

Tax Revenue and Economic Growth in Nigeria

ABSTRACT

The main objective of this study is to examine the effect of tax revenue on economic growth in Nigeria. This study covers a period of 27 years (1995-2022). The reason for choosing this period is that it depicted by the fact that it fall within timeline in which VAT one of components indirect was introduced by the Nigerian government. Pair Granger causality testing was employed to ascertain the relationship between dependent and independent variables. The results showed that first; there is a no significant relationship between CIT and economic growth in Nigeria. The results revealed that there is a positive relationship between VAT and economic growth in both long run and short run. Finally, the Granger causality test results, showed that there is no significant relationship between custom duty and economic growth in Nigeria. The study recommended that policy makers should concentration effort on long run policies that will stimulate generation of indirect taxes in the long-run

Keywords: Value added Tax, company income tax, Economic growth

INTRODUCTION

The economic growth of a nation is reliant on an unwavering means of income. After the Great Depression of the 1930s, Governments world over initiated the adoption of stabilization policies that encompass miscellaneous macroeconomic policies in order to avert ugly incidence that occurred during the great depression. These were fiscal policies which require; government's run the economy via vicissitudes in revenue and expending capacity to realize wanted macroeconomic goals, prominent of these goals is economic advancement, (Oriavwote & Eshenake, 2015)

Modern-day tax administrators are after numerous strategic goals and notable amongst these set objectives is generation of revenues for economic sustainability. Taxation is aimed at raising the required moneys for executing capital project, for equitable redistribution of income, to engender economy stability, to overcome externalities, to influence the allotment of resources, while in the same vein it engender economic advancement. A good tax system is intended to drive economic growth and engender economic advancement. An effective tax system plays a vital role in achievement of economic growth and fiscal amalgamation.

Economic theory opines that taxes produce alterations and by extension influences the economy negatively. Some scholars suggest that corporate and personal income taxes are the greatly retards the growth of an economy, whereas consumption, environment and property taxes are have injurious effect on the economy (OECD, 2008). The it duty bound of government over world particularly specialized market to collect tax revenue from their citizen to provide social amenities. The quest to realize these duties principally depends on the aggregate volume tax revenue collected by the government via numerous including taxes. Taxes are of the one of the primogenital means through which the funds for provision indispensable amenities for the citizens of a nations. (Abiola & Asiweh, 2012). The principal purpose of a tax system is to generate

adequate revenue to fund crucial capital project like road, bridges etc.. Tax remains one of the most veritable tools used for the enhancement of the public sector performance and the servicing of public debt (Okoye & Ezejiofor, 2014). A good tax system avails itself as a veritable tool that help in mobilizing a country's internal resources and it gives itself to create an ecosystem that is favorable for the promoting economic advancement (Ayuba, 2014).

Over the years, the conventional tasks of governments have been maintenance of law and order and provision of social amenities by undertaking some investments and expenditure. Through these means, the government directly or indirectly improves the productivity of the private sector by efficient and effective allocation of scarce resources. It is worthy of note that these roles have moved in contemporary times to include provision employment, price level stability, advancement of economic and expansion, preservation of equipoise of payment evenness and advancement of equitable revenue and fund sharing. In recognition of these functions, most governments across the globe attach great importance to the quality and performance of their economy and to achieve these objectives governments usually embark on fiscal and financial policy apparatuses such as taxes and disbursements to boost economic activities and stimulus the of the economic growth.

The economy performance of any government from the stand point of the public sector is partly proxy by the volume and quality of infrastructure amenities accessible to its populace. The capacity of the government of a nation to provide social amenities is a function of the revenue at the disposal of that government. Most developing nations of the world have multiple strings of incomes hence the delivery of social amenities is high. On the contrary most developing nation

of the world are mono economic, they depend largely on income generated from exports of natural resources such as oil and agricultural produces

Notwithstanding the numerous theoretical and empirical researches, as well as policy and policy polemics, the impact of taxation on government capital expenditure in developing countries like Nigeria is still very much inconclusive. Prior studies suggests that tax revenue is negatively related with tax rate and by extension implies that high tax rates impedes government capital expenditure. Nantob (2014) argues that higher tax rates may create more distortion in revenue generation because tax evasion and tax avoidance will high. The author further report that lower rates will generate productive income. Some extant literatures suggest that there is indirect and inverse relationships between tax burden and capital expenditure.

