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Tax Revenue and the Nigerian Economy

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***Abstract:** This study examines tax revenue and the Nigeria economy from 2000 – 2017: A number of related studies have shown that tax revenue contributed to economic growth. Yet some researchers observed that tax is discriminatory in the sense that it is assessed on persons or property based on profits or income, the benefits derived by citizens from tax payment is without reference to the contribution of individual tax payers. The main objective of the study was to study the effect of tax revenue on economic growth in Nigeria. Secondary data were sourced from Central Bank of Nigeria Statistical Bulletin of various editions. The study adopted the ex-post facto research design while ordinary least square regression techniques was used to process the data gathered using E-view 8.0 software. The null hypotheses (Ho) were tested at 5% level of significance. the findings revealed that there is insignificant effect of tax revenue on economic growth under the period study and concluded that personal income tax and company income tax affect economic growth in Nigeria either negatively or positively. The study recommends among others that it beholds on Nigeria government to remove the problem of multiple taxation as the presence of multiple tax discourages entrepreneurship businesses in Nigeria.*

Keywords: Tax Revenue, Personal Income Tax, Company Income Tax and Gross Domestic Product.

1. INTRODUCTION

Taxation is one of the most important revenue generation mechanisms in any given economy. Government has the mandate to impose tax via its various regulations to generate revenue for running the affair of the nation (Nasira, Haruna & Abdullahi, 2016).

Tax is a compulsory payment made by all concerned to the government of a country from which essential services are rendered, without necessarily offering an explanation on how the money generated was spent or equating services with the money collected (Onwuchekwa & Aruwa, 2014).

An efficient and effective tax system is capable of ensuring the basic necessities and services in the country. Taxes are used to achieve economic growth, achieve equity in income and wealth distribution and maintain equilibrium in the economy (Nasira, Haruna and Abdullahi, 2016).

The level of tax to be paid by the citizens and the items to be taxed is determined by the government. Such decision according to Ngerebo & Masa (2012) is based on the cost of the projects or programmes government intends to execute, which is the principal determinant of the budget size. Government also judges the basis, rates, the category of citizens, and the time period to pay the tax, on the direction of the economy desired and government's perception of the standard of living of the citizens. Taxes therefore affect the expenditure size of government, the productivity and level of activities of business, the consumption pattern of individuals, the propensity to save and invest and the growth path of the economy. The extent to which the impact of taxation is felt is dependent on the level of compliance with tax payments which is further dependent on the level of tax literacy.

In Nigeria the incidence of tax evasion and avoidance by tax payers is high, leading to low level of government revenue which further reduces the level of government expenditure, culminating into a reduction in the income savings and expenditure of households and firms, leading to low level of economic activities and economic growth. This study is therefore intended to examine the impact of taxation on the growth of the Nigeria economy amidst high level of evasion and avoidance (Ojong, Ogar & Oka, 2016).

2. OBJECTIVES OF THE STUDY

The main objective of the study is to examine the effect of tax revenue on Nigeria economy. Specifically, the study examines the effect of tax revenue on economic growth as stated below:

i. To ascertain the effect of personal income tax on economic growth in Nigeria.
ii. To determine the effect of company income tax on economic growth in Nigeria.

3. RESEARCH QUESTIONS

In examining the effect of tax revenue in Nigeria, the following research questions are stated;

1. How does personal income tax contribute to economic growth in Nigeria?
2. Does company income tax have a positive effect on economic growth in Nigeria?

4. RESEARCH HYPOTHESES

In line with the above objectives the following null hypotheses were formulated:

H_{o1}: There is no significant effect of personal income tax on economic growth in Nigeria.

H_{o2}: There is no significant effect of company income tax on economic growth in Nigeria.

