
Amaefule, Leonard I.1*, Onyekpere, Ulumma R.2, Onyekperem, Victoria A.3

1. Accountancy Department, Imo State University Owerri, Imo State – Nigeria (leo4christ2002@yahoo.com; leonardamaefule@gmail.com; +234(0)8036181818)
2. Alvan Ikoku Federal College of Education Owerri, Imo State – Nigeria
3. C/o Accountancy Department, Imo State University Owerri, Imo State – Nigeria

The purported outstanding nature of the 2011 Personal Income Tax (PIT) reform of the Nigerian government calls for empirical evaluation of its implications on the Non-oil revenue generation of the federal government of Nigeria particular now that the economy is in recession and the continued dwindling nature of oil revenue which has made concerted efforts towards increasing the non-oil revenue inevitable. Against this backdrop, this study seeks to evaluate the impact of 2011 personal income tax reform on federal government’s non-oil revenue generation in Nigeria. Ordinary Least Square (OLS) regression analysis was utilized in analyzing the data collected on PIT revenue for the period covering 2006-2015 while Chow-test was employed in testing the hypotheses of the study. Findings revealed that the PIT revenue has no significant impact on the federally collected non-oil revenue in Nigeria since after the 2011 PIT reform. The implication thus is that the 2011 PIT reform policy of the government has not significantly impacted on the federal government revenue from non-oil sources (taxation). It is therefore the study’s recommendation that the government should review legal and administrative framework for the implementation of the policy to ensure that the highlighted objectives are achieved.

**Keywords:** Personal Income Tax, Revenue Generation, 2011 Reform, Federal Government, Non-oil, Nigerian economy

INTRODUCTION

Generally, governments of nations across the globe require revenue to augment the spending needs and maintain adequate level of public investment and social services to the citizenry. The Nigerian government is not left out in the quest for improved revenue generation particular in recent times when the price of crude oil in the international market has drastically
dwindled. Nigeria had a multi-revenue generation sources prior to the oil boom of 1970s; but regrettably this feat was upturned by the nation government’s unconscious neglect of other sources of revenue generation to the nation for oil revenue, hence Nigeria graduated to a mono-revenue generation base. Thus, the government has depended so much on oil revenue for execution of its primary functions and economic development programmes; this has obviously affected economic activities of the nation negatively in recent times owing to the drastic fall of oil price. Consequently, Anyaehie & Areji (2015) assert that presently the general fall in the price of crude oil has adversely affected the Nigerian economy. Kiabel & Nwokah (2009) argue that the increasing cost of running government coupled with dwindling revenue has left all tiers of government in Nigeria with formulating strategies to improve the revenue base.

The term government revenue simply denotes the monetary resources received by a government in a given period of time. As asserted by Akwe (2014), this is an important tool of the fiscal policy of the government and it is the driving factor of government spending. Some of the sources of non-oil revenue to the federal government of Nigeria include: companies income tax, withholding tax on companies, petroleum profit tax, value added tax, education tax, capital gains tax—Abuja residents and corporate bodies, stamp duties involving a corporate entity, personal income tax in respect of Armed forces personnel, police personnel, residents of Abuja FCT, External affairs officers and non-residents. Non-oil (tax) revenue generation by Nigerian government over the years has seriously been confronted with the incidence of evasion; as such government has been severally denied of taken full benefits of the potential revenue that should accrue from this source. However, it is of interest to observe that the person income tax (PIT) is one of the tax revenue sources that has high percentage of realization (particularly as it relates to the federal government of Nigeria) as its large junk is deducted at source, from the salaries of civil servants and service personnel.

In the light of these realities, it becomes succinctly clear that a radical move towards reversing the mono-revenue generation syndrome of Nigerian government is inevitable. Although this reality has long dawned on the government of Nigeria, which warranted some policies on resuscitating tax revenue generation in the country generally and personal income tax revenue in particular; however, the 2011 Personal Income Tax reform policy appears outstanding going by its tenets and approach.

Personal income tax (PIT) according to decree No.4 of 1993 is a tax imposed on the incomes of individual, community and family. It also charged on the income due to a trustee or an estate. Since the enforcement of personal income tax through decree No.4 of 1993, amendment has been made to this decree almost on ten years basis all in the effort to overcome challenges that are identified with the actualization of the objectives of the tax regime (Angahar & Alfred, 2012). The latest of such amendments is that contained in the personal income tax (Amendment) Act 2011. Angahar & Alfred (2012) posit that personal income tax is a weapon which could be used to reduce inequality in society. In Nigeria generally, the law of personal income tax is of tremendous importance as a source of revenue for the government. This importance assumes an accelerated dimension in the face of the present economic recession in Nigeria (Akintoye & Tashie, 2013).

The 2011 Personal income tax reform is an amendment of the 2004 personal income tax Cap P8 LFN. It is a law that takes care of tax matters as it affects all income earners which include employees, self-employed and all other persons that pay personal income tax in Nigeria. The House of Representatives passed the bill on 25th May, 2011 while the Senate passed the bill on 1st June 2011 and was finally signed into law by the then President of the Federal Republic of Nigeria, His Excellency Goodluck Ebele Jonathan on the 14th of June 2011. The reform was made public on 13 December 2011 during the presentation of the

Leonard et al.

