

Impact of tax reforms on revenue generation in Anambra state: Empirical evidence from a time series approach

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ABSTRACT

The study looked at the impact of federally collected taxes on revenue generation in Nigeria from 1992 to 2016 with the specific goals of determining if there was a meaningful connection between federally collected taxes and revenue generation in Nigeria using Petroleum Profit Tax, Companies Income Tax and Value Added Tax, as stand-ins. Central Bank of Nigeria (CBN) and Federal Inland Revenue Services (FIRS) provided secondary data for this report. Ex-post facto ordinary least square regression (OLS) was utilized in the research design as a preliminary test, and the augmented dickey fuller (unit root) test was used to determine whether the time series variables were stationary. The results revealed that every factor that was looked at had a positive impact, with the exception of customs and excise duties, which had a negative impact on revenue generation in Nigeria. Government should always put measures in place that will always ensure full tax compliance from companies in the area.

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1. INTRODUCTION

In recent time, there have been a tremendous emphasizes on how government revenue through taxation can be greatly improved upon and in the face of challenging economic situations, these goals are being short lived and this puts the government in a very tight corner in the bid to discharge its statutory duties to the nation. Taxation also plays an important role in shaping the distribution of benefits, as it is the basis for redistribution from those with the highest incomes to those most in need and allows government to encourage certain activities and discourage others by altering their relative prices (Prichard, 2009). Tax payment occurs when the private sector transfers revenue to the public sector. This is to assist the government achieve some of its goals (social and economic). Oboh and Isa (2012), tax payment has been a needed phenomenon of worldwide importance since every economy is affected regardless of differences nationally. The Nigeria tax system is so porous that the revenue generated is very low compared to the country's Gross Domestic Product (GDP) ration and this is a result lots of loophole in the system which gives room for tax evasion. Asaolu, Dopemu and Monday (2015) and Aregbeyen and Fasanya (2013) further opined that Nigeria has an extremely low tax to GDP ratio compared to other developing nations, which can be attributed to the country's limited tax base, rigid tax structure, complicated tax laws, intricate web of exclusions and tax incentives, poor tax administration, and ineffective collection of provincial taxes. The oil and gas sector, which generates around 80% of government income, is putting pressure on this position. The extent of Nigeria's tax gap indicates that adjustments to both tax administration and tax policy are necessary in order to increase the nation's tax effort in a fair and effective manner. It is one thing to impose taxes on taxpayers who fall inside a certain tax band, and quite another to be able to collect those money (Enyi, 2016). The internal revenue laws, or associated statutes and tax conventions, are administered, managed, conducted, directed, and supervised in the context of tax administration. The most crucial and significant factor in making sure there is adequate money for the running of the government in the majority of emerging nations has been tax administration. The amount of tax money that is available for use in running the government depends on its capacity to manage taxes (Bird, 2015; Pantamee & Mansor, 2016).

Despite the large literature on tax administration and compliance, and their impact on tax revenue, there have been few attempts to examine its impacts on government revenue. Yet, due to inefficient tax administration brought on by ineffective tax collection equipment, income tax revenue earned in Nigeria throughout the years has been woefully insufficient to pay public expenditures. So, the impact of taxation on economic growth in Nigeria is not entirely felt. In order to increase tax revenue yield in Nigeria, a number of tax changes, including the Taxpayer Identification Number, the E-payment scheme, and Anti-Tax Avoidance Legislations, have been implemented. The Federal Ministry of Finance [FMF], 2017; PwC, 2017; and the Nigerian Voluntary Asset and Income Disclosure Scheme (VAIDS) (Olaleye, 2017) are the most recent changes, with the goal of increasing Nigeria's tax revenue to GDP ratio from 6% to 15% by 2020.

The Nigerian government became concerned with seeking alternative source of revenue generation to support her teeming population following the oil price shocks in 2014 which saw oil price crash. Government resorted to tax as part of its strategy to improve its ability to generate non-oil revenue hence the focus of this study is to examine the effect of tax reform on revenue generation in Anambra state.

1.1 Objectives of the Study

The overall objectives of the study will be to determine effect of the tax reforms on revenue generation in Anambra State. Specifically, the study will set out to achieve the following sub objectives:

- determine the effect of Companies' Income Tax (CIT), on Revenue Generation Anambra State
- examine the effect of Value Added Tax on Revenue Generation of Anambra State
- determine the influence of Petroleum Profits Tax (PPT) on Revenue Generation of Anambra State.

2. REVIEW OF RELATED LITERATURE

2.1 Forms of Taxes

Tax is assessed in accordance with the reasonable rule of apportionment on persons or property within the tax administration and it is purely statutory. The 1999 Nigerian Constitution puts the collection of taxes in the 2nd schedule item 7-10 under the concurrent list thereby giving the 3 tiers of government i.e. the federal government, state government and local government have power to make provisions for the collection of tax. The various types of tax payable in Nigeria are:

2.1.1 Company Income Tax

This is thirty percent of the chargeable profit of a company accruing in, derived from, brought into or received in Nigeria. The tax is regulated by the Companies Income tax Act 2004.

