

## **Re-Evaluation of The Economic Impact of Tax Policy on The Growth of Nigerian Economy**

Eze, Onyebuchi Michael<sup>1\*</sup>; Celina Udude Chinyere Ph.D<sup>2\*</sup> And  
Atuma Emeka<sup>3\*</sup>

*Department of Economics, Ebonyi State University, Abakaliki, Ebonyi State, Nigeria*

*Corresponding Author: Eze, Onyebuchi Michael*

---

**Abstract:** *The study investigated the impact of tax policy on economic growth in Nigeria for the period 1981-2015. Auto Regressive Distributed Lag (ARDL) test and Pairwise Granger causality test were employed in the analysis. The variables used in the study include real gross domestic product (LRGDP), personal income tax (PIT), companies income tax (CIT), government expenditure (GEX), exchange rate (EXCR), broad money supply (MS) and interest rate (INR). The results ARDL test indicated evidence of both long run and short run relationships among the variables. It also showed that personal income tax (PIT) has positive and insignificant impact on real GDP while companies income tax (CIT) has negative and significant impact on real GDP. The results also revealed that GEX and MS have positive and insignificant impact on real GDP while EXCR and INR have negative and insignificant impact on real GDP. More so, the result of the Pairwise Granger causality test showed that PIT, CIT and MS have unidirectional relationship with real GDP with causality runs from PIT, CIT and MS to RGDP. Thus, the study recommended for the application of personal income tax by government in generating revenues to promote economic growth more than it uses companies income tax as it will lead to improvement in economic growth of the country.*

**Keywords:** *Tax policy, Economic Growth, Autoregressive distributed lag model, Pairwise Granger causality*

---

Date of Submission: 12-03-2018

Date of acceptance: 30-03-2018

---

### **I. Introduction**

The nation's economic, social and political development is largely depended on the amount of revenue generated for the provision of infrastructures in the economy. The means by which this amount of revenue is generated is via a well-structured tax system. Therefore, these resources needed are believed to be generated from both internally and externally through a well structured tax system. Thus, the level of economic growth of the nation is determined through macroeconomic policy measure such as tax (Nwadiolor & Ekezie, 2016). A tax system provide government with the opportunity to generate the needed revenue to finance infrastructural projects and meet other needs that improve the entire welfare of the citizens.

Tax policy as one of the fiscal policy instruments involves government's deliberate action designed to mobilize resources from those who have excess and distribute to the areas of deficit in order to improve the overall welfare of citizens (Dada, Oyeneye & Dahn, 2014). In most of the developing countries including Nigeria, where there is lack of well locally controlled and organized money market, fiscal measures become imperative to mobilize domestic resources. The major tool used by the government in the mobilization of nation's internal resources and as well used in creating a conducive environment for the promotion of economic growth is tax policy, which involves both the direct taxes and the indirect taxes. Direct taxes include the taxes levied on the corporations and the private individuals primarily on properties while indirect taxes include taxes involving excise duty, import duty and export duty. These consists of excise duties levied on direct domestic consumption of various goods including consumer durables, liquors, petrol, etc and duties levied on foreign trade (Dada et al., 2014). In the developing countries, the main purposes of taxation include to checkmate the production and consumption of commodities believed to be harmful to human health and are capable of reducing significantly the marginal physical product of people and, hence, decreasing earnings. It is also involves tax concessions, which is focused on physical incentives by the means of promoting private enterprises in the economy. These incentives and concessions have overtime been offered to investors in order to attract foreign private investment abroad. Locally, it is offered to local investors mainly to encourage the citizens of the nation to participate in the economic activities of the countries via control and ownership of state trading agencies and public corporations. Finally, the purpose of taxation includes the mobilization of resources or generates sufficient revenue to finance government expenditures (Dada et al., 2014).

Considering the theory of modern school of economics, higher rate of income tax is the necessary conditions for achieving sustainable economic growth. However, this theory contradicted the philosophy of the traditional economics who postulated that low income taxes influences economic development of a nation (Adudu & Ojonye, 2015). Thus, it is important to note here that an optimal tax rate is one which consists of the synthesis between nation's revenue and its economic development. A decreased tax rate results to low government revenue whereas higher tax rate discourages savings and development in the economy. It is also crucial to note that the primary goal of government in governance is to advance the overall welfare of the greater number of the citizens. It is believed that government's productive spending positively affects the economy; hence, it results to improved welfare of the entire citizens. In this view, tax revenue therefore, is the key determinant of government expenditures. Increase or decrease in tax revenue affects government expenditures which in turn, reflect in the level of national output (Adudu & Ojonye, 2015).

In Nigeria, the over reliance on oil revenue led to several reviews in the existing tax laws by the federal government with its objectives involving to bridge the gap between the country and the funding of the needs. The objectives also include attaining improved service delivery to the entire citizens; to ensure that taxation act as an instrument of fiscal policy; to attain efficient and effect tax administration in order to make it more reliable, responsive, skilful and to make convenient to taxpayers. More so, it is reformed to improve on the tax revenue derivable from both the oil and non-oil activities as well as to reduce and manage high rate of tax evasion and avoidance in the country (Gylych, Samira & Abdurahman, 2016). Overtime, tax system has undergone series of reform in Nigeria. The effects of these reforms include the induction of income tax between 1904 and 1925, in addition to autonomy granted to Nigeria Inland Revenue in 1945.

Other reforms experienced by the country in its tax laws include the constitution of the board of Inland Revenue in 1958, the establishment of the petroleum profit tax in 1959 and income tax management of 1961 as well as companies income tax in 1979. More so, the reform also saw the establishment of Lagos State Inland Revenue Department and the Federal Board of Inland Revenue in 1979. Between 1991 and 1992, Federal Inland Revenue Service was established; and between 2001 and 2004, tax policy and administration reforms were amended (Gylych et al., 2016). Today, the Act establishing tax laws in 2004, categorized tax system in Nigeria into personal income tax, companies income tax, value added tax, petroleum profit tax, education tax, excise tariffs, customs, among others. The need for fiscal policy measures in Nigeria have overtime been driven by the macroeconomic objectives of promoting economic growth in the economy, maintaining price levels, improving the balance of payments conditions as well as creating employment in the country. In this view, therefore, Nigeria is in dire need of effective and efficient tax system to generate enough revenue to finance government expenditures and stimulate economic growth of the nation (Confidence & Ebipanipre, 2014).

Taxation may be conceived as a threat to business proposed revenue or people's standard of living; however, to government, taxation is seen as the development-led facilitator. In the development process of a nation, increase in taxation in addition to introduction of new technology leads to continuous economic growth and development. The main goal of taxation is to reduce purchasing power of the people (tax payers) in the form of tax payers relinquishing economic resources control and make them available to the state (Olusanya, Peter & Oyebo, 2012). It is the act of manipulating fiscal policy by government of a nation to attain macroeconomic goals. These goals could be an expansionary which seeks to reduce national unemployment, government via tax incentives can stimulate investment in the economy as tax liability on investor's decreases and with more money being available to private sector for investment purposes. It also leads to poverty reduction as more unemployed people become gainfully employed, which in turn, results to economic growth and development. Taxation also ensures redistribution of income and wealth, hence, it is a tool used to achieve socio-economic goals of a country.

