

PERSONAL INCOME TAX AND GOVERNMENT REVENUE: EVIDENCE FROM OYO STATE



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ABSTRACT

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The study examined the effect of Personal income tax on revenue generation in Oyo state. It also analyzed the significant components of Personal income tax on revenue generation in Oyo state. Data were obtained from approved budgets of the Oyo State government from 1990 to 2015. Pearson product moment correlation and multiple regressions were employed to analyze the relationship between the dependent variable (Revenue Generation in Oyo State) and independent variables (Pay As You Earn (PAYE), Capital Gain Tax, Road Tax, and Other Taxes (Stamp duties, Betting and Gaming Taxes, Business Premises and registration levies, Development levies and Market fees)). Findings show that there is a positive significant effect of Pay As You Earn (PAYE) on Government Revenue in Oyo state ($\beta = .1393567$; $p \leq 0.05$). All other variables have positive significant effect on Government Revenue in Oyo state with the exception of Capital gain tax which has negative effect on Government Revenue in Oyo state with the adjusted R² @ 96.4%. In conclusion, Personal income tax impacted Government Revenue positively, strongly, significantly and statistically in Oyo State. It is now recommended that Oyo state government should look inward on how more internal revenue will be generated extensively in the state in order to achieve micro objectives of the government, and to eradicate the paucity of government revenue.

Contribution/Originality: This study contributes in existing literature by establishing the effect of personal income tax, capital gain tax, and other taxes on internally generated revenue in Oyo state which has not been examined and analysed by the existing researchers. It also originates new model on the effect of personal income tax on internally generated revenue in Oyo state which will serve as a reference for the future researchers

1. INTRODUCTION

Sanni (2005) advocate 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. To the individual, low income tax rate constitutes an incentive to work or save, while high income tax rate represents a disincentive to work or save. To the government, high tax rates provides the most reliable, important and dominant source of government revenue, for promoting the economic development of the nation. The tax rate is often a major consideration in the choice of organizational form of business (Okafor, 2012) and may also be associated with varying levels of foreign direct investment (Desai *et al.*, 2004). According to

Burgess and Nicholas (1993) Income tax is a tool to achieve economic growth in any country. Income tax is accepted not only as a means of raising the required public revenue, but also as an essential fiscal instrument for managing the economy. Problems of taxation have been receiving special and increasing attention in recent years. Presently, in Nigeria, because of paucity of resources that can be obtained from oil and from domestic borrowing, Nigeria government needs to increase its tax revenues in order to achieve macroeconomic objectives.

The financing of the social security benefits such as health, security and provision of utilities draws heavily upon income that otherwise would have been saved. Instead of accumulating capital, this income goes to social security transfers which are probably consumed. These burdens have pressed the government to continue pursuing its tax reform agenda since revenue generating from oil has diminished which turned taxation as the major source of financing the budget. In Nigeria, revenue derived from income taxes has been grossly understated due to improper tax administration, assessment and collection (Adegbe and Fakile, 2011). According to Naiyeju (1996) the success or failure of any tax system depends on the extent to which it is properly managed; the extent to which the tax law is properly interpreted and implemented.

A major challenge facing Nigeria's economy is the diversification of its revenue base. This diversification has become necessary with the realization that dependency on crude oil earnings cannot sustain public expenditure. Recently, many states in Nigeria have found it difficult to pay salaries of their workers in which Oyo state government is not exclusive. Even many states have gone to the extent of retrenching their workers which has negative impact on entire economy in Nigeria. The scarcity of resources to meet the profundity of its financial responsibilities and upset their fiscal expenditure is the major problem due to the dwindling and lessening of monthly allocation from federal government. To achieve micro economic objectives, the state must generate revenue from other sources. The theme of discussion every day in Oyo state is that Personal income tax generates significant enormous revenue for the government which is sufficient to meet the yearning of workers in the state. Therefore, this study examined the effect of Personal income tax on revenue generation in Oyo state.