The relationship between tax burden and provision of social amenities has led to scholarly discuss among policymakers in past decades and the extant literature has divulged that the allotment of tax income in an economy is influenced by government policies which often engenderbehavioural distortions of economic players.. Investigating the effects of tax revenue on provision of social amenities can approach from three stand points, namely exogenous, endogenous and incidence schools of thought. The exogenous school focused on the exogenous growth model as pioneered by Solow (1956) postulates that tax policy has a role to play in attaining long-term economic growth, on the premise that labour and technological progress (which is key factors responsible for economic expansion) are determined outside the model. At the other extreme is the endogenous school of thought focused on the endogenous growth models which according to Lucas (1988), King and Rebelo (1990) and Barro (1990) postulates that tax policy have a relationship with capital expenditure and welfare over time, and economic expansion is determined within the model. The incidence school of thought argues that there is a

causality between tax burden (tax) and revenue generation. The proponents of this school of thought contend that the direction of the relationship rides on the wings of macroeconomic factors

This study is built on the perspective of the incidence school of thought and draws its strength from their arguments. Very few prior studies looked at the causation of between tax and capital expenditure holistically and this creates the gap in knowledge that this study intends to fill. The objective of this study is to ascertain the causality between tax revenues and capital expenditure in Nigeria.

Indirect taxes are seen as the utmost kind of taxation in many specialized markets but in Nigeria tax payers have the doubt around the feasibility of taxes that fall within this preview. Some persons suggest that it is governments' way of bellicosely robbing people of hard earned money because there is no corresponding infrastructural development. The reason for this is because the funds generated from indirect taxes like VAT and others are not used effectively and efficiently.

Nevertheless, many hypothetical and empirical researches on taxation and economic growth in emerging markets like Nigeria are still very much inadequate. Theoretical literature infers that taxes have an adverse effect on the economy and by extension implies that high tax rates impede economic growth. Nantob (2014) argues that high tax rates may create more distortion in economic activities hence it will hamper economic growth. The author further reports that lower rates will generate productive income. Some extant literatures suggest that there is an inverse relationship between tax burden and growth rates. Thus, future economic output may be higher than the optimal tax rate and thus future tax revenues would be higher at a lower tax rate (Nantob, 2014).

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This study is built on the perspective of the incidence school of thought and draws its strength from their arguments. Very few prior studies looked at the causation of between indirect tax holistically and economic and this creates the gap in knowledge that this study intend to fill. The causality between indirect tax and economic growth in developing countries revealed in prior unclear and this virtually initiated an impetus for carrying out this study.

Theoretical Framework

This work is anchored on the theory stated below

2.3.2 Benefits Theory

The benefit theory was initially developed by Wicksell (1896) and Lindahl (1919). The theory had been used to elucidate issues such as tax progressivity, business taxes, and taxes on property or wealth. The benefits theory of taxation strengthened by Cooper (1994) postulated that government should impose tax on a person founded on the benefits the persons attained from the services (social goods) performed by the government. This theory presumed that there is an emblematic association amid the taxpayers and the government. This theory tends to explain the association between tax and economic growth. This theory argues the tax proceeds collected by the government ought to be invested into the sustainability of the nation's advancement via the provision of social amenities, enforcement of law and order. Lastly, converting to the feasible tax system that amalgamates both goods tax and individual income tax, concurrently resulting in an optimum consequence for society, have been evaluated by numerous. Specifically, they founded their study on the analysis of Mirrlees (1971) with regard to optimal income taxation by accumulation of conceivable influence of commodity taxation on the economy. To be more exact, the study is founded on utility intensification, bearing in mind both consumption of goods and labor supply subject to income restraint, price of numerous kinds of goods as well as capability of labor force. In that manner having leisureliness also considered as being one of the products with its price being equivalent to hourly wage of the labor, since one needs to forego one hour salary in order to receive additional hour of relaxation time. Atkinson and Stiglitz (1976) argue that product taxes can be equivalent to zero and employment of only income tax is sufficient to meet welfare to get the most out of its set goal. Precisely, the outcomes are grounded on the taxation of inborn capability of persons, however in the condition of separation, immaterial influence of product taxation on consumers buying pattern is discovered. Otherwise, it also can be implicitly stated that a certain cluster of products that are being chosen over other

categories of products by consumers, who are supplying more working hours, needs to pay higher tax. This is primarily because the positive association between marginal rate of replacement of a commodity and labor because labor supply upsurges, other being equivalent. Moreover, Mirrlees (1976) emphasize that the certain kind of goods that are being more preferred by those workers with highest ability should be taxes the most with the highest rates. Alternatively, Christiansen (1984) made slightly different approach with respect to combined optimal taxation structure by considering income taxation and commodity taxation jointly. In particular, he elucidates that it should be structured in two stages. First stage is the economy with the most advantageous income taxation system devoid of any commodity taxes. The second stage, involves product taxation and ascertain its influence on the wellbeing of households by preserving the tax revenue continuous.

