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PERSONAL INCOME TAX AMENDMENT ACT 2011 AND TAX LIABILITIES OF INDIVIDUAL TAXPAYERS IN NIGERIA

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Abstract

The last generation has seen a plethora of changes in personal income taxes in many countries of the world. In 2011, the Personal Income Tax Act 2004 in Nigeria was amended and this generated widespread reactions among taxpayers and commentators. This paper investigated the effects of the amendments on tax liabilities of individual taxpayers in the country. The objective is to ascertain whether the changes introduced in Personal Income Tax Amendment Act (PITAM) 2011 have a uniform effect on the tax liabilities of individual taxpayers on different income levels. The research design adopted is the causal comparative design. A sample of taxpayers was selected based on established criteria from which relevant data on income and domestic circumstances for four groups of taxpayers were collected and analysed using inferential statistics. The results indicated the existence of significant differences in tax liabilities of individual taxpayers computed based on the provisions of both PITA 2004 and PITAM 2011 and the effects differed significantly among the four groups of income earners. The study therefore concluded that changes in PITA have strong potential for narrowing the income gap

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between the rich and the poor. The paper provided strong advocacy for further amendments in the current Personal Income Tax Actto further reduce tax borne by individual taxpayers and stimulate the level of voluntary tax compliance and growth in government tax revenue in Nigeria.

Keywords: Tax Law Amendments, Income Tax Liabilities, Tax Compliance Level, Tax Revenue

INTRODUCTION

Taxation is the price paid for government services. Its payment is compulsory and its enforcement backed up by law. Generally, taxes are always coercive – the idea of voluntary taxation largely seems to be a contradiction in terms. Indeed, nobody pays tax with a smile; if its payment was voluntary, then many persons would obviously not want to pay their share unless subject to the possibility that government might only protect those who contributed to its operations Younkins (2000).The essence of taxation is not only derived from the need to raise revenue to finance legitimate government activities but also as a necessary tool to regulate a variety of economic and social policies. Thus, taxation has been identified as a potent instrument for influencing the direction and level of business activities, for adjusting income inequalities, as well as the welfare and spending profiles of individuals. Tax reform programmes are therefore geared towards strengthening economic and social objectives and policies of governments. Such reforms have become a major feature of the Nigerian tax system which tend to provide a legal framework for taxing income of persons in Nigeria.

The legal framework for taxing income of persons in Nigeria could be traced to the Native Revenue Ordinance introduced in the North in 1917, and in the West in 1918. It was not introduced in the East and Delta areas of the country until 1928 and ever since, a number of changes have been introduced in the framework for fiscal administration in Nigeria. For instance, the 1940 Direct Tax Ordinance repealed the Native Revenue Ordinances and empowered the native authorities to tax Africans within their jurisdictions. This Ordinance effectively excluded non-Africans from taxation, while the Income Tax Ordinance 1943 was enacted for taxing non-Africans and companies. Although other regional tax laws were passed in the Western and Eastern part of Nigeria, the 1940 Direct Tax Ordinance provided the template for taxing individuals, until 1958 when the Raisman Fiscal Commission introduced the basic principles for taxing incomes of persons other than limited liability companies in Nigeria. The recommendations of this commission formed the bases upon which the Income Tax Management Act (ITMA) of 1961 and Income Tax Management (Uniform Taxation Provision) Decree No. 7 of 1975 were enacted. These Acts provided a common standard (in areas of

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reliefs and rates) for taxing income of taxable individuals in all the States of the Federation. In 1993, the Income Tax Management Decree was enacted to repeal the ITMA 1961 and the 1993 Act was replaced with the Personal Income Tax Act, Cap 8 LFN, 2004 (Okezie, 2003; and Ezejelue & Ihendinihu 2006).

The president of the Federal Republic of Nigeria, acting in consonance with the National Tax Policy, signed into law the Bill for an Act to amend the provisions of 36 sections of the PITA 2004 and modified the 1st, 3rd and 6th schedules to the Act effective June, 14th 2011. This new Act, cited as Personal Income Tax (Amendment) Act, 2011, was enacted with the objectives of making the earlier Act more responsive to the tax policies of the Federal Government and to enhance its implementation and effectiveness. While acknowledging that these amendments are geared at achieving two seemingly conflicting primary goals (reducing the burden of taxation on individuals and simultaneously enhancing government collectible tax revenue), the amendments generated a number of contentious issues with unintended consequences. The effects of the wide spread adjustments provided under the new tax law, particularly those relating to income chargeable, reliefs and allowances, income limits/exempts, and applicable tax rates and bands, have not yet been properly evaluated and tested empirically.

Studies that investigated the effect of personal income tax changes on taxable income, tax liability, spending, and after-tax-wage of individual taxpayers are largely based on data drawn from advanced economies (Steindel, 2001; Yew, Milanov and McGee, 2015; Looney & Singhal, 2005; Feldstein, 1995). Existing investigations on the effect of PITAM 2011 in Nigeria are very scanty and either evaluated the effect of the new Act on revenue generation or provided commentaries on the amendments and implementation challenges(Dabo, Aimuyedo and Muhammad, 2014; Onyekwelu and Ugwuanyi, 2014). This paper is therefore an attempt to close the research gap by investigating the effects of the changes in Personal Income tax laws on the tax borne by individuals under the Acts.

These issues give rise to the following two specific research questions:

1. What is the difference in the tax liabilities of individual taxpayers based on the provisions of PITA 2004 and PITAM 2011?
2. What is the distribution of mean tax liabilities of different grades of income earners under PITA 2004 and PITAM 2011?

Accordingly, the following two hypotheses were investigation:

H_{01}: Tax liabilities of individual taxpayers computed based on the provisions of PITA 2004 and PITAM 2011 do not differ significantly.

