POLAC MANAGEMENT REVIEW (PMR)
DEPARTMENT OF MANAGEMENT SCIENCE
NIGERIA POLICE ACADEMY, WUDIL-KANO

IMPACT OF INCOME TAX ON ECONOMIC GROWTH OF NIGERIA

Umar Salim Ibrahim Department of Accounting, Federal University Dutse, Jigawa State, Nigeria

Babagana Abba Department of Accounting**,** Federal University Dutse, Jigawa State, Nigeria

Abubakar Musa Department of Accounting, Federal University Dutse, Jigawa State, Nigeria

Fatihu shehu Isa Department of Accounting, Federal University Dutse, Jigawa State, Nigeria

Fatima Mustapha Gana Department of Accounting, Federal University Dutse, Jigawa State, Nigeria

Muhammad S. Abdulwahab Department of Accounting, Federal University Dutse, Jigawa State, Nigeria

Najib Sani Department of Accounting, Federal University Gusau, Zamfara State, Nigeria

Abstract

The study evaluate the effect of income tax on economic growth of Nigerian economy for the period of 1994 to 2020, using annual time series data from the Federal board of internal revenue and central bank statistical bulletins and National Bureau of Statistics (NBS). The study investigates the impact of four tax revenue sources, which include; Petroleum Profit Tax, Company Income Tax, Value Added Tax and Personal Income Tax on the economic growth as measured by GDP (at basic current prices) economic growth from 1994 to 2020. To fulfill the objectives of the study's, ARDL and ECM techniques were used to determine the relationships, dynamics, and long-run relationship between the dependent variables and independent variables. At the 5% significance level, the ARDL/bounds co-integration test demonstrated that the null hypothesis should be rejected. The study discovered that income tax had a positive and statistically significant relationship with economic growth in Nigeria during the study period. The study recommends that the federal government manage the financial resources earned by income taxes responsibly and severely decrease waste of expenditures. Furthermore, the government ought to make sure that all tax exemptions are eliminated, and corporate tax evasion and avoidance ought to be thoroughly examined and penalized. Finally, in order to have a transparent tax system for better welfare and economic development, the government ought to exhibit more accountability in its handling and use of income tax revenue.

Keywords: Growth Domestic Product, Petroleum Profit Tax, Company Income Tax, Value Added Tax, Personal Income Tax.

1. Introduction

Governments of all nations are saddled with a lot of responsibility, such as education, health, security, road, electricity and other social welfare for economic transformation and development of every country or nation. The desire to achieve these responsibilities is greatly dependent on the level of income or income realised by government through the available number of means in a growing or developing country like Nigeria. Despite the study fundamentals, Nigeria as oil rich with multinational companies have hampered due to insufficient energy supply, lower education rank in comparison to other countries in the world, restrictive trade policies, a lack of infrastructure, instability, an uneven regulatory environment, financial diversification, persistent corruption, and a strong

boom, which was not translated to a substantial reduction in the level of poverty in Nigeria. The continued reliance on oil income for economic, social and political advancement in order to sustain financial structures has proven to be problematic. This rationale motivated this research study to look into the implications of taxation upon every other source of revenue for Nigeria's economic growth.

Abomaye-Nimenibo (2017), consider taxation as mandatory contribution usually from individuals and corporations to government agencies, either directly or indirectly, to fund government responsibility in accordance with social contract agreement. Individuals or corporations who refuse to pay appropriate taxes face penalties under applicable tax law.

Government responsibilities have grown over time, particularly in countries that are developing such as Nigeria, because of the population growth and infrastructure decay. However, the government's revenue has not been growing faster than its expenditure, making capital formation impossible Amughoro (2019). Taxation is the act of taxing citizens, whereas tax is considered as an obligation that all residents of a state must pay. This payment of taxes is known as a civic duty (Abomaye-Nimenibo et al., 2018). Given the importance of taxation for providing revenue to the administration for various purposes, as well as its ability to influence consumption patterns which contribute to economic growth, have influence on economic parameters, and impact consumption habits, every government will do its best to maximize revenue from taxes (Asaolu et al., 2018). The effectiveness and efficiency of tax administration results in an increase in income earned, which helps the government provide important services to people and even carry out significant initiatives. Despite this, tax officials' fraudulent operations and schemes, as well as unskilled tax professionals, are considered as dangers and difficulties that damage revenues by shifting monies from tax into their personal accounts (Asaolu & colleagues, 2018).

