Effect of Diverse Tax Revenues and Effective Government on Economic Growth in Nigeria

Oluwarotimi Ayokunnu Owolabi[1], **Olamide Olusogo Ogunleye**[2], **Joy Tamuno Inimgba**[3]

Abstract: The present study explores the effect of different tax revenues in Nigeria, namely Petroleum profit tax, Value added tax, customs and excise duties, and company income tax, on Nigeria's economic growth taking into account the role of Government effectiveness using time series data from 1994 to 2015 Ordinary least squares regression employed in data analysis revealed that while Petroleum profit tax had a negative and statistically significant effect on economic growth, Value Added Tax and Customs and Excise duties had a positive and statistically significant effect on economic growth in Nigeria. To the contrary, Company income tax was positive but insignificant for Economic growth in Nigeria. Further in the presence of improved government effectiveness Value added tax had a negative and statistically significant effect on economic growth in Nigeria, while Petroleum Profit tax was positive but insignificant for economic growth in Nigeria. The study recommends that the Nigeria government through the Nigerian tax authorities should take into consideration, existing market conditions as regards oil prices so that Petroleum exploring firms are not discouraged from undertaking oil exploiting activities in Nigeria, Value Added Tax revenue and Customs and Excise Duties tax revenue should be used to finance provision of adequate infrastructure.

Keywords: tax revenues; government effectiveness; Nigeria government tax authorities

JEL Classification: F63

1. Introduction

The Nigeria government, being continually saddled with the responsibilities of stabilizing the economy, redistributing income, providing infrastructure, and providing services for Nigeria citizens in a bid to ensure that Nigeria achieves economic growth and becomes one of the world's 20 largest economies by the year 2020 has increasingly given attention to sources capable of generating revenues for financing Nigeria's development activities (Ihenyen & Miesiegha, 2014). Tax revenue has received priority attention amongst other sources of revenue including oil and foreign trade (Garba, 2014). The falling prices of oil and the periodic fluctuations of prices make revenues from oil exports unstable, and therefore dependence on oil and foreign trade would be too risky and not beneficial for sustainable development in Nigeria (Kiabel, 2009). Tax revenue however, provides the Nigeria government with an opportunity to receive additional revenue separate from its year-to-year income, thereby allowing

[1] Lecturer, Department of Economics and Development Studies, Covenant University, Nigeria, Corresponding author: oluwarotimi.owolabi@covenantuniversity.edu.ng.
[2] Assistant Lecturer, Department of Economics, Accounting and Finance, Bells University of Technology, Nigeria, E-mail: olusogo.ogunleye@yahoo.com.
[3] Graduate, Department of Economics, Accounting and Finance, Bells University of Technology, Nigeria, E-mail: joyinimgba28@gmail.com.

Nigeria to fulfil her obligations; promote economic activities and enhance growth and development (Ogbonna, 2010).

Governments of many nations including Canada, United Kingdom, Netherland, and United States of America have adopted tax systems to derive substantial revenue directed towards promoting economic growth and creating prosperity in their economy (Adegbie & Fakile, 2011). However in Nigeria, revenues derived from tax remain rather low on account of the low level of development of the Nigeria tax system consistent with Nigeria's status as a developing country. This may consequently constitute a hindrance to the Nigeria Government achieving the desired high levels of economic growth and prosperity for Nigeria citizens. Further, hindering Nigeria's attempts at realizing sufficient revenue from tax is the rather low effectiveness of tax authorities to administer and collect taxes. This though is consistent with the characteristic weak or low quality institutions prevalent in developing countries as Nigeria of which low government effectiveness is a reflection of such low institution quality amongst other indicators. Low government effectiveness hinders government efforts at using resources to generate significant levels of economic growth by using the resources in areas of the economy where they make their most significant contribution. Consequently, government effectiveness affects economic growth in Nigeria through affecting the effectiveness of tax collection as well as the use of taxes and other resources to boosting Nigeria's economic growth.