Overtime, government of Nigeria knowing full well the importance of taxation has concentrated much in the reviews of tax policies and these have led to the introduction of personal income tax, petroleum income tax, companies income tax, value added tax, excise tariffs, education tax, customs, among others in the Nigeria's tax system. All these were geared towards diversifying the revenue generation base of the country, and mainly to meet the infrastructural and socio-economic development needs of the nation. Taxation as mentioned is a useful fiscal policy instrument that affects revenue generation and other important economic activities such as sustainable economic growth, equitable income distribution, price stability, employment creation and promotion of domestic investment as well as encouraging effective demand in the economy. Nevertheless, tax system does not go without side effect. The problem associated with tax system is on how to determine the optimal rate of tax that is required to generate adequate revenue for infrastructural and socio-economic development without generating high inflation and without affecting aggregate demand in the economy. Sometimes, the government faced the problem of harmonization of tax policies among the federal, states and local governments to avoid multi tax system and conflicting economic policy objectives of the nation. Though tax system is a tool employed to influence economic activities, the distribution of national resources, investment deficits, low economic growth, infrastructural decay, high unemployment and inflation have remained the macroeconomic problems in the economy. As a result, agitations for session among the different ethnic groups have continued to hamper economic activities of the

nation due to the dissatisfaction in the level of economic development and poverty level in the economy, despite the claim that Nigeria as the most populous country and the largest economy in the continent of Africa. Thus, it is against this view, that this paper investigates the impact of tax policy on economic growth in Nigeria.

## **II. Review Of Related Literature**

### **2.1 Theoretical Review**

There are several theoretical postulations that explain the nexus between tax policy and the behaviors of economic growth in any given economy. The history of economics revealed that taxation is a very crucial instruments employed by government of any country, not only to generate revenues, but also to attain fiscal goals which have direct influence on investment alongside taming the production and consumption of certain goods and services believed to be inimical to human health (Nwadiolor & Ekezie, 2016). Taxation is the machinery through which persons or groups of persons contributes in some agreed quantum in order to enable carry out its administrative duties and provides the development needs of the society (Otu & Theophilus, 2013). This implies that payment of tax benefits the entire citizenry and the economy as a whole. Thus, tax can be described as a compulsory contribution imposed by the government on the private sector of the economy. The taxpayers do not receive anything commensurate with the contribution made but they will benefit through the provision of health care delivery, quality education, and safe society (Soyode & Kajola, 2006).

Raymond, Adigwe & Echekeba, (2015) opined that taxation is more than a mere imposition of the compulsory payment involving sums of money by the government, it also involves the sum total of the tax assessment, the imposition of compulsory sums of money by the government on firms and individuals, collection of and accounting for the levied amounts and the keeping and auditing tax records. Accordingly, Onaolapo, Fasina & Adegbite (2013) postulated that tax system provide government an opportunity to mobilized additional revenue required in meeting its pressing obligations. It is the most effective means of mobilizing a country's internal resources and a means of creating a favourable environment to improve economic growth of the nation. Sunday, Arzizeh & Okon (2013) stated that taxation is designed to support the effort of government in discharging its responsibilities for the entire socio-economic welfare of the citizenry. However, the authors argued that while tax policy stands out to be one of the macroeconomic tool used improve the standard of living of the people, circumstances often arise that require selective application of taxation when the economic aim in tax administration is to focus on promote economic growth and increase the level of employment in the country. In this view, tax policy has overtime concentrated on how to attract investments into the developing countries like from foreign investors.

Thus, a well structured tax structure influences movement of people, money as well as materials to invest in a country's domestic economy any part of the world. Several authors hold the belief that a flexible tax policy and incentives attracts investments from foreign countries thereby helping the host country to stem the tide of unemployment in order to improve economic growth. However, often time some countries can be implementing fiscal policy that result in high tax rates with infrastructural development being too poor in the country. This kind of situation unavoidably surfaced in a country where insecurity and political upheaval divert the nation's economic considerations (Sunday et al., 2013). More so, Dada et al. (2014) emphasized that the role of taxes as the instrument of fiscal policy in the management of an economy is enormous both in the form of generating revenues and wealth or income distribution in the country. Therefore, they further argued that market economy leads to income inequality, which in turn, continued to raise wealth-poverty gap as such system progresses; thus, they assert that market system is inefficient in resources allocation in an economy. Therefore, fiscal policy is used by government to allocate resources for the overall welfare benefit of the citizens and as well influences the economic activities of the nation. The key objective of taxation is to raise revenue that would enable the government meet its financial obligation. Despite this objective, the imposition of taxes on people or group of people or firm is meant to reduce wealth-poverty gap in an economy.

Usman & Bilyaminu (2013) also stated when the effective condition necessary for socio-economic development is slow, social contract between a ruling elite and its population based on a political settlement are allowed to collect taxes without excessive coercion in return for delivering basic security and essential public goods. The state-building approach to taxation, therefore, recognizes tax as one of the few core capabilities that any state needs in order to function effectively. Accordingly, Adudu & Ojonye (2015) was of the view that economic and socio-political development of any country depends largely on the amount of revenues generated via taxation for the provision of infrastructures for economic growth. Meanwhile, tax is a compulsory levy which government imposed on the citizens as well as their properties primarily to provide infrastructures for the development of the economy. In the same view, Ogbonna & Appah (2012) stated that tax has to do with an imposition of compulsory levy on citizens and upon their properties by the government on the account of providing social amenities, security and to provide a favourable conditions for achieving the overall economic well-being of the society. They further reiterated that the imposition of taxes are often employed to control the production of certain commodities, control businesses, reduce income inequalities, protect infant industries and

curtail high inflation in an economy. As an instrument of fiscal policy, Tosin & Abizadeh (2005) identified five ways in which taxes affects economic growth of a nation. These include; inhibition of investment rate via such taxes as personal income tax, corporate tax and capital gain tax; taxes slows down labour supply growth by disposing labour leisure choice in favour of leisure; tax policy can affect productivity growth by discouraging expenditures on research and development. It can also affect a flow of resources across sectors which can slow down productivity; and high taxes on the supply of labour can negatively affect the efficient use of human capital.

## **2.1 Theories of Taxation**

The taxation theories focused on the activities between tax liability and the nation activities with the main objectives focusing on generating sufficient revenues for the government to finance expenditures as well as provide infrastructural facilities for the welfare improvement of the populace in the society. It is believed that the above reasons justified the tax impositions which enable government to finance the activities of state and as well provide a basis for apportioning the tax burden among the members of the society. In the view of Ogbonna & Appah (2012), the reason for the imposition of taxes is borne on the government effort to finance the nation's activities and provide a basis for apportioning the burden of tax among the members of the society. Bhartia (2009) stated that taxation theory is derived from the assumption that there should no proportional relationship to exist between tax paid and benefits received from the nation activities. In this view, the following theories were reviewed to explain the relationship between tax policy and economic growth in the Nigerian economy.

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

Socio-political theory is one of the taxation theories. The theory opined that those social and political goals should be considered as factors while selecting and imposing taxes on the citizens. Thus, the theory advocated for tax system designed not to serve individuals, but designed to solve the problems of the entire society (Ogbonna & Appah, 2012).

### **2. Expediency Theory of Taxation**

The theory of expediency postulated that every tax proposal must pass through the practicality test. This implies that the expediency goal of taxes must only be the consideration weighing with the authorities in the choice a tax proposal. In this sense, opined that social and economic objectives of the nation as the effects of a tax system should irrelevantly be treated (Bhartia, 2009 cited in Ogbonna & Appah, 2012).

### **3. Benefit Received Theory of Taxation**

The benefit received theory focused on the assumption that there is existence of relationship between an exchange of tax payers and the nation. According to the theory, the nation provides certain goods and services to the citizens of the country and they in turn, contribute to the costs of the supplies which is proportionate to the received benefits (Bhartia, 2009 cited in Ogbonna & Appah, 2012). Accordingly, Anyanfo (1996) was of the opinion that the allocation of taxes should be based on the received benefits from government expenditures.