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$H_{02:}$ The effect of changes in PITAM 2011 on the tax liabilities of different groups of income earners is not significant.

RELATED LITERATURE

Key Changes to the Personal Income Tax (Amendment) Act, 2011

As earlier noted, 36 Sections of the PITA 2004 were amended by PITAM, 2011 and the sections which affect the process of determining tax liability of individuals relate to Section 3 (Income chargeable), Section 33 (on Personal Reliefs and allowances), Section 37 (Charge of Minimum Tax), the 3rd Schedule (Income Exempted), and the 6th Schedule to the Act (on Consolidated Relief Allowance, income tax table, and tax exempt Incomes).

1. ***Income Chargeable.*** Section 3 outlines employment income that is liable to Personal Income tax and the limits of such income items that could be assessed for tax purposes. The amendment to Section 3 is to the effect that tax free allowances are no longer available under the new Act. Consequently, the old paragraph 'b' was substituted with a new paragraph 'b' that states:

any salary, wage, fee, allowance or other gain or profit from employment including compensations, bonuses, premiums, benefits or other perquisites allowed, given or granted by any person to any temporary or permanent employee other than so much of any sums as or expenses incurred by him in the performance of his duties, and from which it is not intended that the employee should make any profit or gain.

Prior to the PITAM, 2011, tax free allowances were permitted on specified allowances received by an employee from his employment as follows:

- Rent or Housing Allowance; maximum of N150,000.00 per annum.
- Transport Allowance; maximum of N20,000.00 per annum.
- Meal subsidy or allowance; maximum of N5,000.00 per annum.
- Utility Allowance; maximum of N10,000.00 per annum.
- Entertainment Allowance; maximum of N6,000.00 per annum, and
- Leave Grant; maximum of 10% of annual basic salary per annum.

Consequently, any amounts received in excess of the above limits were taxable under PITA 2004. However, with the amendments introduced in PITAM 2011, tax free allowances previously enjoyed by employees under this section were withdrawn, with the exception of reimbursement of expenses incurred by employees in the performance of their duties and from which the employees are not expected to derive any profit or gain.

2. ***Personal Reliefs and Allowances*****:** Section 33 makes provisions for personal reliefs and allowances. The amendment to this section increased the statutory reliefs claimable

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by individual taxpayers. Under Section 33(1) of PITA 2004, a personal relief of N5000, plus 20 per cent of earned income was available for claim but the new Section 33(1) replaced the relief by providing for a Consolidated Relief Allowance (CRA). The new sub-section provides that:

there shall be allowed a consolidation relief allowance of N*200,000 subject to a minimum of 1% of gross income whichever is higher plus 20% of the gross income and the balance shall be taxable in accordance with the income table in the Sixth Schedule to this Act*.

The new law offers a higher claim both in the fixed and variable components. A minimum fixed component of N200,000 is claimable under PITAM 2011 while N5,000 could maximally be claimed under the old Act. Again, the variable component of the old law is 20% of *earned income* while PITAM 2011 allows claims for 20% of *gross income*. Since Gross Income will normally be higher than Earned Income, PITAM 2011 offers a higher amount of relief for taxpayers than PITA 2004. There is observable inconsistency in the basis for computing CRA in PITAM 2011. While section 33(1) of the PITAM provides that CRA be computed as the higher of N200,000 and 1% of gross income, plus 20% of gross income, paragraph 1 of the new sixth schedule however specifies that the CRA be granted on income at a flat rate of N200,000 plus 20% of gross income. This is likely to create implementation challenges for taxpayers whose annual taxable incomes are in excess of N20,000,000.

It should further be noted that a new sub-section 2 was inserted which defined *Gross Emolument* as *wages, salaries, allowances (including benefits in kind), gratuities, superannuation and any other incomes derived solely by reason of employment.*The old sub-sections 2 and 3 covering claimable personal allowances were respectively renumbered as sub-sections 3 and 4 in the new Act. Thus, claims for alimony, child allowance, dependant relative allowance, and additional personal allowance for disabled persons are still claimable under PITAM 2011. This is contrary to commentaries expressed on the new Act to the effect that these allowances are no longer claimable under the PITAM.

Based on the provisions of Section 3 of the PITAM, 2011 all 'benefits in kind' (BIK) or 'perquisites' provided to employees by their employers are taxable. BIKs are also to be considered in determining an employee's gross emolument for CRA purpose as stated in Section 5 of PITAM. However, not all expenses (aside from cash emoluments) incurred on employees qualify as benefits or perquisites to the employees. For example, protective clothing provided by employers for use by their employees in the discharge of their duties are not deemed to be perquisites but as working tools for the employees.

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3. ***Charge of Minimum Tax:*** *Charge of* minimum tax is provided under S.37 of the Act. The minimum tax payable under the PITA has been increased from 0.5% of total income to 1% of gross income in the PITAM. Minimum tax here means that when a person's taxable income (after all permissible deductions) is nil or lower than a certain percentage of his total income, such a person will be required to pay a minimum tax. The implication of this is that low income earners (e.g. NYSC members, Interns and Contract staff) are now to pay taxes. As a result of the increase in minimum tax rate, the tax to be paid by those who were hitherto paying minimum tax would double.