In Nigeria, despite the early introduction of tax systems, tax revenue only accounted for a small proportion of GDP prior to independence in 1960 (Festus & Samuel, 2007). Taxes were difficult to collect due to lack of skills and facilities for administration leading to various forms of resistance such as evasion and avoidance by individuals and companies. The corrupt activities surrounding tax revenue also hindered implementation of development plans. These activities according to Adegbie and Fakile (2011) can be associated with sabotaging experienced in the economy and the underdevelopment of the nation. However, the Nigeria Government has continued to collect taxes despite the challenges since taxes has been recognised as a major tool for economic development and a major player which reflects the prevailing realities of economies around the world (Garba, 2014). The limited taxes realized by the Nigeria Government though has had limited impact on the physical state of the economy, owing to weak enforcement of payment of tax amongst other factors and general low effectiveness of the Nigeria Government, hence taxes in Nigeria rather than enhance economic growth as welfare for all is improved for example through addressing income inequalities, rather society welfare remains rather poor.

The drive to collect taxes has resulted in the Nigeria tax system undergoing several reforms in positioning the system to support the growth and prosperity of the Nigeria economy. As part of reforms, Nigeria's tax laws have been reviewed to address the critical challenges such as those of frontier professionalism and accountability encountered in the early stage, and the general public are made aware of the benefits of tax on personal and business lives (Otu & Theophilus, 2013). The Nigeria government has also vowed to expand the scope of non-oil tax revenue, especially with the introduction of value added tax. Expanding the scope of non-oil revenue in Nigeria through taxes, goes beyond simply introducing new taxes, but rather introducing those taxes that will make the most valued contribution to Nigeria's economic growth and development efforts. This is an important consideration as taxes may have adverse effects on societal welfare especially those taxes that affect consumption, and those affecting natural resource exploitation that ensure that the country benefits maximally from her

resources through levying taxes on those that exploit natural resources. Further, government needs to strengthen the capacity of tax authorities to administer and collect taxes more so as developing countries as Nigeria are characterized by weak institution quality which may be reflected through ineffective government. Such ineffective government will have an adverse effect on government activities of which tax collection and use to promote economic growth is one.

Existing studies on the impact of tax revenue on economic growth are plagued with inconsistencies in findings reflecting the lack of a consensus in the existing literature. Garba (2014), Ihenyen and Miesiegha (2014) concluded that a significant relationship exists between certain parameters of tax and economic growth, Egabdju and Oriavwote (2016) found that Value added Tax is statistically significant in explaining the level of economic growth in Nigeria. However, Yaya (2013) and Okoli, Njoku and Kaka (2014), find that Petroleum profit tax has an adverse effect on economic growth, while Onakoya and Afintinni (2016) reported that a long run relationship exists between indicators of taxation and economic growth but not short run relationship. These conflicting findings are inconsistent with tax theory which argues that tax should be paid by all, based on ability to pay regardless of whether benefits are received from the state, and the government will on the basis of tax revenue received be able to fulfil its roles to its citizens thus enhancing societal welfare. As societal welfare is enhanced, intuitively there will be improved productivity of economic resources and the economy should experience growth. Further existing studies on the impact of tax on economic growth in performing their analysis omit a measure of institution quality in addition to other control variables potentially having influence on economic growth in their estimated model, while only including tax revenue indicators, thus reflecting a methodological weakness of such studies. Such variables are essential given that economic growth is the result of tax revenue and a variety of other factors working together. Institution quality in particular is a factor affecting economic growth and given increasing attention in the economic growth literature especially in regard to developing countries as it affects decision-making of government and is of low quality. Including institution quality measure in models exploring economic growth is important in studies on economic growth which previous studies on the effect of tax revenue on economic growth have failed to take into account. This consequently constitutes a further weakness of previous studies on tax and economic growth. Finally, there exist recent developments in Nigeria basic amenities provision and this consequently calls for an urgent need to examine the current performance of taxation revenue on the economic growth of Nigeria in order to regulate the inconsistencies in previous findings.

Therefore in light of the aforementioned and given the highlighted weaknesses of previous studies, the present research study makes a significant contribution to the literature on tax revenue and economic growth by incorporating in the analysis government effectiveness as a measure of institution quality and exploring its effect on enhancing the capacity not only for the administration and collection of diverse tax revenues but more importantly in using such tax revenues to promote economic growth in the context of Nigeria.

