TAX REVENUE AND ECONOMIC GROWTH IN NIGERIA

WOBO, HENRY OROWHUO

DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENT SCIENCE,

UNIVERSITY OF PORT HARCOURT, RIVERS STATE, NIGERIA

&

AMADI, UZOAMAKA IHEYINWA

UNIVERSITY OF PORT HARCOURT BUSINESS SCHOOL, UNIVERSITY OF PORT HARCOURT,

RIVERS STATE, NIGERIA

Abstract

Motivated by the dwindling government financial resources and rising economic needs, this study examined the relationship between tax revenue and economic growth in Nigeria over the period of 1994 to 2018 was used. The study employed secondary data gotten from annual reports of the World Bank database and the Central Bank of Nigeria statistical bulletin. The study employed the stationarity test and Autoregressive Distributed Lag (ARDL) regression analysis. It was uncovered that; petroleum profit tax, company income tax, customs and excise duties, and value-added all showed an insignificant effect on economic growth as measured by the annual growth rate of gross domestic product, also has insignificant influence on GDP, customs and excise duties have no significant influence on GDP. Conclusively, the study found that tax revenue had an insignificant effect on economic growth in Nigeria. Given these observations, the study recommended that the government should engage in a complete re-organization of tax administration mechanisms or systems to minimize the rate of tax evasion and avoidance to the barest minimum. Also, there should be a stringent penalty imposed on any individual or corporate body who indulge in any form of tax malpractices; 3. government through Federal Inland Revenue Service (FIRS) should create a reliable database for every taxable person to reduce (if not eliminate) the occurrence of tax evasion and there should be constant training and re-training of tax administrators. Finally, there should be a constant review of existing tax laws and tax policy just as is obtainable in other climes.

Keywords: Tax revenue, Economic Growth, Petroleum Profit Tax, Company Income Tax.

Introduction

Government responsibilities have continued to increase over time, especially in developing countries like Nigeria due to the increasing size of the population, and infrastructural decay. But quite unfortunately the revenue of the government has not been growing above her expenditure to enable capital formation possible (Abomaye-Nimenibo, Eyo, & Friday, 2018). Taxation is seen as an essential part of a country's investment and growth pattern. Tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic wellbeing of the society (Appah, 2004; Appah & Oyandonghan, 2011). The funds provided by the tax are used by the various tiers of government to provide certain infrastructures such as good roads, good airports, electricity, education, health care facilities, and pensions for the elderly, and unemployment benefits. Tax revenue can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other

sectors that may have lower productivity. Finally, the maximization of tax revenue is incompatible with the maximization of Gross Domestic Product (Ma, 2001).

Although several previous studies (Anthony & Arikpo, 2016; Uzoka & Chiedu, 2018; Ojong, Abomaye-Nimenibo et al., 2018; Odhiambo & Olushola, 2018) have investigated the impact of tax revenue on economic growth in Nigeria using either more or less the various components of taxation and analyzed their impact on economic growth, the current study includes the various components of taxation in Nigeria that are not commonly seen in this kind of study in Nigeria to ascertain their respective influences on economic growth in Nigeria. Also, this study captures more recent data to capture the effects of the most recent reforms and policy instruments relating to taxation in the Nigerian economy such as the Company's Income Tax (Amendment) Act. 2007; the Federal Inland Revenue Services (Establishment) Act, 2007 and the Personal Income Tax (Amendment) Act, 2011. Therefore, the goal of this work is to evaluate empirically the impact of tax revenue on economic growth in Nigeria from1988 to 2018.

