



Taxation And Economic Growth In Nigeria: Evidence From Autoregressive Distributed LAG (ARDL) Model

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ABSTRACT

This study uses annual time series data to examine the effect of taxation on economic growth in Nigeria over a period of 1980 to 2018. To achieve the objective of the study, data were collected from the Central Bank of Nigeria (CBN) statistical bulletin, and the annual data publication of Federal Inland Revenue Services (FIRS). The variables on which data were collected are the Gross Domestic Product (GDP), Petroleum Profit Tax (PPT), Value Added Tax (VAT) and Personal Income Tax (PIT). Data on GDP was collected from CBN while data on the other variables were collected from FIRS. The data were analyzed using autoregressive distributed lag (ARDL) model. Findings reveal that in Nigeria, the various categories of taxation such as Petroleum Profit Tax, Personal Income Tax and Value Added Tax selected for this study have significant effects on economic growth process. The effect of these taxes on economic growth in Nigeria is even more pronounced in the long-run than in the short-run. Based on the findings, the study recommends that the level of tax evasion and avoidance in the petroleum profit tax should be reduced to achieve sustainable growth in Nigeria.

Keywords: Value Added Tax, Personal Income Tax, on economic growth

1. INTRODUCTION

Taxation is one of the fiscal policy instruments used by the government to stabilize the economy. This is in addition to government expenditure which comprises the capital and the recurrent components. The capital expenditures refer to expenditures on capital projects such as constructions while recurrent expenditures include payment of salaries. Taxes could be deliberately increase or decrease in accordance with the direction of the economy. They are often increased to help address the problem of economic recession or decrease if the economic issue to be address is inflation.

When fiscal policy is administered through increase or decrease in taxation, it allows the government to keep the economy at balance. For example, increase in taxes accompanied by decrease in government expenditures is an indication that the government is embarking on an anti-inflationary measures. Conversely, tax cut implies government's intension to boost the economy. This is necessary to stimulate the economy especially in the period of recession or economic depression. Most literature on the nexus between taxation and economic growth have focused on various types of taxation such as Value Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT) and Petroleum Profit Tax (PPT) among others. Other literatures have also taken a broad dimension which classified taxes into direct and indirect taxes. The reason has been to assess their separate role in economic growth process. Petroleum tax is one of the direct taxes that has become of major concern to scholars especially in the oil-producing economies like Nigeria. This is because a very significant proportion of government revenue from direct taxes comes from Petroleum Profit Tax.

In Nigeria, taxation has many objectives. First, it is a way of achieving government's objective of exercising right and control over the public asset. Second, government imposes very high tax as a way of regulating the number of participants in the industry and discouraging its rapid depletion in other to conserve some of it for future generation. This, in effect, will achieve government aim of controlling the petroleum successful investment in the oil industry makes it a veritable source for satisfying government objective of raising revenue to meet its socio-political and economic obligations to the citizenry. The third

objective is to make taxation an instrument for wealth re-distribution between the wealthy and industrialized economies represented by the multinational organizations, who own the technology, expertise and capital needed to develop the industry and the poor and emerging economies from where the petroleum resources are extracted.

The increasing incidence of tax evasion and avoidance in Nigeria has continued to affect the volume of revenue generated from taxation in the country. Thus, the CBN (2016) argues that revenue derived from taxation has been very low and despite that, no reasonable fiscal measures have been taken to jettison the situation. It has also been argued that the role of taxation in promoting economic growth in Nigeria is not felt, primarily because of its poor administration. The major challenges facing tax administration in Nigeria include frontiers of professionalism, poor accountability, lack of awareness of the general public on the imperatives and benefits of taxation, corruption of tax officials, tax avoidance and evasion by taxing units, connivance of taxing officials with taxing population, high rate of tax and poor method of tax collection. In addition, tax administration and individual agencies suffer from limitations in manpower, money, tools and machinery to meet the ever increasing challenges and difficulties. In fact, the negative attitude of most tax collectors toward taxpayers can be linked to poor remuneration and motivation.