### **4. Cost of Service Theory of Taxation**

The cost service theory shared the same ideology with the benefits received theory. The theory explains the semi-commercial nexus between the citizens and the country to a greater extent. The theory believed that the primary functions of the state include providing basic protective and welfare of the citizens in the society. Hence, the theory advocates that government should scrupulously recover the cost of the services by applying a balanced budget policy (Ogbonna & Appah, 2012).

### **5. Faculty Theory of Taxation**

The faculty theory of taxation advocates for progressive tax system. The theory postulated that tax should be levied in accordance with one's ability to pay (Anyanfo, 1996 cited in Ogbonna & Appah, 2012). This simply indicates an attempt to maximize an explicit value judgment concerning the distributive taxes effects. Accordingly, Bhartia, (2009) revealed that that citizens pay taxes because they can, in addition to their relative share in the total burden of tax which are determined by their relative capacity to pay.

## **6 Economic Growth**

Economic growth is defined as a sustained increase in net national product or per capita national output over a long period of time. This therefore, implies that the increase rate of the total output of the country must exceed the population growth rate. More so, the economic growth can also be quantified on the aspect that that the national output should be composed of such goods and services in such manner that it satisfy maximum want of greater number of the citizens. It is determined by natural resources, human resources, technological development and capital formation. The economic growth theories can be examined under the Kaldor model of distribution,

Harrod-Domar theory of growth, Joan Robinson's model of capital accumulation, Pasinetti model of profit and growth, Solow model of long run growth and the Neo Classical model of economic growth. The above models of economic growth represent the views of scholars on the most suitable explanation of economic growth in the economy of nations of the world.

### **2.1.1 Structure of Nigerian Tax System**

There is no doubt, Nigerian tax system is largely based on petroleum and trade taxes while indirect and direct taxes such as the value-added (VAT) are broadly ignored (Nwadiolor & Ekezie, 2016). This constitutes a structural problem for the nation's tax system. According to Nwadiolor & Ekezie (2016), the dominance of informal sectors in the country has made the potential expansion and impact of direct taxes and VAT to be limited in the economy. The limitation of the formal sector is due strong unions which act as pressure groups in order to resist any increase in taxes from gross income. More so, the persistent increase in fiscal deficit in the country has overtime threatened the stability of macroeconomic variables and economic growth prospects thereby making the prospect of tax reform demanding (Nwadiolor & Ekezie, 2016). Potentially, value added tax can expand an economy due to its viability; but its impact is limited due to the dominance of the informal sector in the economy.

### **2.1.2 Tax Policy Reforms and Institutional Development in Nigeria**

The economic development of any nation depended to large extent the amount of revenues generated in the economy by the country. In the developing country where there are limited sources of revenues, the need to address the problems of low tax revenues' returns led the government of Nigeria to embark on several reforms to existing tax laws. In this view, Ocran (2009) cited in Nwadiolor & Ekezie (2016) stated that the goals of tax reforms in Nigeria involves to ensure taxation, as instrument of fiscal policy ensure the promotion of infrastructure in the public service delivery to the masses; to bridge the broad gap existing between the needed national development and financing the government expenditures; to promote the level of tax that can be derived from the activities of non-oil sector as well as the activities of oil sector; to promulgate efforts geared towards frequent review of the tax laws in the country in order to reduce and manage tax evasion and in some cases total avoidance; and also to improve on the tax administration in order to make it more taxpayers friendly, skillful, reliable and more responsive and to attain other fiscal goals of the nation.

In Nigeria, tax system has over the years undergone several reforms since 1904s. These reforms include the introduction of personal income tax between 1904 and 1926 in Nigeria; in 1945, the tax policy reforms granted autonomy to Nigerian Inland Revenue. Others include the formation of the Inland Revenue Board in 1958; and the promulgation of the petroleum profit tax in 1959. In 1961 tax laws Act, Income Tax Management and the Lagos State Inland Revenue Department were established. By 1979, the laws promulgated the Companies Income Tax Act (CITA). More so, in 1979, the tax laws Act established the Federal Board of Inland Revenue under CITA; and between 1991 and 1992, the Act established the Federal Inland Revenue Service and the tax policy and administration reforms of between 2001 and 2004. In Nigeria, the major types of taxes include excise duty, export duties, petroleum profit tax, personal income tax, companies income tax, capital gains tax, gift tax, sales and purchase taxes, mining rents and royalties, external affairs officers, armed forces, television and wireless radio license, estate stamp duties, football and other betting taxes including Others include entertainment tax, vehicle registration and driver's license fee, property tax, market and trading license fees, and land registration and survey fees (Nwadiolor & Ekezie, 2016).

## **2.2 Empirical Review**

Ogbonna & Appah (2012) examined the impact of tax reforms on economic growth in Nigeria for the period 1994-2009 using cointegration test and Granger causality test. The variables used in the investigation include petroleum profit tax, value added tax, companies income tax, education tax, custom and excise duties, personal income tax and gross domestic product. Data for the analysis were sourced from the Federal Inland Revenue Service (FIRS), the Central Bank of Nigeria (CBN) Statistical Bulletin and the office of the Accountant General of the Federation. The study found that tax reforms tax reforms as mentioned above have positive influence on economic growth in Nigeria. Confidence & Ebipani (2014) investigated taxation as a tool for economic growth in the Nigerian economy using ordinary least square (OLS) technique for the period 1980-2013. The study employed annual data obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin for variables such as value added tax, corporate income tax and gross domestic product. The discovery of the study revealed that taxation is an instrument of economic growth in Nigeria. Therefore, the study asserts that additional measures are needed by government to ensure that tax evasion and avoidance by taxpayers are highly prevented in the tax administration in the country.

Adudu & Ojonye (2015) examined the impact of tax policy on economic growth in Nigeria for the period of 1990-2011 through the application of Granger causality co integrations method. The study showed that efficient tax reforms enhanced sustainable economic growth in the economy. Thus, the study recommended that

government should improve on tax regimes, discourage tax holidays to multi-National companies (MNCs) and diversify the revenue as catalysts for sustainable economic growth and development in the economy. Nwadiolor & Ekezie (2016) investigated the effect of tax policy on economic growth in Nigeria from 1994 to 2013 by employing ordinary least square (OLS) on the data sourced from the published report of the FIRS of various years. The variables used in the investigation involve gross domestic product, total tax revenue, direct tax, indirect tax and real gross domestic product. The study discovered that taxes have significant influence on gross domestic product in Nigeria. Similarly, the study revealed that the proportion of indirect to total tax has risen over the years.

Onaolapo, Fasina & Adegbite (2013) empirically studied the effect of petroleum profit tax on economic growth in Nigeria for the period 1970-2010. Multiple regressions were applied in the analysis using data on such variables as gross domestic product, exchange rate and petroleum profit tax. The study showed that exchange rate and petroleum profit tax have significant impacts on gross domestic product in Nigeria. This implies that income generated from the petroleum tax has significant influence on the growth of the Nigerian economy within the period under study. More so, Adegbite & Fakile (2011) assessed the nexus between petroleum profit tax and economic development of Nigeria for the improvement of the welfare of the citizens using chi-square and multiple regression statistical technique. The study revealed that strong correlation exists between petroleum profit tax and economic development in Nigeria. The study also showed evidence of tax evasion and avoidance as the major limitation to income growth while poor tax administration was identified as the problem facing effectiveness and efficiency of source of income, and lack of corporate social responsibilities which is caused by unrest in the oil producing states.

