

EFFECT OF TAX REVENUE ON ECONOMIC GROWTH IN NIGERIA

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Abstract:

This study examined the effect of tax revenue on economic growth in Nigeria between the period 1994 -2017. Secondary data were sourced from Central Bank Statistical Bulletin (2017) and National Bureau of Statistics database. Gross Domestic Product that proxied economic growth served as the dependent variable while petroleum profit tax, company income tax, value added tax and custom & excise duty which are indices of tax revenue served as independent variables. Descriptive statistics and multiple regression analysis were conducted on the data. The Diagnostic test was also carried out on the reliability of the data used. The regression result revealed that Value added tax, Petroleum profit tax and Company income tax have positive effects on economic growth and statistically significant with their P-value less than 0.05. However, Custom & Excise duty has a negative effect on economic growth for the observed period. To generate reasonable revenue and sustained economic growth this paper suggests less attention on custom & excise duty and focus on other forms of tax.

Keywords: Tax revenue, Taxation, Economic Growth

Introduction

Oil revenue can no longer fully support Nigeria developmental plans due to the serious fluctuations in price of oil in recent years which has led to a decrease in the funds available to the Government. Hence, the need for government to generate adequate revenue from internal sources requires a credible and alternative approach. This need emphasises the eagerness on the part of government to look for new sources of revenue or to become aggressive and innovative in the mode of collecting revenue from existing sources. One of these existing sources is taxation.

Aguolu (2004) opined that taxation may not be the most important source of revenue to the government in terms of the magnitude of revenue derivable from taxation, yet it is the most important source of revenue to the government.

Taxation is one of the oldest means by which the cost of providing essential services for the generality of persons living in a given geographical area is funded. Globally, governments are saddled with the responsibility of providing some basic infrastructures for their citizens. Functions or obligations the government may owe her citizens include but are not restricted to: stabilization of the economy, redistribution of income and provision of services in the form of public goods (Abiola and Asiweh, 2012).

The Chartered Institute of Taxation of Nigeria (2002) defined tax as an enforced contribution of money to government pursuant to a defined authorized legislation. This means, every tax must be based on a valid statute. Without a valid statute no legitimate tax can be imposed. The income tax

is levied on incomes such as salaries, business profits, interest, dividends, commissions, royalties and rent. It may also be charged on capital gains and petroleum profits. Taxation yields very substantial revenue to government. Therefore, it has a bearing on the Gross Domestic Product (GDP) which is the standard indicator for measuring the economic growth of a nation.

Aguolu (2010) stated that Nigerian government recently undertook various tax law reforms to improve tax administration and to increase tax yield. The Value Added Tax (Amendment) Act, 2007; was for instance intended to widen the value added tax base and improve the machinery for its collection. Likewise the Companies' Income Tax (Amendment) Act, 2007; the Federal Inland Revenue Services (Establishment) Act, 2007 and The Personal Income tax (Amendment) Act, 2011, were all aimed at encouraging tax compliance and increasing tax revenue.

Upon all these tax acts, the objective of this paper is to examine the extent at which components of tax revenue positively or negatively influence economic growth.

Literature review

The International Monetary Fund (2012), stated that developing countries must be able to raise the revenues required to finance the services demanded by their citizens and the infrastructure (physical and social) that will enable them to move out of poverty (economic growth). Tax Justice Network (2012) also stated that taxation is expected to play an important role in this revenue mobilization. The structure of tax must be strengthened rather than tax administration and geared towards generating more revenue from existing tax sources by being more efficient and effective according by Oloidi and Oluwalana (2014), who describe efficiency as the ability to utilise available resources for optimal results while effectiveness is the ability to be able to functionally produce expected results.

Appah (2010) further stated that the economic growth and development of any nation depends on the amount of revenue generated by the government for the provision of infrastructural facilities. The highway of economic growth of most developed nations of the world is paved with revenues derived from efficient taxation system as implied by Enahoro and Olabisi, (2012). The provision of public services such as power, roads, efficient transportation system, healthcare facilities, schools, security of lives and properties and defence against internal and external aggression, are the exclusive responsibility of governments all over the world. According to Worlu and Emeka (2012), to meet these responsibilities, governments need to harness all sources of revenue available to it nationally and internationally. Reliance on external sources of revenue for developmental purposes has proved unproductive for many countries over the years, and those countries which experienced rapid social and infrastructural development around the world were found to have leveraged on revenue from efficient tax system.