4. ***Third Schedule:*** The 3rd Schedule deals with classes of income exempted from Personal Income Tax. There are three significant amendments to this schedule viz:
   a. PITAM 2011 deleted paragraphs 2 and 3 of this schedule and now requirethat the official emoluments of the president, vice president, governors and deputy governors will no longer be exempted from personal income tax. Accordingly, President, vice president, etc. will now pay tax on their official emoluments.
   b. Exemption of interest on any loan granted by a bank on or after 1st January 1997 to a person engaged in:
      - Agricultural trade or business, and
      - The fabrication of any local plant and machinery.
   c. Tax exemption of income from bonds and short term securities:

The PITAM inserts a new paragraph which exempts from income tax, the income earned from bonds issued by Federal, State and Local Government; bonds issued by corporate firms, including supra-nationals as well as interest earned by holders of the bonds, and listed short term securities.

5. ***Sixth Schedule:*** The PITAM 2011 replaced the sixth schedule of the PITA 2004 with a new schedule. The new Sixth Schedule contains the personal relief, the new Income Tax Table, and tax exempt incomes.

Personal Relief - Paragraph 1 of the new 6th schedule specifies that the Consolidated Relief Allowance (CRA) will be granted on income at a flat rate of N200,000 plus 20% of gross income. This specification is inconsistent with the definition given in Section 33(1) because the option of choosing between the higher of N200,000 and 1% of Gross Income under Section 33(1) is not included in the 6th Schedule. This obvious inconsistency creates serious implementation challenges for tax administrators and compliance problems for taxpayers whose gross incomes

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are in excess of N20 million given that the two provisions for CRA will not give the same amount of CRA and will consequently result to different taxable income, tax liability and tax burden.

Income Tax Table – The income Tax Table under PITA 2004 is materially different from that under PITAM 2011. The Income Tax Table under the two Acts are as follows:

Personal Income Tax Rates under PITA 2004 and PITAM, 2011

Income tax rate under PITA 2004	Income tax rate under PITAM 2011
First 30,000 at 5%	First 300,000 at 7%
Next 30,000 at 10%	Next 300,000 at 11%
Next 50,000 at 15%	Next 500,000 at 15%
Next 50,000 at 20%	Next 500,000 at 19%
Above 160,000 at 25%	Next 1,600,000 at 21%
	Above 3,200,000 at 24%

Note that PITAM 2011 completely replaced the old income tax table in terms of tax rates and widened the tax band. It is expected that these changes would affect liability to tax, after-tax wage, tax burden and other indices that influence the spending or demand profile of taxpayers.

Tax Exempt Income - While noting that the new income tax table is different from the old table in terms of tax rates and bands, it is instructive to note that paragraph 2 of the new 6th schedule created five tax exempt income items which were not part of the old tax law. These exempt items are National Housing Fund Contribution (NHF), National Health Insurance Scheme Contribution (NHIS), Life Assurance Premium (LAP), National Pension Scheme (NPS), and Gratuities. These tax exempt income items have different implications for salaried and self-employed taxpayers in Nigeria. While all five items are claimable by salaried taxpayers, the self-employed taxpayers have only two (NHF and LAP) upon which to make claim on. This could create inequity (in tax burden) resulting from unequal amount of exemptions to be granted under the new Act for the two groups of taxpayers. Again, the inclusion of Gratuities as part of Gross Emoluments under Section 33(2) offers double advantage to salaried taxpayers by increasing the base for computing CRA and reducing taxable income by including it as *tax exempt income* under Paragraph 2 of the 6th Schedule. These opportunities are not available to self-employed taxpayers who cannot make any claims for gratuities.

Theoretical Framework

This paper is driven by ability-to-pay theory of taxation. The ability-to-pay theory is a dominant progressive taxation theory which says that money for public expenditure should come from

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"him that hath" instead of from "him that hath not" Kendrick (1939). The theory is built on the fairness and equity principles of taxation, which treats individuals with the same characteristics/circumstances similarly for them to pay the same taxes (horizontal equity), while individuals with higher ability-to-pay or those who receive more from the government services should be taxed more (vertical equity). Applying this principle to determine when equal sacrifice implies progressive taxation, Young (1987) noted that equality of sacrifice means apportioning the contribution of each person towards the expenses of government (taxes) so that he shall feel neither more nor less inconvenience from his share of the payment than every other person experiences.

This theory underpins the present study as it investigates the extent to which changes in existing reliefs, tax rates and bands by PITAM 2011 have altered the tax burden/sacrifice of different groups of individual taxpayers in Nigeria. To an individual taxpayer therefore, sacrifice is synonymous with tax and any changes in tax laws must be driven by the taxpayers' ability-to-pay and weighed against both vertical and horizontal equities.

Empirical Review

The effects of tax components and changes in tax laws on macro and micro economic variables have been investigate in literature but such studies are predominant in advanced economies. For instance, Feldstein (1995) investigated the sensitivity of taxable income to changes in tax rates in US. Comparing the tax returns of the same individual taxpayers before and after the 1986 tax reform, the authors used a panel data of more than 4,000 taxpayers created by the US Treasury to execute experiment for measuring the responsiveness of taxpayers to changes in marginal tax rate. Using non-stratified random sampling technique, 4,000 matched tax returns of individual taxpayers for 1985 (before the 1986 tax reform) and for 1988 (after the 1986 tax reform), and all tax relevant information/ data were extracted for the study. His result indicated that the response of taxable income to changes in marginal tax rates is very substantial and that high marginal tax rates create significant dead weight losses by inducing taxpayers to act differently than they otherwise would have done, and thus altering the way in which potential income is spent on leisure, fringe benefits, and charitable gifts.

Bonu and Pedro (2009) challenged proponents of the argument that high income tax rates correlated with high prosperity, revenue and economic growth, arguing that the position cannot apply to all nations, especially not in developing countries. They investigated the impact of low and high income tax rates on economic growth of Botswana using data on income tax rates, income tax revenue, total revenue and GDP (real and nominal value) of the country. Following a multi-stage sensitivity analysis of income tax rate change effect on the identified

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parameters of the study, the authors surmised that the effect of 1% reduction in income tax rates gave rise to increased tax revenue, GDP, total revenue, tax collection per annum and per person, providing evidence that low income tax rates boosted the economic growth in Botswana. A lower tax rate, they argued, enhances the after tax income of individuals and companies and positively influences labour productivity as well as savings and investment activities of taxpayers.

