difficulty in identifying and locating tax evaders for necessary legal and prohibitive actions to be taken against them, computational errors, high level of redundancy and inconsistencies in record, low level of data security, inability to quickly and accurately retrieve and assemble relevant data for prompt decision making. A combination of Structured Systems Analysis and Design Methodology and Object Oriented Analysis Methodology was deployed to develop a feature rich software program called Computerized Internally Generated Revenue Processing System. The application was developed using MySQL database platform as backend and Visual Basic 6.0 as front end. The implementation of the application resulted in the elimination of the identified problems and this has started to generate impact on the State infrastructural development.

Adesina and Peter (2016) examines the impact of taxation on the infrastructural development in Nigeria. Using the OLS multiple regression analysis we examine the relationships between the major components of tax revenue in Nigeria and Nigeria's infrastructural development. The

positive and significant relationships between the infrastructural development and some tax revenue components indicate that policy measures to expand tax revenue through more effective tax administration will impact positively the infrastructural development in Nigeria.

Mohammed, Ahmed, and Salihu (2015) examine the relationship between expenditure (both Capital and recurrent) and internally generated revenue (IGR) in Adamawa State local governments. The Population of the study was the entire twenty-one (21) local governments in Adamawa state. Panel data was extracted from the Local Government's Audited Financial Statements for the period of Ten years (2003-2012). Pooled regression was used for the data analysis. The study finds a significant relationship between government expenditure and internally generated revenue. Capital expenditure and recurrent expenditure on agriculture and natural resources, roads, rural electrification, market expansion significantly influence the internally generated revenue of the Adamawa State's local governments. The study therefore recommends that the Local government authorities in Adamawa State should use their resources with high sense of prudence, transparency and accountability in incurring capital and recurrent expenditure for the development of various sectors of their local economies so as to enhance their internally generated revenue. This will reduce dependency on statutory allocation from the federation account.

Dagwom, Elizabeth, and Ishaya (2016) examined the impact of revenue generation and utilization on social service delivery in Plateau State. The study is based on experimental research design using descriptive and empirical research strategies. The study utilizes Ordinary Least Square (OLS) regression analysis to empirically test the impact of revenue generation on social service delivery in Plateau State. The study finds that revenue generation as a whole has an impact on social service delivery for the period 2006 to 2015 in Plateau State, with majority

of the sources of revenue, coming from federation account, capital receipts and other revenue, which are individually not significant in impacting on social service delivery in Plateau State. The study also finds that revenue generated and allocated to health and education sectors were not adequately utilized in relation to total revenue generated for the period 2006 to 2015 in Plateau State compared to recommended international standard benchmarks. The study recommends amongst others that there should be more focus of utilization of revenue generated on social services capital expenditure in Plateau State to improve the quality of lives of its citizenry by the Plateau State Government.

2.3 Theoretical Framework

2.3.1 Benefit received theory

This theory proceeds on the assumption that there is basically an exchange relationship between tax-payers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received (Bhartia, 2009). Anyanfo (1996) argues that taxes should be allocated on the basis of benefits received from government expenditure.

2.3.2 Faculty theory

According to Anyanfo (1996), this theory states that one should be taxed according to the ability to pay. It is simply an attempt to maximize an explicit value judgment about the distributive effects of taxes. Bhartia (2009) argue that a citizen is to pay taxes just because he can, and his relative share in the total tax burden is to be determined by his relative paying capacity.

2.3.3 Expediency theory

This theory asserts that every tax proposal must pass the test of practicality. It must be the only consideration weighing with the authorities in choosing a tax proposal. Economic and social objectives of the state and the effects of a tax system should be treated irrelevant (Bhartia,2009). (Anyafo, 1996; Bhartia, 2009) explained that the expediency theory is based on a link between tax liability and state activities. It assumes that the state should charge the members of the society for the services provided by it. This reasoning justifies imposition of taxes for financing state activities by inferences, provides a basis, for apportioning the tax burden between members of society. This proposition has a truth in it, since it is useless to have a tax which cannot be levied and collected efficiently.