2012 budget proposal by the president to the joint session of the national Assembly.

The peculiarity inherent in the reform is pronounced in the fact that the PIT (Amendment) Act 2011 consolidated all the personal income tax reliefs or allowances into a single consolidated tax relief allowance (CTRA) of N200,000 (two hundred thousand Naira) or a minimum of 1% of the person’s annual gross income, whichever is higher, plus 20% of the individual’s annual gross income. The residue or remainder of an individual’s income is liable to tax at an average graduating rate of between 7% to 24% of the individuals annual income, other key changes include; increase in minimum tax rate from 0.5% to 1% of gross income, principal place of residence redefined to include places where branch offices and operational site of companies are situated operational site of companies are defined to include oil terminals, oil platforms, flow stations, constructive sites etc. with a minimum of 50 workers; Benefits in kind now specifically included in gross amendment and by implication taxable income, Temporary staff now specifically liable to tax. This will include causal workers, interns and other contract staff.

The consequences of the vacuum created by decline in oil revenue have continued to bite harder and harder on the Nigerian economy; inflation, unemployment, high cost of living and in fact poor standard of living of the citizens appears unabated. The general concern therefore is how to improve on the non-oil revenue capacity of the government which obviously contributed to the 2011 personal income tax reform. This study therefore considers it timely and very necessary to empirically evaluate the impact of the 2011 PIT reform policy on the non-oil revenue generation of the federal government of Nigeria. Notably, previous studies in the related area focused on the impact of tax reform on government revenue generation without being specific on the recent 2011 tax reform. Also most of the previous studies in the related area like the works of Akhidime & Abusonwan (2013) and Onyekwelu & Ugwuanyi (2014) carried out their analyses based on information gathered from opinion based survey (primary data); hence, there seems to be scanty literature on the impact of 2011 national income tax reform on federal government non-oil revenue generation in Nigeria utilizing quantitative secondary data. This obvious gap is taken care of by the development of this study.

Objectives of the Study

The main objective of this study is to investigate the impact of 2011 personal income tax reform on federal government’s non-oil revenue generation in Nigeria. Thus, this study pursues the following specific objectives:

- Assess the impact of personal income tax revenue on federal government’s total non-oil revenue after the 2011 personal income tax reform.
- Evaluate the effect of personal income tax on federal government’s total non-oil revenue before the 2011 personal income tax reform.
- Determine the relationship between personal income tax revenue and total non-oil revenue.

Statement of Hypothesis

Ho1: personal income tax revenue has no significant impact on government’s total Non-oil revenue after the 2011 personal income tax reform.

Ho2: personal income tax revenue has no significant effect on government’s total Non-oil revenue before the 2011 personal income tax reform.

Ho3: There is no relationship between personal income tax revenue and total Non-oil revenue of government in Nigeria.
LITERATURE REVIEW

The Concept of Taxation

The institute of chartered Accountant of Nigeria (2006) and the chartered institute of taxation of Nigeria (2002) defined taxation as an enforced contribution of money to government pursuant to a defined authorized legislation. In order words, every tax must be based on a valid statute (Okafor, 2012).

Appa & Oyandong (2011) assert that tax is a compulsory payment levy imposed on a subject or upon his property by the government to improve security, social amenities and create conditions for the economic well-being of the society. Azubuike (2009) posits that tax is a major source of government revenue all over the world. Tax is a major player in every society of the world. Government used tax proceeds to render their traditional functions, such as the provisions of public goods, maintenance of law and order, defence against external aggression, regulation of trade and business to ensure social and economic maintenance.

Sanni (2007) in Okafor (2012) advocated the use of tax as an instrument of social engineering to stimulate general and or sectoral economic growth. In that regard, taxation could have a positive or negative effect on both the individual and on government. Taxation yields very sustainable revenue to government. The income tax is levied on income such as salaries, business profits, interest, dividends, commissions, royalties, and rents and may also be charged on capital gains and petroleum profits (Okafor, 2012).

Bhartia (2009) in Okafor (2012) posits that the main purpose of tax is to raise revenue to meet government expenditure and to redistribute wealth and management of the economy. Nzotta (2007) in Adudu & Ojonye (2015) argues that taxes constitute key sources of revenue to the federation account shared by the federal government, state and local government. Oopusola (2006) stated that in Nigeria, the government fiscal power is divided into three tiered structure between the federal, state and local governments, each of which has different tax jurisdictions.

Personal Income Tax

Akwe (2014) asserts that Personal income tax is a compulsory payment exerted from employees and self-employed persons for the purpose of financing some governmental established functions. Personal income tax revenue constitutes one of the major sources of internal revenue to state government in Nigeria while the statutory allocation from the federal government occupies the primary position.

Personal income tax (PIT) is a tax imposed on the income of individuals, communities and families. It is also charged on the incomes due to a trustee or an estate (Onyekwelu & Ugwuanyi, 2014). It is regulated by the personal income tax act. Personal income tax in Nigeria, according to Seyi (2008) covers such areas as:

- Taxation of employees
- Taxation of sole traders
- Partnership assessment
- Taxation of estate, trusts and settlements.