Economic development is topic of discussion in Nigeria since its independence, with numerous efforts aimed at economic recovery failing to produce relevant important. Nigeria still have many problem, such as unemployment, the brain drain as a result of inadequate academic funding, a high level mortality rate caused by a ineffective health-care system, a lack of necessary infrastructure, an excessive inflation rate, insecurity, and so on. Tax collection is a critical task for the government. It must be accumulated with caution, especially in a developing economy like Nigeria. It has been discovered that if tax laws are strictly enforced, the government's profits from taxes levied on corporate and non-public income may be greater. As a result, policymakers may be able to raise a sufficient fund to assist the authorities in achieving growth.

Due to all of these unresolved difficulties, in addition to the recent reduction in the price of crude oil worldwide, an evaluation of the effect of revenue from taxes on growth in the economy is required. Furthermore, the use of obligation by the leadership of the Federal Revenue Service (FRS), as well as the unique reforms to taxes established by using authorities to prop up earnings from taxation, necessitate an in-depth study of the effect of taxation on the economic development of Nigeria. The investigation's purpose is to analyze the influence of income tax on Nigerian economic growth.

According to Ogbonna (2010), the first undertaking that needs to be addressed is the lack of records to show who pays tax in Nigeria, as it accounted for a very high rate of evasion in the country. The crude strategy to collecting taxes increases administrative value, which has an impact on the total profits generated. The entire procedure adds complexity to administration and taxation. Nigeria does not longer have a comprehensive database of all the taxpayers and organizations in the country, this is now no longer what is occurring in other developed nations, individual and companies can consequently manage number of techniques and method to reduce the tax burden or capitalized on slightest possibility to stay away from tax liability, which affect the economic growth of a nation. Among the major challenges are; poor tax administration, lack of

transparency and equity, tax avoidance and tax evasion. Those challenges are among the rational Nigerian tax to GDP ratio continues to decline over the year. Nigerian Tax to GDP ratio fluctuate, it was 6.3in 2018, it dropped to 6.0 in 2019 and 5.5 in 2020. According to World Bank tax to GDP ratio of more than 15% is critical component for poverty reduction and economic development (OECD).

Base on the above problems, the following research questions were raised;

i. What is the effect of income tax on economic growth of Nigeria?
ii. Does income tax has causal relationship with economic growth of Nigeria?

The main objective of the study is to assess the effect that income tax has towards the growth of the Nigerian economy. However, the specific objective includes:

i. To explore the effect of income tax on economic growth in Nigeria.
ii. To evaluate the nature of the relationship between income tax and economic growth in Nigeria.

In line with the affirmation research question and objectives, the following hypotheses were formulated in null form

i. There is no significant impact between income tax and economic growth of Nigeria.
ii. Income tax has no causal effect on economic growth of Nigeria.

2. Literature Review

Tax income can be viewed as fiscal coverage device that governments all over the globe to impact negatively or positively. Various authors have defined the term tax. According to Egwa, Udu, and Agu (1999), were once explaining as an obligatory fee paid by every eligible citizen toward state expenditure. According to Anyanwaokoro, tax is a mandatory levy imposed on the social agreement between state and people and other institutional bodies in a governed region for which no direct goods or services are provided in exchange for the charge. Anwornde provides a comprehensive definition of tax in Nigeria (1982) tax income can be viewed as a fiscal policy tool used by governments all over the globe to have an impact on a specific type of economic endeavor with the view to gain growth. The main monetary goals of developing economy or countries such as Nigeria are to raise the level of monetary growth and thus income per capita, which leads to economic growth (Okonjo, 2013).

2.1 Empirical Review

Mukolu and Ogodor's (2021) evaluate the impact of value added tax on GDP growth from 1994 to 2018 using an Advanced Dickey Fuller analytic approach. The study's data came from the Federal Inland Revenue Service and Central Bank of the country's statistical bulletin. The study discovered that Value Added Tax has a favorable and considerable impact on GDP. It also indicated that VAT has greatly enhanced the nation's total revenue while also assisting taxpayers in tax avoidance.