The remainder of the paper is organized into the following: Section 2 reviews empirical literature on tax and economic growth, and in section 3, data analyzed in the study and methods employed are explained. The empirical results following data analysis are presented and discussed in section 4, while section 5 provides recommendations and conclusions based on the findings of the study.

2. Literature Review

The relationship between tax revenue and economic growth has been examined by numerous researchers with mixed results. The studies have been concentrated on developing countries evidently on account of their weak tax systems, with only a few performed on Nigeria. Operations of government of nations are increasingly depending on tax revenues and constant examination of the effect of such tax revenues on economic growth must be maintained to ensure tax systems perform optimally in supporting efforts at boosting economic growth.

Chiumia and Simwaka (2012) investigated the impact of taxation on economic growth of Malawi using annual data of personal income, corporate income tax and GDP per capita from 1970 to 2010 and employing the data envelope analysis. The study revealed that taxes levied on corporate and personal income hinders economic growth. The study concluded that reduction in tax burden is more important in achieving economic growth and therefore recommended that tax burden should be reduced to raise economic growth. Such a reduction in tax burden may however be necessary as regards direct taxes as found by yaya (2013) who finds in Cote D'voire for the period of 1961 to 2006 using a two stage modelling technique involving the data envelopment analysis that increase in direct taxes are significantly connected with decline in economic growth. Yaya (2013) consequently based on their findings recommends that there should be switch of burden from direct taxes to indirect taxes, as this may result to attainment of positive growth in the economy.

Positive economic growth as a result of tax has been argued based on findings by a number of empirical studies, and contrary to the argument that tax revenue may adversely affect economic growth. Bilal (2015) and Sekou (2015) using the parameters of taxes and economic growth for Pakistan and Mali respectively with an ordinary least square regression technique showed that there exists positive and significant impacts between the parameters of taxes and economic growth in the countries. Bilal (2015) therefore concluded that value added tax (VAT) revenue is a strong tool for driving economic growth in Pakistan. Sekou (2015) also added in his conclusion that there is a positive correlation between collection of taxes and economic growth.

Arising from the introduction of Value added tax in Nigeria which was introduced in 1994, a limited number of studies investigating the impact of tax on economic growth in Nigeria have been performed. Ogbonna and Appah (2012) examined the impact of tax on economic growth of Nigeria using time series data from 1994 to 2009 utilizing Petroleum profit tax, Companies tax, Value added tax, Education tax, Personal income tax and Customs and Excise duties as proxy for tax reforms (independent variables) and Gross domestic product (GDP) as the dependent variable. The study found that there is a positive relationship between tax revenue and economic growth of Nigeria. Also, a long run equilibrium relationship was found between all the taxes and GDP. Ogbonna and Appah (2012) therefore concluded that 54% variation in the dependent variable (GDP) is as a result of change in tax revenue.

Using the time series data of Corporate Income tax, Value added tax and Economic growth collected from the statistical bulletin of central bank of Nigeria over the period of 1980 to 2013, a linear model was estimated by Ihenyen and Mieseigha (2014) with an ordinary least square regression technique to determine whether taxation can be used as instrument for economic growth. Result of the study shown that value added tax and income tax contributes to economic growth in Nigeria. The study therefore

concluded that taxation can be used as an instrument for achieving increased growth in the Nigerian economy and recommended that regulatory authorities with the sole responsibility of collecting taxes should be better strengthened to enforce compliance with payment on taxpayers.

A further research conducted by Okoli, Njoku & Kaka (2014) on taxation and economic growth in Nigeria, covering the period of 1994 to 2012 disaggregated taxation into value added tax, petroleum profit tax, personal income tax and company income tax while GDP was used as a parameter for measuring economic growth. The data collected was analyzed using the Johansen Cointegration test and Granger Causality test in order to determine the relationship and causality. Results shown that significant positive relationships exist between taxation and economic growth in the short run and Bi-directional causality between various taxes and economic growth. The study therefore recommended that the government of Nigeria should endeavor to encourage entrepreneurial development in the country so as to increase revenue generated from tax, reduce unemployment rate across the nation and consequently increase growth.