According to Ogbonna & Appa (2012), several amendments have been made to the 1961 ITMA act. For instance, in 1985 personal income tax was increased from 600 or 10% of earned income to N2,000 plus 12.5% of income exceeding N6,000.

Personal income tax (PIT) is the oldest form of tax in the county as it was first introduced as a community tax in northern Nigeria in 1904 and later implemented through the native revenue ordinance to the western and eastern region in 1917 and 1928 respectively among other amendments in the 30s, it was later incorporated into direct taxation ordinance No.4 of 1940 (Akhidime & Abusonwan, 2013). The need to tax personal income throughout the county prompted the income tax management act (ITMA) of 1961. In Nigeria, personal income tax for salaried
employment is based on pay-as-you-earn (PAYE) system and several amendments have been made to the 1961 income tax management act.

The history of personal income tax law in Nigeria is traceable to the Raisman Commission of 1959, the recommendations of which were incorporated in Section 7024 of the 1960 constitution (Akhidime & Abusonwan, 2013). The section provided that the federal government has exclusive power to levy tax on the income of all limited liability companies while the federal and the state government enjoys concurrent powers over personal income tax. Prior to 1961, each region had its own tax law on personal income tax. However, with the enactment by the federal government of the income tax management Act (ITMA) 1961 under it constitutional power each region amended its law to conform to the act.

The 2011 Personal Income Tax Reform

Azubuike (2009) noted that tax reform is an ongoing process with tax policy makers and administrators continually adopting the tax system to reflect changing economic, social and political circumstances in the economy. The several tax reforms were designed to broaden tax base, reduced the tax burden on the tax payers and promote voluntary compliance on the part of the tax payers as posited by Akintoye & Tashie (2013). The essence of tax reforms in both developing and developed countries of the world is the reduction or eradication of fiscal deficits through appropriate restructuring of tax system to attract higher revenue (Dickson & Rolle, 2014). Tax reform is therefore a deliberate design to increase revenue, improve efficiency, and promote equity.

Therefore, the 2011 Personal income tax reform is the amendment of the personal income tax cap p8 LFN 2004. It is a law that takes of tax matters as it affect all income earners, these are employee, self-employed and all other person that pay personal income tax (PIT) in Nigeria (Akhidime & Abusonwan, 2013). It was signed into law by President Goodluck Jonathan. There is no doubt the bill will introduce and impact positively on the wages of the workers, revenue collection at federal and state levels and industrial harmony (Ekwerike, 2012)

The highlights of key changes in the personal income tax (amendment) act as contained in the official gazette include:

Consolidation of Relief Allowances

The personal income tax (amendment) act, 2011 has consolidated all the personal income tax reliefs or allowance when computing a person’s individual tax into a single consolidated tax relief allowance (CTRA) of N200,000 or a minimum of 1% of the person annual gross income, whichever is higher of the two, plus 20% of the individual’s annual gross income. The residue or remainder of an individual income is liable to personal income tax at an average graduating rate of 7% to 24% of the individual’s annual income. In effect, the consolidated tax relief allowance has substituted the previous relief allowances such as housing allowance (N150,000), transport allowance (N20,000) entertainment (6000), meal subside (N5000) Etc. The CTRA is fully claimable by all individuals who are to pay income tax under the personal income tax regime, irrespective of whether they are paid or self-employed. In computing the gross emoluments of all employees, the employees’ wages salaries, allowances (including his or her benefit in kind), gratuities, superannuation and any other income derived by reason of employment shall be compute for purpose of arriving at the employees pay-as-you-earn tax that will be remitted to the revenue authorizes.

Increase in Minimum Tax Rate

Section 37 of the amendment increased the minimum tax payable from 0.5% of total income to 1% of total income where after allowable deductions, there is no chargeable income or tax payable on the chargeable income is less than 1% of the total income. The implication of the increase is that low income earners which includes national
youth service corps member, interns and contract staff are now brought into the tax net.

**Introduction of New Tax Rates**

The new tax rate is now to be based on the provisions of the sixth schedule of the net as follows:

- First N300,000 taxed at 7%
- Next N300,000 taxed at 11%
- Next N500,000 taxed at 15%
- Next N500,000 taxed at 19%
- Next N1,600,000 taxed at 21%
- Above N3,200,000 taxed at 24%

**Provision of Specific Tax Deductible Contributions**

The amendment provides for the followings as tax deductible income: national health insurance scheme, national housing fund contribution, national pension scheme and gratuities. It can be used as a tax avoidance scheme to the advantage of the tax payer and to the detriment of tax authorities.

**Service of Notice of Assessment**

Notice of assessment can now be served by electronic mail or by courier.