There are pressures from economic, social and political groups. Every group tries to protect and promote its own interests and authorities are often forced to reshape tax structure to accommodate these pressures. In addition, the administrative set up may not be efficient to collect the tax at a reasonable cost of collection. Tax revenue provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, and cyclical fluctuations and so on.

Adolph Wagner advocated that social and political objectives should be the deciding factors in choosing taxes. Wagner did not believe in individualist approach to a problem. He wanted that each economic problem be looked at in its social and political context and an appropriate solution found thereof. Accordingly, a tax system should not be designed to serve individual members of the society, but should be used to cure the ills of society as a whole. This theory relates to a normal development process and represents a benchmark against which country specific empirical evidence may be compared.

This study therefore focuses on the expediency theory which enables the investigation of the extent to which the tax system in the state governments link between taxes collected in the state governments and the infrastructural development. If applicable, such a characterization will enhance accurate tax revenue projection and targeting of specific tax revenue sources given an ascertained profile of economic development. It will also assist in estimating a sustainable revenue profile there by facilitating effective management of the states' fiscal policy, among others. This is because the expediency theory focuses on the fact that taxes are collected to achieve economic objectives which enhances the growth and development of a society in all its spheres. The benefit and faculty theory are relevant but they lay more emphasis on political, relationship and ability to be objectives.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted Ex-post facto method of research. This is because data used for analysis already exist. The study covered selected states; a cross-sectional data was used. Data relating to revenues from different tax components and infrastructural development will be collected for the years 2002-2016. The study used Vector Error Correction Model (VECM) to examine the relationship between the variables.

3.2 Population Sampling and Sampling Technique

The study population consisted of annual observations of all the northern state governments in Nigeria for years covering period 2002 to 2016. The study used cross sectional data. The secondary data for regression analysis was gathered from CBN World Bank and NBS. The states were selected based on the six geopolitical zones and availability of information since they have the relevant data.

3.3 Methods of Data Collection

The data for this study was obtained mainly from secondary sources. The secondary data that relates to relevant information that depicts the tax structure and infrastructural development was collected from the Central Bank of Nigeria statistical Bulletin, World Bank, NBS and Internal Revenue Service (IRS).

3.4 Techniques of Data Analysis and Model Specification

Basically, this study involved the use of econometric method of analysis. The method used as earlier stated is Vector Error Correction Model (VECM) using the E-Views statistical package. The order of integration was examined using Augmented Dickey Fuller (ADF) tests. Taxation is represented by revenue from petroleum profit tax, company income tax, customs and excise duties and value added tax for the period under study. In order to examine the Internally Generated Revenue on Infrastructural Development, a multiple linear model was used. The model captures the contribution of Taxes, Fines and Statutory Allocation on Infrastructural Development. This is represented in the following function:

$$IFD = f(TAX, FNS, SA)$$

$$IFD = \alpha + \beta_1TAX_t + \beta_2FNS_t + \beta_3SA_t + \varepsilon$$

Where

IFD = Infrastructural Development measured by total expenditure on Infrastructural

TAX = States Taxation measured by total revenue from taxes collected by the states

FNS = States Fines measured by fines collected in the states

SA = Statutory Allocation measured by share from federation account

ε = error term.

3.5 Justification of The Model

The choice of this model is based on the fact that diagnostic is best suited for testing the relationship between variables (Gujarati 2004) The reliability of this method has on its desirability properties which are efficiency consistence and un-biasness this implies that its error term has a minimum and equal variance (Gujarati 2004).

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This chapter is concerned with the presentation, analysis and interpretation of data collected. It summarizes and discussion the findings of the study. Ordinary least square regression analysis was used in testing the stated hypotheses, with reference to the use of augmented dickey fuller test to determine the stationarity of the time series data, Johansen test of cointegration was used to test for long run relationship among the variables, vector error correction model was also used when the variables are cointegrated. Post diagnostic test were carried out, such as autocorrelation or serial correlation test using Breusch-Godfrey Serial Correlation LM Test and Heteroskedasticity Test using Breusch-Pagan-Godfrey test.