Nigeria and other African Countries are today facing series of challenges when it comes to optimizing tax revenue for economic and social growth while aiming to reach development targets. The most glaring difficult challenge is how to find the optimal balance between a tax regime that is business and investment-friendly while at the same time leveraging enough revenue for public service delivery which in turn makes the economy more attractive to investors. We see the taxation system in Nigeria as not being fully tapped and maximized and its role in promoting economic and social activities and growth is

not felt because of its poor administration. In Nigeria, tax revenue has accounted for a small proportion of total government revenue over the years. This is because the bulk of revenue needed for development purposes is derived from oil. Crude oil export has continued to account for over 80% of the total federal government revenue, while the remaining 20% is contributed by the non-oil sector in which taxation is a part. In this direction, Olashore (1999) submitted that the economy has remained in deep slumber or shamble as all macroeconomic indicators show that the economy is in urgent need of changes, balancing, and indeed radical reform. Also, the attitude of Nigerians towards taxation is worrisome as many prefer not to pay tax. As a result of the unwillingness to pay tax as well as evading tax, the economy, therefore, continues to lose a huge amount of revenue.

Given the observed issues, this study examines the impact of tax revenue on economic growth in Nigeria by analyzing the individual effect of tax revenue elements such as; the petroleum profit tax, company income tax, and value-added tax and checking their effect on the performance of the Nigerian economy as denoted using its gross domestic product. The theoretical and empirical clarifications are presented in the next section.

Literature Review

The section is presented under the following sub-heads;

Theoretical Framework

This study is anchored on two baseline theories as presented as follows;

Optimal tax theory

Optimal tax theory or the theory of optimal taxation is the study of designing and implementing a tax that maximizes a

social welfare function subject to economic constraints. In the simplest models, their theory dictates that the government's objective is to minimize the excess burden generated by the tax system while raising a set amount of revenue. The more complicated models balance efficiency considerations with equity concerns. The models that include equity are usually more concerned with vertical equity rather than either horizontal equity or the benefit principle.

Endogenous Growth Theory

The endogenous growth theory by Barro (1990) predicts that government expenditure and taxation will have both temporary and permanent effects on growth. The implications of endogenous growth models for fiscal policy have been particularly examined by Barro (1990), Jones, Manuelli, and Rossi (1993), Stokey and Rebelo (1995), and Mendoza, Milesi-Ferretti, and Asea (1997). This model seeks to explain the growth rate as an endogenous equilibrium outcome of the behavior of rational optimizing agents, reflecting the structural characteristics of the economy, such as technology and preferences, as well as macroeconomic policy. Overall states that economic growth is primarily the result of internal forces, rather than external ones. It argues that productivity improvements can be tied directly to faster innovation and more investments in human capital from governments and private sector institutions.

Empirical Review

Oshiobugie and Akpokerere (2019) examined tax revenue and Nigeria's economic growth from 2000 – 2017. Using secondary data from the Central Bank of Nigeria Statistical Bulletin of various editions and adopting an ex-post facto research design while ordinary least square regression

techniques were used to process the data gathered. Their findings revealed that tax revenue has an insignificant effect on economic growth in the period under study in Nigeria.

Abomaye-Nimenibo et al. (2018) empirically examined tax revenue and economic growth in Nigeria from 1980 to 2015 by employing Gross Domestic Product (GDP) as the dependent variable and Petroleum Profit Tax (PPT), Company Income Tax (CIT), and Customs and Excise Duties (CED) as the proxies for tax revenue and analyzing collected data utilizing Co-integration and Granger Causality tests. They found no significant relationship between tax revenue and economic growth in Nigeria.

Uzoka and Chiedu (2018) investigated the effect of tax revenue on the economic growth of Nigeria between 1997 and 2016 period, using Company Income Tax (CIT), Custom and Excise Duties (CED), Capital Gains Tax (CGT), Petroleum Profit Tax (PPT), Value Added Tax (VAT) and Education Tax (EDT) as independent variables or say proxies for tax revenue while Real Gross Domestic Product (RGDP) as the dependent variable was proxy for economic growth. They used Johansen co-integration test to check for the long-run relationship that exists among the variables in the model and vector error correction mechanism (VECM) to test the speed of adjustment from short-run to long-run equilibrium and correct or eliminate the discrepancy that occurs in the short-run. They found a long-run relationship between PPT, VAT, EDT, CIT, CED, and economic growth RGDP. While CGT and EDT have no significant effect on economic growth in Nigeria, PPT, CIT, VAT, and CED have a significant effect on economic growth in Nigeria.