**Taxation of Expatriates**

According to the amendment act, expatriates who meet all the conditions for tax exemption including being liable to tax in another country may now be exposed to tax in Nigeria if such other country does not have a double tax agreement with Nigeria. The income, profit or gain of an individual shall be deemed to be derived from Nigeria and liable to income tax in Nigeria if the employer of the individual is in Nigeria or has a fixed base of doing business in Nigeria. Also, where the duties of any employment are wholly or partly performed in Nigeria the income, profit or gain of such employment or engagement shall be liable to personal income tax in Nigeria. The exemptions to the above general rules under this new personal income tax legislation are:

Where the remuneration of the employee is not borne by a fixed business base of an employer in Nigeria; or

The employee is not in Nigeria for a period amounting to an aggregate number of 183 days or more (including the employees annual leave or temporary periods of absence) in any 12 months period; or

The remuneration of the individual is liable to personal income tax in another country with whom Nigeria a double taxation treaties (DTT) relating to personal income tax should only have effect once they are ratified the national assembly of the federal republic of Nigeria.

**Duty to Keep Books of Account**

A failure or refusal to keep adequate and proper books of account for purpose of computing personal income tax is an offence which on conviction carries a penalty of N50,000 for individual or N500,000 for corporation employers.

**Failure to Deduct Personal Income Tax**

Persons, employers or corporations are obligated to deduct tax under the 2011 PIT Act and having deducted PIT fails to remit the tax deducted to the relevant revenue authorities within (30) days from the date the amount was deducted or the obligation to deduct the tax arose; such a defaulter shall be obligated to pay:

A penalty of an amount of 10% of the personal income tax not deducted or remitted in addition to

Paying the tax withheld or not remitted and lastly
Paying interest at the prevailing monetary policy rate, (MPR) of the central bank of Nigeria on the latter two items as against the commercial rates of the previous legislation.

Tax authorizes are now required to apply to the high court for a warrant of distress before exercising their powers to distress for failure by tax payers to pay final and conclusive tax liability under the law. Employers are now expected to file details of all emolument paid to employees for the preceding year with the relevant tax authority not later than the 31st of January of every year. Penalty for failure to observe the above now attracts a penalty of N500,000 for corporation body and N50,000 for individuals. Excess tax paid under the PAYE scheme shall now be refunded within 90 days after assessment by the relevant tax authority with the tax payer having the option to request for it to be set off against future taxes.

Section 18(2) of the 2011 PIT Act has now authorized the Accountant General of the federal republic of Nigeria to deduct directly from the budgetary allocation of any government agency, department or ministry any un-withheld and un-remitted taxes, and to transfer such deductions to the beneficiary state government upon written request by such a state Government.

Functions of the State Board

The reform empowered the revenue authority to retain a minimum of 5% of revenue collected as may be approved by the state House of Assembly to defray its cost of collection and administration.

Tax Appeal Tribunal

The tax appeal tribunal replaces the defunct Body of Appeal Commissioners. This body is established to adjudicate over disputes arising from the operation of the FIRS act, and other Acts listed in its first schedule (PITA included). In other words, this provision of the amended personal income tax Act only brings it in line with the existing provision of the FIRS Act. The Tax Appeal Tribunal is now to provide an independent outlet for aggrieved tax payers’ complaints, and speed resolution of disputes.

Residency

Section 10 of the PITA, 2004 is amended by section 4 of the PITA 2011 and now defines the period of residency in Nigeria to include period of annual leave. This clause captures itinerant tax avoiders and brings them into the tax net. Similarly, there is an amendment of the definition of principle place of residence in the PITA, 2011. Itinerant worker is redefined to include any individual irrespective of status who works in more than one state for at least 20 days in at least 3 months of every assessment year.

Taxable Benefit in Kind (BIK)

PITA provides that benefits in kind (BIK) are to be considered in determining an employee’s gross emolument for CRA in section 5. The important of this provision is that political office holders with official cars and occupying official quarters for instance will pay taxes in respect of these benefits.

Non-Taxability of Reimbursable Expenses

PITA’s re-definition of section 3(6) of taxable income exempts reimbursable expenses in the form “any sum or expenses incurred by the tax payer in the performance of his duties, provided the employee has no intention of making any profit or gain from the underlying transaction.

Tax Clearance Certificate Demand Made Mandatory

The amended Act now requires ministries, Departments and agencies (MDAs) and bank to demand tax clearance certification (TCCs) and by extension a tax payer identification number in respect of certain (specified) transaction in section 21. A tax payer identification number (TIN) is
required to be quoted on every TCC issued by a tax authority. A penalty of N5m or 3 years imprisonment or both upon conviction is prescribed for any defaulting authority that does not request for a TCC where one is required.

Membership of State Inland Revenue Service

Section 87 of the principal Act sub-section 2 is amended to expand the qualification of the chairman of state’s Internal Revenue Service board to include the membership of a recognized professional body. This is in addition to making chairman’s appointment to be made by the governor for the confirmation of the House of Assembly. The directors and the other member of the service are now to be representative of the state senatorial districts (PITA, 2011).