METHODOLOGY

Area of Study

This study covers the impact of indirect tax on economic growth. The study focuses on twenty seven (27). In order to obtain a robust analysis, the researcher used the macroeconomic data.

This research, in view of its nature made use of secondary data. The data were sourced from the publications of Federal Inland Revenue Service, Central Bank of Nigeria (CBN) Statistical Bulletin and the publications of the National Bureau of Statistics (NBS) for the study span through a period nineteen, 1994-2019. VECM is employed to analyse data extracted from the field.

.3.5 Model Specification

Based on the conjectural framework and the objective of the study, the econometric model is adapted from the works of Aderetiet *al.* (2011) and Yadirichukwu and Ebiringa (2012) and is specified as follows:

This study will adopt Regression Model to examine the effect of tax revenue on economic growth in Nigeria. The model structure is as follows;

$$GDP = F(VAT, CIT, CED) \dots\dots\dots (3.1)$$

$$GDP = \beta_0 + \beta_1 CIT_{it} + \beta_2 VAT_{it} + \beta_3 CED_{it} + \mu_0 \dots\dots\dots (3.2)$$

Where:

GDP_{it} = Gross Domestic Product

β₀_{it} = Constant

β₁₋₃ = Co- efficient independent variables

CIT = Company Income Tax

VAT = Value Added Tax

CED = Customs and Excise duties

μ₀ = Error term

i = Number of time

t = Period of time

3.8.3 Data Analysis Technique

Accordingly, Vector Error Correction Model (VECM) is suitable to estimate the effect of determinant variables on Economic growth. Thus, the equations below represent Error Correction Model. Besides, the purpose of ECM model is to indicate the speed of adjustment from the short run equilibrium to the long run equilibrium state.

Model

$$\Delta GDP_t = \sum_{k=1}^m \theta_{1.1,j,k} \Delta GDP_{t-k} + \sum_{k=1}^m \theta_{1.2,j,k} \Delta VAT_{t-k} + \sum_{k=1}^m \theta_{1.3,j,k} \Delta CED_{t-k} + \sum_{k=1}^m \theta_{1.4,j,k} \Delta CIT_{t-k} + U_{1t}, \dots \quad (1)$$

$$\Delta VAT_t = \sum_{k=1}^m \theta_{2.1,j,k} \Delta GDP_{t-k} + \sum_{k=1}^m \theta_{2.2,j,k} \Delta CED_{t-k} + \sum_{k=1}^m \theta_{2.3,j,k} \Delta VAT_{t-k} + U_{2t}, \dots \quad (12)$$

$$\Delta CED_t = \sum_{k=1}^m \theta_{3.1,j,k} \Delta GDP_{t-k} + \sum_{k=1}^m \theta_{3.2,j,k} \Delta VAT_{t-k} + \sum_{k=1}^m \theta_{3.3,j,k} \Delta CED_{t-k} + \sum_{k=1}^m \theta_{3.4,j,k} \Delta CIT_{t-k} + U_{3t}, \dots$$

$$\Delta CIT_t = \sum_{k=1}^m \theta_{4.1,j,k} \Delta GDP_{t-k} + \sum_{k=1}^m \theta_{4.2,j,k} \Delta VAT_{t-k} + \sum_{k=1}^m \theta_{4.3,j,k} \Delta CED_{t-k} + \sum_{k=1}^m \theta_{4.4,j,k} \Delta CIT_{t-k} + U_{4t}, \dots$$

DATA PRESENTATION AND ANALYSIS

4.3 Inferential Statistics

4.3.1 Panel unit root test results

Unit root test null hypothesis assumption is on the premise that all sequences are not static, while the alternative hypothesis presumes that some of the sequences are static.

Table 1. The unit root test for the variables at 5% sig level with no trend.

| Variable | ADF value (I) | PP value (I) | ADF value (0) | PP value (0) |
|--|-----------------|------------------|-------------------|------------------|
| GDP | -4.514 (2.925)* | -4.622 (-2.926)* | -0.854 (-2.925) | -0.540 (2.925) |
| CIT | -6.261 (2.947)* | -17.63 (-2.925)* | -10.439 (-2.941)* | -5.953 (2.925)* |
| CED | -6.331 (2.925)* | -22.12 (-2.925)* | -8.113 (2.928)* | -4.385 (-2.925)* |
| VAT | -6.111 (2.925)* | -20.12 (-2.911)* | -6.113 (2.928)* | -7.382 (-2.925)* |
| The F unit root test for the variables at 5% sig level at intercept. | | | | |

Source: Researcher's computation

Significance * @5%

From Table 1, time series of GDP, CIT, CED and VAT are static at first variance as portrayed by the absolute values of ADF and PP larger than critical values the 5% ADF critical values signifying that the variables are joined of order one. In additional, to affirm the stationary status of the variables ADF and PP test were performed with trend. The results for ADF and PP confirmed that GDP, CIT, CED and VAT remained static at first difference since the real values of ADF and PP exceed the correspondence critical values. The Unit test reveals that there is a combination of I(I) and I(0) of the supplementary regressors, therefore the Auto Regressive Distributive Lag (ARDL) testing could be continued.

