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 the period in which value added tax (VAT) one of components indirect was introduced by the Nigerian government. Vector error correction model was employed to ascertain the relationship between dependent and independent variables. The results showed that first; there is a negative significant relationship betweencompany income tax (CIT) and economic growth in Nigeria in both long and short run.The result also revealed that there is a significant negative relationship between custom excise duty and economic growth. On the contrary the results revealed that there is a positive and significant relationship between value added tax (VAT) and economic growth in both long run and short run. Based on the result the study recommends, government should close every leakage that may lead to drainage of taxes

Keywords: Company income tax, Economic growth Value added Tax

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 to avert ugly incidence that occurred during the great depression. These policies are fiscal policies putin placeto enablegovernment run the economy via vicissitudes in revenue and expending capacity torealize the desire macroeconomic goals suchas economic advancement, (Oriavwote&Eshenake, 2015)

Modern-day tax administrators are set out to achieve numerousstrategicgoalsand 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 engenders 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 influence the economy negatively. Some scholars suggest that corporate and personal income taxes are the greatly retardthe growth of an economy, whereas consumption, environment and property taxes have injurious effect on the economy (OECD, 2008). It duty bound on government the over world, particularlyin specialized economies to collect tax revenue from their citizensand provide social amenities in revenue. The quest to realize these duties principally depends on the aggregate volume of tax revenue collected by the government via numerous means including taxes. Taxes are one of the means through which the funds for providing indispensable amenities by

government for toits citizens are gotten.(Abiola&Asiweh, 2012). The principal purpose of a tax system is to generate adequate revenue to fund crucial capital project like road, schools, health care mention but a few. 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 helps in mobilizing a country's internal resources and it gives itself to create an ecosystem that is favorable for 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 provisionof employment, price level stability, advancement of economic and expansion, adjustment of balance of payment deficit, equitable distribution of revenue and equitable distribution of allocation of funds. 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 stimulate economic growth.

The economic 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 nations of the world are mono product economy, they depend largely on income generated from exports of natural resources such as oil and agricultural produce

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 suggestthat tax revenue is negatively related with tax rate and by extension implies that high tax rates impede government capital expenditure. Nantob (2014) argues that higher tax rates may create more distortion in revenue generation because tax evasion and tax avoidance will behigh. The author further reported that lower rates will generate productive income. Some extant literature suggest that there is indirect and inverse relationship between tax burden and capital expenditure.

The relationship between tax burden and provision of social amenities has led to scholarly discourse among policy makers 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 engender behavioural distortions of economic players.. Investigating the effects of tax revenue on provision of social amenities can be approached 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) who 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) postulated that tax

policy has 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 it strength from their arguments. Very few prior studies looked at the causation between tax and capital expenditure holistically and this creates the gap in knowledge that this study intends to fill. The objective ofthis 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 purview. Some persons suggest that it is governments' way of bellicoselyrobbingpeople of hard earned money because there is no corresponding infrastructural development. The reason for this is because the funds generated from indirect taxes like value added taxes VAT and other are not used effectively and efficiently.

Nevertheless thereare many hypothetical and empirical researches on taxation and economic growth in emerging markets like Nigeria are is still very much inadequate. Theoretical literature infers that the taxes have adverse effect on the economy and by extension implies that high tax rates impede economic growth. Nantob (2014) argues that higher tax rates may create more distortion in economic activities hence it will hamper economic growth. The author further reported that lower rates will generate productive income. Some extant literature suggest that

there is indirect and inverse relationships 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 between indirect tax holistically and economic growth and this creates the gap in knowledge that this study intends to fill. The causality between indirect tax and economic growth in developing countries as revealed in priorare still very unclear. The aforementioned acted a spring board forembarkiong on his study.

Theoretical Framework

This work is anchored on the theory stated below

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 strengthens 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 reinvested into the sustainability of the nation's advancement via the provision of social amenities, enforcement of law and order.

Empirical Review

Cornelius *et al* (2016) examined the influence of tax revenue on economic growthinNigeriafor a period of twenty-years, 1986 to 2010. Multivariate regression technique was employed to ascertain the relationship aforementioned variables. The outcome of the study divulge that there is no an emblematic association between CIT and economic growth.

Acti and Abigail (2016) examinedthe influence of taxation on economic advancement in Nigeria employinginformation gotten fromcentral bank of Nigeria. The outcome of the study divulged

that there no emblematic association among CIT, VAT and economic growth. On contrary the result revealed that petroleum profit and CED significantly influence economic growth.

Eugene and Abigail (2016) investigate theassociation of tax revenues on Economic advancement in Nigeria. The study usedtime series data of 20 years from 1994-2013. Ordinary least square regressed was employed for analyzing data extracted from CBN database. The outcomethe study divulge revealed that direct taxes have significantly influence economic advancement inNigeria. .

Kalas et al. (2017) carry out a study to ascertain theinfluence of tax revenues on the economic advancement in the US for duration of twenty, 1996 – 2016. The outcome of the study revealed tax revenue positively influences economic advancement in the US.

Okwara and Amori (2017) did a research in Nigeria to ascertain the association of tax revenue on economic advancement in Nigeria. The study covers a period of twenty year, 1994-2015. The study used ordinary least square (OLS) econometric technique for analyzing data extracted from the field. The outcomes of the study divulge that petroleum incomepr tax has significant impact economic advancement. On the contrary, the outcome of the study revealed that value added tax has emblematic relationship with economic advancement in Nigeria.