The relationship between tax and economic growth is usually demonstrated using the tax revenue to gross domestic product (GDP) ratio. High tax revenue to GDP ratio may suggest greater amount of compliance by tax payers and this adds to GDP. However, the trend of taxation in Nigeria suggests that tax revenue to gross domestic product (GDP) has been very low over the years compared to what is obtainable in other African economies. Tax revenue, as a proportion of GDP, has been on a downward trend in since 1999 when Nigeria returns to civil rule. In 1980s, tax revenue to GDP ratio stood at about 2.9 per cent but rises to 5.93 in the early 1990s but falls marginally to 5.459 per cent in 2009. From 5.459 per cent in 2009, the tax to GDP ratio stood at 1.557 per cent in 2012 and fall further to about 1.44 per cent in 2018, which compares unfavourably with, for instance, the situation in South Africa, with a tax to GDP ratio of 26.81 per cent and 25.52 per cent, 25.67 per cent respectively, in 2009, 2012 and 2018. From the foregone therefore, the major question raised is what impact does various types of taxation (petroleum profit tax, personal income tax and value added tax) have on economic growth in Nigeria?

Given the foregoing, this study examines the nexus between taxation and economic growth in Nigeria over a period of 1980-2018. The rest of the study is structured as follows: Section two reviews the literature while Section three dwells on methodology. Section four focuses presentation of results while Section five gives the conclusion and the recommendation.

2. Literature Review

The concept of taxation has no single definition. As many as there are scholars so also there are definitions. For example, Shahzad and Maqbool (2016) define tax as a compulsory payment to government by the public, in exchange for the services indirectly provided to public by the government. Basic objective of tax systems is to finance public expenditures. They added that tax system also plays a vital role in achieving the other targets like equity, social and economic improvement in any economy. Angahar and Sani (2012), Omojemite and Godwin (2012), Ogbonna and Appah (2012), Chigbu *et al.* (2012) and Bhatia (2009) share similar view when they note that a well-organized, efficient and effective tax system is a necessary requirement for economic growth. This is because taxes determine the level and speed of economic growth in countries of the globe, countries with organized and stable taxation system grow rapidly, over the period compared with those countries that has no such good individualities. However, a major drawback of this approach is that it restrict tax to only payments made to the government. The fact that there are other forms of private taxes makes the approach myopic. Olatunji and Adebite (2014) opine that taxes are instruments of fiscal control and serve the purpose of raising revenue/funds for the public sector. These include the public contribution to economic investment, as well as enabling people to meet their basic needs and enjoy wider opportunities. However, the authors failed to identify other instruments of fiscal policy as if tax is the only instrument.

A number of empirical studies on the relationship between taxation and economic growth exist in the literature. For example, Cornelius, Ogar and Oka (2016) examine the impact of tax revenue on the Nigerian economy over the period 1986-2010. The study uses the Ordinary Least Square (OLS) method to analyze the relationship among the variables of the study. Findings from the study reveal that there is a positive and significant relationship between Petroleum Profit Tax, non-oil revenue and the growth of the Nigeria economy, while the Company Income Tax had no significant relationship with growth of the Nigeria economy. However, like Okoh, Onyekwelu, Aca and, Iyidiobi (2016), this study also adopted the OLS approach which is based on unrealistic assumptions.

Lyndon and Paymaster (2016) investigate the relationship between Petroleum Profit Tax (PPT), Personal Income Tax (PIT) and economic growth in Nigeria for the period 2005-2014. The study employs Ordinary Least Squares (OLS) technique and the results of the analysis showed that both Petroleum Profit Tax and Personal Income Tax have significantly positive relationship with economic growth.

Usman and Adegbite (2015) examine the impact of Petroleum Profit Tax on economic growth in Nigeria for the period 1978-2013. The study employs the Johansen Co-Integration and the Granger Causality tests to examine the direction of causality among Petroleum Profit Tax, money supply, interest rate, inflation rate and economic growth. Results from the study show that Petroleum Profit Tax has positive significant impact on GDP both in the short run and long run. Also, PPT does not granger cause GDP. Money supply impacted GDP positively in the short run but negative significant impact in the long run.