2. LITERATURE REVIEW

2.1. Personal Income Tax Administration

Taxation as the name suggests is an important source of revenue to government of any nation. According to Dandago and Alabede (2001) taxation is a compulsory levy made by eligible individuals and corporate bodies to government in order to enable it render services to the citizens. However, taxation is a controversial issue and it is not just an economic instrument designed to generate revenue for development purposes but simply is an economic saddle placed on individuals in order to support the government. Personal income refers to income of individuals, communities, or families arising from employment, business, trade, profession, or vocation (Dandago and Alabede, 2001). According to Lawal (2015) income tax is personal income tax because it excludes companies. Therefore, personal income tax is levied on individuals or family units and that, is computed on the basis of income received. Personal income tax is usually classified as direct tax, because the burden of the tax is presumably on the individual who paid it. Personal Income Tax is expected to boost the economic activities and ensure its growth of any state.

Personal Income Tax (Amendment) Act 2011 imposes tax on individuals (including family), sole traders (including entrepreneurs), trustees, executor, estates and agents. The Act regulates the assessment and collection procedures in respect of personal income tax. Tax management in this context refers to the way and manner upon which the various tax authorities are able to raise the expected amount of revenue and manage it to the extent that in the end it is able to impact on the economic growth of the Nation. The political, economic and social development of any country depends on the amount of revenue generated for the provision of infrastructure in that given country (Agung and Ford, 1998). The administrative bodies instituted by Personal Income Tax Act (PITA) to do these activities are State Board of Internal Revenue (SBIR) and Federal Board of Inland Revenue (FBIR) at the state and federal levels respectively (Agbetunde, 2010). The Taxation is a coercive interference with private property rights

and thus the attempt to reconcile taxation with the market has not received universal acceptability among scholars. On the other hand, mainstream economists define tax neutrality differently (Ukpon, 2012). Personal Income Tax is a form of taxation which taxes employees and self-employed persons. Specifically, the Personal Income Tax Decree provides that taxable persons under the Decree consist of individuals, partnerships, communities and families." Section 3 of the 1990 Decree has clearly stipulated the types of personal incomes chargeable to tax. Thus under the section, the chargeable income includes:

- a) the gains or profits from any trade, business, profession or vocation;
- b) the salary, wages, fees, allowances or other gains or profits from any employment including gratuities, compensations, bonuses, premiums, benefits or other perquisites allowed, given or granted to an employer;
- c) the gains or profits including premiums from the grant of rights for the use of occupation of any property;
- d) Dividends, interests or discounts;
- e) a pension, charge or annuity; or
- f) any profits or gains not mentioned in the above categories".

2.2. Importance of Taxation

According to Dandago and Alabede (2001) Tax is defined as a compulsory levy imposed by government on individuals and organizations within a country primarily for the purpose of raising revenue to execute its expenditure programmes". It can be seen clearly from this definition that tax is a powerful instrument used by the government of any state in raising revenue to finance economic activities and provide infrastructure for the citizenry. Nzotta (2007) argues that taxes constitute key sources of revenue to the federation account shared by the federal, state and local governments. With reference to that, Odusola (2006) stated that in Nigeria, the government's fiscal power is divided into three-tiered tax structure between the federal, state and local governments, each of which has different tax jurisdictions. The system is lopsided and dominated by oil revenue. He further argues that over the past two decades oil revenue has accounted for at least 70% of the revenue, thus indicating that traditional tax revenue has never assumed a strong role in the country's management of fiscal policy. Instead of transforming the existing revenue base, fiscal management has merely transited from one primary product-base revenue to another, making the economy susceptible to fluctuations of the international market.