Garba (2014) due to consensus having not yet been reached among scholars on the contribution of tax revenue to economic growth of nations, also investigated the impact of petroleum profit tax, company income tax, custom and excise duties, value added tax on the growth of the Nigerian economy using data collected over 1981 to 2010. In analyzing the data collected, multiple linear regression which uses vector error correction model was employed. The findings revealed that petroleum profit tax, company income tax and value added tax have a positive significant impact on economic growth in Nigeria while custom excise duties impacted the growth of Nigerian economy negatively. The study concluded that tax revenue has an overall significant impact on Nigeria's economic growth, and as a result recommended that skilled workers and professionals only should be responsible for tax administration.

Arising from the inconclusive results shown on the impact of taxation on economic growth of nations in literature, Onakoya and Afitinni (2016), adopted the use of Engle-granger cointegration test to determine the cointegration relationship between tax revenue and economic growth in Nigeria from 1980 to 2013. Several preliminary tests were conducted including the Augmented Dickey Fuller test and descriptive statistics, trend analysis. The Vector error correction model was however conducted to examine the long run relationship between these variables. The results revealed that a long run relationship existed between taxation and economic growth in Nigeria but no short run. The result also revealed a significant positive relationship at 5% level of significance between Petroleum profit tax, Company Income tax and economic growth, but a negative relationship between economic growth and customs and Excise Duties. However, the tax components are jointly insignificant in impacting the Nigerian economic growth. This study recommended that government should provide strong institutional reforms in the Customs department in order to address any form of leakages. However, while institution reforms may be of relevance the extent to which these tax revenues are used to finance infrastructure may also be argued as a channel through which tax revenue may impact economic growth. To that effect, Oladipupo and Ibadin (2016) conducted a recent study on the effect of indirect taxes on infrastructure in Nigeria from 1981 to 2011 using correlation and ordinary least squares regression and found that indirect taxes had a negative and insignificant relationship with infrastructure development in Nigeria and the indirect taxes were insignificant in impacting infrastructure development in Nigeria. Relating the finding by Oladipupo and Ibadin (2016) to economic growth in Nigeria, it implies that

indirect taxes may not affect economic growth through the channel of infrastructure development. While such findings may be interesting, it questions the relevance of tax revenues in improving welfare though addressing weak and non-existent infrastructure in Nigeria to the benefit of the Nigeria populace. Thus, Oladipupo and Ibadin (2016) recommended that the Nigeria Government should make judicious use of tax revenue for economic development of the nation, provide infrastructural facilities that will improve the welfare of the general populace and alienate their suffering. This will be aided where tax revenues are equitably distributed among the three tiers of government according to the principles of derivation.

While the aforementioned studies so far discussed focussed on individual developing countries, Gbato (2017) carried out an investigation on the impact of taxation on long term growth of a total of 32 countries in the Sub-Saharan Africa over the period of 1980 to 2010 using co-integration test. This enabled the widening of the scope for the study and determining of whether findings as regards the impact of tax on economic growth is specific to individual countries alone or applicable in general to developing countries especially those in Sub-saharan Africa challenged by weak tax systems. Gbato (2017) found that tax revenue has zero effect on long term growth. The study therefore concluded that taxation cannot be used as a strategic tool for growth in this region and recommended that fiscal policy of these countries should be designed such that it relies on logic of fiscal neutrality.

3. Research Methodology

Data employed in the present study is secondary data obtained from the Central Bank of Nigeria statistical bulletin and annual reports. However data on institution quality as measured by bureaucracy quality was obtained from the international country risk guide (ICRG). Data covers the period of 1994 to 2015.

