

Impact of Taxation in Revenue Generation in Nigeria: An Empirical Investigation.

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Abstract

Nigeria is an oil dependent economy this is because over fifty percent of Nigeria revenue is generated from this sector, this has prompted the researchers to empirically investigated the impact of taxation in revenue generation in Nigeria by employing secondary data that range from 2010 to 2019 which was extracted from Nigeria statistically bulletin, Federal Inland Revenue Services and Central bank of Nigeria by employing variables such Petroleum profit tax, Company income tax and Value added tax as independent variables while gross domestic product is used as the dependent variable with the aid of simple regression analysis which was applied on e-view, and we found out that all our variables were statistically significant at 5% level hence we recommended that Government should create more tax net in order to increase revenue generations and curb tax avoidance; Revenue generated from tax activities should properly be implemented into viable projects that the citizenry can see and appreciate; and Tax evaders and embezzlers of tax income should be penalized to serve as deterrent to others.

Keywords: *Petroleum profit tax, Company income tax, Value added tax, gross domestic product.*

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I. Introduction

Every economy of the world strive to funds her economic activities via various sources, and taxation is one of the major sources of funding used by economy of the world to fund her capital projects and other economic activities. Deficits budgets faced by most country of the world has also prompted nations to increase her tax net in order to reduce tax evasion and increase more inflow of economic resources which will help offset deficit balance and debts.

Ajide and Bankefa (2017) over the years Nigeria policy makers has been prudently devising means to improve her economy sources of revenue generation by employing different means to diversify the economy away from petroleum by improving the tax net. However this can only be achieved if we have an efficient and effective of collecting tax with a stiff penalty attached to any entity or individual that evade tax. Since Nigeria is an oil dependent economy if Nigeria doesn't employ different means to fund her budget any crash in oil price will therefore affect Nigeria economy, Jimoh, Adegoriola and Adeyemo (2019) the need for policy makers to make adequate internal sources revenue has therefore become a matter of urgency and a pivotal one hence the need underscores the urgency on the three tier of government such as the federal, state and local governments to look for other new sources of revenue or to become aggressive and innovative in the mode of collecting revenue from existing sources. The history of taxation in Nigeria could be traced to the early days of civilization when a group of individuals living together saw the need for contributing towards common goal to take care of their community and their leader. Therefore we deemed it important to investigate the impact of taxation in revenue generation in Nigeria with aid of secondary data.

History of Nigeria Taxation System

The origin of taxation can be traced to the old country of Egypt were traders and the citizenry pays tax in different forms such tithes, based on farm produce which can also be traced to the biblical account in Genesis, in Nigeria the history of taxation can be traced to pre-colonial era where individual were made to pay tax on there livestock's, farm products to mention but a few. In 1904, during the colonial rule, late Lord Lugards government introduce income tax to Nigeria and community tax was being paid in Sokoto caliphate, Norther Nigeria. The Ordinance of 1917, 1918 and 1928 were later incorporated into the Direct Taxation Ordinance of No. 4 of 1940 which replace the native revenue Ordinance. During this period, the board constituted comprises of the following: the residence Governor, A representative of elders in each district, any native authority recognizes by the tax authority and any village council appointed by the government.

Ajide and Bankefa (2017) Nigeria is one of biggest countries in Africa with respect to land size and economic growth however the revenue she generate from taxation is very minimal with respect to other sources the report from Federal Inland Revenue Service (FIRS) in 2014 showed that tax revenue in 2010 was ₦4.71 trillion which was far less than revenue generated from other sector of the economy.

Evidential gap

Ojong, Anthony and Arikpo (2016) tax evasion by tax payers is on the increase in Nigeria which is contributing in reducing the revenue generated by government at all levels in the same vein entities are always looking for loophole in the tax in order to avoid the payment of tax hence a reduction in the level of government expenditure which also affect the entities in the long run, scholars have not been to also come to a consensus on this issue, therefore the researchers deemed it fit to examined the efficacy of taxes on Nigeria economy by using more recent statistical data.