4.2 Data Analysis and Results

Descriptive Statistics of Sample Data

Table 4.2.1: Descriptive Statistics of Sample Data

	Log(TAX)	Log(SA)	IFD	Log(FNS)
Mean	14.01605	13.74605	346878.1	4.287355
Median	13.92288	13.44422	302022.5	4.839451
Maximum	22.90268	15.40276	746050.0	5.963579
Minimum	4.079231	12.59002	63713.36	2.084429
Std. Dev.	5.703968	0.834848	208403.1	1.088631
Skewness	0.129651	0.855368	0.369391	-0.596992
Kurtosis	2.264849	2.352107	2.156067	2.048442

Probability	0.710474	0.152233	0.492807	0.269490
Observations	27	27	27	27

Source: Eview 9, 2019

Table 4.2.1 shows that the mean of states taxation (TAX) is 14.01605 with standard deviation of 5.703968, the minimum and maximum values of 4.079231 and 22.90268 respectively. It implies that the average occurrence of states taxation in northern states of Nigeria is 14.01605 to 22.90268, and the deviation from both sides of the mean is 5.703968. This suggests that the data are not widely dispersed from the mean. The table also indicates a minimum statutory allocation (SA) of 12.59002, and maximum value of 15.40276. The mean value of statutory allocation (SA) is 13.74605 with standard deviation of 0.834848. It implies that the average occurrence of statutory allocation (SA) in northern states of Nigeria is 13.74605 to 15.40276, and the deviation from both sides of the mean is 0.834848. This implies that the data are not widely dispersed from the mean, because the standard deviation is less than the mean value.

The table also indicates that the mean of Infrastructural Development is 3468978.1 with standard deviation of 208403.1, the minimum and maximum values of 63713.36 and 746050.0 respectively. It implies that the average occurrence of IFD in northern states of Nigeria is 3468978.1 to 746050.0, and the deviation from both sides of the mean is 208403.1. This suggests that the data are not widely dispersed from the mean, because the standard deviation is less than the mean value.

The table also reveals that the mean of States Fines (FNS) is 4.287355 with standard deviation of 1.088631, the minimum and maximum values of 2.084429 and 5.963579 respectively. It implies that average of States Fines in northern states of Nigeria is 4.287355 to 5.963579, and the

deviation from both sides of the mean is 1.088631. This suggests that the data are not widely dispersed from the mean, because the standard deviation is less than the mean value.

The probability value of Jarque-Bera test of all the variables are higher than 5%. It indicates that all the variables are normally distributed. Also, the skewness value of all the variables is close to zero, it means that the distribution of the variables is symmetric in nature. The Kurtosis values of all the variables is also closer to 3, it indicates that the shape is a normal distribution.

This study uses the analysis of Jarque-Bera test for normality test. The initial data were tested for normality and it was only IFD that was found to be normal. states taxation, statutory allocation and states fines were not normally distributed in their raw form, they were log transformed and were found to be normally distributed.

H₀: Variable is not stationary

Table 4.2.2 Unit Root Test

Variable	ADF test statistics	Test Critical Value @ 5% level	Maximum Lag	Probability Value	Stationarity
TAX	-5.359005	-3.603202	1	0.0011	1(1)
SA	-3.678818	-3.603202	1	0.0430	1(1)
IFD	-4.975269	-3.603202	1	0.0026	1(1)
FNS	-4.541625	-3.603202	1	0.0069	1(1)

Source: Eview 9 2019

The properties of the time series data for the period of study covering 1990-2016 was investigated in order to test its stationarity using the Augmented Dickey Fuller test statistics. The number of lag used in ADF test was selected using Schwarz information criterion. Table 4.2.2 shows ADF test results of the time series data. The results suggest that the null hypotheses (H₀)

of unit root can be rejected in the first difference because the probability value is less than 5% and also the ADF test statistics is more than the Test Critical Value at 5% level of significance. Therefore, the regression will not be spurious as they are all stationary at 5% critical value.