2.1.2 Value Added Tax

Which was brought into existence by Decree 2 of 1993 to replace the sales tax? The value added tax is five percent and it is a consumption tax that has been embraced by many countries and very easy to administer and difficult to evade as it has been added from sources and paid to the federal board of internal revenue periodically by the supplies of goods and services. In case of imported goods, this is paid directly to the federal board of internal revenue at the same time as import duties. It is governed by the value added tax act 2004.

2.1.3 Capital Gains Tax

This is tax charged on the proceeds of property sold off by a tax payer. The tax is ten percent of chargeable gain propriety right, sale or lease of property. The aim of the tax to boost revenue by government by deducting certain specified

amount from gains accruing to any person on disposal of qualifying capital expenditure (assets). What amounts to disposal includes sales, lease, transfer, assignment and compulsory acquisition. This tax is regulated by the capital Gains Tax Act 2004.

2.1.4 Education Tax

This evolved from the idea of private sector participation in the finding of education in Nigeria. The tax is two percent of the assessable profit of incorporated companies in Nigeria.

2.1.5 Personal Income Tax

The tax is imposed on the incomes of individuals in employment, sole traders, partners in partnership business, trust, estate & settlement. It has two divisions; Direct assessment (self-assessment) and Pay As You Earn (PAYE) basis that is the tax payable depends on how much is earned by the tax payer. The tax is regulated by the Personal Income Tax Act 2004.

2.2 Petroleum Profit Tax (Petroleum Profit Tax Act)

This is the type of tax paid by or imposed on companies that are into the business of petroleum exploration. It is imposed on the profits of oil producing companies, operators in the petroleum downstream sector (Asolu, Olabisi, Akinbode & Alabiosu, 2018).

2.3 Stamp Duties (Stamp Duties Act)

It is administered on written documents. The administration is by FIRS, the FCT and states internal revenue board. Based on the information from FIRS, stamp duties in Nigeria will now be paid on “house rent” and “Certificate of Occupancy” (Olawayin, 2020). In a circular released by the FIRS May 2020, there will be the attachment of stamp duty to electronic measures showing transfer of money from one individual to another individual as much as the amount involved is from N10, 000 and above. The charge will be N50 as a single and one-off duty.

2.4 Concept of Revenue

Revenue is very important concept in economic analysis. It is directly influenced by sales level, i.e., as sales increases, revenue also increases. However, looking at the term revenue from the point view of government, it is the income of the government through all sources and is called public income or public revenue. The revenues are; taxation, fees, fines, grants, borrowings, gifts & donations, sales of government assets, sales of crude oil and other minerals. Dalton (2016), defined the term “Public Income” from two senses wide and narrow. In its wider sense it includes all the incomes or receipts which a public authority may secure during any period of time. In a modern welfare state, public revenue is of two types, Tax Revenue and Non-Tax Revenue (Olanlokun & Bashiru, 2019).

2.5 Theoretical Review

2.5.1 Optimal Taxation Theory

Just like Asaolu, *et al.*, (2015), this study adopted the theory of optimal taxation theory as the theoretical underpin for the study, since it explains the essence of tax revenue to social welfare of the state. Another dimension to the theory of tax reform is the optimal tax reform theory. Under this theory, it is required that the best way to raise revenue is through taxing goods or factors with inelastic demand or supply, and that taxation relating to distribution and externalities or market failures should concentrate on identifying the source or origin of the problem. Thus for distribution, one should look for the sources of inequality (for example, land endowments or earned incomes) and taxation should be concentrated there. Regarding externalities, an attempt should be made to tax or subsidize directly the good or activity that produces the externality (Stern, 1988). Employing the optimal tax reform theory, Newbery and Stern (1987) applied a normative framework to analyze the tax reform process. The optimal taxation approach according to them emphasizes the need to analyze the impact of tax reform and evaluate both its administrative costs and its effects on social welfare. The major problem of this approach is that it required substantial data which are difficult to source in developing countries. In addition, optimal taxation assumes the existence of perfect tax administration, which does not exist in Anambra state, Nigeria and several developing countries.

3. METHODOLOGY

The study adopts the Ex-post facto method of research design with time series data covering a period of thirty-one (31) years from 1990 to 2021. Data were obtained from the CBN statistical bulletin and National Bureau of statistics annual reports for the purpose of analysis. The tax reform was proxied by Companies' Income Tax (CIT), value added tax (VAT) and Petroleum Profits Tax (PPT), while the revenue generation was proxied by total Anambra state collected revenue. The study adopts descriptive statistics, Augmented Dickey fuller unit root test, ordinary least square (OLS) regressions, heteroskedasticity test and Variance Inflation Factor for the purpose of analysis.

4. RESULT

4.1 Ordinary Least Square (OLS)

This was used to estimate the relationship existing between the regress and (Revenue Generation in Nigeria) and the regressors (CIT, VAT and PPT), that is to test the extent to which all the variables impact on revenue generation in Nigeria.