Benefits of the 2011 Personal Income Tax Reform

According to Ekwerike (2012), the following are the benefits of the 2011 personal income tax reform:

- The new Act provides more disposable income to the lower income earners.
- The Act makes administration of personal income tax easy and concurrent by removing obsolete, unrealistic and outdated reliefs and allowances associated with the former Act, replacing the previous relief and allowances with enhanced consolidated reliefs and allowances.
- The act also simplified compliance processes by consolidating the reliefs and allowances stipulated in the Act and lowering the burden on low income earners as well as widening the tax base by bringing in a huge number of potential tax payers, especially in the informal sector into the tax net.
- The new Act supports the use of taxation as a tool for income distribution and wealth creation by imposing lower tax burden on low income earners and higher tax burden on the higher income earners.
- The act also provides greater leverage to the Minister of Finance, Tax Authorizes and the Accountant General of the Federation in administering the law, including the power to deduct at source form its budgetary allocation, unremit taxes due from Ministry, Departments and Agencies (MDAs) and transfer such deduction to the revenant state upon requests by the state.
- Under the new Act, it is now obligatory for government agencies, professional bodies and trade associations to provide information to tax authority that would assist them in the performance of their duties.
- The Act professionalized the appointment of Chairman for the state internal Revenue Service. This is because such appointment are now subject to the confirmation by the state House of Assembly and three member representing a senatorial District in the state.
- Tax authorities are empowered to enforce payment of taxes due from taxable persons that has been properly served with an assessment notice as specified by the law.
- The act also supports government’s intention to implement a shift in focus from direct to indirect taxation, by lowering the overall income tax burden so that there is more disposable income in the economy, leading to higher value added tax collection and higher economic activity amongst others (Ekwerike, 2012).

Income for Personal Income Tax

Ekwerike (2012) highlighted two classes of income for tax purposes as follows;

Earned income

Earned Income is defined in the first schedule of PITA 1993 as income derived from trade, business profession, vocation or employment carried on or exercised by the tax payer and a pension derived by him in respect of any previous
employment. Earned income can be divided into two:

- Income from trade, business, profession, vocation, partnership
- Income from employment, including salaries, wages, fees, allowances or other gains or profit form employment such gratuities, compensation, bonuses, premiums, pensions, benefit to employee.

Unearned Income

Unearned Income are simply the income derived from investment and it includes dividend, rent, interest, royalties and gains from sale of investments such as disposal of shares or other items of capital nature. Also included are gains or profits arising from a right granted to any other person for use.

2011 Personal Income Tax Reform and Revenue Generation in Nigeria

Onyekwelu & Ugwuanyi (2014) outlined the following effects of the 2011 PIT reform on revenue generation:

The rate of minimum tax in section 37 which was formerly 0.5% has been reviewed and increased to 1% minimum tax. Consequently, Akintoye & Tashie (2013) asserts that as a result of this increase, a higher percentage of income tax revenue will be realized thereby increasing revenue accruing to the government.

Penalties in the act were also reviewed; such reviews include the penalty for a person engaged in banking service who fails to give the necessary information, documents or books to the relevant tax authority. Penalty for failing to keep the proper books of account have been reviewed from N5,000 for a corporate body and N500 for an individual to N500,000 and N50,000 respectively. This enhances the increase in revenue generation in Nigeria economy.

Most tax exemptions are no longer tax exempt but they are all taxable such as the official emoluments of the president, vice president, Governor and Deputy governor of each state in Nigeria. This implies that the income of these officials including allowances and benefits in kind is now fully taxable and this will help to increase the revenue generation in Nigeria. In section 3(1). The amendment clearly captures all employees within the ambit of the law, regardless of whatever name such an employee is so called. Even a paid intern will be captured by this provision and consequently his income will become taxable and it will amount to great increase in the revenue generation.

Effects of 2011 Personal Income Tax Reform On Tax Payers

Onyekwelu & Ugwuanyi (2014) opined that a number of challenges will arise from applying the new changes and this will affect the tax payers greatly. Under the old PITA, interest may be imposed on tax defaulters but there was no prescription on how the interest should be applied. Historically, tax authorities apply the interest at a flat rate on a one-off basis. But the new Amendments now explicitly require the interest to be calculated on an annual basis, this means simple interest method whereby interest on tax due for a period is multiplied by the number of years outstanding. Where the period contains less than a whole year, then interest must be prorated on a monthly or daily basis from the date the tax becomes due until it is paid.

Asabor (2012) defines gross emolument (or income) to include benefits in kind, gratuities superannuation and any other incomes derived solely by reason of employment. Benefits in kind is now specifically included in gross emolument and by implication taxable income, temporary staff now specifically liable to tax which includes casual workers and other contract staff. Conditions for exemption from personal income tax for any employment wholly or partly performed in Nigeria are now modified to require evidence that such individual are liable to tax in another country.
under the provision of a double tax treaty regardless of the fact that the person may be in a country where there is avoidance of double taxation treaty, such a person will still be taxable if he fails short of any of the stipulated conditions set out in the Act.

EMPIRICAL REVIEW

The literature provides evidence on the effect of tax reforms on government’s revenue and on economic development. For instance, Onyekwelu & Ugwuanyi (2014) examined the effects of personal income tax amendment act 2011 on revenue generation in Nigeria using primary data for the study’s analysis. The primary data were sourced using a structured questionnaire. The researchers used chi-square statistical method in testing their hypothesis. The study reveals among other things that the increase in the tax rate affected the tax payers’ revenue generation and the retroactive nature of our tax laws constitute a major problem, thus resulting in double taxation during assessment and collection of taxes.

On their part, Akhidime & Abusonwan (2013) carried out a study on the implications of Nigerian personal income tax act (amended) 2011 as they affect personal income tax administration using exploratory studies. The work found that the amendment provides good combination of a relaxed tax regime that is more tax payer friendly.