Table 4.3 Effect Estimation Using Least Square Multiple Regression

Variable	Coefficient	Standard Error	t-statistics	Prob
C	0.308111	0.852649	0.361358	0.7205
log(TAX)	1.049089	0.175778	5.968249	0.0000
log(SA)	0.049809	0.116494	0.427569	0.6721
R-squared	0.387429			
Adjusted R ²	0.336381			
F-statistic	7.589554			
Prob(F-statistic)	0.002792			
Durbin-Watson stat	0.496266			

Source: Eview 9, 2019

Table 4.2.3 presents the results of least square multiple regressions. The result shows that the P value of F-statistics is 0.002792 which is less than 5%, this shows that the model is fit and that the model is statistically significant as it implies that all the independent variables are statistically significant. The R square value of 0.387 means that the independent variables contribute approximately 39% to the dependent variable. It also indicates that 39 percent of the variation in IFD can be explained by variability in capital flight and exchange rate. The remaining 61% are the value of other variables that are not captured in the model. The adjusted R square of 0.34 indicates that any variations that can occur as a result of the introduction of additional independent variable are being taken care of and cannot affect the R square. Durbin-Watson value of 0.49 shows there is serial or auto correlation. Durbin (1970), states that when the Durbin Watson statistic value is below 0.5 or 50 percent, independent observation is not assumed. In other words, there is auto correlation among the residuals of the study. The study will conduct Breusch-Godfrey serial correlation LM test to confirm the problem of autocorrelation.

H₀₁ The revenue from taxes in the state government does not affect the infrastructural development.

The regression line indicates that real IFD = 145413.3 - 35909.83CF + 164385.4EXR shows that for every 1 percent increase in states taxation (TAX), infrastructural development (IFD) reduces by 145413.3. The p-value of 0.0008 is less than t-value of 0.05. This simply means that the alternative hypothesis is accepted that states taxation (TAX) has a significant negative effect on infrastructural development in northern states of Nigeria. The regression line also shows that for every 1 percent increase in States Fines, IFD increases by 164385.4. The p-value of 0.0026 is less than t-value of 0.05. This simply means that the alternative hypothesis is accepted that exchange rate has a significant positive effect on economic growth in Nigeria.

Table 4.2.4 Effect Estimation Using Least Square Multiple Regression

Variable	Coefficient	Standard Error	t-statistics	Prob
C	12.10555	0.598646	20.22155	0.0000
D(TAX)	-0.081721	0.040139	-2.035972	0.0429
D(FNS)	0.649796	0.210309	3.089716	0.0050
R-squared	0.292049			
Adjusted R ²	0.233053			
F-statistic	4.950327			
Prob(F-statistic)	0.015850			
Durbin-Watson stat	0.471383			

Source: Eview 9 Output, 2018

Table 4.2.4 presents the results of least square multiple regressions. The result shows that the P value of F-statistics is 0.015850 which is less than 5%, this shows that the model is fit and that the model is statistically significant as it implies that all the independent variables are statistically significant. The R square value of 0.292049 means that the independent variables contribute 29% to the dependent variable. It also indicates that 29 percent of the variation in external debt can be explained by variability in capital flight and exchange rate. The remaining 71% are the value of

other variables that are not captured in the model. The adjusted R square of 0.23 indicates that any variations that can occur as a result of the introduction of additional independent variable are being taken care of and cannot affect the R square. Durbin-Watson value of 0.47 shows there is serial or auto correlation. Durbin (1970), states that when the Durbin Watson statistic value is below 0.5 or 50 percent, independent observation is not assumed. In other words, there is auto correlation among the residuals of the study. The study will conduct Breusch-Godfrey serial correlation LM test to confirm the problem of autocorrelation.

H₀₂ There is no significant relationship between state government fines and infrastructural development.