Table 1. Least Square Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CIT	10.364845	1.943322	5.733828	0.0000
VAT	4.346836	1.432305	3.658884	0.0018
PPT	2.364914	0.423136	5.733268	0.0000
C	666387.2	280986.4	1.811792	0.0805
R-squared	0.862171	Mean dependent var		3653292
Adjusted R-squared	0.832662	S.D. dependent var		2618102
S.E. of regression	1062241	Akaike info criterion		30.89865
Sum squared resid.	2.05E+11	Schwarz criterion		31.10653
Log likelihood	-349.1602	Hannan-Quinn criter.		30.72340
F-statistic	33.40177	Durbin-Watson stat		1.384618
Prob(F-statistic)	0.000000			

*Significant at 5%

Source: Researcher's Eviews Analysis 2022

Dependent Variable: RGA

Method: Least Squares

Sample (adjusted): 1990 - 2021

Included observations: 31 Years

The model's output suggests that a significant amount of the total generated revenue in Nigeria—86.21 percent—is described by the various federal taxes included in the study's model, according to the overall coefficient of determination (R²) of 0.8326 demonstrated that after removing the effect of the explanatory variables, changes in revenue account for 83.26 percent of the explanation of RGN in the equation. The Durbin-Watson (D.W) statistics of 1.38 was not substantially further away from the traditional benchmark of 2.0. The study concludes that there is no sign of autocorrelation or serial correlation in the model specification, hence, the assumption of linearity is not violated. Therefore, there exists a positive relationship between federally collected taxes and revenue generation in Nigeria. According to the study model, Nigeria's revenue is positively correlated with corporation income tax (CIT), value-added tax (VAT), and petroleum profit tax (PPT). That instance, an increase of one percent in CIT, VAT, and PPT revenues will result in an increase of 10.36 percent, 4.34 percent, and 2.36 percent, respectively, in the total revenue earned in Nigeria. The P-values of those factors show that, at less than 1% (which is lower than the conventional benchmark of 5% and 10%, respectively), they have a substantial impact on the overall revenue earned in Nigeria.

4.2 Unit Root Tests

In order to ascertain the stationary state of the time series variables the unit root test was employed. This is imperative since the study is ignorant of the data generating process. The augmented Dickey – Fuller was employed and the results are shown in Table 2

Table 2. Augmented Dickey – Fuller

AT LEVELS			AT FIRST DIFFERENCE		
Variables	ADF	Remark	ADF	Remark	Decision
RGN	-1.489	Non-Stationary	-5.828	Stationary	
CV@1%	-3.837		-3.852		
CV@5%	-2.891		-2.898		
CV@10%	-2.735		-2.738		
CIT	1.433	Non-Stationary	-5.081	Stationary	1(1)
CV@1%	-3.737		-3.753		
CV@5%	-2.991		-2.998		
CV@10%	-2.635		-2.638		
VAT	3.641	Non-Stationary	3.485	Stationary	1(1)
CV@1%	-3.857		-3.887		
CV@5%	-3.040		-3.052		
CV@10%	-2.760		-2.667		
PPT	-1.617	Non-Stationary	-4.134	Stationary	1(1)
CV@1%	-3.837		-3.932		
CV@5%	-2.791		-3.029		
CV@10%	-2.835		-2.855		

Source: Researcher's Computation (2022)

From the table 2 above, the test result showed that at levels for 1%, 5%, and 10% significance, the time series variables for Nigerian revenue generation, petroleum profit tax, corporate income tax, value-added tax, and customs and excise duties were not determined to be stationary. Revenue Generation in Nigeria, Petroleum Profit Tax, Company Income Tax, Value Added Tax, and Custom &

Excise Duties, however, were discovered to be stationary at the 5% and 10% level of significance after initial differencing. As a result, we may say that every variable is stationary at first difference, and we reject the null hypothesis that all variables are non-stationary at first difference. These show that the series included in the regression model do not have a unit-root, and that the series are mean reverting and converge to their long-run equilibrium at their initial difference.

5. CONCLUSION

The goal of the study was to determine how Nigeria's federal tax collection affected the country's ability to generate revenue. In order to determine if federally collected taxes actually have an impact on revenue generation in Nigeria, a variety of income taxes were utilized as proxies to attain this goal. Two different tax types from each of the two categories of income taxes (direct and indirect taxes) were selected, such as petroleum profit tax and company income tax for direct taxes and value added tax, for indirect taxes. This analysis demonstrated that since its inception (fourth republic and tax reforms) in 1999, federally collected taxes had made extraordinary progress. Taxation brought in more money than other means via. This study came to the conclusion that Nigeria's revenue generation was positively impacted by taxes collected at the federal level.

The analysis finds that tax reforms have a positive but statistically significant effect on Nigeria's capacity to produce revenue. Therefore, it may be claimed that in the state of Anambra, taxes and revenue generation are mutually exclusive. The report suggests that the income tax, value added tax, and petroleum profits tax of corporations be revised in order to battle the hydra-headed monster of multiple taxes and promote accountability and openness in governmental operations. This will assist in restoring taxpayers' faith in the tax system.

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