Odhiambo and Olushola (2018) examined the relationship between taxation

and economic growth in Nigeria using Companies Income Tax (CIT), Petroleum Profit Tax (PPT), Customs and Excise Duties (CED) as proxies of Taxation while employing ordinary least square (OLS) as the analysis tool. Their results revealed that taxation has a significant impact on the real GDP growth rate.

Asaolu, Olabisi, Akinbode, and Alebiosu (2018) examined the relationship between tax revenue and economic growth in Nigeria. The study adopted a descriptive and historical research design; secondary data for twenty-two years (1994 -2015) were collected from various issues of the Central Bank of Nigeria (CBN) statistical bulletin and annual reports. Tax revenue as an independent variable was measured with Value Added Tax (VAT); Petroleum Profit Tax (PPT); Company Income Tax (CIT) and Custom and Excise Duties (CED) while the dependent variable was Economic Growth (EG) proxied by the Gross Domestic Product (GDP). The analysis was performed on data collected using Auto-Regressive Distributed Lag (ARDL) Regression and other post estimations (Jarque-Bera test; Breusch-Godfrey LM and Ramsey Reset Test) to determine the existence of a relationship between the variables. Their results showed that VAT and CED had a significant relationship with economic growth, while CIT has a negative significant relationship with economic growth. However, PPT had no significant relationship with economic growth. The study concluded that the role of taxation in a nation's building is irreplaceable.

Dladla and Khobai (2018) investigated the impact of taxation on economic growth in South Africa. Yearly data for South Africa for the period 1981 – 2016 was used to develop the Auto-Regressive Distribution Lag (ARDL) approach. Their

empirical results confirm that there is a negative relationship between taxes and economic growth in South Africa. Their findings include that economic growth, trade openness, capital, and taxes are co-integrated.

Igbasan (2017) explored the impact of tax revenue on economic growth in Nigeria between 1981 and 2015, using VAT, PPT, CED, and CIT as indicators of tax revenue, while GDP as an indicator of economic growth. They employed the Ordinary Least Square (OLS) regression model and Auto-regressive distributed lag (ARDL) model as a method of analysis. Their study revealed a significant relationship between tax revenue and the economic growth of Nigeria.

Ojong, Anthony, and Arikpo (2016) examined the impact of tax revenue on the Nigerian economy. The objectives of the study were; to examine the relationship between petroleum profit tax and the Nigerian economy, the impact of company income tax on the Nigerian economy, and the effectiveness of non-oil revenue on the Nigerian economy. Using data sourced from Central Bank Statistical Bulletin and extracted through desk survey method. And analyzing their data with the Ordinary least square of multiple regression models. Their findings revealed that there is a significant relationship between petroleum profit tax and the growth of the Nigerian economy. It showed that there is a significant relationship between non-oil revenue and the growth of the Nigerian economy. The finding also revealed that there is no significant relationship between company income tax and the growth of the Nigerian economy.

Onakoya and Afintinni (2016) investigated the co-integration relationship between tax revenue and Economic growth

in Nigeria from 1980 to 2013. Petroleum profit tax (PPT), Company Income-tax (CIT), and customs and Excise Duties (CED) as measures of Tax Revenue, while Real Gross Domestic Product (RGDP) as measures of Economic Growth. The Engle-Granger Co-integration test was employed to determine whether a long-run relationship existed between the variables. The Vector Error correction model (VECM) was employed to confirm the long-run relationship and determine the short-run dynamics between the variables. Their findings indicated that a long-run (but no short-run) relationship existed between taxation and economic growth in Nigeria.