Mertens and Ravn (2013) estimated the dynamic effects of changes in Taxes in the United States. They distinguished between changes in Personal and Corporate income taxes and isolated changes in these two tax components. They developed an estimator of structural tax shocks using narratives to identify tax changes as proxies and applied it to quarterly World War II data. They found large short run output effects of tax shocks on labour market and expenditure components.

Ihendinihu, Jones and Ibanichuka (2014) examined the dynamic causal relationship between tax revenue components and economic growth in Nigeria. The enquiry was motivated by the need to provide justification for policy adjustments needed for broadening the narrow revenue base of the government and enhancing economic growth. Time series data on different types of taxes and real GDP from 1986 to 2012 were extracted from government official sources and Bounds testing technique was used in analysing the data. The results implicated total tax revenue as having significant effect on economic growth, explaining about 73.4% of the variations in real GDP. While Company Income Tax (CIT), Education Tax (EDT) and Other Tax Revenue (OTR) were found to have significant influence on economic growth, no significant casual links were shown to exist between Petroleum Profit Tax (PPT), Value Added Tax (VAT) and economic growth. The study suggests appropriate legislative adjustments in fiscal administration and responsibility to strengthen growth in tax revenue components in Nigeria. However, the paper did not give prominence to personal income tax as it subsumed it under OTR. The direct effect of PIT on economic growth was not isolated and reported. The paper also did not investigate the effects of changes in PITA on the taxpayers' circumstances.

Steindel (2001) investigated how income tax changes in US affected consumer spending and personal savings rate. The challenge was to determine how actual consumer responses to income tax changes compared with those predicted by the life cycle-permanent income theory. In the study, he tracked the effects of three major federal income tax changes (the 1968 Tax Surcharge, the 1975 Tax Rebate and the 1982 Tax cut) on the personal savings rate and consumer spending. Using hypothetical case study approach, he observed the behaviour of the personal savings rates around the time a tax change becomes effective and noted that, while the tax and benefit changes examined prompted changes in consumer spending, the magnitude

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of the responses varied greatly. The spending effect was larger when the tax change was legislated to have a permanent effect on tax liabilities. He therefore concluded that consumer spending changes when a tax change affects take-home pay and that consumers measure the size of a tax change by its immediate effect on tax payment.

Gale and Samwick (2014) examined how changes to the individual income tax affect long-term economic growth in US. Their study focused on two types of tax changes- reductions in individual income tax rates, and changes that broaden the income tax base. Using historical evidence and simulation analysis they found that tax rate cuts ultimately lead to larger economy by raising the after tax return to working, savings and investing as well as people's after tax income on current engagements. They equally noted that broadening the tax base by reducing or eliminating tax expenditures raises the effective tax rate faced by taxpayers in a direction opposite to rate cuts. These results suggest that not all tax changes will lead to improvements in economic performance. Tax reforms that improve incentives, reduce existing subsidies, avoid windfall gains and avoid deficit financing will have more auspicious effects on the long term size of the economy, though with likelihood of creating trade-offs between equity and efficiency.

Yew, Milanov and McGee (2015) explored the impact of a major tax reform on individual tax morale in a transition economy. The study was carried out in Russia following the implementation of a flat tax system in 2001 using survey data from WVS (World Values Survey, 2014) for 2006 and 2011, and from EVS (European Values Survey , 2014) for 1999. An Ordered Probit Regression Model was used to investigate the effects of income level, sector of employment, demographic and institutional variables on tax morale index. Results from their study revealed significant coefficient for income scale and employment sector variables with negative marginal effects on tax morale. Socio- demographic variables had varying effects on tax morale while institutional variables were reported to have positive correlation to individual tax morale for the three years. The authors detected linear trend associations and concluded that individual tax morale for Russia did not change in the years before and after the flat tax reform.

For a period of six years (2011 to 2016) when the amendments were affected on PITA 2004 in Nigeria, serious research effort are yet to be undertaken to evaluate how the changes in the tax law affected the tax liabilities of taxpayers. Dabo, Aimuyedo & Muhammad (2014) used Chi-square and t- test statistics to evaluate data collected from Kaduna Board of Internal Revenue Service and reported that the new tax law has not encouraged taxpayers to voluntarily comply with self-assessment and has not driven the force of change that will minimize the incidence of tax avoidance and evasion, concluding that PITAM, 2011 has not improved revenue generation in Kaduna State.

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Onyekwelu & Ugwuanyi (2014) also evaluated the opinions of 80 respondents on the effect of PITAM, 2011 on revenue generation in Nigeria, using descriptive statistics and Chi-square technique to conclude that PITAM 2011 have significant effects on revenue generation, taxpayer revenue and the tax authorities.

In a recent study, Alpheaus, Ihendinihu & Azubike (2015) measured the effects of changes in Personal Income Tax Act on chargeable income of individual taxpayers in Nigeria. The main objective was to resolve speculations that chargeable income under the new Act is higher than previously existed among taxpayers of different income brackets. Data on income and domestic circumstances of sampled taxpayers in 2014 tax year were collected from Abia State Board of Internal Revenue. Results indicate that PITAM 2011 produces a significantly lower chargeable income than PITA 2004, and that this difference cuts across taxpayers in the identified income groups. The extensive literature reviewed indicated that the effect of personal income taxes on tax liability and tax burden have not been empirically investigated in Nigeria.