Yadawananda and Achal (2020) Used the panel regression method to evaluated the short-run and long-run link between the tax system and state-level economic growth from 1991 to 2016. The results showed that product and service taxes were negative for the economy as a whole and that raising them would lead to price increases, however income taxes were shown to be important for the economy since they primarily affect savings and supply of labor, both of which are viewed as economic growth and development.

Adeusi et al. (2020) examined the effects of non-oil revenue on Nigerian economic development from 1994 to 2018, using data from the Federal Inland Revenue Service and National Bureau of Statistics. Normal Least Squares Linear Techniques were used for examining the data. Customs and Excise duties and Value Added Tax and have significant effect on economic growth and development than Personal Income Tax and Company Income Tax, which have a negative effect on growth and development of economy.

Hieu (2019) examined the effect of both direct and indirect taxes on the growth of the economy in Vietnam from 2003 to 2017 using simple linear regression. Indirect taxes have been shown to have a beneficial

effect and help economic progress, but direct taxing has distinct consequences.

Metri et al. (2018) 1980 to 2015, a model that corrected errors was used to assess the effect of taxation on economic growth in Jordan. Consumption and taxes increased economic growth whereas taxation on income stifled it, and the government is advised to prioritize equitable treatment over revenue generation, in addition to a shift from taxing income to usage and tariff taxes to increase the future per capita advancement.

Yahaya and Bakare (2018) utilized data from the Federal Inland Revenue Service and the Central Bank of the country's statistical journal to assess the influence of petroleum profit tax and corporate income tax on Nigeria's growth in GDP from 1981 to 2014. Both time series analysis and ordinary least square analysis of regression have been used by the researchers. According to the research, the tax on petroleum profits and business income tax have a strong favorable impact on Nigerian economic development. It was suggested that the tax revenue be used for economic growth and development of infrastructure.

Udofot and Etim (2017) investigated the association between SMEs' revenue taxes and growth of Nigeria economy. Data for the research were derived from several editions of Federal Inland Revenue Service (FIRS) and Central Bank of Nigeria (CBN). The data was examined using regression and correlation analyses, for the period of 1980 to 2015, the outcome show that the study variables are strongly and positively correlated, and they propose reschedulling the overall tax arrangement system to enhance government revenue. According to Otu and Adejumo (2013), they studied the effects of tax income on growth in the economy in Nigeria from 1970 to 2011 using the conventional least rectangle ordinal regression technique. According to their outcomes, tax revenue has an enormous effect on Nigeria's economic growth.

2.2 Theoretical Framework

Theoretical review refers to the various theories which have been propounded/postulated by various scholars. For the purpose of this study, Benefit Received Theory or Benefit Principle, The approach of ability-to-pay and social-political were anchored

Benefit Principle or Benefit Received Theory

According to the benefit principle hypothesis, referred to as vertical fairness, a person should be taxed in relation to the benefits he derives from the government's supply of goods and services. In a nutshell, this is a lower cost approach in which tax is regarded as an expense and government facilities are considered advantages (Bhartia, 2009; and Anyanfo, 1996). This principle presupposes an extent equal among the rate of marginal tax fee (MTR) and the marginal benefit rate that is obtained (MBR) to determine the amount of taxes to be paid. However, the advantage principle no longer applies to the environmentally friendly provision of public (near-public) goods. Consider military defense. As a result, the situation of equality between benefits received and taxes paid, which appear so egalitarian in theory, no longer exist in practice.

The Ability-To-Pay Approach

This strategy involves determining the optimum distribution of taxes based on individuals or organization's projected tax burden or ability to pay. This strategy, known as horizontal fairness, enables equal allocation and a consolidation of revenue objectives. We understand that taxes have a chance to shift the value of income to governments; income is the main indicator of ability to pay. Those with more money might later be able to afford to pay more taxes. Although this idea provides the benefits indicated above, it is not without disadvantages. Its disadvantage is that the standard for judging "capacity" is no longer apparent.

Social Political Theory

To a certain degree, this taxation theory is founded on Thomas Hobbes' social contract, who declared that man existed within the kingdom that was nature in the beginning. They didn't have a administration to keep them under control, and no laws to keep them in control. Parts of society faced hardship and injustice.

They made two commitments to overcome this adversity: (1) "Pectum Unions" and (2) "Pactum Subjections" As a result, in accordance with socio-political theory, political and social objectives should be emphasized in taxation. It suggests the government generates money by taxing residents and then uses it to meet the demands of society.