The regression line indicates that $FNS = 12.10555 - 0.081721CF + 0.649796EXR$ shows that for every 1percent increase States Fines, Infrastructural Development reduces by 0.08%. The p-value of 0.0429 is less than t-value of 0.05. This simply means that the alternative hypothesis is accepted that States Fines has a negative significant effect on Infrastructural Development in north central of Nigeria. This means that as more of fines, Infrastructural Development decreases. The regression line also shows that for every 1percent increase in state fines, Infrastructural Development increases by 64%. The p-value of 0.0050 is less than t-value of 0.05. This simply means that the alternative hypothesis is accepted that state fines has a significant positive effect on infrastructural development in north central of Nigeria.

Table 4.2.5 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob
None *	0.611361	32.36935	29.79707	0.0247
At most 1	0.258107	8.741715	15.49471	0.3898
At most 2	0.049833	1.277943	3.841466	0.2583

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob
None *	0.611361	23.62763	21.13162	0.0218
At most 1	0.258107	7.463772	14.26460	0.4358
At most 2	0.049833	1.277943	3.841466	0.2583

Source: Eview 9 Output, 2018

Table 4.2.5 shows the Johansen test of cointegration that presents the Trace and Maximum Eigen value, this test is performed to determine the order of integration; the result of the cointegration test indicates that this study accepts the alternative hypotheses that there is cointegration among the variables because the p-value of trace statistics of 0.0247 is less than 0.05. It therefore means that the three variables have long run relationship. Also, the maximum Eigen value of 0.0218 is less than 0.05, which means that there is cointegration among the variables. Since the variables are cointegrated in the same order of 1(1), this study can run Vector error correction model. The result of the normalized cointegrating coefficient is 0.000262 and -5847.890 as long run coefficient for capital flight and exchange rate respectively. Meaning that whenever States Taxation goes up, Infrastructural Development goes up, but whenever exchange rate goes up, Infrastructural Development goes down. Normally, whenever States Taxation goes up, Infrastructural Development should go down, therefore this result contradicts apriori expectation. The second result which states that whenever States Fines goes up, Infrastructural Development goes down, satisfies apriori expectation. But since the variables are cointegrated in the same order using trace statistics and Eigen value statistics, this study can run VECM for model 1.

Table 4.2.6 Cointegration Test

Hypothesized No of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob
None *	0.861585	65.87622	29.79707	0.0000
At most 1	0.454989	20.39369	15.49471	0.0084
At most 2	0.244014	6.433843	3.841466	0.0112
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob
None *	0.861585	45.48253	21.13162	0.0000
At most 1	0.454989	13.95985	14.26460	0.0558
At most 2	0.244014	6.433843	3.841466	0.0112

Source: Eview 9 Output, 2018

Table 4.2.6 above shows the Johansen test of cointegration that presents the Trace and Maximum Eigen value, this test is performed to determine the order of integration; the result of the cointegration test indicates that this study accepts the alternative hypotheses that there is cointegration among the variables because the p-value of trace statistics of 0.000 is less than 0.05. It therefore means that the three variables have long run relationship. Also, the maximum Eigen value of 0.000 is less than 0.05, which means that there is cointegration among the variables. Since the variables are cointegrated in the same order of 1(1), this study can run Vector error correction model. The result of the normalized cointegrating coefficient is 0.005311 and -7260.366 as long run coefficient for Statutory Allocation and Infrastructural Development respectively. Meaning that whenever Statutory Allocation goes up, Infrastructural Development goes up, but whenever exchange rate goes up, external debt goes down. Normally, whenever Statutory Allocation goes up, external debt should go up, therefore this result satisfies apriori

expectation. The second result which states that whenever Infrastructural Development goes up, Infrastructural Development goes down, contradicts apriori expectation. But since the variables are cointegrated in the same order using trace statistics and Eigen value statistics, this study can run VECM for model 1.