The present study extended the investigation by assessing the impact which the changes in the personal income tax laws could have on tax liabilities and how such tax liabilities are distributed among taxpayers at different income levels using secondary data on income and other tax relevant economic dispositions of taxpayers. By this design, the present study not only overcame the weakness of bias and data manipulation associated with opinion pools but also used inferential statistics of t-test and Analysis of Covariance to locate any significant differences occasioned by the amended provisions in PITAM 2011 on tax liabilities of individual taxpayers at different income levels in Nigeria.

METHODOLOGY

The causal comparative research design was adopted in this study because of the need to use existing data on income and domestic circumstances of individual taxpayers to determine the effects of the changes introduced in the PITAM 2011 on tax liability.

A total of 259 salary grade points of teaching and non-teaching staff in all Federal Universities in Nigeria as contained in their Unified Salary Structure (CONUASS and CONTISS) and the self-employed individuals who filed tax assessment records with the Abia State Board of Internal Revenue in 2014 comprised the population of the study. The population of the self-employed taxpayers in Abia State was estimated at 537,000 at the end of 2014 tax year. The two groups provided comparative data on the tax circumstances of taxpayers in business (self-employment) and those on salaried employment.

The sample size for this study is 319. This is made up of 100% of the salary grade points in the Unified Salary Structure for Staff in Federal Universities in Nigeria and a sample of 60

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self-employed taxpayers in Abia State purposively selected based on set criteria for four income groupings (that is, low, moderate, high, and very high groups). The ‘low’ income group comprised of persons who were assessed and qualified to pay tax at the minimum tax rate of 1% of gross income while the ‘very high’ income groups are net worth taxpayers whose income is large enough to be taxed at the maximum tax rate of 24%. The ‘moderate’ and ‘high’ income groups are intermediate stages between the two extreme tax bands.

Analytical Procedure and Variable Specification

The analytical procedures adopted for this study for Gross Income, Taxable Income and Tax Liabilities were conceptualized by the authors based on the provisions of both PITA 2004 and PITAM 2011, viz:

GI = (GE+BTI+UI) - GC +BC –TEI – (BA +CA+LR) **(**1)

Where:

GI = Gross Income

GE = Gross Emoluments

BTI = Business/ Trade Income (adjusted for tax purposes)

UI = Unearned Income

TEI = Tax Exempt Income (such as dividends and interest on income which suffered withholding tax at source and which deductions are final and conclusive).

GC = General charges such as alimony of N300 provided under S.33(4)(a), and interest on loan taken to build owner occupier residential accommodation.

BC = Balancing charge on disposal of qualifying expenditures.

BA = Balancing allowance on disposal of qualifying expenditures

CA = Capital allowances claimed for the year

LR = Loss Reliefs

The taxable income was similarly computed using the format below:

Table 1: Format for Computing Taxable Income under PITAM, 2011

Gross income			x
Less:			
1.	CRA: higher of N200, 000 or 1% of gross income + 20% of gross income (section 33(1).	x	
2.	Child allowance of N2,500 per qualified child up to a maximum of four (section 33(4)(b)	x	
3.	Dependant Relative Allowance (DRA) of N2,000 each subject to a maximum of any two relations (section 33(4)(c)	x	

Table 1 ...

4.	Disabled person allowance: Higher of N3,000 or 20% of earned/consolidated income for a qualified disabled person (section 33(4)(e)		x	
5.	Tax Exempts under paragraph 2 of the 6th schedule as follows;	x		
	a. National Housing Fund Contribution at 2.5% of (GE+ BTI)	x		
	b. National Health Insurance Scheme at 2.5% of (GE+ BTI)			
	c. Life Assurance Premium at actual premium paid (in line with section	x		
	33(4) (d).	x		
	d. National Pension Scheme at 7.5% of (GE)	x		
	e. Gratuities	x	xx	xxx
Chargeable/taxable income				**XXX**

Source: Conceptualization from PITAM 2011 by the authors.

In this study, taxable income will be computed as follows:

TI= GI - (CRA +CA+ DRA+ DPA+NHF+ NHIS+LAP+NPS+G) (2)

Where:

TI = Taxable Income

GI = Gross Income (as computed in equation 1)

CRA = Consolidated Relief Allowance

DRA = Dependant Relative Allowance

DPA = Disabled Person Allowance

NHF = National Housing Fund

NHIS = National Health Insurance Scheme

LAP = Life Assurance Premium

NPS = National Pension Scheme

G = Gratuities

Tax liabilities are computed as follows:

$TL_{utL} = \sum_{t=1}^{n} ITR_i \, (TBI_i)$ (3)

Where:

TL_{utL} = Tax Liability of an individual taxpayer under a particular tax law.

ITR_i = Income Tax Rates specified in paragraph 3 of the 6th schedule with i= 1, 2, . . ., 5 under PITA 2004 and i= 1, 2, . . ., 6 under PITAM 2011.

TBI_i = Tax Band Income i.e. the proportion of taxable income applicable to a specified tax band.

Equation 3 can be expanded to give:

$TL_{utl} = ITR_1 (TBI_1) + ITR_2 (TBI_2) + \ldots + ITR_n (TBI_n)$ (4)

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Where

n = number of tax bands in the 6th schedule of the personal income tax law under which the tax liability is computed.

Any changes in tax laws that altered the income tax rates and the rates for reliefs and allowances claimable by taxpayers would affect the taxable income, and by extension, the tax liabilities of individual taxpayers under the tax law. Data collected and computed during the study were analysed using descriptive statistics, t-test and the Analysis of Covariance (ANCOVA) with the aid of SPSS version 20.0.