3. Methodology

The study adopt the experimental research design, to examine the impact of income tax on economic growth in Nigeria by employing time series data for the period of twenty-seven (27) years (1994-2020). This type of design is preferred to others because is used to measure what effect a specific change on the independent variable on the dependent variable. Given that the subject of the research is Nigeria, the population of the study covers the whole period of independence in Nigeria from 1960 to date which cover the period of 62 years. From the total period of 62 years, the study will sample twenty-seven (27) years, therefore it cover from 1994-2020. The quantitative method strivedon the objective measurements and mathematical, statistical, or numerical analysis of data gathered through pools, surveys and questionnaires as well as by manipulating pre-existing statistical data using computational methods. According to Gazu (2016), the quantitative approach deals with analyzing existing secondary data. This research employed the use of annual time series data, which are mainly secondary in nature for the period of twenty-seven (27) years, that is, 1994-2020. Secondary data are those that have previously been collected by researchers or investigators and are available in either published or unpublished form. The study extracted secondary data from the Central Bank of Nigeria (CBN), the United Nations. The short-run and long-run dynamic association among financial meltdown and capital market growth was estimated in the current study using the relatively new proposed ARDL bound testing approach popularized by Pesaran and Shin (1995).

According to Shaista and Qazi (2012), the ARDL has a number of advantages, including: I the ARDL model can be applied without paying much attention. Because of the dynamic nature of the relationships that exist in different models, the Error Correction Mechanism is used in model estimation. This is critical for reconciling short-run dynamics with long-run equilibrium. Where an ARDL long run relationship exists, the short run speed of adjustment must be investigated. The error correction mechanism is used to determine whether or not there are stable relationships between variables. In other words, the error correction model test measures the annual rate of adjustment between monetary and stock market growth, from short to long run (Gujirati, 1995).

3.1 Model Specification

The ECM model is depicted below:

$\Delta Y_t = \beta 0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \mu_t$ (1)

Where, β_0 is the constant, $_{t-1}$ is the lagged period; $\beta_2$is the coefficient of the error correction model test.

GDP = f (CIT, PIT, VAT, PPT) (2)

Equation (1) can further be represented as:

Log GDP = $\beta 0 + \beta_1 \log CIT + \beta_2 PIT + \beta_3 VAT + \beta_4 PPT + \mu t$ (3)

Hence, the error correction model derived from equation (3) becomes and transformed into the ARDL bound model as below:

$$LogGDP_t = {}_o + {}_1LogCIT_{t-i} + {}_2PIT_{t-i} + {}_3VAT_{t-i} + {}_4PPT_{t-i} + {}_1LogGDP_{t-i} + {}_1LogCIT_{t-1} + {}_2PIT_{t-1} + {}_3VAT_{t-i} + {}_4PPT_{t-i} + {}_{t-i} + {}_t \quad (4)$$

Where**:**

LogGDP = Natural Log of Gross Domestic Product

LogCIT = Natural Log of Company Income Tax

PIT = Personal Income Tax

VAT = Value Added Tax

PPT = Petroleum Profit Tax

ECT = Error Correction Term

b_1 , b_2, b_3 and b_4= Short-run coefficients of the variables

$_{1}$,$_{2}$,$_{3}$,and $_{4}$ = corresponding long run multipliers of the underling ARDL model

$_{o}$ = constant parameter

= First difference operators

$_{i}$ = Vector of the coefficients of the variables in the model

$_{t}$ = Error term

4. Results and Discussion

This section discusses data presentation, the analysis of data, and result interpretation, as well as findings discussion. For the study, a regression analysis was used to examine the impact of income tax on economic growth in Nigeria over a twenty-seven (27) year period (1994-2020).

4.1 Data Presentation

The study employed Company Income Tax (CIT), Value Added Tax (VAT), Petroleum Profit Tax (PPT), and Personal Income Tax (CIT), as percentage of Gross Domestic Product (GDP) as independent variable. Data of the study were sourced from Central Bank of Nigeria (CBN) bulletin for the period of 27 years, specifically from 1994 to 2020.