II. Review Of Related Literature

Conceptual literature

The concept of every tax system is to meet two objective by the government i.e. is either to discourage consumption of certain harmful product or to improve her economy either by encourage productivity by granting tax holidays or generating income which can be used to fund deficits budget or implement viable project that will be of benefit to the economy. Egbunike, Emudainohwo and Gunardi (2018) the growth rate in any economy is affected by macro-economic policies, such as taxation, consumption, and investment, hence taxation play an important role in any economy whether is a developing economy like Nigeria or developed economy.

Myles (2000) taxation is one of fiscal economic policy adopted by government in trying to control inflation and other economic variables that influences the economy, many scholars of economists and economist believed that tax revenue is one of the most significant factors that contribute to a country's economic growth. Romer and Romer (2010) taxation is a way of diversifying a country sources of income and reducing too much reliance on aids and grants from foreign countries and ensuring good governance by promoting the accountability of governments to their citizens through the viable projects that will be engaged in by using the taxable income.

Empirical Analysis

Omodero (2020) investigated the effect of indirect tax on the consumption of commodity in Nigeria by employing different econometric tools such as trend analysis, pairwise Granger causality tests, unrestricted co-integration rank test, least squares technique with secondary data ranging 2005 to 2019 and found out that value added tax discourage the consumption of certain goods and services also Value added tax has an insignificant but positively influences consumption while customs and excise duties has a considerable auspicious influence on consumption the study also found out that customs and excise duties charges do not reduce the consumption of illegal products therefore recommended a reduction in the prices of food items and services to enable consumers to increase their patronage, while the products that attract customs and excise duties that are harmful should be banned.

Jimoh, Adegoriola and Adeyemo (2019) examined the effect of tax revenue on Nigeria economy by secondary data from 1990 to 2016 by using the stationarity and Augmented Dickey Fuller (ADF) test, Error Correction Model and also the co-integration was conducted using Johansen's test and found out that petroleum profit tax, company income tax and value added tax have positive and significant impact on Nigeria economy and also there was a long-run equilibrium nexus between the key variables while the error correction model was negative and in the long run there is equilibrium among the variables hence they opined that government should make more effort in generation of more revenue from taxes in order to diversify her income and also policy makers should make sure there is infrastructural amenities in order to discourage tax evasion.

Egbunike, Emudainohwo and Gunardi (2018) investigated the tax revenue and economic growth of Nigeria and Ghana by using the multiple regressions analysis and found out that there is a positive impact of tax revenue on the gross domestic product of Nigeria and Ghana therefore recommended that adequate measure should be put in place by government and policy makers to ensure that revenue generated from the tax is effectively utilized to develop and grow the economy.

Ajide and Bankefa (2017) used secondary data ranging from 1981 to 2014 to investigated the influence of financial system activities on tax revenue collection in Nigeria, this was a result of the banking crisis that took place by employing ARDL/ Bound test, causality test, variance decomposition and impulse response techniques and found out that financial system activities influence tax revenue collection in Nigeria, the study also found out that financial system variables such as stock market development, banking development, banking crisis and financial inclusion variables play significant role in collection of revenue generated from taxes while

the impulse response, causality test and variance decomposition results supported the regression output, hence opined that financial system should be used efficiently policy makers to generate more income.

Cornelius, Ogar and Oka (2016) investigated the effect of tax revenue on the Nigerian economic growth by employing independent variables such as petroleum profit tax, company income tax and non-oil revenue using secondary data extracted from Central Bank Statistical Bulletin and extracted through desk survey method and a statistical technique such as the ordinary least square of multiple regression models and found out a significant relationship between petroleum profit tax, non-oil revenue and economic growth however company income tax has no significance impact on Nigeria economic growth therefore recommended that policy makers should provide social amenities to all part of the country.

Enejo and Gabriel (2014) examined empirically the taxation and revenue generation of selected states in Nigeria by employing primary and secondary data using regression analysis and found out that taxation has a significant contribution on revenue generation and on Nigeria economic growth while tax evasion and tax avoidance have a significant effect on revenue generation in Nigeria therefore recommended that there should be well equipped database on tax payers at all tier of government, the tax collection processes must be free from corruption and embezzlement and stringent penalties should be meted by the federal, state and local governments to people who evade and avoid tax payments in order to discourage tax evasion and tax avoidance.