Sunday, Arzizeh & Okon (2013) empirically investigated the impact of tax policy and incentives on foreign direct investment and economic growth in Nigeria using ordinary least square (OLS) on the data collected through structured questionnaire approach. The study acknowledges that many states face pressure to soften investment tax incentives programmes to compete with tax breaks offered elsewhere. The study discovered that tax rates have significant impact on foreign direct investment (FDI) and economic growth in the Nigerian economy. Dada, Oyeneeye & Dahn (2014) studied the impact of tax revenue shocks on economic growth in Nigeria for the period 1961-2011 through the application of Johansen cointegration and vector autoregressive model (VAR). The variables employed in the study include gross domestic product, tax revenue, government expenditure and consumer price index. The data on these variables were sourced from the statistical bulletin of the Central Bank of Nigeria published in 2012 and the version 2012 of the World Development Indicators (WDIs). The study revealed that tax revenue shocks positively affect real output and government expenditure. It also showed that tax revenue contributes positively to innovations in government spending and real output from the first year up to the end of the period. The study as well showed that tax revenue shocks have positive effect on long-run economic growth in Nigeria.

Similarly, Usman & Bilyaminu (2013) investigated taxation as an instrument of societal development in Nigeria. The objectives of the study were to assess the nature and size of Kano's hidden economy; to identify those in the hidden economy; and the appropriate approach to tackling such an economy. The study used survey technique though the administration of structured questionnaires. The revealed that informality was a self reported lack of tax compliance in a sample of individuals and businesses who responded to the set issues. The study also discovered that tax compliance is significantly influenced by adequate campaign and judicious utilization of tax funds. Ojochogwu & Stephen (2012) took research on the nexus between the growth of SMEs and the tax policy environment in Nigeria using business sustenance and expansion as indices of growth. Data for the study were collected analyzed through the responses obtained from questionnaires distributed to SMEs in Zaria, North central of Nigeria. The study employed sampling survey by applying non-probability sampling method specifically through judgmental sampling. Spearman's Rank Correlation was employed in the data analysis in the study. The study showed that there is negative significant nexus between taxes and the business' ability to sustain itself and to expand in the economy. Hence, the study revealed a vibrant and flourishing SME sector can be obtained through appropriate tax policy that is encumbrance to the growth of small and medium enterprises.

Zhattau (2013) investigated fiscal policy as engine of economic growth in Nigeria. It conceived economic growth as a powerful engine for generating long term standard of living in a country. Taxation was also viewed as the key determinant of government revenue as well as government expenditure which in turn, serves as crucial channels of transmission between fiscal policy and growth. The study described the effect of review methods in the fiscal policy of Nigeria. The discovery of the study indicated that the various challenges facing fiscal policy and the implementation of tax in Nigeria as well as appropriate method of the implementation of tax in the economy increases the revenue of the country through acceleration of economic growth. Similarly, the study revealed that efficiency of tax system is should not only be dissociated with the appropriate tax laws but also the efficiency and integrity of tax administrators. Raymond, Adigwe & Echekeba (2015) assessed to determine whether tax as an instrument of fiscal policy influence the performance of some selected manufacturing companies in Nigeria through the application of ANOVA. The study also adopted descriptive method and data for the investigation were obtained using six years financial accounts of the selected companies. Finding of the study

showed that Taxation as an instrument of fiscal policy significantly affects the performance of manufacturing companies in Nigeria. This result implies that the amount of tax paid in the country depends on the performance of the companies.

Akintoye & Tashie (2013) examined the effect of tax compliance on economic growth and development in Nigeria with the view that tax revenue is a crucial tool for economic growth and development any developing economies like Nigeria. Hence, the internal generated revenues via taxes go extra mile in providing funds for the provision of public goods. The study used a comparative analysis of the willingness to pay tax by citizens in two states of the federation including Oyo and Lagos States. Data for the investigation were collected through the structured questionnaires and were analyzed using frequencies, percentages and Chi-square technique. The study revealed that many Nigerians are complying with tax payment and that the willingness of citizens to pay tax in Lagos State is significantly higher than that of Oyo State. This implies that tax compliance affect economic growth of Nigeria positively. Otu & Theophilus (2013) examined the effect of tax revenue on economic growth in Nigeria from 1970 to 2011 through the application of Ordinary Least Square (OLS) technique. The study indicated that tax revenue positively affect the growth of the Nigerian economy. Similarly, the study found that labour force, domestic investment and foreign direct investment have significant positive influence on economic growth in Nigeria.

John & Suleiman (2014) examined the effect of value added tax on the economic growth in Nigeria using ordinary least square (OLS) approach. The study indicated that value added tax (VAT) has significant contribution to the government total tax revenue as well as the economic growth in Nigeria. Akwe (2014) investigated the influence of non-oil tax revenue on economic growth in Nigeria for the period 1993-2012 through the application of ordinary least square (OLS) regression approach. The study showed that non-oil tax revenue has positive influence on economic growth of Nigeria. Cornelius, Ogar & Oka (2016) studied the impact of tax revenue on economic growth in Nigeria using ordinary least square (OLS) method of regression. The variables employed in the investigation include gross domestic product, petroleum profit tax, company income tax and non oil revenue. Data for the study were obtained the statistical bulletin of the Central Bank of Nigeria (CBN). The study showed that petroleum profit tax and non-oil revenue have significant impact on economic growth of Nigeria. The results also indicated that company income tax has insignificant influence on the growth of Nigerian economy. Adamu (2014) investigated the impact of tax incentive on economic growth in Nigeria using survey method and content analysis. Data for the study were collected from both primary and secondary sources and analyzed using chi-square test. The study found that tax incentive promote economic growth and industrial development in Nigeria within the period reviewed.

Margaret, Charles & Gift (2014) empirically examined the impact of Taxation on economic growth in Nigeria for the period 1994-2012 using Granger causality test. The study disaggregated taxation into personal income tax, value added tax, petroleum profit tax and company income tax with gross domestic product being used as the parameter for measuring growth of the economy. The study found that taxation has positive significant impact on economic growth of Nigeria within the period studied. Gylych, Samira & Abdurahman (2016) examined the influence of tax reforms on economic growth in Nigeria for the period 1986-2012 using ordinary least square (OLS) technique. Data for the study were obtained from the publications of the Central Bank of Nigeria publications, Federal office of statistics, Federal Inland Revenue Service text book both the published and unpublished thesis. The results showed that tax reforms have significant positive influence on economic growth. Therefore, the study concluded that favourable tax reforms leads to improvement on the revenue generating capacity of government to carry out socially desirable activities that results to economic growth on the basis of real output and per capita incomes.

Okoh, Onyekwelu & Iyidiobi (2016) used simple linear regression approach to investigate influence of petroleum profit tax on economic growth of petroleum profit tax on economic growth in Nigeria from 2004 to 2015. The variables used in the study include gross domestic product and petroleum tax revenue. Data were collected from the statistical bulletin of the Central Bank of Nigeria and the publication of the Federal Statistical Bureau. Finding of the study indicated that petroleum profit revenue has significant positive influence on gross domestic product in Nigeria. Ebiringa & Emeh (2012) examined analyzed the effect of forms of tax on the economic growth in Nigeria for the period 1985-2011 using econometric analysis. The study showed that custom and exercise duties are the key determinant factors of economic growth in Nigeria while however; they have inverse relationship and significant to gross domestic product. Uche & Okelue (2017) empirically examined the influence of fiscal policy variables on the economic growth in sub-Saharan African countries using fixed effect model. Data for the investigated were gathered from sub-Saharan African countries in panel least squares. The study discovered that government unproductive and productive expenditures, distortionary and non-distortionary taxes significant affect economic growth in sub-Saharan African countries. More so, the study revealed that budget balances of sub-Saharan African countries insignificantly and positively affect the economic growth of sub-Saharan African countries.