Ihenyen and Mieseigha (2014) examined taxation as an instrument of economic growth in Nigeria. Using annual time series data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin during the period 1980 through 2013, a linear model of Corporate Income Tax (CIT), Value Added Tax (VAT), and Economic Growth (GDP) were estimated using the Ordinary Least Square (OLS) technique. The empirical result suggests that the hypothesized link among corporate income tax, value-added tax, and economic growth indeed exists in the Nigerian context. Thus the result offers tantalizing evidence that taxation is an instrument of economic growth in Nigeria.

Adaramola and Ayeni-Agbaje (2015) examined the relationship between Tax Structure and Economic Growth in Nigeria, using a time series data spanning from 1986 through 2012, while they proxied tax revenue with Petroleum Profit Tax (PPT), Company Income Tax (CIT), Value Added Tax (VAT), Personal Income Tax (PIT), and Custom and Excise Duties (CED), while economic growth was measured with the growth rate of Gross Domestic Product

(GDP) employing Engel–Granger Co-integration technique. They found a linear relationship between economic growth and tax revenue. However, separately the findings of their study indicate that personal income taxes and Custom and Excise Duties are harmful to economic growth in Nigeria in the long-run. Conversely, Petroleum Profit Tax, Corporate Income Tax, and Value Added Tax proved to have an enormously beneficial effect on Nigeria's economic growth both in the long-run as well as in the short-run as analyzed in their study.

Although theoretical literature points out a reverse relationship between taxation and economic growth (Onakoya & Afintinni, 2016; Kalaš et al., 2017; Myles, 2000; Abomaye-Nimenibo et al., 2018; Uzoka & Chiedu, 2018), the empirical studies considered above showed mixed results; negative, positive to no relationship. In short, there is no consensus on the size and the sense of the linkage between taxation and economic growth due to the ambiguity of the tie between these variables. This study separates itself from those previous studies as it engages the ARDL bounds test approach to co-integration, which is a relatively new model to examine the dynamics between the two variables, including six components of Tax revenue in Nigeria.

Methodology
Data and Operationalized Variables

The study employed secondary data which were culled from the Central Bank of Nigeria (CBN) statistical bulletin and Federal Inland Revenue Service (FIRS) website. The study captured a period of 1994 to 2018. Economic growth is measured as the growth rate of annual values of Gross domestic product (GDP), while tax revenue is measured by taking the growth rate of

revenues received from value-added tax (VAT), petroleum profit tax (PPT), Education Tax (EDT), Custom and Excise Duty (CD), and Company Income Tax (CIT) over the sample period. To achieve stability and reduce the skewness of our data, it was transformed to log, hence, the dataset used in our analysis is in log form. The raw data of employed variables are presented in Table 1 below as follows;

Table 1: Gross Domestic Product (GDP), Petroleum Profit Tax (PPT), Company Income Tax (CIT), Customs and Excise Duties (CD), and Value Added Tax (VAT) in Nigeria over the period of 1994 to 2018

Year	GDP ₦'m	PPT ₦'m	CIT ₦'m	CD ₦'m	VAT ₦'m
1994	20,236,715.71	42	12	18	7
1995	20,174,494.09	43	22	37	21
1996	21,181,948.92	77	22	55	31
1997	21,775,521.44	69	26	63	34
1998	22,366,866.25	68	33	58	37
1999	22,472,938.34	164	46	88	47
2000	23,668,070.18	525	51	102	58
2001	24,712,084.19	639	69	171	92
2002	25,647,349.63	392.2	89.1	181.4	108.6
2003	28,302,923.55	683.5	114.8	195.5	136.4
2004	37,851,134.17	1183.51	130.1	217.2	159.5
2005	39,154,979.62	1904.9	162.2	232.8	178.1
2006	42,369,981.24	2038.3	244.9	177.7	221.6
2007	45,263,172.34	1500.6	327	241.4	289.6
2008	48,101,292.60	2812.3	416.8	281.3	404.5
2009	51,436,836.34	1256.5	568.1	297.5	468.4
2010	55,469,350.30	1,944.70	657.3	309.2	562.9
2011	58,180,351.90	3,976.30	700.5	438.3	649.5
2012	60,670,050.50	4,365.40	848.6	474.9	710.2
2013	63,942,845.60	3,719.00	985.5	433.6	795.6
2014	67,977,459.00	3,439.60	1,207.3	566.2	794.2
2015	69,780,692.72	1,782.40	1,029.10	546.2	778.7
2016	68,705,332.78	1,192.30	988.4	548.8	811
2017	69,205,691.12	1,801.40	1,206.30	628	967.7
2018	70,546,390.87	3,726.09	1429.94	705.45	1097.36