3.1. Model Specification

The model employed by the present study is a modification of Egbadju and Oriavwote (2016) whereby in addition to Value Added Tax and Petroleum Profit Tax, Company income tax, and Customs and Excise duties as some of the major taxes in Nigeria, Bureaucratic Quality (Measuring Government effectiveness), interest rate and a dummy variable capturing data points from the year 2007 and beyond, constitute the model and have an effect on economic growth. Bureaucracy quality in particular reflects the effectiveness of government not only in promoting economic growth but also in government's effectiveness in ensuring that taxes are collected and are put to areas of the economy where they will have a most valued impact in promoting economic growth. Further, the dummy variable in our model, controls for the effects of the global financial crisis which took place from 2007 – 2009 and whose effects were profound on efforts of countries of the world as Nigeria to achieve economic growth during the period and beyond, while it will also affect efforts to realize sufficient tax revenues post 2007. Thus, the model specified for the present study is as in Equation (1) below:

$$RGDP = f(PPT, VAT, CED, CIT, BQ, GFCRIS, INT) \quad (1)$$

The above general form of the model for the present study is specified as an econometric model with all variables, except bureaucracy quality, interest rate and Global recession dummy (GFCRIS) transformed to logs as in equation (2) below:

$$Log\ RGDP_t = \beta_0 + \beta_1 LogPPT_t + \beta_2 LogVAT_t + \beta_3 LogCED_t + \beta_4 Log\ CIT_t + \beta_5 BQ_t + \beta_6 LogVATxBQ_t + \beta_7 GFCRIS_t + \beta_8 INT_t + \mu_t \quad (2)$$

Where, RGDP = Real Gross Domestic Product, VAT = Value Added Tax, PPT = Petroleum Profit Tax, CIT = Company income Tax, CED = Customs and Excise Duties, BQ= Bureaucracy quality, INT = Interest rate, GFCRIS = Global financial crisis dummy. β_0 is the constant in the model, while $\beta_1 \dots B_8$ are the coefficients of independent variables showing the marginal effects of changes in the independent variables on economic growth as measured by Log of Real GDP. The subscripts t refers to the time period of observations which in the case of the present study is from 1994 - 2015.

Note that the variables interest rate and Bureaucracy quality included in our above specified model are control variables which are included in the model on the consideration that they are among the proximate determinants of economic growth in any economy. Bureaucratic quality in particular is important to be included as a variable in our model given that poor institution quality is a characteristic feature of developing countries, while in interacting Value Added Tax with Bureaucratic Quality and Petroleum profit tax and Bureaucratic quality we are able to capture the effects of Value Added Tax on economic growth in Nigeria and Petroleum profit tax on economic growth in Nigeria respectively, in the presence of improved bureaucratic quality (measuring government effectiveness) on account of improved institution quality. All variables employed in the above model are employed on the basis of existing studies (See Ogbonna and Appah, 2012; and Ola, 2001).

3.2. A-priori Expectation

$$\beta0, \beta1, \beta2, \beta3, \beta4, \beta5, \beta6, \beta7 > 0;\ \beta8 < 0$$

3.3. Method of Data Analysis

The model specified is estimated using Ordinary Least Squares (OLS) regression. This enables an examination of the marginal effect of each of the various tax revenues on the economic growth of Nigeria.

4. Results and Discussion

Empirical analysis of data involved examination of the distribution of the data as well as model pre-estimation tests prior to estimating the specified model in pursuit of the objectives of the present study. The results of empirical analysis of data are presented and discussed in this present section.

4.1. Descriptive Statistics

Table I below presents the descriptive statistics of all variables employed in the specified model

Table I. Summary Variable Descriptive Statistics

Descriptive Statistics	RGDP[a]	PPT[a]	CIT[a]	VAT[a]	CED[a]	BQ[b]	INT[c]	GFCRIS
Mean	39110.69	1483.03	351.08	300.27	232.80	1.08	18.27	0.41
Median	36247.75	1220.00	127.55	168.80	206.35	1.00	17.97	0.00
Maximum	69023.93	4365.40	1207.30	795.60	566.20	2.00	24.85	1.00
Minimum	19979.12	42.80	12.28	7.26	18.30	0.00	13.54	0.00
Std. Dev.	16844.39	1403.68	387.20	289.69	168.96	0.44	2.42	0.50
Skewness	0.42	0.72	0.92	0.66	0.59	0.51	0.66	0.37
Kurtosis	1.76	2.28	2.42	1.85	2.22	4.64	3.93	1.14
Observations	22	22	22	22	22	22	22	22

a. In Billions of Naira

b. obtain from the ICRG and Ranges from 0 – 4

c. In percentage

The above Table I highlights significant variation in all variables as evidenced by the standard deviation of all the variables. However all tax revenue indicators as well as bureaucracy quality, appear to be low on average. Low tax revenues on average will appear to suggest challenges for Nigeria in achieving significant rates of economic growth through using its tax revenues to boost welfare for the Nigeria populace.