Onakoya, Afintinni & Ogundajo (2017) examined the impact of taxation on economic growth in Africa for the period 2004-2013 using Levin et al. test, Im, Pesaran and Shin W-stat tests and Hausman test to determine the appropriate estimator between Fixed and Random Effect. The study discovered that that tax revenue has positive and significant influence on gross domestic product and as well promotes economic growth in Africa. Thus, high and weak levels of taxation are favourable to economic growth as upheld by the economic effect of Ibn Khaldun's theory on taxation, which approves the positive impact that lower tax rate have on work, output and economic performance. Matthew, A. A. (2014) studied the impact of tax revenue on economic growth in Nigeria using Chi-square statistical tool of analysis alongside descriptive survey design and simple random sampling technique in the selection of the sample size. The results showed that that tax revenue has significant impact on the implementation of government budget in Nigeria. More so, the study indicated that tax administrative system affected the revenue generated in Nigeria significantly, and also that tax evasion affected the revenue generation of government significantly in the economy. Similarly, the study revealed that lack of training of the officers of tax administrators significantly affected government revenue generation in Nigeria. Afuberoh & Okoye (2014) studied the impact of impact of taxation on revenue generation in Nigeria, with reference to FCT and some selected states in the country using regression analysis. The study found that taxation has significant effect on revenue generation and that taxation has significant influence on gross domestic product in Nigeria.

## 2.1 Gap in Literature

This study is an improvement on other studies undertaken on the topic and other related topic under investigation. The study reviewed various empirical studies in order to support to this study. In the empirical reviews, the study disaggregated tax policy to include personal income tax and companies income tax which other studies ignored in their investigations. More so, the study employs Auto Regressive Distributed Lag (ARDL) which is more advanced econometric test against ordinary least square (OLS) and chi-square widely used by other studies. Similarly, most of the works reviewed focused more on the aggregate tax revenue and economic growth with little considering tax policy with the disaggregated tax revenues and economic growth in Nigeria. Thus, it is against this established gap and the desire to contribute to knowledge in literature that motivated this research.

## III. Methodology

In order to effectively investigate the impact of tax policy on economic growth in Nigeria for the period 1981-2015, the study utilized unit root test through the application of Augmented Dickey-Fuller (ADF) stationarity test, Auto Regressive Distributed Lag (ARDL) model, and Pairwise Granger causality test in the analysis. The stationarity test is employed to examine the level of integration of the time series used in the study. More so, ARDL model is utilized to investigate the long run and short run coefficients of the variables of the study. On the other hand, The Pairwise Granger causality is engaged in the study to determine the nature causal relationship between tax policy and economic growth in Nigeria. The variables employed in the modelling of the study involves real gross domestic product (RGDP), personal income tax (PIT), companies income tax (CIT), government expenditure (GEX), exchange rate (EXCR), broad money supply (M2) and interest rate (INR). Data for these variables are obtained from the statistical bulletin of the Central Bank of Nigeria, Federal Inland Revenue Service publication and National Bureau of Statistics (NBS) of various publications ranging from 1981 to 2015.

### 3.1 Model Specification

The model specified for this study followed the lead of Margaret et al. (2014) modeling. The study modeled gross domestic product with respect to disaggregated tax policy including personal income tax, value added tax, petroleum profit tax and company income tax. In this investigation, the study modified the model to include real gross domestic product (RGDP) as the dependent variable while personal income tax, companies income tax, value added tax, net export, government investment expenditure, private investment expenditures and exchange rate were employed as the explanatory variables. Thus, the following model in functional form illustrates the relationship between tax policy and economic growth in Nigeria.

$$RGDP = f(PIT, CIT, GEX, EXCR, MS, INR)$$

1

Where;

RGDP is the real gross domestic product, PIT is the personal income tax, CIT is the companies income tax, GEX is the government expenditure, EXCR is the exchange rate, MS is the broad money supply and INR is the interest rate while f is the functional notation.

In linear function, it is specified as:

$$RGDP_t = \lambda_0 + \lambda_1PIT_t + \lambda_2CIT_t + \lambda_3GEX_t + \lambda_4EXCR_t + \lambda_5MS_t + \lambda_6INR_t + e_t$$

2

Where;



RGDP is the dependent variable while PIT, CIT, GEX, EXCR, MS and INR are the explanatory variables;  $\lambda_0$  is the constant term,  $\lambda_i$  are the coefficients of the regression equations while  $e_t$  is the stochastic variable.

### 3.2 A Priori Expectation

Theoretically, it is expected that personal income tax, companies income tax, government expenditure, exchange rate and broad money supply would have positive relationship with real gross domestic product while interest rate is expected to have negative relationship with real GDP in Nigeria.

## IV. Results And Discussion

This section of the study focused on the presentation of the estimated results and consequently, discusses the results in line with the objectives of the study.

### 4.1 Unit Root Test

This test is employed to investigate the presence of unit root in the variables under study through the application of the Augmented Dickey-Fuller (ADF) unit root test with or without trend and intercept. The results are illustrated in the table 1 below.

**Table 1:** ADF Unit Root Test on Monetary variables and Net Export

Trend and Intercept

Variables	Level		First Difference		Remarks	
	ADF Statistic	5% Critical Value	ADF Statistic	5% Critical Value		
LRGDP	-0.558959	-2.951125	-5.500945	-2.954021	Stationary	I(1)
LPIT	-0.646149	-2.951125	-5.860625	-2.954021	Stationary	I(1)
LCIT	-0.896063	-2.954021	-9.754072	-2.954021	Stationary	I(1)
LGEX	-1.044285	-2.951125	-7.075043	-2.954021	Stationary	I(1)
LEXCR	-2.287258	-2.951125	-5.745783	-2.954021	Stationary	I(1)
LMS	-0.762918	-2.954021	-3.172998	-2.954021	Stationary	I(1)
INR	-3.030411	-2.951125	-7.981873	-2.954021	Stationary	I(1)

Source: Researcher's compilation from E-view 9

Table 1 above illustrates the results of ADF stationarity test between real gross domestic product and its determinants. From the results, the estimation showed that all the variables including LRGDP, LPIT, LCIT, LGEX, LEXCR, and LMS except INR were non-stationary at level; however, all the variables became stationary after first differencing. This claim is evidenced by the ADF statistic and the critical values of the various variables. Therefore, the attainment of integration of the same order among the series implies that the variables possessed long run properties. It as well means that their variance, mean and covariance are constant overtime. Thus, they are due to be used in the investigation as they do not contain unit root at this level.

### 4.2 Auto Regressive Distributed Lag (ARDL) Bounds Cointegration Tests

ARDL Bounds test is the estimation procedure which deals with the analysis of the long run relationship and short run dynamic interactions among the underlying variables. This model was developed by Pesaran & Shin (1999) in order to investigate the long run relationship and short run dynamic interactions among various variables. The model requires that all the series must not be integrated of the same order for it to be applied in a study. Thus, it can be applied even when the variables are integrated of order one, order zero or fractionally integrated. ARDL model is relatively more efficient even when the size of the data is so small and finite. According to Harris & Sollis (2003), the technique ensures unbiased estimation results of the long run model. The model of ARDL is expressed as:

$$\Delta y_t = \beta_0 + \sum \beta_i \Delta y_{t-i} + \sum \gamma_j \Delta x_{1t-j} + \sum \delta_k \Delta x_{2t-k} + \theta_0 y_{t-1} + \theta_1 x_{1t-1} + \theta_2 x_{2t-1} + e_t$$

17

Meanwhile, results ARDL are shown below.