Adudu & Ojonye (2015) evaluated the impact of tax policy on economic growth in Nigeria. Using time series data between 1990 and 2011 and applying the Granger – causality co-integrations framework, the study found statistical evidence that efficient tax reforms are necessary conditions for enhanced sustainable economic growth.

Akwe (2014) analyzed the impact of non-oil revenue on economic growth from 1993-2012 in Nigeria. Secondary data sourced from CBN statistical bulletin 201 were utilized in data analysis. The analysis was carried out using ordinary least square regression method. Findings show that there exists a positive impact of non-oil revenue on economic growth in Nigeria.

In their study, Jones & Ekwueme (2016) assessed the impact of tax reforms on economic growth in Nigeria. Time series data were extracted from the Central Bank of Nigeria statistical bulletin, Federal Inland Revenue Service and Federal Ministry of Finance from the period 1985-2011. The ordinary least squares based multiple regression was adopted to analyze the data. The study found that customs and excise duties, value added tax, personal income tax and education tax have no statistical significant impact on economic growth at 5% level of significance.

Jelilov, Abdulrahman & Isik (2016) examined the impact of tax reforms on economic growth of Nigeria from 1986 to 2012. The study sourced the relevant secondary data from the Central Bank of Nigeria publications, Federal Inland Revenue Service Publications and the publications of Federal Office of Statistics. OLS regression analysis threw the aid of E-view statistical package were employed in the analysis of data. Results of the analysis showed that tax reforms are positively and significantly related to economic growth.

Taiwo & Dopemu (2015) evaluated the impact of tax reforms on revenue generation in Lagos state of Nigeria using time series quarterly data between the period of 1999 and 2012. The study used secondary sources of data. Data collected was analyzed using ordinary least square regression (OLS) technique. The study showed that there was a long run relationship between the reforms and revenue generated in Lagos state, thus the tax reforms had positive and significant effect on the revenue structure of the state.

Dickson & Rolle (2014) studied on the impact of tax reform on federal revenue generation in Nigeria. The study employed time series data spanning the years of 1981-2011. Augment Dicky-Fuller ADF) was employed to test for unit root and regression analysis to test the effect of the independent variable on the dependent variable.
The result shows that tax reforms by improving the tax system and reducing tax burden enhances the ability of the government to generate more revenue.

Afuberoh & Okoye (2014) investigated the impact of tax on revenue generation in Nigeria with reference to FCT and some selected states in the country. The study used secondary sources of data; the testing of the hypothesis was done using regression analysis computed with SPSS statistical package version 2.1. The study found that tax has a significant contribution to revenue generation and on gross domestic product.

Ogbonna & Appa (2012) examined the impact of tax reforms on the economic growth of Nigeria from 1994 to 2009. The study used secondary sources of data which were collected from the central bank of Nigeria statistical bulletin. The data collected were analyzed using relevant descriptive statistics and econometric models such as white test and granger causality test. The study showed that tax reforms are positively and significantly related to economic growth.

**METHODOLOGY**

This study adopted quasi experimental research design. Quasi experiment design takes a number of measures, such that the relationship between the dependent and independent variables over a given period of time can be measured. It is also appropriate to measure impact or causality tends to be characterized by having before and after measures and a robust comparison group. This explanation suits the core objective of this study as it assess the impact of the 2011 personal income tax reform policy on the revenue generation of federal government of Nigeria, hence, this design is considered appropriate for this study. The quantitative data for the two variables of the study were sourced from the Federal Inland Revenue Office, Abuja & CBN Statistical bulletin, which consists of data on personal income tax revenue and Non-oil revenue of federal government of Nigeria for the period of 10 years (2006-2015). The data cover the pre-reform period (2006-2010) and post-reform period (2011-2015). Regression analysis was used to analyze the data collected. The analysis was carried out with the aid of SPSS statistical package 2.1 version. The following ordinary least square regression models were developed in approaching the analysis of the study:

\[ Y_a = \alpha_a + \beta_a X_a + E_a \]  
\[ Y_b = \alpha_b + \beta_b X_b + E_b \]  
\[ Y = \alpha + \beta X + E \]

Where:

- \( Y_a \) = Total non-oil revenue after the personal income tax reform of 2011
- \( Y_b \) = Total non-oil revenue before the personal income tax reform of 2011
- \( X_a \) = Personal income tax revenue of federal government of Nigeria after the personal income tax reform of 2011
- \( X_b \) = Personal income tax revenue of federal government of Nigeria before the personal income tax reform of 2011
- \( Y \) = Total non oil revenue before and after the personal income tax reform of 2011
- \( \alpha, \alpha_a, \alpha_b, \alpha \) = Intercepts of the regression lines
- \( E_a, E_b, E \) = Error term

To test the first and second hypotheses of the study (individual hypothesis tests), F-statistics were adopted; however, in testing the third hypothesis (joint significance test), chow test was employed. The chow test is a special kind of F-statistics propounded by chow in 1960 which is considered more appropriate in testing time series data which contains structural break. In this study
the data on non-oil revenue and personal income tax revenue generated by the federal government of Nigeria were affected by the personal income tax policy reform of 2011. Hence, 2011 became the year of structural change. 5% level of significance is utilized in the study.