4.2. Results of Regression Analysis

The results of regression analysis based on the model specified in this study are presented in Table II below.

Table II. Regression Results

Dependent Variable	Log RGDP
Constant	7.723***
	(0.462)
Log PPT	-0.219**
	(0.0777)
Log VAT	0.665***
	(0.190)
Log CED	0.151**
	(0.0564)
Log CIT	0.134
	(0.0864)
BQ	0.967**
	(0.408)
Log VAT x BQ	-0.429***
	(0.0783)
Log PPT x BQ	0.137
	(0.0759)
GFCRIS	-0.116**
	(0.0453)
INT	-0.0164***
	(0.0042)

R-Squared	0.9966
Adjusted R-Squared	0.9940
Durbin-Watson	2.001
F-Statistic	386.04***
No. of Observations	22

, * represent significance at 5% and 1% levels of significance.

The above R-squared, adjusted R-squared, Durbin-Watson and F-statistic in Table II above are indicative of a well specified model and therefore give validity to our results enabling their interpretation.

The above Table II highlights that Petroleum profit tax has a negative and significant effect on economic growth in Nigeria. In particular a one percent increase in Petroleum profit tax will result in a 0.219 percent decrease in Economic growth in Nigeria. The finding reflects the adverse effect of resource taxes on natural resource exploitation. Consistent with findings of Yaya (2013) and Okoli, Njoku and Kaka (2014), petroleum profit tax in Nigeria as a direct tax is adverse to economic growth in Nigeria. The adverse effect of petroleum profit tax in Nigeria is to discourage petroleum exploitation in Nigeria by oil exploring firms especially in an era where world oil prices are low and so there exists little benefit from oil exploitation across the world. A developing country as Nigeria with an abundance of natural resources must maximally tax resource exploiters in order to boost its economic growth and development as highlighted by Ragan and Lipsey (2005). However Nigeria in taxing the profits made by oil exploring firms from exploiting Nigeria's oil wealth must balance its objective of maximal taxation with the need to ensure that foreign and domestic oil exploring firms in Nigeria are not discouraged from oil exploration which still has significant importance in translating Nigeria's oil wealth underground to significant financial wealth, even in the advent of economic diversification in Nigeria.

Value Added Tax (VAT) is found from our results to have a positive and significant effect on economic growth in Nigeria. From Table II, a one percent increase in Value added tax boosts economic growth in Nigeria by 0.664 Percent. This indicates that value added tax in Nigeria is benefitting the Nigeria economy. Revenue realized from Valued added Tax is used to improve citizens welfare especially through activities as provision of infrastructure and public services to the benefit of society. Value added tax is an indirect tax and is paid by the consumer on the value of each good purchased for which Value added tax is levied.

Customs and Excise Duties is found from our above results in Table II to have a positive and significant effect on economic growth in Nigeria. From Table II, a one percent increase in Customs and Excise Duties boosts economic growth in Nigeria by 0.151 Percent. This indicates that Customs and Excise Duties just like Value added tax in Nigeria is benefitting the Nigeria economy. Revenue realized from Customs and Excise Duties while boosting the economic growth of Nigeria through its revenue realized may also boost Nigeria's economic growth through discouraging influx of sub-standard goods or goods hazardous to societal welfare into the Nigeria economy through the country's borders, hence further boosting welfare as a channel through which economic growth is achieved. The positive and significant effect of Customs and Excise Duties on economic growth as found in this present study is consistent with the findings by Ihenyen and Mieseigha (2014), Garba (2014), Ogbonna and Appah (2012), and Okoli, Njoku and Kaka (2014),

Company income tax from our results in table II above is insignificant in affecting economic growth in Nigeria. This may reflect low company income tax revenue realized by the Nigeria government despite various companies operating in Nigeria's corporate sector.