4.3.2 Co-integration

When evaluating variable for co-integration, the VAR model with dual lags, as recommended by AIC and HQIC is considered. The work employed a Panatela principle in order to fix the suitable limitations in the model. The study start by approximating dualistic models. For these models we go from the utmost limiting factor, which includes delimiting constant to the minimum limiting factor which comprises a delimiting trend in the model. Trace statistics and critical value are placed side by side until null hypothesis is not retained. The outcomes of the estimating model are displayed in Table 2.

Table 2 Vector Estimation Correction Model

| ECM | | | | | |
|--------------------------|------------------------|-------------|----------------|----------|----------|
| Independe nt variable | Dependent Variables | Coefficient | Standard Error | T-Stat. | R-square |
| CIT | RGPD | -0.200795 | 0.00021 | -13.2219 | 0.7954 |
| CED | | -0.050365 | 0.00086 | -6.24074 | 0.6594 |
| VAT | | 0.001815 | 0.00054 | 3.38482 | 0.8593 |
| Long run | | | | | |
| CIT | | -0.000264 | 0.00022 | -1.19506 | |
| CED | | 0.001432 | 0.00080 | 1.78713 | |
| VAT | | 0.020407 | 0.0006 | 3.99987 | |
| Short run | | | | | |

| Estimate | | | | | |
|----------|------|-----------|---------|----------|--|
| CIT | RGDP | -0.000416 | 0.00024 | -3.75464 | |
| CED | | -0.000763 | 0.00096 | -3.79847 | |
| VAT | | 0.001286 | 0.00053 | 3.44983 | |

Source: Author's computation

VECM result reveals that CIT has no significant impact on RGDP in long run at both 5% as depicted by $t = -1.195$ but has significant positive impact in the long run as depicted by $t = 3.755$. The negative sign of EMC (eq) ($t = -13.221$) connotes that CIT has no significant relationship with RGDP in the long run. The result also shows that CIT can only explain 79.5% of RGDP while about 21% is unaccounted for.

The result further reveals that CED has negative impact on RGDP in the short run at 5% as depicted by $t = -3.798$ but has no significant in the long run as depicted by $t = 1.798$. The negative sign of EMC ($p = -6.240$) connotes that it is not probable for CED to influence RGDP in the foreseeable future. The result also shows that CED can only explain 65% of RGDP while 35% is accounted. The result shows that 5% rise in FDI will lead to decrease in RGDP by 0.001 units in the short run.

Finally, the result reveals that VAT has significant impact on RGDP in both long as and short run by $t = 3.99$ and $t = 3.44$ respectively. The positive of EMC (Eq) ($t = 3.38$) connotes that it is likely for VAT to influence RGDP in the foreseeable future. The result also shows that CED can only explain 85% of RGDP while 25% is unaccounted. The result shows that 5% rise in FDI will lead to about 0.0204 units rise in change in RGDP.

5.2 Conclusion

The principal duty of every responsible nation is the delivery of sufficient public goods and services that enhance the quality of life of citizens. The realization of these duties depends on the quantum of income gutted by the government via a variety of means. Taxation is among the feasible channels of generating . When taxes are competently and effectively collected, there will be an upsurge government's earnings and citizens on the other hand will anticipate usage of such income to provide social facilities that engender the quality of life of citizens. However, untrained tax personnel and deceptive activities of tax personnel project immense challenges to revenue generation.

In acknowledgement of government's functions with respect to providing of welfare, a lot of nations world over attribute prodigious significance of tax to the fiscal policy of government. To this end, this study is targeted at finding out the causation among economic growth and tax revenue. This study adopted ADF and Philips-Perron (PP) unit root test, panel Johansen cointegration test, VAR model, auto regression estimate, impulse response function and pairwise granger. Stability tests were also performed to ascertain the stability of the variable. The outcome the study divulged that first, that there is a no emblematic association between CIT and economic growth in Nigeria. This connotes that the Nigerian government is yet to explore this channel of revenue.

Second, the outcomes of the study revealed that there is a affirmative association between VAT and economic growth in both elongated and immediate run. This connotes that VAT has become one of the foremost channels of taxes in Nigeria.

Based on the result the study recommends, government should close every leakage that may lead to drainage of taxes

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