5. Review of Related Literature

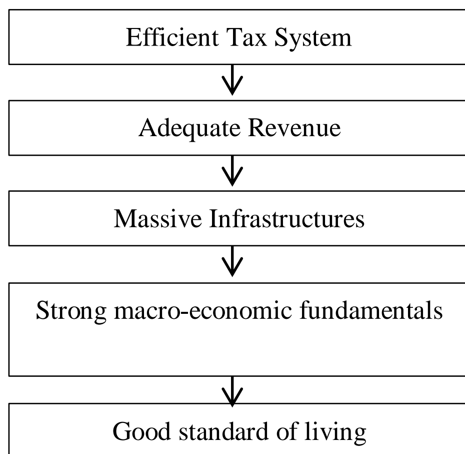
- **Conceptual Review**

Concept and Nature of Taxation in Nigeria

Taxation is seen as a burden which every citizen must bear to sustain his or her government because the government has certain functions to perform for the benefits of those it governs.

According to Adams (2012), taxation is the most important source of revenue for modern governments, typically accounting for ninety percent or more of their income. Taxation is seen by Aguolu (2011), as a compulsory levy by the government through its agencies on the income, consumption and capital of its profits, interests, dividends, discounts and royalties. It is also levied against company's profits, capital gains and capital transfers. Ezu and Okoh (2016) stresses that taxation is a concept and the science of imposing tax on citizens. According to him, the imposition of tax is expected to yield income which should be utilized in the provision of amenities, both social and security and create condition for the economic well-being of the society. He stressed that efficient tax system affords the government of adequate revenue which in turn leads to the provision of massive infrastructures and strong macro-economic fundamentals. He illustrated this concept thus:

Concept of Efficient Tax System



Source: *Ejoor (2013) as cited by Ezu and Okoh (2016), taxation policy and concept*

Objectives of taxation

The main purpose of tax is to raise revenue to meet government expenditure and to redistribute wealth and management of the economy (Ola, 2001; Jhingan, 2004; Bhartia, 2009). Anyanwu (1993) pointed out that there are three basic objectives of taxation. These are to raise revenue for the government, to regulate the economy and economic activities and to control income and employment. Also, Nzotta (2007) noted that taxes generally have allocation, distributional and stabilization functions. The allocation function of taxes entails the determination of the pattern of production, the goods that should be produced, who produces them, the relationship between the private and public sectors and the point of social balance between the two sectors. The distribution function of taxes relates to the manner in which the effective demand over economic goods is divided, among individuals in the society.

According to Musgrave and Musgrave (2004), the distribution function deals with the distribution of income and wealth to ensure conformity with what society considers a fair or just state of distribution. The stabilization function of taxes seeks to attain high level of employment, a reasonable level of price stability, an appropriate rate of economic growth, with allowances for effects on trade and on the balance of payments. Nwezeaku (2005) argues that the scope of these functions depends, inter alia, on the political and economic orientation of the people, their needs and aspirations as well as their willingness to pay tax. Thus the extents to which a government can perform its functions depend largely on the ability to design tax plans and administration as well as the willingness and patriotism of the governed.

Tax is discriminatory in the sense that it is assessed on persons or property based on profits or incomes, gain, the benefit derived by citizens from tax payment is without reference to the contribution of individual tax payers (Nightingale, 2000). In line with this, Ariwodola (2000) posits that it is accurate to say that the primary objective and purpose of taxation in most nations of the world is essentially to generate revenue for government expenditure on social welfare such as provision of defence, law and order, health services and education. Tax revenue can also be expended on capital projects otherwise called consumer expenditure, creating social and economic infrastructure which will improve the social life of the people (Angahar & Alfred, 2012). Other than facilitating the administrative function of government, taxation as the most potential source of revenue to the government of any nation, has played very crucial roles as an instrument of government's economic, social and fiscal policy.

Taxation is used for the purpose of discouraging certain forms of anti-social behaviour in the society. Taxation according to Musgrave and Musgrave (1980) can be extensively used in regulating the consumption pattern resulting in economic stabilization. Anti-social behaviour such as drinking of alcohol, smoking and pool betting can be controlled by imposition of higher taxes on production of such goods.