Government effectiveness is found from Table II above to have a positive and statistically significant effect on economic growth in Nigeria. Improved government effectiveness will boost the operations of Government in using taxes realized from its taxation operations to boost Nigeria's economic growth as the tax revenues are used in areas of the economy where they make significant contributions. Further, improved government effectiveness boosts the effectiveness of tax collection by the agency of Government responsible for collecting taxes in ensuring that all who are liable to pay tax pay their tax irrespective of whether they derive benefits from the state or not. Government effectiveness is a dimension of institution quality which remains rather poor in developing countries as Nigeria and the findings of this study have highlighted the importance of including measures of government effectiveness or other institution quality indicator correlated with government effectiveness as it affects economic growth. Previous studies on tax and economic growth especially on Nigeria which have therefore omitted the inclusion of a measure of government effectiveness or other measure of institution quality in their estimated models have therefore a methodological weakness in their analysis and hence their results may not be valid.

The results of interacting government effectiveness with the petroleum profit tax and Value added tax respectively in our estimated model is observed from Table II above. The interaction between petroleum profit tax and government effectiveness highlights the effect of petroleum profit tax in the presence of improved government effectiveness as a dimension of institution quality. It is observed that Petroleum profit tax in the presence of improved government effectiveness while resulting in a boost to Nigeria's economic growth, is however insignificant. On the contrary, Value added tax in the presence of improved government effectiveness results in a decline in Nigeria's economic growth. The adverse effect of Value added tax in the presence of improved government effectiveness may be a result of the adverse effect of value added tax enforcement by tax authorities especially on essential items which may discourage their purchase and so adversely affect the welfare of Nigeria citizens.

Other results found from Table II above is the expected significant decline in Nigeria's economic growth on account of the 2007 Global financial crisis and the negative effect of interest rate on Nigeria's economic growth.

5. Recommendations and Conclusions

Based on the findings of the present study, the study makes a number of recommendations. Firstly, company income tax rate should be raised especially for those companies with significant market share in Nigeria and making huge profits annually, so as to increase the company income tax revenue that can be realized by the Nigeria government. Secondly, Value Added Tax revenue and Customs and Excise Duties tax revenue should be used to finance provision of adequate infrastructure sufficient for addressing the welfare needs of all Nigerians in boosting Nigeria’s economic growth. Thirdly, the Nigeria government in levying Petroleum profit tax should ensure that existing market conditions as regards oil prices are taken into account so that Petroleum exploring firms are not discouraged from undertaking oil exploiting activities in Nigeria as the activities of oil exploiting firms in Nigeria are to Nigeria’s benefit. Fourth the Nigeria government should improve its effectiveness in using resources including taxes to finance economic growth by ensuring that taxes are used in areas of the most benefit to the Nigeria economy. Fifth, the Nigeria government should strengthen the capacity of tax authorities to administer and collect taxes in strengthening their effectiveness to perform to the benefit of the Nigeria economy. Finally, the Nigeria government in levying Value added tax given that improved government effectiveness results in value added tax having a negative effect on economic growth, should reduce the value added tax only on essential goods so that welfare of Nigerians are not adversely affected and consequently result in a decline in economic growth in Nigeria.

In conclusion, tax revenue remains a major source of government revenue in Nigeria as it has been in virtually every country of the world. In the case of Nigeria, various taxes make varying contributions to Nigeria’s economic growth as observed from the present study. While having numerous taxes is an essential attribute of a good tax system, the revenues realized from the taxes should necessarily contribute to government economic growth and development efforts. From the present study, Petroleum profit tax, Value added tax, and customs and excise duties are significant for economic growth in Nigeria, while company income tax is insignificant for economic growth in Nigeria. The role of government effectiveness in translating tax revenue to improved economic growth was also highlighted in results obtained and hence suggests a methodological weakness of previous studies on tax and economic growth which omit indicators of government effectiveness from their study. From our results, in general most of our a-priori expectations were supported by the findings of our study. It is recommended that the Nigeria government continues to boost Nigeria’s economic growth efforts through using taxes realized from its various sources in areas of the economy where they will make a most valuable contribution especially in the provision of adequate infrastructure for Nigeria citizens.