Emmanuel and Charles (2015) investigate the impact of taxation on the Nigerian economy for the period 1994 -2012. The study employs the co-integration technique and findings reveal that the variables are co-integrated and long run relationships exist between the variables. The results of the statistical analysis reveal that positive relationships exist between the explanatory variables (Custom and Excise Duties, Company Income Tax, Personal Income Tax, Petroleum Profit Tax and Value Added Tax) and the dependent Variables (Gross Domestic Product, Unemployment). But, the individual explanatory variables have not significantly contributed to the growth of the economy; also the explanatory variables have not significantly contributed to the reduction of the high rate unemployment and inflation in Nigeria for the period under review.

Saheed, Abarshi and Eyide (2014) examine the empirical relationship between economic growth and Petroleum Taxation in Nigeria spanning from the period 1970-2012. The study employs the Ramsey Reset test technique to correct for model mis-specification and Johansen co-integration test. The result obtained from the analysis reveal that a strong positive relationship exists between domestic consumption, Petroleum Profit Tax (PPT), government policy and economic growth (GDP). Also crude oil production had a negative but significant effect on economic growth and other variables. Margaret, Charles and Gift (2014) examine the impact of taxation on economic growth in Nigeria, covering the period 1994-2012 and taxation was disaggregated into: Value Added Tax, Personal Income Tax, Company Income Tax and Petroleum Profit Tax, while the Gross Domestic Product was used as a parameter for measuring economic growth in Nigeria. The study adopted the OLS method to examine the relationship between taxation and economic growth in Nigeria and the findings shows that a significant positive relationship exists between taxation and economic growth in Nigeria.

Olatunji and Adegbite, (2014) study the Effect of Petroleum Profit Tax, Interest Rate and Money Supply on Nigeria economy from 1970 to 2010. Multiple regression model was employed to analyze the relationship among variables of the study. The analysis reveals that short run effect of Petroleum Profit Tax was positive while that of interest rate was positive on economic growth. The study indicate that petroleum contribute positively to national income in Nigeria. Similarly, Ilaboya, and Ofiafor, (2014) also conducted a study on the impact of Petroleum Profit Tax on Nigeria's economic growth from 1980-2011. The study adopted the Ordinary Least Square (OLS) and the findings of the study reveals that Petroleum Profits Tax and total direct tax was found to have a statistically significant positive relationship with real GDP growth while trade Openness was found to have a negative and insignificant impact on the growth of Nigerian economy.

Ehigiamusoe (2014) investigates the nexus between Tax Structure and Economic Growth in Nigeria covering the period 1980-2011. The study employed the OLS technique. The findings of the study reveals

that the tax system has no significant impact on growth and Further analysis of the components of the tax system shows that Custom Duties have more impact on economic growth than Company Income Tax (CIT), Value Added Tax(VAT) and Petroleum Profit Tax(PPT). Thus there was a negative and insignificant relationship between Petroleum Profit Tax and Company Income Tax on one hand, and between Petroleum Profit Tax and Value Added Tax on the other hand.

Ihendinihu (2014) uses Auto-Regressive Distributed Lag (ARDL) and Bounds Test of general-to specific approach to Co-integration to assess the long run equilibrium relationship between tax revenue and economic growth in Nigeria from 1986-2012 and found that total tax revenue has significant effect on economic growth. With about 73.4% of the total variations in the real gross domestic product (economic growth) explained by aggregate changes in all the tax revenue components in the model, the study however, identified no significant causal link between Petroleum Profit Tax (PPT) and economic growth in Nigeria both on the long and short run equilibrium position.

3. RESEARCH METHOD

3.1 Model Specification

This study uses the autoregressive distributed lag (ARDL) model developed by Pesaran and Shin (2001) to analyze the nexus between taxation and economic growth in Nigeria. The choice of ARDL model was on the basis that it does not discriminates against the order of integration of variables and also allows the study to incorporate the effect of backward lags on the ARDL equation. The choice of maximum lag length for the model was decided by lag selection criteria available in estimation software. The model is stated as follows:

$$GDP_t = \alpha + \beta_1 GDP_{t-1} + \beta_2 PPT_{t-1} + \beta_3 VAT_{t-1} + PIT_{t-1} + \mu \dots\dots\dots (1)$$