Table 4.2.7 Vector Error Correction

Variable	Coefficient	Standard Error	t-statistics	Prob
C(1)	0.004491	0.200886	0.022357	0.9824
C(2)	-0.086338	1.573584	-0.054867	0.9568
C(3)	-5.94E-06	9.44E-05	-0.062918	0.9505
C(4)	234.7555	1029.318	0.228069	0.8219
C(5)	-9591.129	34092.61	-0.281326	0.7814
R-squared	0.003419			
Adjusted R ²	-0.195897			
F-statistic	0.017155			
Prob(F-statistic)	0.999370			
Durbin-Watson stat	1.996354			

Source: Eview 9 Output, 2018

Table 4.2.7 contains the VECM and its coefficients as well as their t-statistics and p-value. C(1) is the coefficient of the cointegrated model(long run) with real GDP as the dependent variable while C(2), C(3) and C(4) are short run coefficient. C(1) is the speed of adjustment toward long run equilibrium which is insignificant because its p-value of 0.98 is more than 0.05, which means that there is no long run influence of States Taxation on Infrastructural Development.

Table 4.2.8 Wald Test for Model 1

Test Statistics	Value	Probability
F-Statistics	0.026	0.973
Chi-Square	0.053	0.973

Source: Eview 9 Output, 2018

The table above indicates that there is no short run effect of capital flight and exchange rate on real GDP because chi-square probability of 0.9738 is more than 0.05.

Table 4.2.10 Post Estimation Diagnostics Tests

Test	P-Values
Heteroskedasticity Test	0.4353
Breusch-Godfrey Serial Correlation LM Test	0.9592

Source: E-view Output, 2018

The Breush-Godfrey serial correlation LM test as shown above in table 4.2.11 was performed on the residuals and the results showed observed R-squared in excess of 0.05, which lead us to reject the presence of serial correlation in the residual. Also, the Breush-Pagan-Godfrey test for Heteroskedasticity as shown above in table was performed on the residuals and the results showed observed R-squared in excess of 0.05, which lead us to reject the presence of heteroskedasticity in the residual.

Table 4.2.11 Vector Error Correction

Variable	Coefficient	Standard Error	t-statistics	Prob
C(1)	-0.003543	0.023296	-0.152106	0.8816
C(2)	0.494249	0.296877	1.664826	0.1218
C(3)	-0.412367	0.366811	-1.124196	0.2829
C(4)	-0.005594	0.359391	-0.015565	0.9878
C(5)	2.49E-05	0.000147	0.169581	0.8682
C(6)	3.06E-05	0.000140	0.218647	0.8306
C(7)	3.40E-05	0.000139	0.245023	0.8106
C(8)	1762.246	7136.939	0.246919	0.8091
C(9)	9046.541	17116.24	0.528535	0.6068
C(10)	5438.463	17733.22	0.306682	0.7643
C(11)	-130277.3	301397.3	-0.432245	0.6732
R-squared	0.255079			
Adjusted R ²	-0.365689			
F-statistic	0.410908			
Prob(F-statistic)	0.915800			
Durbin-Watson stat	2.016362			

Source: Eview 9 Output, 2018

Table 4.2.11 contains the VECM and its coefficients as well as their t-statistics and p-value. C(1) is the coefficient of the cointegrated model(long run) with real GDP as the dependent variable while C(2), C(3) and C(4), C(5), C(6), C(7), C(8), C(9), and C(10) are short run coefficient. C(1) is the speed of adjustment toward long run equilibrium which is insignificant because its p-value of 0.88 is more than 0.05, which means that there is no long run influence of Statutory Allocation on Infrastructural Development.

Table 4.2.12 Wald Test

Test Statistics	Value	Probability
F-Statistics	0.0763	0.9976
Chi-Square	0.4581	0.9983

Source: Eview 9 Output, 2018

The table above indicates that there is no short run effect of Statutory Allocation on Infrastructural Development because chi-square probability of 0.998 is more than 0.05.

Table 4.2.13 Post Estimation Diagnostics Tests

Test	P-Values
Heteroskedasticity Test	0.7676
Breusch-Godfrey Serial Correlation LM Test	0.9635

Source: Eview 9 Output, 2018

The Breush-Godfrey serial correlation LM test as shown above in table 4.2.13 was performed on the residuals and the results showed observed R-squared in excess of 0.05, which lead us to reject the presence of serial correlation in the residual. Also, the Breush-Pagan-Godfrey test for Heteroskedasticity as shown above in table was performed on the residuals and the results showed observed R-squared in excess of 0.05, which lead us to reject the presence of heteroskedasticity in the residual.