Source: World Bank database and CBN Statistical Bulletin

Model Specification

The model of the study is presented below as follows:

GDP = f (VAT, PPT, EDT, CD, CIT)   1

From the above functional relationship the ARDL short-run econometric models are specified thus:

$\Delta GDP_t =$
$\alpha_{0_i} +$
$\sum_{i_3=1}^{k} \alpha_{1_i} \Delta GDP_{t-i_3} + \sum_{i_3=1}^{k} \alpha_{2_i} \Delta PPT_{t-i_3} + \sum_{i_3=1}^{k} \alpha_{4_i} \Delta CIT_{t-i_3} +$

$$\sum_{i_3=1}^{k} \alpha_{4_i} \Delta CD_{t-i_3} + \sum_{i_3=1}^{k} \alpha_{5_i} \Delta VAT_{t-i_3} + \varepsilon_{1t}$$
$$2$$

Where:

GDP = Real Gross Domestic Product;
PPT = Petroleum Profit Tax;
CIT = Company Income Tax;
CD = Custom and Excise Duties;
VAT = Value Added Tax

k represents the ARDL model maximum lag order that will be chosen by the researcher in this study. The symbol Δ is the operator sign for differencing and (ε) is the error term.

The F-statistic will be carried out on the joint null hypothesis that the coefficients of the lagged variables (ΔGDP_{t-1}, ΔPPT_{t-1}, ΔCIT_{t-1}, ΔEDT_{t-1}, ΔCD_{t-1} and ΔVAT_{t-1},) are zero. (α_1- α_6) correspond to the short-run dynamics of the relationship. That is, H0: =α_1 = α_2 = α_3 = α_4 = α_5 = α_6 = 0 for equation (ii)according to Pesaran, Shin, and Smith (2001).It further provides insight on the influence of economic growth on the previous values and other shocks in the system.

Apriori Expectation:

It is expected that a unit increase of the predictor variables will increase Petroleum profit tax, company income tax, customs and excise duties and value added tax respectively. Drawing from equation 1 and 2, this is mathematically expressed as; $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6 > 0$.

Data Analysis Technique and Statistical Test

The employed technique of analysis is outlined below as follows;

Test for Unit Root

Unit root test will be carried out on the time series to decide whether it is stationary or not. The method of testing for unit root will be the Augmented Dickey-Fuller (ADF) test coherent with the timeless works of Dickey and Fuller (1981). This test adjusts appropriately for the occurrence of serial correlation (i.e. autocorrelation), as a result the variables in the ARDL model will be tested to ascertain their stationarity since most macroeconomic time series often show signs of strong relationship are sometimes non-stationary yet being analyzed erroneously as though they were stationary.

Optimal Lag Selection

The first step to the ARDL Bounds test is to determine the optimal number of lags, so to do that we used Vector Autoregressive (VAR) Lag Order Selection Criteria. All the criteria include: sequential modified LR test statistic, Final prediction error (FPE), Akaike information criterion (AIC), Schwarz information criterion (SC), Hannan-Quinn information criterion [HQ]

Autoregressive distributive lag test (Short and long-run)

ARDL bounds testing approach is a cointegration method developed by Pesaran et al. (2001) to test the presence of the long run relationship between variables integrated at the level or first difference, or variables with limited sample size like the one employed in this study (i.e. 1994 to 2018).