Chow-statistics is given as follows:

\[
F_c = \frac{RSS_c - (RSS_1 + RSS_2)/k}{(RSS_1 + RSS_2)/n-2k}
\]

Where;

FC is the calculated statistics

RSS1 is the residual sum of squares of the regression line after the break (i.e post personal income tax reform period).

RSS2 is the residual sum of squares of the regression line before the break (i.e pre personal income tax reform period)

RSSC is the residual sum of squares of the pooled regression

K is the total number of variables included

N is the sample size

**DATA PRESENTATION, ANALYSIS & RESULTS**

The data collected are presented on table 1.

**TABLE 1 HERE**

**Model Analysis and Test of Hypothesis**

Model 1: The result of the data analysis in respect of model 1 of this study is captured on table 2.

**TABLE 2 HERE**

The result of the analysis of the first model as presented on table 2 shows that the first model can be written as: \(Y_a = -277.41 + 61.41X_a\). The positive value of the coefficient of \(X_a\) (i.e. 61.41) indicates that the personal income tax (PIT) revenue after the PIT reform has a positive impact on the generated non-oil revenue after the PIT reform. However, for the test of the first hypothesis of the study, the result of the F-statistics (Sig) from table 2 is 0.124; which falls outside the significance region of 0.00 – 0.05. The study thus accepts the null hypothesis that Personal Income Tax (PIT) revenue has no significant impact on government’s total non-oil (Tax) revenue before the PIT reform.

Model 2: The result of the data analysis in respect of model 2 of this study is captured on table 3.

**TABLE 3 HERE**

The result of the analysis of the second model as presented on table 3 shows that the second model can be written as: \(Y_b = 644.92 + 34.58X_b\). The positive value of the coefficient of \(X_b\) (i.e. 34.58) indicates that personal income tax (PIT) revenue before the PIT reform has a positive impact on the generated non-oil revenue before the PIT reform. However, the result of the second hypothesis test of the F-statistics (Sig) from table 3 is 0.042; this falls within the significance region of 0.00 – 0.05. The null hypothesis is therefore rejected and the alternative accepted. The study therefore affirms that the Personal Income Tax (PIT) revenue has significant effect on government’s total non-oil (Tax) revenue before the PIT reform.

Model 3: The result of the data analysis in respect of model 3 of this study is captured on table 4.

**TABLE 4 HERE**

The result of the analysis of the third model as presented on table 4 shows that the third model

Leonard et al.

can be written as: \( Y = 425.89 + 46.81X \). The positive value of the coefficient of \( X \) (i.e. 46.81) indicates that personal income tax (PIT) revenue has a positive impact on the non-oil generated revenue. However, to carry out a joint test on the third hypothesis of the study using Cho test, the following results emerge from table 2, 3 & 4:

\[
\text{RSS}_c = 564499.721 \quad \text{(Table 4.4)}; \\
\text{RSS}_1 = 266645.304 \quad \text{(Table 4.2)}; \\
\text{RSS}_2 = 176212.872 \quad \text{(Table 4.3)}. 
\]

\( K = 2 \) (no. of variables) = \( V_1, V_2 = n-2k = 10 - 2(2); \)
\( V_2 = 6. \)
\( n = 10 \) (sample size or total number of years covered).

Therefore,

\[
\text{F}_c = \frac{[564499.721 - (266645.304 + 176212.872)]/2}{(266645.304 + 176212.872)/10-2(2)} \\
= \frac{60820.7725}{73809.696} \\
= 0.82
\]

But \( \text{F}_{\text{tab.}} = F_{0.05,2,6} = 5.14 \)

From the result of the Chow test conducted above, \( \text{F}_{\text{tabulated}} \) is greater than (>) \( \text{F}_{\text{calculated}} \), therefore we accept the null hypothesis that there is no significant relationship between Personal Income Tax (PIT) revenue generation and total federally collected non-oil revenue in Nigeria.

**DISCUSSION OF FINDINGS**

The findings from the above analysis are discussed as follows:

Personal Income Tax (PIT) revenue has positive but insignificant impact on government’s total non-oil (Tax) revenue after the PIT reform. This finding runs contrary to that of Dickson & Rolle (2014) which finds that tax reform by improving the tax system and reducing tax burden enhances the ability of the government to generate more revenue. It also disagrees with Ogbonna & Appa (2012) which found that tax reforms are positively and significantly related to economic growth. It however agrees with Adudu & Ojonye (2015) and Jelilov et al (2016).

Personal Income Tax (PIT) revenue has significant positive effect on government’s total non-oil (Tax) revenue before the PIT reform of 2011. This agrees with Adudu & Ojonye (2015) who had statistical evidence that efficient tax reforms are necessary conditions for enhanced sustainable economic growth. The study by Jelilov et al (2016) which found that tax reforms are positively and significantly related to economic growth also aligns with the findings of this study.

There is a positive but insignificant relationship between Personal Income Tax (PIT) revenue generation and total federally collected non-oil revenue in Nigeria for the period between 2006 – 2015. This is in agreement with Adudu & Ojonye (2015); Jelilov et al (2016); Adudu & Ojonye (2015) and Afuberoh & Okoye (2014).