Table 1: Summary Statistics/Results

Variables	Obs.	Mean	Std. Dev.	Min.	Max.	Skewness	Kurtosis
GDP	27	49588.48	47705.05	1762.81	152324.1	0.7592923	2.307831
CIT	27	550.6174	542.5087	12.28	1604.69	0.5500492	1.761154
PIT	27	299.2448	237.2096	26.3	851.73	0.8749559	3.035457
VAT	27	459.3922	432.8376	7.26	1531.17	0.7281672	2.516378
PPT	27	1226.11	970.5567	42.83	3201.32	0.4827684	2.190716

Source: Author using E-views 10 (2022)

The table reveals that GDP experienced a slow growth within the study period. This is shown by their respective mean values 49588.48, 550.6174, 299.2448, 459.3922 and 1226.11 being greater than their respective standard deviation values 47705.05, 542.5087, 237.2096, 432.8376 and 970.5567, respectively. The slow of the growth is considered as wide margins between the outcomes of the lowest or maximum and higher or minimum values. The skewness revealed that all variables are positively skewed and dispersing. Kurtosis (Jarque-Bera) statistics which measures weight or relationship whether the series data are normally distributed, which justified that all the variables are statistically significant at 5% (critical value 0.109). This means there multicolonioarity and none of the variables had outlier. Even if there are, they are mild not extreme and therefore will distort the analysis and conclusions of the study and that justified the reliability for generalizing the outcome.

4.2 Unit Root Test

Conventionally, most economic variables are said to be stationary. This universal belief does not hold water due to non-stationarity of most economic variables. Therefore, using non-stationary series would lead to spurious and misleading results. However, it is needful to difference the variable(s) for stationarity to be reached. Box and Jenkins (1978) claimed that considering first differences in a nonstationary time series can result in a stationary time series. However, a given series is considered to be integrated of order *d*, if it attains the expected stationarity after differencing *d* times series.

Table 2: Augmented Dickey Fuller Test

Variable	Level	ADF cv	1st diff	ADF cv	Order	Remark
GDP	0.044817	-3.595026	-5.235627	-3.622033	*I*(1)	Stationary
CIT	-2.302283	-3.595026	-4.763662	-3.603202	*I*(1)	Stationary
PIT	-3.220479	-3.595026	-7.124149	-3.603202	*I*(1)	Stationary
VAT	5.447590	-3.595026	-7.221780	-3.603202	I(0)	Stationary
PPT	-2.353614	-3.595026	-4.632784	-3.603202	I(1)	Stationary

Source: Author, using E-views 10 (2022)

The null hypothesis is not accepted when the statistic value is less than the critical value. The variables were subjected to ADF tests. However, the table revealed that GDP, CIT, PIT and PPT were non-stationary at level as their test statistic (ADF) values are below than the critical values significance level at 5%. Autoregressive Distributed Lag (ARDL) technique was applied. To establish whether such a long run relationship exists or not, the ARDL bound test was estimated.

Table 3: ARDL Bound Test Result

Test Statistic	Value	K
F-statistics	7.121077	4
Critical Bounds Value		
	Lower bound *I*(0)	Upper bound *I*(1)
Significance level		
10%	2.525	3.56
5%	3.058	4.223
1%	4.28	5.84

Source: Author, using E-views 10 (2022)

The existence of a long-term connection was shown by the table. The F-statistic number is bigger than the ARDL upper bound value, demonstrating this. This shows that the variables have a long-run relationship. The F-statistic coefficient of 7.121077 is greater than the 5% upper bound value of 4.223, indicating that there is sufficient evidence to justify the probability of a long run link among the studied variables in the model. The null hypothesis of no long run association is rejected in this scenario. The results demonstrated that the variables in the model are co-integrated, confirming the presence of a long-run link.

4.3 Model Estimation

The co-integration result revealed that variables included in the model are co-integrated and so the presence of long-run relationship was confirmed. As a result of this, the short-run estimation was used to test the hypothesis stated.