Results and Discussion

This section is presented as follows;

Stationarity Test
Table 2: ADF unit root test results

Differenced Variables	ADF-statistic	Test Critical Values			Order of Integration	Prob.
		1%	5%	10%		

D(logPPT)	-4.129691	-3.752946	-2.998064	-2.638752	1(1)	0.0043
D(logCIT)	-5.263963	-3.752946	-2.998064-	-2.638752	1(1)	0.0003
D(logVAT)	-3.949712	-3.737853	-2.991878	-2.635542	1(0)	0.0062
D(logCD)	-3.235345-	-3.737853	-2.991878	-2.635542	1(0)	0.0302
D(logGDP)	-3.818438	-3.752946	-2.998064	-2.638752	1(1)	0.0086

Source: Author's Computation using E-VIEWS

The stationarity test conducted above in Table 2 indicated that some of the variables were stationary at level I(0) and others at first difference I(1). As a result of these facts, the Engle-Granger single equation co-integration technique became inappropriate to detect the presence of long run relationship among the variables as it was premised on stationary series or I(1) series alone. Hence, Auto Regressive Distributed Lag (ARDL) bound test was employed instead. Following this results, we proceeded to co-integration test using ARDL bounds test's approach in order to ascertain the long-run relationship of the variables and later on conduct the Error Correction Model (ECM) to determine the long-run equilibrium speed of adjustment. The decision rule is; the calculated '*F*-statistic' should be greater than the Pesaran et al. (2001) critical value for the upper bound *I*(1), then we can conclude that there is co-integration and then proceed to ECM, but because there was no co-integration after conducting ARDL Bounds test between the dependent variable and the independent variables in this study (see the co-integration test results in appendix 3) there was no need to proceed to the ECM, hence only ARDL short-run analysis results are reported here.

Test for Optimal Lag Selection
Table 3: Vector Autoregressive (VAR) test for Lag Order Selection
VAR Lag Order Selection Criteria
Endogenous variables: LGDP
Exogenous variables: C LPPT LCIT LCD LVAT
Sample: 1994 2018
Included observations: 21

Lag	LogL	LR	FPE	AIC	SC	HQ
0	28.75194	NA	0.006154	-2.262090	-2.013394	-2.208116
1	35.15316	9.144596*	0.003705*	-2.776491*	-2.478056*	-2.711723*
2	35.75521	0.802739	0.003888	-2.738592	-2.390418	-2.663029
3	35.79024	0.043370	0.004322	-2.646690	-2.248776	-2.560332
4	35.81242	0.025345	0.004833	-2.553564	-2.105911	-2.456412

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

The first step to ARDL Bounds test is to determine the optimal number of lags, so in order to achieve that we used Vector Autoregressive (VAR) Lag Order Selection Criteria. All the criteria which include: sequential modified LR test statistic, Final prediction error (FPE), Akaike information criterion (AIC), Schwarz information criterion (SC), Hannan-Quinn information criterion [HQ] (each test at 5% level) showed the optimality of the first lag.

ARDL Short Run Model Analysis
Table 4: Results of ARDL Short-Run Test
Dependent Variable: D(LGDP)
Method: Least Squares
Sample (adjusted): 1996 2018
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.023412	0.024454	0.957376	0.3518
D(LGDP(-1))	0.137696	0.225161	0.611547	0.5489
D(LPPT(-1))	0.022638	0.026795	0.844846	0.4099
D(LCIT(-1))	0.150016	0.108908	1.377454	0.1862
D(LCD(-1))	-0.057205	0.086447	-0.661739	0.5170
D(LVAT(-1))	-0.005976	0.101123	-0.059092	0.9536

R-squared	0.201151	Mean dependent var		0.054428
Adjusted R-squared	-0.033804	S.D. dependent var		0.057759
F-statistic	0.856126	Durbin-Watson stat		2.041108
Prob(F-statistic)	0.529743			