Where; μ = error term; α = vector of the intercepts; $i = 1,2 \dots N$; GDP = Gross Domestic Product; PPT = Petroleum Profit Tax; VAT = Value Added Tax; PIT = Personal Income Tax

3.2 Types and Sources of Data Collection

Data used in this study were obtained from secondary sources. The secondary source was mainly the Central Bank of Nigeria (CBN) statistical bulletin, and the annual data publication of Federal Inland Revenue Services (FIRS). The variables on which data were collected are the Gross Domestic Product (GDP), Petroleum Profit Tax (PPT), Value Added Tax (VAT) and Personal Income Tax (PIT). Data on all the variables cover a period of 18 years, from 1980 to 2018. Data on GDP was collected from CBN while data on the other variables were collected from FIRS.

3.3 Unit Root Test

To avoid estimation of spurious regression and ensures efficacy of the results, time series properties of the data was investigated. Although there are a number of methods used to test for stationarity and the presence of unit roots, the method that will be used in this research is the Augmented Dickey-Fuller (ADF). By definition a series is stationary if it has a constant mean and a constant variance and/ or covariance. On the contrary, a non-stationary series contains a clear time trend and has a variance that is not constant overtime. The unit root test model is specified as:

$$\Delta Y_t = Y_t + \beta \sum_i^k \mu_t \dots\dots\dots (3)$$

$$\Delta Y_t = \beta_0 + \beta \sum_i^k Y_t + e_{2i} \dots\dots\dots (4)$$

$$\Delta Y_t = \gamma_0 + \gamma_1 t + \beta \sum_i^k Y_t + e_{3i} \dots\dots\dots (5)$$

Where;

μ_i = (PPT, VAT, PIT and GDP) representing the variables used for the unit root test.

The equation (3) represents random walk model without intercept and no trend; equation (4) represents random walk model with intercept but no trend tile, equation (5) represents random walk model with intercept and trend.

Table 3
Estimated Long-run ARDL Coefficients

| Variables | coefficients | Std Error | t-Values | p-values |
|-----------|--------------|-----------|----------|----------|
| GDP(-1) | 0.308 | 1.343 | 0.973 | 0.433 |
| PPT | 0.017** | 0.003 | -5.294 | 0.034 |
| PIT | -0.454** | 0.310 | 4.694 | 0.043 |
| VAT | 0.455** | 8.779 | -5.234 | 0.035 |

** indicates significant at 5%

Source: Researchers Computation using Eviews 9

With co-integration being established, the conditional ARDL long-run model was estimated and the result reported in table 3. The result shows that GDP (-1), GDP (-1), PPT and VAT have positive impact on GDP. A unit increase in GDP (-1) increases GDP by about 31 per cent. In other word, GDP during the previous one year has a positive impact of about 31 per cent on current GDP. This result conformed to the *a priori* expectation, though GDP (-1) is statistically insignificant at 5% level of probability. Also, a unit increase in PPT and VAT increases GDP by about 1.7 percent and 46 percent respectively, and the estimated coefficients are statistically significant at 5 percent. However, PIT has a negative impact on GDP. A unit increase in PIT decreases GDP by 45% and the estimated coefficient is statistically significant at 5%. This simply implies that high Personal Income Tax may be detrimental to economic growth.

Table 4
Estimated Short-run ARDL Coefficients

| Dependent Variable: GDP | | | | |
|--------------------------|----------------------|------------|-----------------|-------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 956** | 1695 | 5.638 | 0.030 |
| D(GDP(-1)) | -3.000 | 1.207 | -2.485 | 0.130 |
| D(GDP(-2)) | -3.689** | 0.676 | -5.461 | 0.032 |
| D(PPT(-1)) | 0.014** | 0.003 | 5.395 | 0.033 |
| D(PPT(-2)) | 0.005 | 0.002 | 2.339 | 0.144 |
| D(PIT(-1)) | -0.425** | 0.241 | -2.922 | 0.027 |
| D(PIT(-2)) | -0.964 | 0.369 | -2.607 | 0.121 |
| D(VAT(-1)) | -0.233*** | 0.0357 | -3.451 | 0.075 |
| D(VAT(-2)) | 0.368** | 6.227 | 6.051 | 0.026 |
| ECM (-1) | -0.516 | 0.061 | -17.66 | 0.003 |
| Diagnostics Tests | Statistic (s) | | p-values | |
| R- square | 0.95 | | | |
| D-W | 2.2 | | | |
| Jarque-Bera | 0.56 | | 0.76 | |