**CONCLUSION**

Sequel to the findings from the analysis as discussed above, the following affirmations are made in this study:

Since the enforcement of the 2011 personal income tax reform, personal income tax revenue has not yielded any significant impact on the federally collected non-oil revenue in Nigeria;
hence, the 2011 personal income tax reform policy of the federal government of Nigeria has no significant impact on her non-oil revenue generation.

The above notwithstanding, the tax reform policy has potentials to impact positively on the federally collected non-oil (tax) revenue.

Before the enforcement of the 2011 personal income tax reform, personal income tax revenue has significantly impacted on the federally collected non-oil revenue generation in Nigeria.

RECOMMENDATION

Based on the findings of this study and the conclusion above, we therefore recommend that:

The Government should appraise the existing tax implementation and administrative framework to ensure that the objectives of the 2011 reform policy are realized.

Tax payers information and history should be computerized which will facilitate effective monitoring and coordination of tax and income data.

The tax authorities should properly review and evaluate the assessment and collection procedures so as to encourage compliance by the tax payers.

REFERENCES


Leonard et al.


### APPENDIX

Table 1: Data on Federal Govt. PIT Revenue & Non-Oil Revenue for the Periods between 2006 – 2015

(₦ Billion)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FED. GOVT. PIT/PAYE (X)</th>
<th>NON-OIL (TAX) REVENUE (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>5.9</td>
<td>677.54</td>
</tr>
<tr>
<td>2007</td>
<td>10.3</td>
<td>1,264.60</td>
</tr>
<tr>
<td>2008</td>
<td>27.0</td>
<td>1,336.00</td>
</tr>
<tr>
<td>2009</td>
<td>28.7</td>
<td>1,652.65</td>
</tr>
<tr>
<td>2010</td>
<td>32.6</td>
<td>1,907.58</td>
</tr>
<tr>
<td>2011</td>
<td>43.5</td>
<td>2,237.88</td>
</tr>
<tr>
<td>2012</td>
<td>51.2</td>
<td>2,628.78</td>
</tr>
<tr>
<td>2013</td>
<td>48.5</td>
<td>2,950.56</td>
</tr>
<tr>
<td>2014</td>
<td>52.8</td>
<td>3,275.03</td>
</tr>
<tr>
<td>2015</td>
<td>57.4</td>
<td>3,082.41</td>
</tr>
</tbody>
</table>

**Source:** Federal Inland Revenue Office, Abuja & CBN Statistical bulletin
Table 2: Result of Post-PIT Reform Revenue Analysis (2011-2015) in favour of the First model

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.775&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.600</td>
<td>.467</td>
<td>298.13045</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>400625.878</td>
<td>1</td>
<td>400625.878</td>
<td>4.507</td>
<td>.124&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Regression</td>
<td>1</td>
<td>266645.304</td>
<td>3</td>
<td>88881.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>1</td>
<td>667271.182</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>667271.182</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Constant)</td>
<td>-277.405</td>
<td>1472.015</td>
<td>-.188</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(X&lt;sub&gt;a&lt;/sub&gt;)</td>
<td>61.412</td>
<td>28.926</td>
<td>.775</td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: (Y<sub>a</sub>)  
<sup>b</sup> Predictors: (Constant), Post-PIT Revenue (X<sub>a</sub>)

Source: SPSS version 21 Regression Analysis Result 2016
Table 3: Result of Pre-PIT Reform Revenue Analysis (2006-2010) for the Second model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.892a</td>
<td>.795</td>
<td>.727</td>
<td>242.35846</td>
</tr>
</tbody>
</table>

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>684409.367</td>
<td>1</td>
<td>684409.367</td>
<td>11.652</td>
<td>.042b</td>
</tr>
<tr>
<td>Residual</td>
<td>176212.872</td>
<td>3</td>
<td>58737.624</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>860622.239</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>644.917</td>
<td>237.864</td>
<td></td>
<td>.073</td>
</tr>
<tr>
<td>Pre-PIT</td>
<td>34.582</td>
<td>10.131</td>
<td>.892</td>
<td>.042</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: (Yb)  b. Predictors: (Constant), PIT Revenue (Xb)
Source: SPSS version 21 Regression Analysis Result 2016
### Table 4: Result of PIT Versus NOil Revenue Analysis (2006-2015)

<table>
<thead>
<tr>
<th>Mode</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.958*</td>
<td>.918</td>
<td>.908</td>
<td>265.63596</td>
</tr>
</tbody>
</table>

#### ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6345508.797</td>
<td>1</td>
<td>6345508.797</td>
<td>89.928</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>564499.721</td>
<td>8</td>
<td>70562.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6910008.518</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Coefficients*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>425.890</td>
<td>195.628</td>
<td>2.177</td>
</tr>
<tr>
<td></td>
<td>PIT (X)</td>
<td>46.812</td>
<td>4.936</td>
<td>.958</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Non-Oil Revenue (Y)  b. Predictors: (Constant), PIT Revenue (X)*

Source: SPSS version 21 Regression Analysis Result 2016