Amos, et al. (2017) examined the association between tax revenue and economic advancement in Nigeria. The study employed VECM to analyze data gathered from central bank of Nigeria

database. The findings revealed that company income tax is positively associated with economic growth while VAT has no emblematic relationship with economic growth in Nigeria.

Oraka, et al. (2017) examine influence VAT on economic advancement in Nigeria. The study covered a period of thirteen years, 2003 to 2015. The study employed VECM to analyze data gathered from secondary sources. The outcome of the study revealed that VAT has no emblematic influence on economic advancement in Nigeria.

Asaolu*et al* (2018) examine the association of tax revenue with economic advance in Nigeria. The study covered a period of twelve years, 1994-2015. The research used ARDL econometric methodology to analyze data extracted from secondary sources. The outcome of the study revealed that VAT and CED significantly influence economic advancement in Nigeria whereasCITnegatively influences economic advancement in Nigeria. .

Yelwa, et al. (2018) established the association of value added tax with economic advancement in Nigeria. .The study employed VECM to ascertain influence of the independent variables on the dependent variable. The findings divulged that VAT and CED do not significantly influence economicadvancement.

Bazgan (2018) examine the relationship between tax revenues and economic growth in Romania. The study adopted Vector Autoregressive model (VAR) to ascertain the relationship between the dependent and independent variables. The outcome of the study revealed that tax revenue positively influences economic growth.

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METHODOLOGY

Area of Study

This study covers the impact of tax on economic growth economic growth. The study focuses on twenty seven (27) years. 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, 1995-2022. VECM is employed to analyse data extracted from the field.

Model Specification

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

GDP = F (VAT, CIT, CED) …….. (3.1)

$GDP = ß0 + ß1\ CIT_{it} + ß2\ VAT_{it} + ß3\ CED_{it} + \mu o$…. …… (3.2)

Where:

GDPit = Gross Domestic Product

ßOit = Constant

ß1-3 = Co- efficient independent variables

CIT = Company Income Tax

VAT = Value Added Tax

CED = Customs and Excise duties

µo= 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

$\Delta GDPi_t = \sum_{k-i}^{m} \theta_{1.1,j.k}\Delta GDPi_t + \sum_{k-i}^{m} \theta_{1.2,j.k}\Delta VATI_{t-K} + \sum_{k-i}^{m} \theta_{1.3,j.k}\Delta CED_{t-K} + \sum_{k-i}^{m} \theta_{1.4,j.k}\Delta + CIT_{t-K}Ui_t$,……. (1)

$\Delta VATIi_t = \sum_{k-i}^{m} \theta_{2.1,j.k}\Delta GDPi_t + \sum_{k-i}^{m} \theta_{2.2,j.k}\Delta CEDI_{t-K} + \sum_{k-i}^{m} \theta_{2.3,j.k}\Delta VAT_{t-K} + Ui_t$.....(12)

$\Delta CEDi_t = \sum_{k-i}^{m} \theta_{3.1,j.k}\Delta GDPi_t + \sum_{k-i}^{m} \theta_{3.2,j.k}\Delta VAT_{t-K} + \sum_{k-i}^{m} \theta_{1.3,j.k}\Delta CED_{t-K} + \sum_{k-i}^{m} \theta_{1.3,j.k}\Delta CED_{t-K}$

$\Delta CITi_t = \sum_{k-i}^{m} \theta_{3.1,j.k}\Delta GDPi_t + \sum_{k-i}^{m} \theta_{3.2,j.k}\Delta VAT_{t-K} + \sum_{k-i}^{m} \theta_{1.3,j.k}\Delta CED_{t-K} + \sum_{k-i}^{m} \theta_{1.3,j.k}\Delta CIT_{t-K}$

Result and Discussion

Inferential Statistics

Panel unit root test results

Unit root test null hypothesis assumption is on the premise that is all series are not static, while the alternative hypothesis presumes that some of the sequence 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 in first order. In addition, 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 correspondingcritical 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 not considered. The work employed a Panatela principle in order to fix the suitable limitations in the model. The study started 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					
Independent variable	Dependent Variables	Coefficient	Standard Error	T-Stat.	R-square
CIT	GPD	-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
Short run Estimate					
CIT	GDP	-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 a significant impact on GPDboth long run and short run.The result revealed there is a negative relationship as depicted by t = -3.755>2. This relationship is significant since t=-3.733> 2.00. The negative sign of EMC (eq) (t= -13.221) connotes that CIT

has a significant negative relationship with GDP in the long run since t=13.2>2.00. The result also shows that CIT can only explain79.5% of GDP while about 20.5% is unaccounted for.

The result further reveals that custom and excise duty (CED) has a negative impact on GDP in the short run at 5% as depicted by t= -3.79. This impact is significant is t=-3.79>2.00. The negative sign of EMC (p= -6.240) connotes that CED has a significant negative impact on GDP in the long run. The result also shows that CED can only explain65% of GDP while 35% is accounted.

Finally, the result reveals that value added tax VAT has significant impact on GDP in both long as and short run. The result revealed that VAT has a positive impact on GDP in the short run as depicted by t=3.44. The positive of EMC (Eq) (t= 3.38) connotes that VAT has a positive influence on GDP in the long run.

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 received by the government via a variety of means. Taxation is among the feasible channels of revenue generatiion . 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 poset immense challenges to revenue generation.

In acknowledgement of government's functions with respect to provision for welfare, many 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 an emblematic association between CIT and economic growth in Nigeria. This connotes that the Nigerian government is yet to explore this channel of revenue. The result also revealed that there is a positive relationship between CED and economic growth in Nigeria.

Finally, 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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