** indicates significant at 5%

*** indicates significant at 10%

Source: Researchers Computation using Eviews 9

The table 4 shows the result of the estimated short-run ARDL model. From the table, all the variables, except GDP (-1), PPT (-2)) and PIT (-2), are statistically significant either at 1%, 5% or 10%. PPT, both at lag 1 and lag 2, has a positive impact on GDP. A unit increase in PPT (-1) and PPT (-2) increases GDP

by about 1.4 per cent and 0.5 per cent respectively. However, unlike PPT (-1), PPT (-2) is not statistically significant. While the impact of PIT on GDP both at lag 1 and lag 2 was negative but significant only at lag 1, the impact of VAT on GDP was negative at lag 1, positive at lag 2 but significant in both lag 1 and lag 2. That is, a unit increase in PIT decreases GDP by about 43 per cent and 96 per cent during the previous one year and previous two years respectively, while a unit increase in VAT decrease GDP by about 23 per cent during the previous one year and by about 36 per cent during the previous two years. Furthermore, the error correction coefficient (ECM) indicates the speed of adjustment with which equilibrium is restored in the dynamic model. The ECM coefficient shows how quickly the variables of the study converge to equilibrium and it should have a statistically significant coefficient with a negative sign. The coefficient on the lagged error-correction term in table 5 is significant at five percent level and has the expected negative sign, which confirms the result of the bounds test for co integration. Its value is estimated to -0.54 which implies that approximately 0.54% of disequilibria from the previous year's shock converge back to the long-run equilibrium in the current year. More so, the diagnostic statistics reported in table 4.5 suggest that the data fit the model fairly well. The R-square of the model show that about 95 percent of the variation in dependent variable (GDP) is explained by the combined effects of all the explanatory variables used in the study, suggesting that only 5% variation in GDP is accounted for by other factors not included in the model. Also, from the table 4.5, since the Durbin–Watson value of 2.2 is closer to the value 2 than to the value 0, there is evidence of absence of autocorrelation in the data set.

Table 5

Post Estimation Diagnostic

Breusch-Godfrey Serial Correlation LM Test:

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 2.036343 | Prob. F(2,3) | 0.2763 |
| Obs*R-squared | 9.213328 | Prob. Chi-Square(2) | 0.0100 |

Heteroskedasticity Test: ARCH

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 0.768041 | Prob. F(1,13) | 0.3967 |
| Obs*R-squared | 0.836765 | Prob. Chi-Square(1) | 0.3603 |

Source: Researchers Computation using Eviews 9

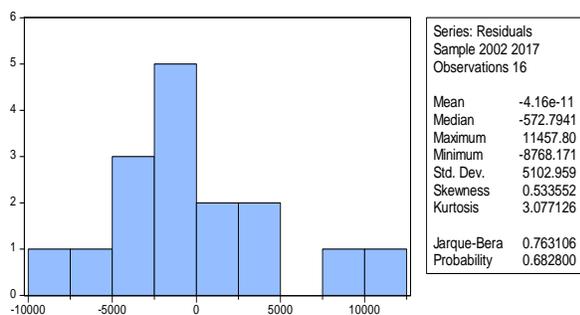


Figure 1: Normality Plot

Source: Researchers Computation using Eviews 9

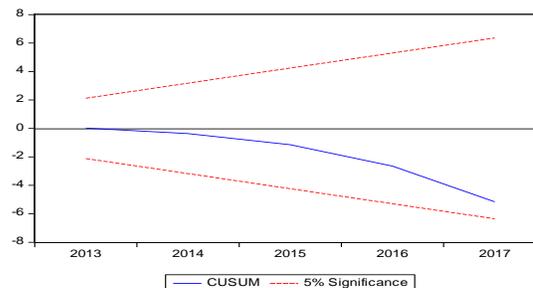


Figure 2: CUSUM Plot for Stability

Table 5 shows the post estimation diagnostic statistics. The serial correlation LM test has a probability value of 0.2763 which is greater than 0.05. This suggests that the null hypothesis of absence of autocorrelation in the model cannot be rejected. Similarly, the probability value for the test of heteroskedasticity is 0.3967 implying that the null hypothesis of absence of heteroskedasticity in the