The resource allocation dimension of taxation policy is its role in promoting investment as a critical measure of ensuring a healthy economy through creation of new wealth. In Nigeria, government sometimes introduces tax incentives

and attractive tax exemptions as an instrument to woo and induce local and foreign investors in areas such as manufacturing of goods, export processing, oil and gas and utilities, which are critical and necessary for the economic development and growth of the nation (Angahar & Alfred, 2012).

The use of transfer payments and benefits to those members of the society who are less well-off according to Musgrave and Musgrave (1980) is to promote social equality. Taxation as a mechanism for income and wealth distribution holds that the burden of taxation should be heavier for the rich in the society than for the poor so that taxes collected are used to pay for social services for the less fortunate.

Harmonization according to Lekan and Sunday (2006) is said to be the modern objective of Economic community of West African States (ECOWAS). The idea of a single market in ECOWAS member nations is to provide for the free movement of goods/services, capital and people between member states. The philosophy behind this single market therefore suggests that these tax systems of member states should be harmonized. Generally, according to Ola (2004) taxation is a powerful and potential fiscal stabilizer employed by government of nations to plan development policies. It is a device according to Nightingale (2000) to induce economic development and favourable balance of payments.

Empirical Studies

Several empirical studies have been conducted on the impact of taxes on economic growth. Okafor (2012) investigated the impact of income tax revenue on the economic growth of Nigeria as proxied by the gross domestic product (GDP). The study adopted the ordinary least square (OLS) regression analysis technique to explore the relationship between the GDP (the dependent variable) and a set of federal government income tax revenue heads over the period 1981-2007. The regression result indicated a very positive and significant relationship between the components of tax revenue and the growth of the Nigeria economy.

Adereti, Sanni and Adesina (2011) studied value added tax and economic growth in Nigeria. Time series data on the Gross Domestic Product (GDP), VAT Revenue, Total Tax Revenue and Total (Federal Government) Revenue from 1994 to 2008 sourced from Central Bank of Nigeria (CBN) were analyzed, using both simple regression analysis and descriptive statistical method. Findings showed that the ratio of VAT Revenue to GDP averaged 1.3% compared to 4.5% in Indonesia, though VAT Revenue accounts for as much as 95% significant variations in GDP in Nigeria. A positive and significant correlation exists between VAT Revenue and GDP. Both economic variables fluctuated greatly over the period though VAT Revenue was more stable. No causality exists between the GDP and VAT Revenue, but a lag period of two years exists.

Akwe (2014) analysed the impact of Non-oil Tax Revenue on Economic Growth from 1993 to 2012 in Nigeria. To achieve this research objective, relevant secondary data were used from the 2012 Statistical Bulletin of the Central Bank of Nigeria (CBN). These data were analyzed using the Ordinary Least Squares Regression. The result from the test shows that there exists a positive impact of Non-oil Tax Revenue on economic Growth in Nigeria.

Onaolapo, Aworemi, and Ajala (2013) examined the impact of value added tax on revenue generation in Nigeria. The Secondary Source of data was sought from Central Bank of Nigeria statistical Bulletin (2010), Federal Inland Revenue Service Annual Reports and Chartered Institute of Taxation of Nigeria Journal. Data analysis was performed with the use of stepwise regression analysis. Findings showed that Value Added Tax has statistically significant effect on revenue generation in Nigeria.

6. METHODOLOGY

This study used the time serial *ex-post facto* and analytical research design to ascertain the relationship between tax revenue and economic growth in Nigeria. According to Esene & Akpokerere (2009), "*Ex-post facto* study or after the fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the researcher". Thus, the data for the study were collected from sources that the researcher has no ethical and statutory powers to manipulate, thus the data were collected and used in their original state.

The data for this study were mainly secondary source which was collected from the Statistical Bulletin of the Central Bank of Nigeria (CBN) and National Abstract of the National Bureau of Statistics (NBS). The data were drawn from 2000 – 2017, the choice of the period by the researcher results from the fact that year (2000) was the first full year Nigerian return to democracy while the limitation year (2017) was because data to be accessed are available up to that year.