According to Aderibigbe and Zachariah (2014) tax system is an opportunity for the government to collect additional revenue needed to discharge economic development and creating a conducive business environment for its citizens. The study also opined that tax is a major source of government revenue all over the world.

Akintoye and Dada (2013) stated that the structure of Nigerian tax administration is in relation with the system of government in operation. These include the three tier system comprising of the local government, state government and federal government structures. Each of these tiers of government is constitutionally saddled with administration of specific taxes, while the joint tax board oversees the whole system and resolve disputes.

The Board of Inland Revenue administers the federally collected taxes through the Federal Inland Revenue Service (FIRS), while the board of state internal revenue service administers the taxes collectible by the state government and the revenue committee administers taxes and levies collectible by the Local governments (James and Moses, 2012).

Okafor (2012) examined the relationship between federally generated revenue and economic development in Nigeria using Gross Domestic Product (GDP) for the period 1981 to 2007. The result of the study showed a positive and significant relationship between Income Tax Revenue and Economic Development of Nigeria.

Haq-Padda and Akram (2011) conducted a research to examine the impact of tax policies on economic growth using data from Asian economies and discovered that tax policies adopted by developing countries have no evidence that taxes permanently affect the rate of economic growth. Even though government policies can affect per capita income in the transitory path of the steady-state growth, this seems to be inconsistent with the endogenous class of growth models. The results of their study suggest that the relationship between output and the tax rate is best described by the neo-classical growth models because a higher tax rate permanently reduces the level of output but has no permanent effect on the output growth rate. Consequently, they recommended an optimal tax rate to finance the budget, with debt instrument used in financing transitory expenditure while permanent expenditure are to be financed through taxes.

Ariyo (2007) appraised the productivity of the Nigerian tax system given the negative impact of persistent unsustainable fiscal deficits on the Nigerian economy for the period 1970-1990 to devise a reasonably accurate estimation of Nigeria's sustainable revenue profile. The results of his study showed a satisfactory level of productivity of the Nigerian tax system. The author therefore recommended an urgent need for the improvement of the tax information system to enhance the evaluation of the performance of the Nigerian tax system and facilitate adequate macroeconomic planning and implementation.

The latest period examined by these authors was 2013. We are of the view that availability of timely information for government policy decisions is necessary. Also, authors used Gross Domestic Product (GDP) which is not a good measure of general wellbeing of the people to examine the relationship between tax revenue and economic development of Nigeria. However, this study extended the study from the last research data period to 2017 and used GDP which is the appropriate indicator for measuring growth to measure the effect of tax revenue on economic growth in Nigeria.

Therefore, the aim of this paper is to investigate how tax revenues translate to economic growth in Nigeria.

Methodology

The secondary data was adopted for this study. The justification for the use is that required data were not manipulated and they are sourced from scholarly recognized sources.. Time series data for the period 1994-2017 were sourced from the Central Bank of Nigeria Statistical Bulletin (2017) and Federal Inland Revenue Annual Statistical Bulletin and National Bureau of Statistics online database. The data were analyzed using the Econometric Model of Multiple Linear Regressions with the aid of Eview software package. The model specification is as presented below:

$$GDP_t = f(\text{Tax revenue}) \dots\dots\dots(1)$$

$$GDP_t = \beta_0 + \beta_1 VAT_t + \beta_2 PPT_t + \beta_3 CIT_t + \beta_3 CED_t + u \dots\dots\dots(2)$$

When transformed into log, equation 2 becomes:

$$LGDP_t = \beta_0 + \beta_1 LVAT_t + \beta_2 LPPT_t + \beta_3 LCIT_t + \beta_3 LCED_t + u \dots\dots\dots(3)$$

Where:

GDP= Gross Domestic Product (which proxied economic Growth)

VAT = Value Added Tax

PPT = Petroleum Profit Tax

CIT = Company Income Tax

CED = Custom and Excise duty Tax

LVAT = Log of Value Added Tax

LPPT = Log of Petroleum Profit Tax

LCIT =Log of Company Income Tax

LCED = Log of Custom and Excise duty Tax

β_0 = Constant term

$\beta_1, \beta_2, \beta_3,$ and β_4 = Coefficient of the variables

t = time period

u= Error term

Analysis of Data

Table 1: Descriptive statistics.