Stoilova and Patonov (2012) investigated the basic trends in the distribution of the total tax burden in the EU (27) member states by investigating the comparative analysis of the cross-country variation in terms of total tax burden, measured by the tax-to-GDP ratio and design of tax structure, with data ranging from 1995 to 2010 by using regression analysis and found out that tax structure based on direct taxes is more efficient in terms of supporting the economic growth in the EU countries.

III. Research methodology

Research design

This refers to plan, structure and strategy that we intend to use in order to obtain the reliable information and answers to the research questions. The design of this research work involves the use of secondary data (descriptive analysis) in evaluating the impact of taxation in revenue generation in Nigeria empirically

Method of data collection

The study employed secondary data that range from 2010 to 2019 which was extracted from Nigeria statistically bulletin, Federal Inland Revenue Services and Central bank of Nigeria with by employing variables such Petroleum profit tax, Company income tax and Value added tax as independent variables while gross domestic product is used as the dependent variable.

Data analysis techniques

The researcher choose to represent the data collected in tables of frequency, using simple percentage method of analysis, thus the statistical method used for testing the hypotheses will be regression analysis which also employed by Stoilova and Patonov (2012) and Etale, Kpolode and Edoumiekumo (2021) in the course of carryout their study.

Model specification

The model specification adopted for the study was based on the theoretical and conceptual foundation, in order to establish the impact of taxation in revenue generation in Nigeria empirically. The model adopted in this study conforms to the one used by some other researchers such as Etale and Uzakah (2020) and Bingilar, Edoumiekumo, Kpolode, and Nkak (2020) as stated below:

$$GDP = f(PIT, CIT, VAT)$$

Expressed in econometric form below with log transformation of some of the variables:

$$\log GDP = \alpha + \delta_1 \log PIT + \delta_2 \log CIT + \delta_3 \log VAT + u$$

Where:

Log GDP = Log of gross domestic product

Log PIT = Log of Petroleum income tax (revenue from petroleum income tax)

Log CIT = Log of Company income tax (revenue from company income tax)

Log VAT = Log of Value added tax (revenue from VAT)

α = Constant term

u = stochastic error term

IV. Data presentation

The data represent in table 1 below are log variables of the independent variables (Petroleum income tax, company income tax and value added tax) and the log of the dependent variable (Gross domestic product) used for the study, ranging from 2019 2019 which were extracted from Nigeria statistically bulletin, Federal Inland Revenue Services and Central bank of Nigeria.

Table 1 Research variables

YEAR	LOGGDP	LOGPIT	LOGCIT	LOGVAT
2010	0.1916	0.1688	0.0019	0.0001
2011	0.2332	0.8323	0.0023	0.0005
2012	0.1163	0.6664	0.0012	0.0004
2013	0.0291	0.9433	0.0003	0.0005
2014	-0.1076	0.9889	0.0011	0.0006
2015	-0.3831	1.196	0.0038	0.0003
2016	0.0739	0.3255	0.0007	0.0002
2017	0.0363	0.529	0.0004	0.0001
2018	1.81	0.3811	0.0194	0.0002
2019	0.147	0.4299	0.0003	0.0002

Source: Authors computations

Descriptive statistics (Table 2)

Table 2 below showed the summary of the descriptive statistics of the study variables. The table showed the LOGGDP, LOGPIT, LOGCIT, LOGVAT has mean of 0.214670, 0.646120, 0.003140 and 0.000310 respectively. The maximum values LOGGDP, LOGPIT, LOGCIT, and LOGVAT are 1.810000, 1.196000, 0.019400 and 0.000250 while the minimum values are -0.383100, 0.168800, 0.000300 and 0.000100 respectfully. Table further depicted that the standard deviation of LOGGDP, LOGPIT, LOGCIT, and LOGVAT are 0.587600, 0.334098, 0.005817 and 0.000179 respectively. This implied that LOGGDP is the most dispersed variable among the variables in the study, while LOGVAT is the least dispersed among the variables. The Jarque-Bera statistics and the associated probability values show that LOGPIT and LOGVAT are normally distributed with probabilities value of 0.722126, and 0.636239 which are greater than 5 per cent respectively.