If tax is imposed on income, the tax will be paid by private individuals and will therefore affect consumers' decisions. Moreover, as Lehmann *et al.* (2009) argued, personal tax significantly reduces the volume of investment which would otherwise have been undertaken. Basic economic theory tells us that there is little difference between a personal income tax and consumption tax (Ayoola, 2003; Bakare, 2011). However, economic experts emphasize the possibility of shifting the tax burden forward (to consumers) or backward (to owners of factors of production), depending on elasticity of respective demand and supply curves. Nonetheless, there has been much controversy over the possibility of tax shifts. According to National Tax Policy (2010) "tax is not a voluntary payment or donation, but an enforced/compulsory contribution, exacted pursuant to legislative authority and is any contribution imposed by the government, whether under the name of duty, custom, excise, levy or other name" (NTP, 2010). The act of assessing, imposing and collecting the various taxes is taxation. According to Etim and Austin (2015) government imposes tax for the following reasons:

- (i) To generate needed revenue for financing of government activities,
- (ii) To control the economy; as economic stabilizer;
- (iii) To redistribute income between the wealthy and less wealthy populace,
- (iv) To discourage the consumption of certain goods and protect domestic industries;
- (v) To stimulate domestic production, creating employment, and
- (vi) To correct balance of payment deficits (Okafor, 2012).

Generally, taxes are expected to yield enough revenue to finance government expenditures and also achieve macro-economic goals of full employment, acceleration of economic growth, as well as promoting robust public and private sectors.

3. METHODOLOGY

Data were sourced from approved budgets of the Oyo State government. This Model evaluated the impact of Personal Income Tax on Revenue Generation in Oyo State. They are time-series secondary data assembled from approved budgets of the Oyo State government from 1990 to 2015. Regression analysis technique was used to measure the effect of independent variables on dependent variable. While pearson product moment correlation was used to measure the relationship between the dependent variable and independent variables.

4. MODEL SPECIFICATION

Revenue Generation in Oyo State is the dependent variable while Pay As You Earn(PAYE), Capital Gain Tax, Road Tax, and Other Taxes (Stamp duties, Betting and Gaming Taxes, Business Premises and registration levies, Development levies and Market fees) are independent variables from 1990 to 2015 .

5. MODEL SPECIFICATION

$$r = \frac{n\sum wc.sf - \sum wc \sum sf}{\sqrt{(n\sum wc^2) - (\sum wc)^2} \cdot \sqrt{(n\sum sf^2) - (\sum sf)^2}} \tag{1}$$

Where n = no of observations
 r = Coefficient of correlation showing the degree of relationship between the dependent variable and independent variable.

The multiple regression equation based on the above functional relation is;

$$\text{REVOYO} = f(\text{PAYE}, \text{CAGT}, \text{ROADTAX}, \text{OTHERTAXS}) \tag{2}$$

The multiple regression equation based on the above functional relation is;

$$\text{REVOYO} = a_0 + a_1 \text{PAYE} + a_2 \text{CAGT} + a_3 \text{ROADTAX} + a_4 \text{OTHERTAX} + \mu_1 \tag{3}$$

Transformed to

$$\text{LOGREVOYO} = a_0 + a_1 \text{LOGPAYE} + a_2 \text{LOGCAGT} + a_3 \text{LOGROADTAX} + a_4 \text{LOGOTHERTAX} + \mu_1 \tag{4}$$

6. RESULTS AND DISCUSSION

Table-1. Descriptive Analysis of the significance of components of personal income tax on Oyo state Revenue

Variable	Obs	Mean	Std. Dev.	Minimum	Maximum
REVOYO	26	306906.2	118120.5	183563	595831.6
PAYE	26	699773.2	1019072	16161.7	4020000
CAGT	26	49155.07	109781.1	136.2	470253.8
ROADTAX	26	574914.6	1165300	4025.7	5120000
OTHERTAXS	26	870.8885	1965.369	3213.5	8049.1