Table 4: ARDL Regression Result

Variables	Coefficient	Std. Error	t-statistic	Probability
D(GDP(-1))	0.469324	0.180880	2.594679	0.0249
D(CIT)	15.98970	3.412145	4.686114	0.0007
D(PIT)	-2.096577	1.322501	-1.585312	0.1412
D(VAT)	24.15755	8.699545	2.776875	0.0180
D(PPT)	2.839184	0.515305	5.509719	0.0002
ECM(-1)	-2.001674	0.408793	-4.896547	0.0005
C	-664.1351	500.4580	-1.327055	0.2114
R-square	0.963492	**F-statistic**	24.19215	
Adj. R-squared	0.923666	**Prob(F-statistic)**	0.000004	

Source: Author, using E-views 10 (2022); ***Note:*** *Theoretical t-statistic value at 5% level of significance is* 2.074

From the table, estimated coefficient of GDP in the recent period indicated significant effect on the current period's GDP in Nigeria. This is not in conformity with *a priori* expectation, which implies that a 1% increase would lead to an increase of 0.469324 in gross domestic product in the current period in Nigeria. This is further confirmed by the probability and t-value of 0.0249 and 2.594679, indicating a strong level of significance of gross domestic product in the previous period on the current period's gross domestic product at 5% level of significance. Therefore, given the theoretical value of probability value 2.074 at 5% level of significance, gross domestic product in the previous period has significant impact on gross domestic product in the current period in Nigeria.

Following the estimation of the bounds test, the analysis was advanced to estimating the Error Correction Model (ECM) in order to show the degree of adjustment, which shows that the coefficient of the Error Correction Term (ECM) has a negative and statistically significant at 5% level of significance. The size of the coefficient also showed that disequilibrium resulting from shocks in the model is adjusted at the speed of -2.001674 (200.16%) in the short run. This shows that the speed of adjustment is fast and sufficient to drive economic growth in the short run as shown by the significance of the error correction term.

The model is robust as the goodness of fit is high. The coefficient of multiple determination R^2 indicates that over 0.963492 (96.34%) of variation in economic growth in Nigeria was explained by the variation in company income tax, petroleum profit tax, personal income tax, value added tax and the ECM term. However, the remaining variation in economic growth in Nigeria is caused by other relevant factors that are not included in this model. The general performance of the model is usually determined using the outcome of the F-statistic in the model. The result of F-statistic and probability values 24.19215 and 0.000004, respectively, shows that income tax is significant in determining economic growth in Nigeria.

5. Conclusion and Recommendations

This study evaluates the effect of tax revenue on the Nigerian economy from 1994 to 2020. According to the findings, income tax has a significant and positive effect on the Nigerian economy. This means that income tax has had the expected impact on Nigerian economic growth and development within the period of the study. Base to the findings, income tax revenue has significantly contributed to economic growth and development of Nigeria.

Relevant to the empirical findings, the following recommendations are deemed necessary:

i. The federal government shall cautiously handle the revenue earned by revenue taxes and substantially decrease waste. The actual use of revenue from income taxes to addressing productivity and citizen welfare concerns will result in increased tax revenue that will ultimately have an effect on the growth of the economy.

ii. The federal government ought to make sure that any tax gaps have been eliminated or minimized, and that company evasion and avoidance of taxes is examined and punished appropriately. Additionally, revenue collection methods utilized by tax officials must be free of fraud and corruption, and the federal, state, and municipal governments should quickly upgrade and automate the whole tax system in order to enhance efficiency.

Government utilization and administration of revenue from income taxes ought to be more open in order to provide tax payers a greater confidence of its usage. There ought to be an improvement in Nigeria's revenues efficiency in management by preventing leakages in collecting tax revenues and extending the country's tax base in order to attract greater tax revenue and encourage growth in the economy in Nigeria.

REFRENCES

Abomaye-Nimenibo, W.A.S (2017). The empirical determinants of aggregate demand of economic growth. *International Journal of Economics, 2*(1), 1-18

Adeusi, A. S., Uniamikogbo, E., Erah, O. D., & Aggreh, M. (2020). Non-oil revenue and economic growth in Nigeria. *Research Journal of Finance and Accounting, 11*(8), 95–106. https://doi.org/10.7176/

Afuberoh, D., & Okoye, E. (2014). The impact of taxation on revenue generation in nigeria: A Study of Federal Capital Territory and Selected States. *International Journal of Public Administration and Management Research*.

Anwornde, S.S. (1982): The effectiveness of clearance certificate as a measure against tax evasion and avoidance in Nigeria: M.Sc Thesis. Department of Accountancy, UNILAG.

Anyanfor, A. M.O, (1996). Public finance in a developing economy: The Nigerian Case. Department of Banking and Finance, University of Nigeria, Enugu Campus Enugu

Anyawuokoro M. (2004). Theory and policy of money and banking: Hosanna Publication, Enugu. 1st Edition.