	LOGGDP	LOGPIT	LOGCIT	LOGVAT
Mean	0.214670	0.646120	0.003140	0.000310
Median	0.095100	0.597700	0.001150	0.000250
Maximum	1.810000	1.196000	0.019400	0.000600
Minimum	-0.383100	0.168800	0.000300	0.000100
Std. Dev.	0.587600	0.334098	0.005817	0.000179
Skewness	2.191980	0.211088	2.498571	0.332180
Kurtosis	6.854150	1.823379	7.562379	1.685049
Jarque-Bera	14.19732	0.651112	19.07780	0.904362
Probability	0.000826	0.722126	0.000072	0.636239
Sum	2.146700	6.461200	0.031400	0.003100
Sum Sq. Dev.	3.107464	1.004592	0.000305	2.89E-07
Observations	10	10	10	10

Source: Authors computations

Hypotheses testing

Table 3 below showed the results of the multiple regression analysis. From the results, the explanatory variables combined significantly explained changes in the dependent variable with probability of F-statistic value of 0.000158 which statistically significant at 5% level. The coefficient of determination (R-squared) value of 0.958137 indicated that 96% of changes in the dependent variable are accounted for by the combined effect of variations in the independent variables. In the same vein, the adjusted R- squared value of 0.937206 indicated that the model used is a proper and good fit at 94% which can be used in testing the hypotheses of the study. This provides a high confidence level for acceptance of the goodness of the study model. Furthermore, the Durbin- Watson statistics of 1.897631 indicated a positive autocorrelations which supported our F-statistics in the table 3 below. In summary, the regression results used to verify the impact of taxation in revenue generation in Nigeria empirically indicated strong significant relationship between the explanatory variables and response variable. In a nutshell, the null hypotheses are rejected leading to the conclusion that taxation revenue impacted significantly on Nigeria economic growth.

Hypotheses testing

Dependent Variable: LOGGDP
Method: Least Squares
Date: 02/22/21 Time: 22:38
Sample: 2010 2019
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.224823	0.117897	1.906953	0.1052
LOGPIT	-0.938720	0.220242	-4.262227	0.0053
LOGCIT	87.65792	8.626931	10.16096	0.0001
LOGVAT	1035.893	410.9192	2.520916	0.0452
R-squared	0.958137	Mean dependent var		0.214670
Adjusted R-squared	0.937206	S.D. dependent var		0.587600
S.E. of regression	0.147246	Akaike info criterion		-0.704254
Sum squared resid	0.130088	Schwarz criterion		-0.583220
Log likelihood	7.521271	Hannan-Quinn criter.		-0.837028
F-statistic	45.77490	Durbin-Watson stat		1.897631
Prob(F-statistic)	0.000158			

Source: Authors computations

V. Summary of findings

We empirically analyzed the impact of taxation in revenue generation in Nigeria economic growth using e-views statistical tool with the aid of simple regression technique by employing secondary data ranging from 2010 to 2019 the overall model was statistically significant at 5% level with a statistical value of 0.000516, and the Durbin-Watson statistics depicted a negative auto-correlation among the variables with statistical value of 3.002840. The result also showed that our R-square value of 94% is very strong for decision making which was also supported by the adjusted R-square of 91%.

VI. Conclusion

Hypothesis one above showed that Petroleum income tax has impacted significantly on Nigeria economic growth with a statistical value of 0.0053 which is less than 5% which seconded Jimoh, Adegioriola and Adeyemo (2019) in their study of empirical analysis of impact of tax revenue on economic growth in Nigeria although they found a nonsignificant impact of company income tax on Nigeria economic growth

Hypothesis two above showed that Company income tax has impacted significantly on Nigeria economic growth with a statistical value of 0.0001 which is less than 5% this negated Jimoh, Adegioriola and Adeyemo (2019) who opined that company income tax has no significant on Nigeria economic growth.

Hypothesis three above showed that value added tax has a significant positive impact on Nigeria economic growth with a statistical value of 0.0452 which is less than 5% which also supported supported Omodero (2020) who opined in their study of consequences of indirect taxation on consumption in Nigeria however our study employ different variables and methodology.

VII. Recommendations

Haven succinctly empirically analyzed the impact of taxation in revenue generation in Nigeria we therefore recommended that:

- Government should create more tax net in order to increase revenue generations and curb tax avoidance;
- Revenue generated from tax activities should properly be implemented into viable projects that the citizenry can see and appreciate;
- Tax evaders and embezzlers of tax income should be penalized to serve as deterrent to others.

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