Source: Researchers' computation (2016) using STATA Version 11

The descriptive statistics of the analysis is presented in Table 1 above shows that revenue generation as the dependent variable which had a mean value of 306906.2 with a standard deviation of 118120.5, it had a maximum

value of 595831.6 and a minimum value of 183563. PAYE had a mean of 699773.2 and standard deviation of 1019072 with positive maximum and minimum value of 4020000 and 16161.7 respectively, which signifies that for every 1% increase in PAYE, Government revenue increases by to 6.9%, this implies that there is a positive relationship between Revenue generation and PAYE. Capital Gain Tax, road Tax and other taxes (Stamp duties, Betting and Gaming Taxes, Business Premises and registration levies, Development levies and Market fees) have the mean values of 49155.07, 574914.6, and 870.8885 respectively with standard deviations of 109781.1, 1165300 , and 1965.369 with positive maximum values of 470253.8, 5120000 and 8049.1 with positive minimum values of 136.2, 4025.7 and 3213.5. This implies that for every 1% increase in Capital Gain Tax, road Tax and other taxes there will be an increase in Government Revenue in Oyo state It can be deduced from the analysis that there is a positive relationship between the dependent variables and the independent variables. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted that is there is a positive significant relationship between Personal income tax and Government Revenue in Oyo state.

Table-2. The relationship between Personal Income Tax and Revenue Generation in Oyo State

	LOGPAYEE	LOGPAYEE	LOGPAYEE	LOGPAYEE	LOGPAYEE
REVOYO	1.0000				
PAYEE	0.9612*	1.0000			
CAGT	0.8761*	0.9501*	1.0000		
ROADTAX	0.8827*	0.9567*	0.9966*	1.0000	
OTHERTAXS	0.6685*	0.6160*	0.5722*	0.5719*	1.0000

** . Correlation is significant at the 0.01 level (2-tailed)*. Correlation is significant at the 0.05 level (2-tailed). Source: Researchers' computation (2016) using STATA Version 11

The table 2 above shows the relationship between Personal Income Tax and Revenue Generation in Oyo State The result in table 2 shows that Government revenue in Oyo state (REVOYO) has positive relationship with pay as you earn (PAYE) with the value 0.9612*. capital gain Tax (CAGT) also has positive significant relationship with Government revenue in Oyo state with the value of 0.8761*. This result implies that an increase in capital gain Tax (CAGT) leads to increase in Government revenue in Oyo state. Also, Road Tax (ROADTAX) has positive correlation with Government revenue in Oyo state. This result implies that the increase in Road Tax (ROADTAX) also leads to increase in Government revenue in Oyo state. In the same vein, other taxes (OTHERTAX) such as Stamp duties, Betting and Gaming Taxes, Business Premises and registration levies, Development levies and Market fees) also have positive significant relationship with Government revenue in Oyo state with the value of 0.6685*. The table also revealed that all the predictor variables have a positive relationship with Government revenue in Oyo state.

Table-3. The Effect of Personal Income Tax on Revenue Generation in Oyo State

Independent variable	Dependent variables	Coefficient	Standard Error	T	P> t	[95%Conf. interval]	
LOGREVOYO	LOGPAYEE	.1393567	.0746341	2.87	0.007	.0163274	.2950407
	LOGCAGT	-.0318319	.0203057	-1.57	0.133	.0741888	.010525
	LOGROADTAX	.0679919	.0716317	0.95	0.354	.0814291	.217413
	LOGOTHERTAXS	.0426457	.007889	5.41	0.000	.0261896	.0591018
		10.14923	.2557722	39.68	0.000	9.615693	10.68276
R-squared = 0.9703	Adj R-squared = 0.9643	Prob > F = 0.0000		F(4, 20) = 163.08			
		Root MSE = .06654					