model cannot be rejected. Furthermore, the normality plot reported in figure 1 shows that the Jarque-Bera value and its probability are 0.7531 and 0.6828 respectively. Hence, the null hypothesis that the error terms of the data used in the study are normally distributed cannot be rejected. The result also passed the test of stability. This is because the CUSUM plot reported in figure 2 does not cross either of the 5% critical lines. Therefore, it could be concluded that the estimated parameters for the study are stable for the period under investigation.

5. CONCLUSION AND RECOMMENDATION

This study examines the Effect of Taxation on Economic Growth in Nigeria over the period 1980 to 2018. Findings from this study reveal that in Nigeria, the various categories of taxation such as Petroleum Profit Tax, Personal Income Tax and Value Added Tax selected for this study have significant effects on economic growth process. The effect of these taxes on economic growth in Nigeria is even more pronounced in the long-run than in the short-run. This is evident from the estimated long-run and the short-run ARDL models.

From the results, it is logical to conclude that PPT, VAT and PIT have implications for the willingness of investors to invest in the Nigerian economy. While all categories of taxes have different impact on GDP, Petroleum Profit Tax is a major factor accounting for economic growth in Nigeria for the years under review. However, there is poor tax administration in the entire system which has given encouragement to tax evasion and avoidance. The effect of this is reduced revenue for the Federal Government, and their inability to meet their budgetary level. Based on the findings of this study, it was recommended that the level of tax evasion and avoidance in the petroleum profit tax should be reduced to achieve sustainable growth in Nigeria. Also, the level of corruption should be reduced to achieve positive voluntary tax compliance by Nigerians and ensures accountability and transparency in the management of tax revenue by the government.

REFERENCES

- Abdul-Rahamoh, O.A., Taiwo, F.H. & Adejare, A.T. (2013). The Analysis of the Effect Of Petroleum Profit Tax on Nigerian Economy. *Asian Journal of Humanities And Social Sciences (AJHSS)* 1(1)
- Adegbie, F & Fakile, A. S. (2011). Effect of petroleum profit tax and Nigeria Economic Development *International journal of research in computer application & management* Volume no: 1 (2011), issue no. 1 (March) *issn 2231-1009*
- Angahar, P. A. and Alfred, S. A. (2012). Personal Income Tax Administration in Nigeria: Challenges and Prospects for Increased Revenue Generation from Self Employed Persons in the Society. *Global Business and Economics Research Journal*, 1 (1),
- Azubike, J.U.B. (2009). Challenges of tax authorities, tax payers in the management of tax reform processes. *Niger. Account*, 42(2): 36-42
- Bhartia, H.L.(2009): *Public Finance*. 14th Edn., Vikas Publishing House PVT Ltd, New Delhi
- Chigbu, E.E., Akujuobi, L.E. & Ebimobowei A. (2012). An empirical study on the causality between economic growth and taxation in Nigeria. *Current Research Journal of Economic Theory* 4(2), 29-38.
- Cornelius M.O. Ogar .A. & Oka F. A (2016). The Impact of Tax Revenue on Economic Growth: Evidence from Nigeria *IOSR Journal of Economics and Finance*, 32-38
- Ekeocha, P. C. Ekeocha, C. S., Malaolu, V., & Oduh, M. O. (2012). Revenue Implications of Nigeria's Tax System. *Journal of Economics and Sustainable Development*, 3(8), 206-215
- Ehigiamusoe U. K.(2014) The Nexus between Tax Structure and Economic Growth in Nigeria: A Prognosis *Journal of Economic and Social Studies*
- Emmanuel E. C & Charles O.(2015) Taxation and the Nigerian Economy: (1994-2012) *Management Studies and Economic Systems (MSES)*, 2 (2), 111-128