**Table 2:** ARDL Bounds Cointegration Test between Tax policy variables and Economic Growth  
Dependent Variable: LRGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LRGDP(-1)	0.924425	0.163236	5.663115	0.0000
LRGDP(-2)	-0.361459	0.191788	-1.884680	0.0716
LPIT	0.011191	0.023532	0.475576	0.6387
LCIT	-0.093344	0.024216	-3.854594	0.0008
LGEX	0.116189	0.080564	1.442187	0.1622
LEXCR	-0.031286	0.033654	-0.929625	0.3618
LMS	0.073871	0.081560	0.905729	0.3741
INR	-0.004133	0.003866	-1.069095	0.2957
C	1.921115	0.806131	2.383131	0.0254

R-squared	0.984597	Mean dependent var	6.076082
Adjusted R-squared	0.979462	S.D. dependent var	0.417888
S.E. of regression	0.059888	Akaike info criterion	-2.565689
Sum squared resid	0.086077	Schwarz criterion	-2.157550
Log likelihood	51.33387	Hannan-Quinn criter.	-2.428363
F-statistic	191.7616	Durbin-Watson stat	1.897275
Prob(F-statistic)	0.000000		

Source: Researcher's compilation from E-view 9

Table 2 above depicts the results of ARDL bounds cointegration test between tax policy variables and economic growth. The results showed that personal income tax (LPIT) at lag zero (current year) has positive and insignificant influence on real gross domestic (LRGDP) while companies income tax (LCIT) lagged at current year has negative and significant influence on real gross domestic product (LRGDP). These claims are evidenced by the coefficients and p-values of the variables under consideration. From the results, the coefficients of LPIT and LCIT are 0.011191 and -0.093344 while their respective p-values include 0.6387 and 0.0008. Similarly results showed that LGEX and LMS lagged at current period have positive and insignificant impact on real GDP while exchange rate and interest rate (INR) at lag zero have negative and insignificant impact on real gross domestic product (LRGDP). These are evidenced by the coefficients and p-values of the variables under investigation. From the results, the coefficients of LGEX, LEXCR, LMS and INR are 0.116189, -0.031286, 0.073871, and -0.004133 with the associated p-values being 0.1622, 0.3618, 0.3741 and 0.2957 respectively. These results are in accordance with the findings of Ogbonna & Appah (2012), Confidence & Ebipanipre (2014), Onaolapo, Fasina & Adegbite (2013), Adegbie & Fakile (2011), Sunday, Arzizeh & Okon (2013), Zhattau (2013), Otu & Theophilus (2013), John & Suleiman (2014), Adamu (2014), Margaret, Charles & Gift (2014), Gylych, Samira & Abdurahman (2016) and Okoh, Onyekwelu & Iyidiobi (2016) who investigated taxation and economic growth in various countries and found that taxation has positive influence on economic growth. However, the results negate the finding of Negative: Ogar & Oka (2016) who carried similar study and found that taxation does not have significant influence on economic growth in the country.

Furthermore, F-statistic is 191.7616 whereas the Prob(F-statistic) is 0.000000 which implies that the joint influence of the explanatory variables on the explained variable is statistically significant. More so, the results indicate multiple coefficient determination,  $R^2$  of is 0.984597, which implies that 98.5% of the changes in real gross domestic product (LRGDP) are accounted for by the explanatory variables including LPIT, LCIT, LGEX, LEXCR, LMS and INR whereas the remaining 1.5% is attributed to other variables excluded from the model. The results also showed Durbin Watson (DW) statistic of 1.897275. DW's lower limit (dL) is 1.271, while the upper limit is 1.651. Hence, since the DW statistic of 1.897275 is greater than the upper limit value of 1.651, the study concludes that serial correlation is not found in the model. In order to confirm this claim, Breusch-Godfrey serial Correlation LM test was conducted. From the results, the indicated Observed R-squared value is 0.006781 whereas the Prob.Chi-Square is 0.9966. Thus, since the Prob.Chi-Square value exceeds 5% critical value, the study accepts the early assertion and concludes that there is no serial correlation in the model of the study.

To test for the model specification, the study employed Ramsey RESET test in the investigation. The results showed t-statistic and F-statistic values of 1.397063 and 1.951786 respectively with their associated p-value being 0.1757. Since the p-value exceeds 5% critical value, the study concludes that the model specification is well specified and can be used in investigation. Similarly, the study tested for normality distribution of the data series employed in the estimation using Jarque-Bera test. From the results, the Jarque-Bera result is 5.041277 whereas the p-value is 0.080408, which is greater than the 5% level of significance. Thus, since the p-value is greater than the 5% level of significance, the study concludes that the data series used in the investigation are normally distributed after logging the variables. Lastly, the study tested for presence of homoscedasticity using heteroscedasticity test: ARCH approach. The results obtained indicated evidence of homoscedastic in the model. The results showed Obs\*R-squared value of 0.533687 and a prob.Chi-Square value of 0.4651, which is also greater than 5% critical value.

**Table 3:** ARDL Short-run and Long-run Coefficients Tests between Tax policy and Economic Growth

Short Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LRGDP(-1))	0.361459	0.191788	1.884680	0.0716
D(LPIT)	0.011191	0.023532	0.475576	0.6387
D(LCIT)	-0.093344	0.024216	-3.854594	0.0008
D(LGEX)	0.116189	0.080564	1.442187	0.1622

D(LEXCR)	-0.031286	0.033654	-0.929625	0.3618
D(LMS)	0.073871	0.081560	0.905729	0.3741
D(INR)	-0.004133	0.003866	-1.069095	0.2957
ECT	-0.437033	0.169571	-2.577288	0.0165
$\text{Cointeq} = \text{LRGDP} - (0.0256*\text{LPIT} - 0.2136*\text{LCIT} + 0.2659*\text{LGEX} - 0.0716$ $*\text{LEXCR} + 0.1690*\text{LMS} - 0.0095*\text{INR} + 4.3958)$				
<b>Long Run Coefficients</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
LPIT	0.025607	0.057734	0.443542	0.6613
LCIT	-0.213586	0.099590	-2.144653	0.0423
LGEX	0.265858	0.229461	1.158623	0.2580
LEXCR	-0.071587	0.074212	-0.964634	0.3443
LMS	0.169029	0.146852	1.151018	0.2611
INR	-0.009457	0.010685	-0.885073	0.3849
C	4.395811	0.261244	16.826472	0.0000

Source: Researcher's compilation from E-view 9

Table 3 above showed the results of ARDL long-run and short-run coefficients tests between tax policy variables and economic growth. The results indicate one (1) cointegrating equation among the variables. Since at least one cointegrating equation is found among the variables; it implies that long run relationship exist among the variables indicating LRGDP, LPIT, LCIT, LGEX, LEXCR, LMS and INR. This claim is evidenced by the p-values of the variables. From the results, the p-values of LRGDP, LPIT, LCIT, LGEX, LEXCR, LMS and INR are 0.66113, 0.0423, 0.2580, 0.3443, 0.2611 and 0.3849 respectively at 5% level of significance. More so, the results showed evidence of short run relationship among the variables. This is indicated by the ECT p-value of 0.0165 which is less than 5% critical value.

The result of ECT indicates that the a priori expectation is met and that the stability condition required in conducting an investigation of this type is satisfied. The result showed that the desired signs for each of the equation are achieved in each of the estimation. Hence, the ECT is significant, fractional and negative which is the necessary condition for accepting the estimation results of this nature. From the estimation results, the coefficient of ECT is -0.437033 while the p-value is 0.0165, which implies that the speed of adjustment from short-run disequilibrium towards long-run relationship annually is 43.7%.