Source: Researchers' computation (2016) using STATA Version 11

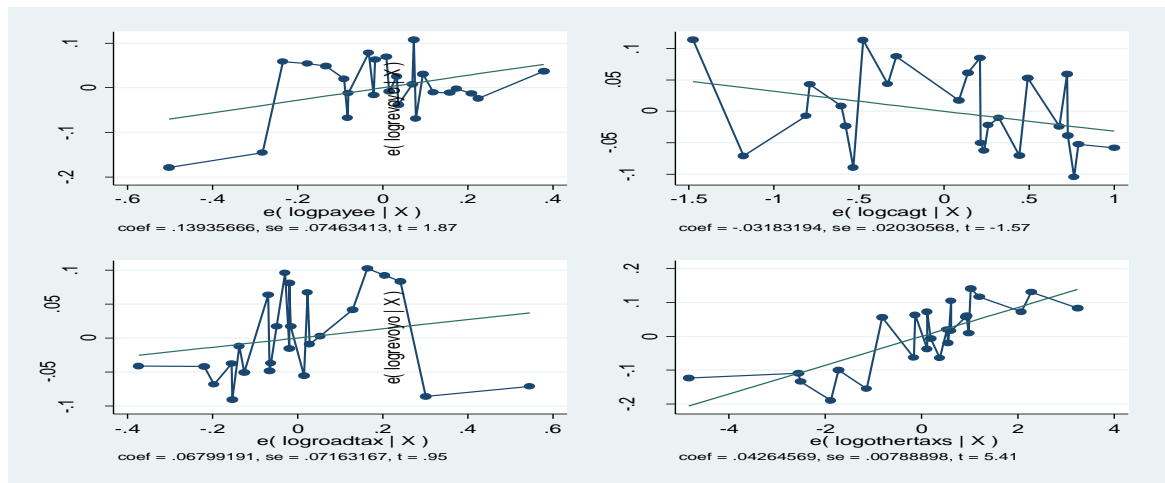


Figure-1. The above table is represented by regression plots below:

Source: Researchers' Design (2016) using STATA Version 11

The table 3 above shows the effect of personal income tax on revenue generation in Oyo State. 1% increase in the Pay As You Earn (PAYE) increases Government Revenue (REVOYO) by 1.3%. This suggests a positive effect the rate of PAYE on REVOYO. The result is also significant. 1% increase in Capital gain tax (CAGT) reduces Government Revenue (REVOYO) by 0.3 %.This means that the relationship between CAGT and REVOYO is negative suggesting that if CAGT increases REVOYO reduces. More so, 1% increase in the Road tax (ROADTAX) increases Government Revenue (REVOYO) by 0.6%. This suggests a positive effect of ROADTAX on REVOYO. The result is also significant. Furthermore, 1% increase in Other taxes (OTHERTAXS) increases Government Revenue (REVOYO) by 0.4%. This reveals a positive significant effect of OTHERTAXS on REVOYO. This is suggesting that if OTHERTAXS in Oyo state increases, Government Revenue (REVOYO) also increases.

Given coefficient of determination (R^2) to the tune of 0.9703 (97%) with the high value of adjusted R^2 as 96.4%, it presages that the independent variables incorporated into this model have been able to determine variation of Government Revenue to 96%.The F and probability statistics also confirmed the significance of this model. This hypothesis is to test whether or not there is significant effect of Personal income tax and Government Revenue in Oyo state. From the decision rule above, because the p-value for the alternative hypothesis equals 0.0000 which is less than 0.05, therefore the null hypothesis is rejected while the alternative hypothesis is upheld.

7. SUMMARY AND CONCLUSION

This study examined the impact of personal income tax on government revenue in Oyo State from 1990 to 2015.This study used multiple regression analysis technique and Pearson product moment correlation was used to measure the relationship between the dependent variable and independent variables. However, based on the analysis conducted, the result shows that, there is a positive effect of Pay As You Earn (PAYE) on Government Revenue in Oyo state. All other variables have positive significant effect on Government Revenue in Oyo state with the exception of Capital gain tax. Also there is a positive significant relationship between Government Revenue with Road tax, Pay As You Earn, Capital gain tax and Other taxes this means when Road tax, Pay As You Earn, Capital gain tax and Other taxes increase, Government Revenue also increases. The higher the level of Road tax, Pay As You Earn, Capital gain tax and Other taxes, the higher the Government Revenue of Oyo State. In conclusion, Personal income tax impacted Government Revenue positively, strongly and statistically in Oyo State. It is now recommended that Oyo state government should look inward on how to expand the revenue generation in the state in order to ensure that adequate revenue are generated internally to eradicate the paucity of income inflow and to meet the government expenditures. Also, government should embark on strict enforcement of personal income tax to bring more taxable individual into the tax net most especially in the capital gain tax.

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