From Table 4 above, the results showed that all the components of tax revenue in Nigeria investigated in this study such as Petroleum Profit Tax (PPT), Company Income Tax (CIT), Custom and Excise Duties (CD), and Value Added Tax (VAT) wielded small effect on Real Gross Domestic Product (GDP). Specifically, PPT and CIT exerted a small positive effect on GDP, while CD and VAT also exerted a small negative effect on GDP. The coefficient of PPT is 0.022, meaning that a 1% increase in PPT will lead to a 2.2% increase in GDP and the coefficient of CIT is 0.15, meaning that a 1% increase in CIT will lead to a 15% increase in GDP in the short run in Nigeria, however, the CD has a coefficient -0.057, which means that a 1% increase in CD will lead to5.7% decrease in the GDP and VAT has a coefficient of -0.005, which suggest that a 1% increase in VAT will lead to a 0.5% decrease in GDP.

Discussion of Findings
What motivated the study on the contribution of tax revenue to economic growth in Nigeria to stem from the identified problems of dwindling revenue due to falling oil prices in the international oil market which has led to the desperate quest by the government to seek alternative sources of revenue in places ordinarily not taken seriously plus the fact that the economy has

remained in deep slumber or shamble as all macroeconomic indicators show that the economy is in urgent need of changes, and with tax revenue to GDP that is less than 7%, it is aptly imperative to investigate the contribution of tax revenue to the GDP of Nigeria.

The study employed four major common components of tax revenue, which is the independent variable, such as petroleum profit tax, company income tax, custom, and excise duties, and value-added tax, and measured economic growth as a real gross domestic product. At the end of all analysis, the results showed that tax revenue aggregately contributes insignificantly to real gross domestic product. Specifically, the findings of this study have shown that in the short run there is no significant relationship between tax revenue and economic growth. These findings are consistent with a few international and local previous research findings, for instance, internationally Xing (2012), Johansson, Heady, Arnold, Brys, and Vartia (2008), Dowrick (1992), Easterly and Rebelo (1993), Myles (2000), all showed a weak relationship between tax revenue and economic growth, and locallyAbomaye-Nimenibo et al. (2018), Ojong, Anthony and Arikpo (2016), Asaolu et al. (2018), and Oshiobugie and Akpokerere (2019) all found an insignificant relationship between tax revenue and economic growth either entirely or partly, nevertheless, the findings of this study are inconsistentwith several other studies such as Igbasan (2017), Odhiambo and Olushola (2018), Dladla and Khobai (2018), Dowrick (1992), Zellner and Ngoie (2015), Seward (2008), Canicio and Zachary (1975), Lee and Gordo (2005), Atems (2015), Ojede and Yamarik (2012), Ihenyen and Mieseigha (2014), Adaramola and Ayeni-Agbaje (2015).

It is not surprising that empirical evidence in this study revealed that tax revenue has a very weak effect on economic growth considering that Nigeria has a tax collection rate of only just about6% of GDP, Nigeria's tax revenues are lower than its regional contemporaries (Oxford Business Group, n.d.). The Nigerian government is working very hard on several fronts to improve its take from tax. Increasing tax revenue may take long-term tax policy reforms. To show that tax revenue is very low non-Nigerian actors like International Monetary Fund (IMF) and World Bank have been advising the Nigerian authorities with ideas on how to optimize its revenue stream.

Conclusions and Recommendations
Conclusion

Conclusively, it can be inferred from the study that tax revenue is making a very small contribution to economic growth. Of all four employed dimensions of tax revenue which include petroleum profit tax, company income tax, custom and excise duties, and value-added tax revenues, it was observed that there was an insignificant positive relationship between petroleum profit tax and GDP, also an insignificant relationship between company income tax and GDP, while custom and excise duties had an insignificant negative relationship with real GDP, and finally, in the same vein, the value-added tax had an insignificant adverse effect on real GDP in Nigeria.

Recommendations

In light of the findings, the study recommends that:

- Efforts should be intensified by the government towards the increased collection of tax revenue this is due to the low positive contribution of company income tax revenue to real GDP over the period of study. This

can be done by blocking all loopholes in our tax laws as well as bringing more prospective taxpayers into the tax net (especially the informal sector).