### 4.3 Pairwise Granger Causality test

The Pairwise Granger Causality test is employed to test for causality direction between tax policy and economic growth in Nigeria. The results of the test are illustrated in table 4 below.

**Table 4: Pairwise Granger Causality test**

Null Hypothesis:	Obs	F-Statistic	Prob.
LPIT does not Granger Cause LRGDP	33	3.43139	0.0465
LRGDP does not Granger Cause LPIT		0.14361	0.8669
LCIT does not Granger Cause LRGDP	33	4.92939	0.0147
LRGDP does not Granger Cause LCIT		2.72958	0.0826
LGEX does not Granger Cause LRGDP	33	2.13183	0.1375
LRGDP does not Granger Cause LGEX		1.24585	0.3032
LEXCR does not Granger Cause LRGDP	33	1.43866	0.2542
LRGDP does not Granger Cause LEXCR		0.06261	0.9394
LMS does not Granger Cause LRGDP	33	3.94741	0.0309
LRGDP does not Granger Cause LMS		0.20541	0.8155
INR does not Granger Cause LRGDP	33	0.02893	0.9715
LRGDP does not Granger Cause INR		0.73308	0.4894
LCIT does not Granger Cause LPIT	33	2.05207	0.1474
LPIT does not Granger Cause LCIT		2.42999	0.1064
LGEX does not Granger Cause LPIT	33	3.43902	0.0462
LPIT does not Granger Cause LGEX		0.09199	0.9124
LEXCR does not Granger Cause LPIT	33	3.90812	0.0318
LPIT does not Granger Cause LEXCR		0.45802	0.6372
LMS does not Granger Cause LPIT	33	1.22454	0.3092

LPIT does not Granger Cause LMS		5.16307	0.0123
INR does not Granger Cause LPIT	33	0.40679	0.6697
LPIT does not Granger Cause INR		0.92663	0.4077
LGEX does not Granger Cause LCIT	33	10.1572	0.0005
LCIT does not Granger Cause LGEX		0.11049	0.8958
LEXCR does not Granger Cause LCIT	33	1.40778	0.2615
LCIT does not Granger Cause LEXCR		0.04696	0.9542
LMS does not Granger Cause LCIT	33	5.75596	0.0081
LCIT does not Granger Cause LMS		1.29950	0.2886
INR does not Granger Cause LCIT	33	1.72277	0.1970
LCIT does not Granger Cause INR		0.64160	0.5340
LEXCR does not Granger Cause LGEX	33	9.10757	0.0009
LGEX does not Granger Cause LEXCR		0.47054	0.6295
LMS does not Granger Cause LGEX	33	1.65075	0.2100
LGEX does not Granger Cause LMS		4.31680	0.0232
INR does not Granger Cause LGEX	33	2.24621	0.1245
LGEX does not Granger Cause INR		1.48985	0.2427
LMS does not Granger Cause LEXCR	33	0.75601	0.4789
LEXCR does not Granger Cause LMS		2.49734	0.1005
INR does not Granger Cause LEXCR	33	7.24715	0.0029
LEXCR does not Granger Cause INR		1.57562	0.2247
INR does not Granger Cause LMS	33	1.57078	0.2257
LMS does not Granger Cause INR		0.86462	0.4322

**Source:** Researcher's compilation from E-view 9

The table 4 above revealed the results of Pairwise Granger causality test between tax policy and economic growth. In the estimation, the results indicate that personal income tax (LPIT), companies income tax (LCIT) and broad money supply (LMS) have unidirectional relationship with real gross domestic product (LRGDP) with causality runs from personal income tax (LPIT), companies income tax (LCIT) and broad money supply (LMS) to real gross domestic product (LRGDP). This claim is demonstrated by the p-value of the causality that runs from LPIT, LCIT and LMS to LRGDP in Nigeria. From the results, the p-values of the causalities are 0.0465, 0.0147 and 0.0309 respectively with each p-value is less than 5% level of significance. In other hand, the results also showed that government expenditure (LGEX), exchange rate (LEXCR) and interest rate (INR) do not have causality with real GDP in Nigeria. These claims are evidenced by the respective p-values of the causalities of the variables to real GDP as estimated in the study. From the results, the p-values of the causalities of the variables to RGDGP are 0.1375, 0.2542 and 0.9715; each of which is greater than 5% level of significance. The above results imply that personal income tax, companies income tax and broad money supply have significant influences on the growth of the Nigerian economy while other variables do not.

#### **4.4 Policy Implications of the Results**

This study is an investigation of the impact of tax policy on economic growth in Nigeria for the period 1981-2015. From the results of the ARDL short run and long run coefficients test, the results showed both short run and long run relationships among the variables under consideration. Similarly, the results of the ARDL bounds cointegration test indicated that personal income tax (LPIT) has positive and insignificant impact on real GDP in Nigeria while companies income tax (LCIT) has negative and significant impact on real GDP in Nigeria. Hence, it is estimated on the average, that 1% rise in personal income tax will increase real GDP of Nigeria by 0.011191 units while 1% increase in the companies income tax will results to 0.093344 units decrease in real GDP in the economy. Furthermore, the results indicated that government expenditure (LGEX) and broad money supply (LMS) have positive and insignificant impact on real GDP in Nigeria. Thus, it is estimated on average, that 1% increases in LGEX and LMS will raise real GDP by 0.116189 and 0.073871 units respectively. The results also showed that exchange rate (LEXCR) and interest rate (INR) have negative and insignificant impact on real gross domestic product (LRGDP) in the economy. Hence, the study estimated that 1% rises in LEXCR and INR will decrease real GDP in the Nigerian economy by 0.031286 and 0.004133 units respectively.

lastly, the results of the Pairwise Granger causality test showed that personal income tax (LPIT), companies income tax (LCIT) and broad money supply (LMS) have unidirectional relationship with real GDP with causality runs from LPIT, LCIT and LMS to RGDGP whereas no causality is found between LRGDP and LGEX, LEXCR and INR. These results imply that any government economic policy that increases taxation will lead to significant increases in real GDP in Nigeria. However, other variables have no causation with the real GDP in the Nigerian economy.

## V. Conclusion And Recommendations

This study investigated the impact of tax policy on economic growth in Nigeria for the period 1981-2015. Auto Regressive Distributed Lag (ARDL) bounds cointegration test and its associated ARDL short run and long run coefficients test and Pairwise Granger causality technique were employed in the analysis. The variables employed in the investigation include real gross domestic product (LRGDP), personal income tax (LPIT), companies income tax (LCIT), government expenditure (LGEX), exchange rate (LEXCR), broad money supply (LMS) and interest rate (INR). Stationarity test was conducted through the application of the Augmented Dickey-Fuller (ADF) unit root test. The results indicated that all the variables except INR were non-stationary at level; however, all the variables became stationary after first differencing at 5% level of significance. The results of the ARDL bounds cointegration test revealed that both long run and short run relationships exist among the variables under consideration.

Furthermore, the results indicated that personal income tax (LPIT) has positive and insignificant impact on real GDP in Nigeria while companies income tax (LCIT) has negative and significant impact on real GDP in Nigeria. It also showed that government expenditure (LGEX) and broad money supply (LMS) have positive and insignificant impact on real GDP in Nigeria while exchange rate (LEXCR) and interest rate (INR) have negative and insignificant impact on real gross domestic product (LRGDP) in the economy. Finally, the Pairwise Granger causality test demonstrated that personal income tax (LPIT), companies income tax (LCIT) and broad money supply (LMS) have unidirectional relationship with real GDP with causality runs from LPIT, LCIT and LMS to RGDG whereas no causality is found between LRGDP and LGEX, LEXCR and INR. These results imply that any government economic policy that attempts to raise personal income tax and broad money supply by 1% will lead to increase in economic growth of Nigeria while any economic policy that increases companies income tax by 1% will results to a decrease in the economic growth of Nigeria. Thus, the study recommends that government should employ personal income tax in generating more revenues required to activate economic activities and promote economic growth of the country more than it uses companies income tax as that will lead to improvement in economic growth and hence, bring in improved standard of living of the citizens in the country. More so, government should engage more on monetary expansion policy in order to accelerate economic growth of the country. This is because; the approach if efficiently done will ensure more investments, and more consumption demand by the consumers and investors thereby resulting to increase in the employment level and output level of the nation.