	CED	CIT	GDP	PPT
Mean	180.0937	261.3047	20762.23	887.0797
Median	136.0500	59.90000	6804.387	458.6500
Maximum	645.0000	1229.010	94144.96	3201.320
Minimum	1.730000	0.520000	134.6033	4.810000
Std. Dev.	185.5955	376.5628	29337.17	1031.133
Skewness	0.972425	1.415840	1.470324	0.914191
Kurtosis	2.916834	3.679939	3.671146	2.514678
Jarque-Bera	4.736696	10.60091	11.37230	4.473150
Probability	0.043635	0.004989	0.003393	0.106824
Sum	5402.810	7839.140	622867.0	26612.39
Sum Sq. Dev.	998924.9	4112186.	2.50E+10	30833821
Observations	22	22	22	22

Source: Author's Computation (2019)

Table 1 shows the result of descriptive statistics of all the variables used. The mean of custom /excise duty is ₦180.09 billion, company income tax is ₦261.3 billion GDP is profit tax is ₦20762.2 billion and petroleum profit tax is ₦887 billion. All the variables are positively skewed.

The Jarque-Bera probability values of all their variables are statistically significant except that of petroleum profit tax.

Table 2: Ordinary least square regression result

Dependent Variable: LGDP

Method: Least Squares

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Sample (adjusted): 1994 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.869439	0.458744	10.61472	0.0000
LVAT	0.878703	0.048096	18.26964	0.0000
LPPT	0.936219	0.058510	16.00092	0.0000
LCIT	0.818803	0.180001	4.548875	0.0003
LCED	-0.295204	0.224812	1.313116	0.2066
R-squared	0.974658	Mean dependent var	9.572767	
Adjusted R-squared	0.968695	S.D. dependent var	1.249834	
S.E. of regression	0.221136	Akaike info criterion	0.016639	
Sum squared resid	0.831319	Schwarz criterion	0.264603	
Log likelihood	4.816976	Hannan-Quinn criter.	0.075051	
F-statistic	163.4545	Durbin-Watson stat	1.797072	
Prob(F-statistic)	0.000000			

Source: Researcher's computation (2019)

Table 2 above shows the result of multiple regression that shows the effect of explanatory variables (value added tax, petroleum profit tax, company income tax and custom/excise duty) on the dependent variable (GDP).

The result revealed that value added tax has a positive effect on economy growth. An increase in the value added tax will lead to about 87.9% increase in economic growth. The effect is statistically significant with P-value of 0.0000.

Petroleum profit tax also has a positive effect on economic growth. An increase in petroleum profit tax will bring about 93.6% increases in economic growth. The effect is statistically significant.

Company income tax has appositive effect on economic growth. A slight increase in company income tax will lead to 81.9% increase in economic growth. The effect is statistically significant with P-value of 0.0003.

However, custom/excise duty has a negative impact on economic growth. An increase in custom/excise duty will bring about 29.5% decrease in economic growth. Though the effect is not statistically significant with P-value of 0.2066.

The result gave coefficient of determination (R^2) of 0.974658. This implies the estimated model has a high forecasting power of 97.5%. The Prob [F-statistics] is 0.0000. This shows that all the independent variables taken together have significant effect on economic growth.

Diagnostic test

Table 3: Variance Inflation Factors

Variance Inflation Factors

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Sample: 1986 2017

Included observations: 24

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	6332986.	2.844041	NA
VAT	199.9290	20.26064	9.152362
PPT	6.729540	7.576311	2.927790
CED	114.1112	10.77874	5.359831

Source: Researcher's computation (2019)

The result of the variance inflation (VIF) in table 3 shows that all the 4 independent variables are relevant to the study since the centered VIF are all below the benchmark of 10. This indicates the absence of multicollinearity in the model used.

Discussion of the findings

The study shows that the components of Tax revenues used in this study [taken together] have significant effect on economic growth. Only custom/excise duty especially on locally manufactured goods in order to encourage local productivity.

Conclusion and Recommendation

The study investigated the effect of tax revenues on economic growth. The result indicated that value added tax, petroleum profit tax and company income tax have positive effect on economic growth. Hence, Government should intensify effort to get more revenue in these forms of tax.

However, custom/excise duty has a negative effect on economic growth for the observed period of this study. Hence, Government should put less attention on excise duty being placed on locally manufactured goods in order to boost local production which may later transform to increase in economic growth.

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