RESULTS AND DISCUSSIONS

Comparative Assessment of Tax Liabilities under the Provisions of PITA 2004 and PITAM 2011

Table 1 presents the analysis of the differences in income and tax liabilities of individual taxpayers based on the provisions of the two tax laws.

Table 1: Mean Taxable Income and Mean Tax liability of individual taxpayers based on PITA 2004 and PITAM 2011 Provisions

Tax Variable	Mean		Change in value	% change in value
	PITA 2004	PITAM 2011		
Gross income	2,036,188.05	2,090,834.56	54, 646.31	2.68%
Tax Exempt Income & Relief	426,237.61	632,166.87	205,929.26	48.31%
Chargeable income	1,609,950.44	1,458,667.48	(151,282.96)	(9.40%)
Tax liability	404,185.82	232,829.93	(171,355.89)	(42.40%)

Source: Computed by the authors with taxpayers' tax assessment data.

Observable differences exist in the mean values of gross income, tax exempt income and reliefs, chargeable income and tax liability figures based on the provisions of the two Acts. Thus, the application of the provisions of PITAM 2011 on the sampled data resulted to a 42.40% drop in tax liability as shown in table 1. The result is first, a logical consequence of the increase in claims for tax exempt income and reliefs by 48.3% and the reduction in taxable income by 9.4%. Secondly, the decrease in tax liability is further traceable to the expansion in tax band at a much lower tax rate under paragraph 1 of the Sixth Schedule of PITAM 2011 than was applicable in the previous Act. Under PITA 2004, 5% tax was payable on the first N30,000 while 25% was payable on income in excess of N160,000. But under the 2011 Act, 7% is payable on the first

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N300,000 covering much more than the income taxable at the highest tax rate under the 2004 Act. Thus a wider band of income is exposed to tax at a lower tax rate under the provisions of PITAM 2011 than previously existed. The question then is, are the observed differences in tax liabilities statistically significant?

$H0_1$: Tax liabilities of individual taxpayers computed based on the provisions of PITA 2004 and PITAM 2011 do not differ significantly.

The essence of this hypothesis is to determine if the amendments in the PITAM 2011 yielded tax liabilities that are significantly different from the value obtainable under the provisions of PITA 2004 for all taxpayers in the sample. Results of the paired sample t-test of difference in tax liabilities are shown in table 2.

Table 2: Difference in tax liabilities of all taxpayers based on PITA 2004 and PITAM 2011

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Tax Liability based on 2004 PITA - Tax Liability based on 2011 PITAM	171355.90	101525.60	5684.34	160172.23	182539.57	30.145	318	.000

Source: Computed by the authors with taxpayers' tax assessment data.

The result showed a t-value of 30.145 with probability of 0.000, and this level of significance is less than the set alpha level of 0.05. Accordingly, we reject the null hypothesis and conclude that there is a significant difference in the tax liabilities of individual taxpayers computed based on the provisions of PITA 2004 and PITAM 2011. This result is consistent with *a priori* expectation that lower income tax rates lead to reduction in tax liabilities of taxpayers.

The study further compared the mean tax liabilities of taxpayers at different income levels under the two tax laws, and the results are shown in table 3.

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Table 3: Mean tax liabilities of taxpayers at different income levels/groups under PITA 2004 and PITAM 2011

Income Level Group	Mean		Change in value	Percentage change in value
	PITA 2004	PITAM 2011		
1 (Low)	53,388.32	6,552.58	46,836.07	87.7%
2 (Moderate)	306,923.65	120,198.93	186,724.72	60.8%
3 (High)	748,067.49	464797.15	283,270.34	37.9%
4 (Very High)	1,143,961.89	844,770.06	299,191.83	26.2%

Source: Computed by the authors with taxpayers' tax assessment data.

The mean tax liabilities for each of the four categories of taxpayers in the study sample based on PITA 2004 and PITAM 2011 showed general reduction in tax liabilities of all taxpayers across the different income groups. The trend indicated greater percentage reduction among lower income earners than with higher income earners; with 87.73%, 60.84%, 37.87% and 26.15% for ***low, moderate, high,*** and ***very high*** income earners respectively.

Effects of PITAM 2011 on Tax Liabilities of Individuals on Different Income Levels in Nigeria

Further investigations became necessary to test the effects of changes in PITAM 2011 on tax liabilities of taxpayers who are at different income levels. The hypothesis is specified viz.:

$H0_2$: The effect of changes in PITAM 2011 on the tax liabilities of taxpayers at different income levels is not significant.

The results of the hypothesis testing are shown in table 4.

Table 4: Effect of Changes in PITAM 2011 on Tax Liabilities of Taxpayers at Different Income Levels

Dependent Variable: Tax Liability of all taxpayers based on 2011 PITAM

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21442905096700.668[a]	4	5360726274175.167	4362.773	.000
Intercept	12181366522.605	1	12181366522.605	9.914	.002
TL2004all	1875913495034.176	1	1875913495034.176	1526.693	.000
Group	333058384362.116	3	111019461454.039	**90.352**	**.000**
Error	385825267461.411	314	1228742890.004		
Total	39121648256294.780	319			
Corrected Total	21828730364162.080	318	a. R Squared = .982 (Adjusted R Squared = .982)		

Source: Computed by the authors with taxpayers' tax assessment data.

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The f-value of the group is indicated as 90.352 with probability of 0.000. The null hypothesis is rejected since this significant level is lower than the set alpha level of 5%. The study therefore concludes that the effects of the changes introduced by PITAM 2011 on tax liabilities among the four (4) groups of income earners specified in this study is significant. The pairwise comparison of means was also conducted to determine the pair/s that caused the most significant difference/s among the four income groups and the results are summarized in table 5.