4.3 Discussion of Findings

The empirical evidence derived from the regression indicates that States Taxation has a negative significant effect on Infrastructural Development. It means that a percentage increase in the rate of States Taxation (TAX) will lead to a decrease in the dependent variable, Infrastructural Development (IFD). This implies that an increase in rate of States Taxation decreases the rate of Infrastructural Development (IFD) and this conforms to a priori or theoretical postulations and holds ground in Nigeria economy. It is significant at five percent level and negative. The negative sign on the coefficient suggests that capital flight has an indirect influence on the level of Infrastructural Development in north central states of Nigeria. The study also revealed that there is no long run influence of States Taxation on Infrastructural Development; it was also found that there is no short run effect of capital flight on economic growth. Expectedly, States Taxation is to have a negative influence on Infrastructural Development given that States Taxation reduces the level of capital that supposes to be used to develop domestic economy.

The negative significant association between States Taxation and Infrastructural Development is not consistent with prior findings of Edogbanya et al (2013), Isaac (2015) and Essien (2015) which all reveal a positive and significant impact on Infrastructural Development. The reason for the negative influence could be attributed to the attitude of state Government Administrators who tend to often use capital receipts to fund recurrent expenditure. Again, the porous tax collection system and its inherent corruption at the state Government level accounted greatly for the negative effect of Tax Revenue on Infrastructural Development.

With regards to Statutory Revenue Allocation, a unit change induces 0.09-unit increase in development effort of government. A unit change in excess crude revenue induces 1.2 unit

increases the development efforts of the government while a unit change in Internally Generated Revenue induces 71.9-unit increase in the development efforts of the government.

States Fines was found to be positive significant on external debt in Nigeria. The study also revealed that there is no long run influence of States Fines on Infrastructural Development, it was found that there is no short run effect of States Fines on Infrastructural Development. In this case, the inflow of capital provides both the motive and the resources for capital flight. In the case of debt-fuelled States Fines, borrowed funds are themselves transferred abroad. There are two processes through which money can be transferred. First, government can borrow money and this is sold to domestic residents who transfer these monies abroad through legal or illegal means. In this case, government is the provider of foreign exchange. Second, government lends funds to private borrowers through a national bank. The borrowers in turn transfer part or all the States Fines. In this case, the Infrastructural Development provides the necessary fuel (the resources) for States Fines. Expectedly, capital flight is to have a positive influence on Infrastructural Development in Nigeria. This result supports the findings of Cuddington (1987); Bakare (2011). But contradicts Boyce (1992); Boyce and Ndikumana (2001); Ayadi (2008); Ghozali and Setyo (2012).

The foregoing results attest to the fact that Internally Generated Revenue performs a prominent role in the infrastructural development of north central state governments in Nigeria. This study revealed a negative and significant relationship between Internally Generated Revenue and amount Spent on Infrastructural of north central state governments in Nigeria. The finding correlate with those carried out by Ofoegbu and Alonge (2016); Adeniyi (2008) and Okojie (2010). Also, in a study conducted by Nnanseh and Akpan (2013) on IGR and infrastructural development in Akwa Ibom State, it revealed a positive contribution, but uneven contribution to

the development of infrastructure which deviate a little bit from this study with a negative and significant relationship between IGR and infrastructural development.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study examined the effect of internally generated revenue on infrastructural development of north central state governments in Nigeria. Specifically, the study examined the effect of internally generated revenue on infrastructural development of north central state governments in Nigeria.

In order to gain the advantage of an in-depth study and effective coverage, this study discussed the concept of internally generated revenue, concept of infrastructural development and concept of Taxation. The study reviewed prior literature on the subject of study and theories that are relevant for this study were discussed.