## References

- [1]. Adamu, S. (2014). The impact of tax incentives on economic growth and industrial development in Nigeria. *International Journal of Advanced Studies in Economics and Public Sector Management*, 2(1), 74-85.
- [2]. Adegbe, F. & Fakile, A. S. (2011). Petroleum profit tax and Nigeria economic development. *International Journal of Research in Computer Application & Management*, 1(1),11-18.
- [3]. Adudu, S. A. & Ojonye, M. S. (2015). The impact of tax policy on economic growth in Nigeria. *Journal of Economics and Sustainable Development*, 6(8), 124- 129.
- [4]. Afuberoh, D. & Okoye, E. (2014). The impact of taxation on revenue generation in Nigeria: A study of federal capital territory and selected states. *International Journal of Public Administration and Management Research*, 2(2), 22-47.
- [5]. Akintoye, I. R. & Tashie, G. A. (2013). The Effect of tax compliance on economic growth and development in Nigeria, West-Africa. *British Journal of Arts and Social Sciences*, 11(II), 222-231.
- [6]. Akwe, J. A. (2014). Impact of non-oil tax revenue on economic growth: The Nigerian perspective. *International Journal of Finance and Accounting*, 3(5): 303-309.
- [7]. Anyanfo, A.M.O. (1996). Public finance in a developing economy: The Nigerian case. Department of banking and finance, university of Nigeria, Enugu campus. Enugu.
- [8]. Bhartia, H. L. (2009). Public finance. 14th Edn., Vikas Publishing House PVT Ltd, New Delhi.
- [9]. Confidence, J. I. & Ebipanipre, G. M. (2014). Taxation as an instrument of economic growth: The Nigerian perspective. *Information and Knowledge Management*, 4(12), 49-53.
- [10]. Cornelius, M. O., Ogar, A. & Oka, F. A. (2016). The impact of tax revenue on economic growth: Evidence from Nigeria. *IOSR Journal of Economics and Finance*, 7(1), 32-38.
- [11]. Dada, M. A., Oyeneye, T. & Dahn, H. F. (2014). Tax revenue shocks and economic growth in Nigeria. *International Journal of Economics, Finance and Management*, 3(2), 59-70.
- [12]. Ebiringa, O.T. & Emeh, Y. (2012). Analysis of tax formation and impact on economic growth in Nigeria. *International Journal of Accounting and Financial Reporting*, 2(2), 367-385.
- [13]. Gylych, J., Samira, A. &Abdurahman, I. (2016). The impact of tax reforms and economic growth of Nigeria. *The Empirical Economics Letters*, 15(5), 436-443.
- [14]. Harris, R. & R. Sollis, (2003). *Applied time series modeling and forecasting*. West Sussex:Wiley.
- [15]. John, C. O. & Suleiman, A.S. (2014). Value added tax and economic growth in Nigeria. *European Journal of Accounting Auditing and Finance Research*, 2(8), 62-69.
- [16]. Matthew, A. A. (2014). The impact of tax revenue on Nigerian economy: Case of federal board of Inland Revenue. *Journal of Policy and Development Studies*, 9(1), 109-121.
- [17]. Margaret, N. O., Charles, O. N. & Gift, N. K. (2014). Taxation and economic growth in Nigeria: A granger causality approach. *International Journal of Research in Management, Science & Technology*, 2(3), 64-80.
- [18]. Nwadiolor, E. & Ekezie, C. A. (2016). Effect of tax policy on economic growth in Nigeria. *International Journal of Business Administration*, 7(1), 50-58.

- [19]. Onaolapo, A. A., Fasina, H. T. & Adegbite, T. A. (2013). The analysis of the effect of petroleum profit tax on Nigerian economy. *Asian Journal of Humanities and Social Sciences*, 1-12.
- [20]. Ogbonna, G. N. & Appah, E. (2012). Impact of tax reforms and economic growth of Nigeria; a time series analysis. *Current Research journal of social sciences*, 4(1), 62-68.
- [21]. Ojochogwu, W. A. & Stephen, A. O. (2012). Relationship between tax policy, growth of SMEs and the Nigerian economy. *International Journal of Business and Management*, 7(13), 125-135.
- [22]. Okoh, J. I., Onyekwelu, U. L. & Iyidiobi, F. C. (2016). Effect of petroleum profit tax on economic growth in Nigeria. *International Journal of Business and Management Review*, 5(1), 47-53.
- [23]. Onakoya, A. B., Afintinni, O. I. & Ogundajo, G. O. (2017). Taxation revenue and economic growth in Africa. *Journal of Accounting and Taxation*, 9(2), 11-22.
- [24]. Olusanya, S.O., Peter, M. & Oyebo, A.F. (2012). Taxation as a fiscal policy instrument for income redistribution among Lagos state civil servants. *IOSR Journal of Humanities and Social Sciences*, 5(X), 60-70.
- [25]. Otu, H. B. & Theophilus, O. A. (2013). The effects of Tax Revenue on Economic growth in Nigeria. *International Journal of Humanities and Social Science Invention*, 2(6), 16-26.
- [26]. Soyode, L. & Kajola, S. O. (2006). *Tax: principles and practice in Nigeria*. 1st Edition: Ibadan, Silicon.
- [27]. Pesaran, M. H. & Y. Shin (1999). An autoregressive distributed lag modeling approach to cointegration analysis. Chapter 11 in S. Strom (ed.), *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*. Cambridge University Press, Cambridge. (Discussion Paper version).
- [28]. Sunday, O. E., Arzizeh, T. T. & Okon, E. E. (2013). The impact of tax policy and incentives on foreign direct investment (FDI) and economic growth: evident from export processing zones (EPZs) in Nigeria. *European Journal of Commerce and Management Research*, 2(9), 191-196.
- [29]. Tosun, M.S. & Abizadeh, S. (2005). Economic growth and tax components: an analysis of tax changes in OECD. *Journal of Applied Economics*, 37, 22251 - 2263.
- [30]. Uche, B. U. & Okelue, D. U. (2017). Fiscal Policy and Economic Growth: An Examination of Selected Countries in Sub-Saharan Africa. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(1), 117-130.
- [31]. Usman, S. K. W. & Bilyaminu, Y. H. (2013). Taxation and societal development in Nigeria: Tackling Kano's hidden economy. *International Journal of Academic Research in Business and Social Sciences*, 3(3), 113-125.
- [32]. Raymond, A. E., Adigwe, P.K. & Echeboba, F. N. (2015). Tax as a fiscal policy and manufacturing company's performance as an engine for economic growth in Nigeria. *European Journal of Business, Economics and Accountancy*, 3(3), 1-12.
- [33]. Zhattau, V. S. (2013). Fiscal policy as an engine of economic growth in Nigeria. *International Journal of Arts and Humanities*, 2 (2), 282-298.

Eze, Onyebuchi Michael "Re-Evaluation of The Economic Impact of Tax Policy on The Growth of Nigerian Economy." *IOSR Journal of Economics and Finance (IOSR-JEF)* , vol. 9, no. 2, 2018, pp. 61-74.