Table 5: Pairwise Comparison of Means in Tax Liabilities of Four Groups of Individual Taxpayers

Group	F-ratio	Significance
1 vs. 2	65.048	0.000
1 vs. 3	3.452	0.064
1 vs. 4	9.802	0.002
2 vs. 3	8.765	0.003
2 vs. 4	50.518	0.000
3 vs. 4	73.056	0.000

Source: Computed by the authors with taxpayers' tax assessment data.

Results indicated that the F-ratios of all the groups compared are significant at below the set alpha level of 5% except for group 1 vs. 3. This implies that while the effect of the changes in PITAM 2011 on tax liabilities is not significant in group 1 vs. 3 (F-ratio = 3.452), the other groups are significant with group 3 vs. 4, 1 vs. 2, and 2 vs. 4 as the pairs with the highest contribution to the overall significant level between the groups.

SUMMARY AND IMPLICATIONS OF RESULTS

The results from this study are summed up in three declarative statements, viz;

1. The differences in tax liabilities of individual taxpayers computed based on the provisions of PITA 2004 and PITAM 2011 are statistically significantly; with the new Act being more favourable to taxpayers than the old Act.
2. There is a significant difference in the effect of the changes introduced in the PITAM 2011 on tax liabilities of taxpayers at difference income levels.
3. There was a general reduction in the tax liabilities of the four income groups sampled, with greater percentage reduction among lower income earners than with high income earners.

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Three major factors played out in causing the significant difference in the effect of the tax law changes on the tax liabilities of the groups. First is the difference in tax rate applicable under paragraph 1 of the 6th schedule to the two Acts. The second factor is associated with tax band differentials in the tax table under the Acts. The third and dominant factor is the effect of tax reliefs and allowances claimable by taxpayers under the two Acts. These factors tended to minimize tax payable by taxpayers in low income groups more than those on high income brackets; hence the resulting significant difference in the tax liabilities among the four groups' of income earners.

Table 3 further indicates that, although there is a general reduction in the tax liability of the four income groups sampled, there is a greater percentage reduction among lower income earners (87.73%) than with very high income earners (26.15%). This implies that the higher the income of a group, the lower the percentage reduction in tax liability and *vice versa*. The justification for this result is not far-fetched. Under PITA 2004, low income taxpayers whose income fell under the first tax band of N30,000 paid tax at the rate of 5%, next N30,000 at the rate of 10%, next N50,000 at the rate of 15%, next N50,000 at 20% and above N160,000 at the rate of 25%. But under the new Act, first tax band of N300,000 is taxed at the rate of 7%, next N300,000 at 11% and so on for such other lower rates at wider tax bands, and with income in excess of N3,200,000 being taxed at a reduced maximum rate of 24% under the new Act. Thus, the lower the income of a group, the greater the percentage reduction in the tax liability, and *vice versa*.

Reductions in tax liabilities arising from adjustments in tax rates and other fiscal reforms have several implications for taxpayers and tax administration. The favourable effects of such reductions on after-tax income, personal savings, taxpayer's spending profile, labour market activities, tax morale and voluntary compliance level are noteworthy. Previous studies have noted similar implication. For instance, Bonu & Pedro (2009) argued that a lower tax rate in Botswana enhanced the after-tax income of individuals and companies, and positively influenced labour productivity as well as savings and investment activities of tax payers. Mertins & Ravn (2013) investigated the dynamic effects of changes in taxes in the US and found large short-run output effects of tax shocks on labour market and expenditure components. Steindel (2001) had earlier concluded that consumer spending and personal savings rate are affected by income tax changes in US. That is, if the income tax change leads to a lower tax liability, the take-home-pay will increase, leaving them with more income to spend, save and invest, and *vice versa*. Yew, Milanov & McGee (2015) tried to link changes in major tax reforms with changes in tax burden and individual tax morale, concluding that when a smaller proportion of the taxpayer's income is paid as tax, it increases the taxpayer's morale for voluntary

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compliance. On the contrary, Dabo, Aimuyedo & Muhammad (2014) reported that PITAM 2011 has not encouraged taxpayers to voluntarily comply with self-assessment and has not driven the force of change that will minimize the incidence of tax avoidance and evasion. However, the empirical results from the present study and the weight of evidence provided in advanced economies have greater appeals, and give credence to my *a priori* expectation that a rational tax payer will tend more towards voluntarily compliance with a lower than with higher tax liability. The multiplier effect of these on taxpayer financial capacity and tax administration remains positive.

CONCLUSION AND RECOMMENDATIONS

Changes in provisions of personal income tax laws are effective fiscal instrument for adjusting tax liabilities of individual taxpayers at different income levels. The different effects of the changes across income levels offer strong potential for narrowing income gap and adjusting inequity in distribution of tax burden among tax payers at different income levels and increasing government tax revenue through wilful participation and voluntary compliance by taxpayers in Nigeria. Accordingly, the paper made the following recommendations:

1. Taxable income limits on housing and transport allowances should be re-instated and at higher amounts for salaried taxpayers to further reduce their chargeable income and tax liability. PITAM 2011 removed the limit on all employment remunerations/ allowances and in particular N150,000 p.a. and N20,000 p.a. previously granted as rent and transport allowances respectively. This call for re-instatement is to reflect the economic realities in the country. It is further recommended that maximum allowable transport allowance be raised to N50,000 p.a. and the limit for rent discriminated on the basis of the place where the employment duties are discharged using the gross emolument as the base. This arrangement is to reflect the existing high cost of renting residential accommodations in some Nigeria towns/cities viz:
    - In Federal Capital Territory, Lagos and Portharcourt; 50% of gross emoluments subject to a maximum of N150,000 p.a.
    - In State Capital; 50% of gross emoluments subject to a maximum of N100,000 p.a.
    - In Other places; 50% of gross emolument subject to a maximum of N50,000p.a.