The study adopted expo facto research design and secondary data were collected from the Central Bank of Nigeria statistical Bulletin, World Bank, NBS and Internal Revenue Service (IRS). Ordinary least Square regression analysis was employed because the study made use of time series data and vector error correction estimation method.

The empirical evidence derived from the regression indicates that States Taxation has a negative significant effect on Infrastructural Development. It means that a percentage increase in the rate of States Taxation (TAX) will lead to a decrease in the dependent variable, Infrastructural Development (IFD). This implies that an increase in rate of States Taxation decreases the rate of Infrastructural Development (IFD) and this conforms to a priori or theoretical postulations and holds ground in Nigeria economy. It is significant at five percent level and negative. The negative sign on the coefficient suggests that capital flight has an indirect influence on the level of Infrastructural Development in north central states of Nigeria. The study also revealed that

there is no long run influence of States Taxation on Infrastructural Development; it was also found that there is no short run effect of capital flight on economic growth. Expectedly, States Taxation is to have a negative influence on Infrastructural Development given that States Taxation reduces the level of capital that supposes to be used to develop domestic economy.

5.2 Conclusion

This study examines the effect of internally generated revenue on infrastructural development of north central state governments in Nigeria, this study concludes that there is a negative and significant relationship between Internally Generated Revenue and Infrastructural of north central state governments in Nigeria. and this is in line with apriori expectation that capital flight reduces the level of capital that supposed to be used to grow domestic economy.

5.3 Recommendations

Based on the findings of this study and the conclusion made above, it is therefore recommended that:

For effective used of internally generated revenue, there should be equality in its allocation toward infrastructural development in the state. For instance, more IGR should be allocated to water than road. Good water provision will have a trickledown effect on healthcare because it will forestall and tackle bad water-related sickness like malaria that are commonly suffered by people of the state and extends their life span.

Every economy requires electricity for domestic and industrial transformation as such, government should also allocate more IGR toward power generation and distribution. They can do this by investing more of the tax payers' money in the Independent Power Plant such as the IPP at states to generate and distribute power to the people of the state.

The government should constitute an independent body to monitor the services of all the agencies including the internal revenue service to keep track of the funds generated and make sure such revenue are retired properly and adequately into government account to forestall any fraud in the internally generated revenue. This will ensure effective management of internally generated revenue in the state for more improve infrastructural renaissance in the state.

Since more internally generated revenue collection will attract massive infrastructural development in the state, the use of tax consultants is recommended for efficient and effective collection of internally generated revenue as the continuous used of unskilled staff of the State Board of Internal Revenue Service can do very little to maximize internally generated revenue collection.

Taxable organizations and individuals' data bank need to be appropriately captured for effective administration. The FIRS had a responsibility to engage professionals to undertake public enlightenment on tax education among these organizations. There should be a feedback from the taxpayer to improve operating efficiencies and avoid weaknesses. Government should make judicious use of tax revenue for economic development of the nation, provide infrastructural facilities that will improve the welfare of the general populace and alienate their suffering.

Government should crate tax appeal panel in each states of the federation so that tax payer can file petitions and complaints on issue relating to tax matters. The panel members should constitute experience and qualify tax personnel and non-tax officials that have the experience of law. These recommendations if consciously adopted will only rapidly help in the effective administration of tax revenue in Nigeria. Tax revenue constitutes a major component of national income in a modern economy. It is the dominant source of government recurrent revenue in most develops countries.

5.4 Limitation of the Study

The study on the effect of internally generated revenue on infrastructural development of north central state governments in Nigeria was conducted only in north central Nigeria. It is vivid that the need and sensitivity of every state is different and therefore findings obtained cannot be generalized in every state of the country. Also the study employed case study research design the one whose findings cannot be generalized into the entire population which is states in Nigeria. On that end, the study suffers from the limitation that, findings cannot be generalized into the entire population and into specific states within Nigeria.

5.5 Suggestions for Further Study

Similar study can be conducted by incorporating the whole states of the federation and increase the variables. The current study only used states taxation, states fines and statutory allocation hence, the future study can go further by including revenue from state investment and revenue from schools.

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