References

Adegbie F.F. & Fakile, A.S. (2011). Company Income tax and Nigeria economic development. *European Journal of Social Sciences,* 22(2), 309-319.

Bhartia, H. L. (2009). *Public Finance.* New Delhi: Vikas Publishing House PVT Ltd, 14th edition.

Bilal, H. (2015). The role of value added tax (VAT) in the economic growth of Pakistan. *Journal of Economics and Sustainable Development,* 13(6), 174-184.

Chiumia, A. & Simwaka, K. (2012). Tax policy developments, donor inflows and economic growth in Malawi. *Journal of Economics and International Finance*. 4 (7), 159-172.

Egbadju, L. U. & Oriavwote, V.E (2016). Value Added Tax and Macroeconomic Performance: A Dynamic Modeling of the Nigerian Experience. *European Journal of Business and Management* 8 (17), 49-57.

Festus A. F. & Samuel, F.A. (2007). Company Income Tax and Nigeria Economic development. *European Journal of Social Sciences*. 22(2).

Garba, L.S. (2014). *Tax Revenue and Economic growth in Nigeria*. Ahmadu Bello University.

Gbato, A. (2017). *Impact of Taxation on Growth in Sub-Saharan Africa: New Evidence Based on a New Data Set.* Available: https://mpra.ub.uni-muenchen.de/80903/1/MPRA_paper_80903.pdf. Last accessed 10th Oct, 2017.

Ihenyen, C.J. & Mieseigha, E.G. (2014). Taxation as an Instrument of Economic Growth (The Nigerian Perspective). *Information and Knowledge Management*. 4 (12), 49-53.

Kiabel B. D. & Nwokah N. G. (2009). Boosting Revenue Generation by State Governments in Nigeria: The Tax Consultants Option Revisited. *European Journal of Social Sciences*. 8(4).

Ogbonna, G. N. (2012). Impact of tax reforms and economic growth of Nigeria: A time series analysis. *Current Research Journal of Social Sciences,* 4 (1), 62-68.

Ogbonna, G. N. & Appah, E. (2012). Impact of Tax Reforms and Economic Growth of Nigeria. *Current Research Journal of Social Sciences.* 4(1): 62-68

Okoli, M.N., & Njoku, C.O. & Kaka, G.N. (2014). Taxation and Economic Growth in Nigeria; A Granger Causality Approach. *International Journal of Research in Management, Science & Technology*. 2(2), 64-72.

Ola, C.S., (2001). *Income Tax Law and Practice in Nigeria*. Heinemann Educational Books (Nigeria) Plc, Ibadan

Oladipupo, A.O. & Ibadin, P.O. (2016). Indirect Taxes and Infrastructural Development in Nigeria. *Igbinedion University Journal of Accounting*. 2 (1), 331-353.

Onakoya, A.B. & Afintinni, O.I. (2016). Taxation and Economic Growth in Nigeria. *Asian Journal of Economic Modelling*. 4 (4), 199-2010.

Otu, H. B. & Theophilus, O. A. (2013). The effects of Tax Revenue on Economic growth in Nigeria. *International Journal of Humanities and Social Science Invention,* 2(6)*:* 16-19.

Pigou, A.C. (1920). *The economics of welfare.* London: Macmillan.

Ragan, C. & Lipsey, R.G. (2005). *Economics, Eleventh Canadian Edition*. Instructor's Resource CD-ROM. Pearson Education Canada.

Saibu, O.M. (2015). Optimal tax rate and economic growth. Evidence from Nigeria and South Africa. *Euro Economica Issue*, 34(1), 41-50.

Sekou, M. (2015). The impact of tax collection in achieving revenue targets: The Directorate general of taxes of Mali case study. *Theoretical Economics Letters,* 5, 403-409.

Yaya, K. (2013). The structure of taxes and economic growth in Cote d'ivoire: An econometric investigation. *Journal of Research in Economics and International Finance*. 2 (3), 39-48.