Amughoro (2019) *Department of Accountancy, Cecelia Ibru University, Agbarho-Otor, Delta State, Nigeria.*

Ayeni, A. P., Ibrahim, J., & Adeyemi, A. O. (2017). tax revenue and Nigerian economic growth. *European Journal of Accounting, Auditing and Finance Research*, *5*(11), 75–85.

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

Bruno, O. O., & Emmanuel, A. O. (2019). Tax revenue and the Nigerian Economy. *International Journal of Academic Science Research*, *3*(2), 61–66.

Central Bank of Nigeria (2014). *Statistical Bulletin* Retrieved from: Chigbu, E.E et al. (2012). An Empirical Study on the Causality between Economic Growth and Taxation in Nigeria. Current Research Journal of Economic Theory 4(2): 29-38.

Central Bank of Nigeria (2022). *Statistical Bulletin* Retrieved.

Durusu-Çiftçi, D., Gökmenoğlu, K.K. &Yetkiner, H. (2018). The heterogeneous impact of taxation on economic development: Newinsights from a panel cointegration approach, Economic Systems.https://doi.org/10.1016/j.ecosys.2018.01.001.

Egwa, Udu. and Agu, G.A. (1999): New System Economic: A Senior Secondary Course African: FEB Publisher Nigeria.

Gazu, L. (2016). The role of public debt in economic Development. *European Scientific Journal*, 109(4), 1857-7881.

Gujarati, D. N. (1995). *Testing of causality: A Personal Viewpoint Journal of Economic Dynamic Control*.487X-2306051623

Hieu, H. N. (2019). Impact of direct tax and indirect tax on economic growth in Vietnam. *Journal of Asian Finance, Economics and Business*, *6*(4), 129–137.

John, O. A., & Dickson, O. E. (2020). Tax revenue and economic growth in Nigeria. *Journal of Taxation and Economic Development*, *19*(1), 15–34.

Mukolu, M. O., & Ogodor, B. N. (2021). The effect of value added tax on economic growth of Nigeria. *IAR Journal of Business Management*, *2*(1), 203–210.

Nkoro, E. & Uko, A.K. (2016). Autoregressive distributed Lag (ARDL) Co-integration Technique: Application and Interpretation. *Journal of Statistical and Econometric Methods 5*(4), 63-91.

Ogbonna G. N & Ebimobowei, A. (2012). Impact of tax reforms and economic growth of Nigeria: A Time Series Analysis. *Current Research Journal of Social Sci. 4(1)*, 62 – 68.

Okonjo. I., (2013). "Nigerian government hires tax consultants to increase revenue "generation *premium times Newspaper*, November 27.

Otu and Adejumo, (2013). The effects of tax revenue and economic growth in Nigeria (1970 –

2011) International Journal of Humanities and Social Sciences Invention ISSN (online) 2319 – 7722, ISSN (Print) 2319 – 7714. www.ijhis.org Vol 2 Issues 6 June. pp.16 – 26.

Salami, G.O., Apelogun, K.H., Omidiya, O.M., & Ojoye, O.F. (2015). Taxation and Nigerian economic growth process. *Research Journal of Finance and Accounting. 6*(10), 93-101

Shaista, A. & Qazi, M. A. (2012). Exchange rate volatility and aggregate exports demand through ARDL Framework: An Experience from Pakistan Economy. *Review of Applied Economics,* 8(1).

Udofot, P. O., & Etim, E. O. (2017). The effect of tax revenue components from SME's and economic growth of Nigeria.

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)*, 18-24, ISSN: 2545-5303.

Yadawananda, N., & Achal, K. G. (2020). Tax structure and economic growth: A study of selected Indian states. *Journal of Economic Structures*, *9*(38), 1–12.

Yahaya, K. A., & Bakare, T. O. (2018). Effect of petroleum profit tax and company income tax on economic growth in Nigeria. *Journal of Public Administration, Finance and Law*, *13*(1), 100–121.

Zikgmund, W. G., Barry, J., Babin, J. C., & Carr, M. G. (2003). "*Business Research Methods".* 9(1). New York: The Dryden Press.