- The government through Federal Inland Revenue Service (FIRS) should create an effective and reliable database for every taxable person to minimize (if not eliminate) the incidence of tax evasion and there should be constant training and re-training of tax administrators through seminars, a conference to keep them abreast with the modern trend in tax administration.

- The government should use taxpayers' monies in the provision of basic infrastructural facilities. This will no doubt encourage and help motivate both human and legal citizens to pay their tax and provide enabling environment for business survival to enhance economic growth. Also, the culture of good governance should be embraced by the government so as to earn the loyalty of the populace in Nigeria.

- There should be a constant review of existing tax laws and tax policy just as is obtainable in other climes such as it is in the United State of America and other advanced economies, so as to keep the act in pace with the economic reality. As the results showed that in the short run, Value Added Tax (VAT) and Customs Excise Duties (CD) contribute negatively to the economic growth of Nigeria through weak yet could discourage productivity.

References

Abomaye-Nimenibo, W. A. S., Eyo, M., & Friday, H. C. (2018). An empirical analysis of tax revenue and economic growth in Nigeria from 1980 to 2015. *Global Journal of Human-Social Science*, 8(3), 21-35.

Appah, E. (2004). *Principles and practice of Nigerian Taxation*. Ezevin Mint Printers and Publishers, Port Harcourt.

Appah, E., & Oyandonghan, J. K. (2011). The challenges of tax mobilization and management in the Nigerian economy. *J. Bus. Admin. Manage*, 6(2). 128-136.

Atems, B. (2015). Another look at tax policy and state economic growth: the long and short run of it, *economic letters*, 127(1). 64-67.

Canicio, D., & Zachary, T. (2014). Causal relationship between government tax revenue growth and economic growth: A case of Zimbabwe, Journal of economics and sustainable development, 5(17). 9-22.

Dowrick, S. (1992). *Estimating the impact of government consumption on growth: growth accounting and optimizing models*, Australian National University. Mimeo.

Easterly, W. & Rebelo, S. (1993). Fiscal policy and economic growth. *Journal of Monetary Economics*, 32(3). 417-458.

Igbasan, E. (2017). *Tax revenue and economic growth of Nigeria (1981-2015). Masters Dissertation.* Babcock University, Ilishan Remo, Ogun State, Nigeria.

Kalaš, B., Mirović, V., & Andrašić, J. (2017). Estimating the impact of taxes on the economic growth in the United States. Economic Themes, 55(4). 481-499

Lee Y., & Gordon R. (2005). Tax structure and economic growth, *Journal of Public Economics*, 89(1). 1027-1043.

Myles, G. D. (2000). Taxation and economic growth. *Fiscal Studies*, 21(1), 141-168.

Ojede, A., & Yamarik, S. (2012). Tax policy and state economic growth: short and long run of it, *Economics Letter*, 116 (2). 161-165.

Ojong, C. M., Anthony, O. &Arikpo, O. F. (2016). The impact of tax revenue oneconomic growth: evidence from Nigeria. *IOSR Journal of Economics and Finance (IOSR-JEF).* 7 (1). 32-38.

Olashore, O. (1999). Strategies for economic revival. The Guardian Newspaper, Friday, July 23.

Onakoya, A. B. & Afintinni, O. I. (2016). Taxation and economic growth in Nigeria. *Asian Journal of Economic Modelling*, 4(4). 199-210

Pesaran, H., Shin Y., & Smith J. (2001). Bound testing approaches to the analysis of level relationship, *Journal of Applied Econometrics*, 16(2). 289-326.

Uzoka, P. U., & Chiedu, C. O. (2018). Effect of tax revenue on economic growth in Nigeria. *International Journal of Social Sciences and Management Research*, 4(7), 20-24.

Zellner, A., & Ngoie, K. (2015). Evaluation of the effect of reduced personal and corporate tax rates on growth rates of the U.S economy, *Econometric Reviews,* 34(1), 56-81.