2. Existing tax rates under paragraph 1 of the sixth schedule should be reduced and the tax band widened to further reduce the income gap between the rich and the poor. Although the resulting distribution of chargeable income and tax liability under PITAM 2011 among

the four different groups of personal income earners sampled showed an attempt by the fiscal authorities in minimizing income inequality between the individuals at the two income extremes, such adjustments as recommended in the rates and bands will further bridge the gap with positive trade-off effects on government tax revenue. Also the new minimum tax rate of 1% of gross income should be reversed to the previous 0.5% of gross income to further bridge this gap and enhance the after-tax income of low income taxpayers in the light of high cost of living in Nigeria.

It is expected that if the tax policy adjustments suggested in this study are implemented by the fiscal authorities in Nigeria, they will further reduce tax payable by individuals and enhance government revenue through improvements in the level of voluntary tax compliance. Again, this paper has provided pioneer evidence on the extent to which changes in Personal Income Tax laws could affect tax liabilities and alter existing income gap among individual taxpayers at different income levels in Nigeria. It has no doubt, made valuable inputs for the analysis of potential tax reforms that would be of help in identifying unresolved issues that deserve further research attention. Thus, the paper is expected to have stimulated greater academic inquiry on, and government sensitivity to, tax policy changes and the impact of such adjustments on income and other dispositions of individual taxpayers in Nigeria and other emerging economies.

This study, however, is limited to the effects of changes specified in Sections 3 (Income chargeable), Section 33 (on Personal Reliefs and allowances), Section 37 (Charge of Minimum Tax), the 3rd Schedule (Income Exempted), and the 6th Schedule to the Act (on Consolidated Relief Allowance, income tax table, and tax exempt Incomes) only, and did not evaluate the effects of the other amended sections of the Act as they were not perceived to have any material effect on tax payable.

REFERENCES

Alpheaus, O. E, Ihendinihu J. U. & Azubike J. U. (2015). Effects of Changes in Personal Income Tax Act on Taxable Income of Individual Taxpayers in Nigeria. Journal of Sustainable Social and Management Sciences. Michael Okpara University of Agriculture, Umudike, (1)(1).

Bonu, N. S. & Pedro, M. P. (2009).The impact of Income Tax Rates (ITR) on the Economic Development of Botswana. Journal of Accounting and Taxation Vol.1(1), pp 8-22, April.

Dabo, Z; Aimuyedo, M. & Muhammad, T. (2014).The Effect of Personal Income Tax (Amendment) Act on Revenue Generation in Nigeria. Social Science Research Network. Available at http://ssrn.com/abstract=2488098 or http://dx.dol.org/102139/ssrn.2488098

Ezejelue, A.C. & Ihendinihu J.U. (2006).Personal Income Taxation in Nigeria.Owerri, Lins Consult Nig.

Feldstein, M. (1995). The Effect of Marginal Tax Rates on Taxable Income: A Panel Study of the 1986 Tax Reform Act. The Journal of Political Economy, Vol. 103, No. 3 (June) 551-572.

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Gale,W.G. & Samwick, A.A. (2014). Effects of Income Tax Changes on Economic Growth. Economic studies; The Brooking Institution and Tax Policy Centre, September.

Ihendinihu, J.U.; Jones, E. & Ibanichuka, E. A. (2014). Assessment of the Long-run Equilibrium Relationship between Tax Revenue and Economic Growth in Nigeria: 1986 to 2012.The SIJ Transactions on Individual, Financial and Business Management (IFBM). Vol.2. no. 2, March to April.

Kendrick, M. S. (1939). The American Economic Review. American Economic Association, Vol.29, No.1, March. 92-101.

Looney, A. & Singhal, M. (2005).The Effect of Anticipated Tax Changes on Intertemporal Labour Supply and Realization of Taxable Income.Finance and economics Discussion Series. Washingtom DC:Federal Reserve Board.

Mertens, K. & Ravn, M.O. (2013).The Dynamic Effect of Personal and Corporate Income Tax Changes in the United States. American Economic Review, 103 (4):1212-47.

Okezie, S.A. (2003). Personal Income tax in Nigeria (Principles and Practice). Aba, ASO Publications.

Onyekwelu, U.L & Ugwuanyi, U.B. (2014).Assessing Personal Income Tax Amendment Act 2011: Effects on Revenue Generation in Nigeria. International Journal of economics and Finance, Vol.6, No. 9. Canadian Center of Science and Education, pp199-212.

Personal Income Tax (Amendment) Act, 2011. Official Gazette of the Federal Republic of Nigeria. Lagos: The Federal Government Printer.

Personal Income Tax Act, CAP P8 Laws of the Federation of Nigeria (2004). Official Gazette of the Federal Republic of Nigeria, Lagos: The Federal Government Printer.

Steindel, C. (2001). The Effect of Tax Changes on Consumer Spending. Current Issues in Economies and Finance, Vol. 7 No. 11.Federal Reserve Bank of New York, December.

Yew, B.: Milanov, V.B. & McGee, R.W. (2015). An Analysis of Individual Tax Morale for Russia: Before and After Flat Tax Reform. International Business research 8(1); pp. 60-80.

Young, H. P. (1987). Progressive Taxation and the equal Sacrifice Principle. Journal of Public Economics, Vol.32, North Holland: Elsevier Science Publishers B. V., pp. 203-214.

Younkins, W. (2000). Taxation and Justice, le Quebecois Libre, Monteal, No.88, September, retrieved 05/07/2015 on http://www.quesbecoiselibre.org/000930-11.htm

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