APPENDIX Standard errors in ( ) & t-statistics in [ ]					
	GDP	CIT	PIT	VAT	PPT
GDP(-1)	0.872021	4.50E-05	-0.006008	0.021564	0.081329
	(0.40243)	(0.02037)	(0.04415)	(0.00937)	(0.09560)
	[2.16688]	[0.00221]	[-0.13609]	[2.30244]	[0.85070]
GDP(-2)	0.058841	0.002581	0.004964	-0.020673	-0.174742
	(0.45388)	(0.02297)	(0.04979)	(0.01056)	(0.10782)
	[0.12964]	[0.11237]	[0.09969]	[-1.95711]	[-1.62064]
CIT(-1)	-8.016783	0.303420	-0.141383	-0.111619	-0.165348
	(8.86051)	(0.44839)	(0.97202)	(0.20621)	(2.10490)
	[-0.90478]	[0.67670]	[-0.14545]	[-0.54130]	[-0.07855]
CIT(-2)	7.764907	0.356437	-0.291893	0.146307	2.397777
	(7.44418)	(0.37671)	(0.81665)	(0.17324)	(1.76844)
	[1.04308]	[0.94618]	[-0.35743]	[0.84451]	[1.35587]
PIT(-1)	1.448965	0.172936	0.233797	-0.106623	-0.010439
	(2.68304)	(0.13577)	(0.29434)	(0.06244)	(0.63738)
	[0.54005]	[1.27370]	[0.79432]	[-1.70758]	[-0.01638]
PIT(-2)	3.109099	-0.221663	0.286924	0.063583	0.444311
	(2.96397)	(0.14999)	(0.32515)	(0.06898)	(0.70412)
	[1.04897]	[-1.47784]	[0.88242]	[0.92178]	[0.63102]
VAT(-1)	48.01015	0.335075	0.635877	1.189120	9.416851
	(16.9800)	(0.85927)	(1.86275)	(0.39516)	(4.03376)
	[2.82746]	[0.38995]	[0.34137]	[3.00918]	[2.33451]
VAT(-2)	-30.70072	-0.337884	0.583055	-0.383531	-2.005383
	(21.0517)	(1.06532)	(2.30943)	(0.48992)	(5.00105)
	[-1.45835]	[-0.31717]	[0.25247]	[-0.78284]	[-0.40099]
PPT(-1)	-1.526922	0.088713	-0.162930	-0.052378	0.008082
	(1.40615)	(0.07116)	(0.15426)	(0.03272)	(0.33405)
	[-1.08589]	[1.24670]	[-1.05621]	[-1.60056]	[0.02419]
PPT(-2)	1.083259	0.035842	0.009880	0.017580	0.018776
	(1.44763)	(0.07326)	(0.15881)	(0.03369)	(0.34390)
	[0.74830]	[0.48926]	[0.06221]	[0.52182]	[0.05460]
C	604.9908	-8.494526	157.9416	15.35143	222.2101
	(1016.62)	(51.4461)	(111.526)	(23.6592)	(241.509)
	[0.59510]	[-0.16512]	[1.41619]	[0.64886]	[0.92009]
R-squared	0.998722	0.974721	0.369353	0.991531	0.817378
Adj. R-squared	0.997809	0.956664	-0.081109	0.985482	0.686934
Sum sq. resids	69467679	177896.8	836018.8	37623.93	3920388.
S.E. equation	2227.550	112.7249	244.3678	51.84037	529.1764
F-statistic	1093.832	53.98161	0.819942	163.9069	6.266112
Log likelihood	-220.9422	-146.3495	-165.6926	-126.9300	-185.0088
Akaike AIC	18.55537	12.58796	14.13541	11.03440	15.68070
Schwarz SC	19.09168	13.12427	14.67171	11.57070	16.21701
Mean dependent	53369.24	593.3004	319.4164	495.0228	1320.771
S.D. dependent	47585.51	541.4984	235.0224	430.2372	945.7633
Determinant resid covariance (dof adj.)		3.55E+23			
Determinant resid covariance		1.96E+22			
Log likelihood		-818.9656			
Akaike information criterion		69.91725			
Schwarz criterion		72.59877			
Number of coefficients		55			

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-960.5754	NA	2.43e+27	77.24603	77.48981	77.31364
1	-839.727	183.6201*	1.19e+24*	69.58181*	71.04446*	69.98749*