- Ihendinihu, J.U (2014). Assessment of the long-run equilibrium relationship between tax revenue and economic growth in Nigeria: 1986 to 2012. *The Standard International Journals* Vol. 2 No.2 pp 39
- Ilaboya, o. j. & Ofiafor, E.(2014) effect of petroleum profit tax and economic growth in Nigeria *British Journal of Business and Management Research* Vol.1, No.2, pp.55-67, June 2014
- Jibrin, S.M., Blessing, S.E. and Ifurueze, M.S.K. (2012). Impact of Petroleum Profit Tax on Economic Development of Nigeria. *British Journal of Economics, Finance and Management Sciences*, September, 5(2), 60-72
- Nakhle (2014). *Petroleum Taxation: A critical evaluation with special application to the UK.*
- Omojemite, B. U. & Iboma, G. E. (2012). Fiscal deficit and the productivity of the Nigeria Tax system, 1970-2010. *Journal of Sustainable Development* 5(4), 116-125.
- Okoh J.I, Onyekwelu U., & Iyidiobi F.C. (2016) effect of petroleum profit tax on Economic growth in Nigeria *International Journal of Business and Management Review* Vol.5, No.1, pp.47-53, December 2016
- Ogbonna, G.N and Appah, E (2012). Impact of tax reforms and economic growth of Nigeria: A time series analysis, *Current Research Journal of Social Sciences* 4(1): 62-68, 2012.
- Ogbonna, G.N and Appah, E (2011). Petroleum Income and Nigerian economy: Empirical Evidence, *Arabian Journal of Business & Management Review (OMAN chapter)* vol 1. No. 9 April 2012. P 33-59.
- Ogbonna, G.N., & Ebimobowei A. (2012). Petroleum income and Nigerian economy: Empirical evidence. *Arabian Journal of Business and Management Review (OMAN Chapter)* 1(9), 33-59. Retrieved from http://www.arabianjbmr.com/pdfs/OM_VOL_1_%289%29/4.pdf
- Okafor, R (2012). Tax revenue generation and Nigeria economic development; *European Journal of Business and Management*, vol 4. No. 19 2012 p 49- 56.
- Olatunji, T. E & Adegbite, T. A (2014).The effects of petroleum profit tax, interest rate and money Supply on Nigerian economy *global journal of commerce andmanagement perspectives*
Published by global institutes for research and education *G.J.C.M.P., Vol.3 (3):81-87 (May-June, 2014)* ISSN: 2319 – 7285
- Onaolapo A., Fasina H., & Adegbite T. (2013).The Analysis of the Effect of Petroleum Tax on Nigerian Economy. *Asian Journal of Humanities and Social Sciences (AJTHSS)* vol. 1, No: 1, May 2013, ISSN 2320-9720
- Omojemite, B. U. & Godwin, M. (2012). Fiscal deficit and the productivity of the Nigeria tax system, 1970-2010. *Journal of Sustainable Development* 5(4), 116-125.
- Omojemite, B. U. & Iboma, G. E. (2012). Fiscal deficit and the productivity of the Nigeria tax system, 1970-2010. *Journal of Sustainable Development* 5(4), 116-125.
- Oremade T. (2006), *Petroleum Profit Tax in Nigeria*. Ibadan: Evans Brothers Nigeria Publishers vol.2 No: 2, ISSN 2162-3082
- Oremade, B. T. (2010). Perception of petroleum profits tax compliance in Nigeria. PhD Thesis: Bournemouth University
- Saheed Z. S., Abarshi, J.A. & Ejide, I. S.(2014) Impact of petroleum tax on economic growth in Nigeria (1970-2012) *International Journal of Education and Research* Vol. 2 No. 11 November 2014
- Usman, O. & Adegbite T. A. (2015). The impact of petroleum profit tax (ppt) on economic growth in Nigeria: the co - integration analysis 25 August 2015, 18th International Academic Conference, London ISBN 978-80-87927-11-3, IISES