Model Specification

The model of analysis follows a linear combination of explanatory time series variables. The study adopted and modified the model Nasiru, Haruna and Abdullahi (2016) in their "evaluating the impact of value added tax on the economic growth of Nigeria". This study adopts a modified version of the model, in order to take care of those variables not captured in the previous study. The modified version of the model is specified:

$$GDP = f(PIT, CIT) \quad (1)$$

The equation from the model becomes,

$$GDP_t = \beta_1 + \beta_2 PIT_t + \beta_2 CIT_t + \sum t \quad (2)$$

Where;

GDP = Gross Domestic Product per capital

PIT = Personal Income Tax

CIT = Company Income Tax

$\sum t$ = Random Error Term

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β = Constant

7. DATA PRESENTATION AND ANALYSIS

Table 4.1: Gross Domestic Product, Personal Income Tax and Company Income Tax

Year	Gross Domestic Product	Personal Income Tax	Company Income Tax
2000	4,537,637.2	37,788.5	51,100
2001	4,685,912.2	59,416.0	58,700
2002	5,403,006.8	89,606.9	89,100
2003	6,947,819.9	118,753.5	114,800
2004	11,411,066.9	134,195.3	130,100
2005	14,610,881.5	122,737.8	162,200
2006	18,564,594.7	125,228.9	244,900
2007	20,657,318.0	30,570.3	327,000
2008	24,296,329.0	35,303.7	416,800
2009	24,712,670.0	461,224.5	568,100
2010	29,108,024.4	420,454.8	600,000
2011	31,837,360.2	509,290.9	659,596
2012	32,156,787.6	548,120.3	816,520
2013	64,567,897.8	568,251.6	876,500
2014	68,896,987.7	576,562.8	911,234
2015	72,456,789.2	558,620.3	916,520
2016	73,862,926.3	578,240.4	948,752
2017	75,431,872.5	596,469.5	963,862

Source: *Central Bank of Nigeria Statistical Bulletin 2000 – 2017.*

Table 4.2: Summary of Descriptive Statistics for the Variables in the Models

	GDP	PIT	CIT
Mean	20964093	232924.5	367529.7
Median	19610956	123983.4	285950.0
Maximum	64567898	568251.6	876500.0
Minimum	4537637.	30570.30	51100.00
Std. Dev.	16045995	213164.1	287847.1
Skewness	1.348890	0.593245	0.512057
Kortosis	4.872912	1.557856	1.821031
Jarque-Bera	6.291728	2.034422	1.422621
Probability	0.043030	0.361602	0.491000
Sum	6.291728	3260943.	5145416.
Sum Sq. Dev.	0.043030	5.91E+11	1.08E+12
Observation	18	18	18

Source: *Computer output data using E-views*

Diagnostic Test of the Data Set

Before running the models, the data sets were tested for the classical linear regression model assumptions. Heteroskedasticity test and Ramsey Reset test were performed in order to validly test the hypotheses and estimate the coefficient.

Test of Heteroskedasticity

One important assumption for classical linear regression model is that the disturbances appearing in the population regression are homoscedastic, which means the variance of the error term is consistent. If errors do not have a constant variance (not homoscedastic), they are said to be Hetroskedastic (Brooks, 2008). To check the problem of heteroskedastisty, the researcher used Breusch-Pagan test for heteroskedastisty based on the null that there is no hetroskedastisty problem in the model.

Result of Hypothesis One

Restatement of research hypothesis

H_o: There is no significant effect of personal income tax on economic growth in Nigeria.

Table 4.3 presents the result on the effect of personal income tax on economic growth in Nigeria. The result shows that personal income tax has insignificant negative effect on gross domestic product. The coefficient of the constant -997915.8 signifies that holding personal income tax, constant, Nigeria gross domestic product would stand at -997915.8

Table 4.3: Effect of Personal Income Tax on Gross Domestic Product

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-997915.8	7440802.	-0.134114	0.8963
PIT	-15.10968	23.22204	-0.650661	0.5315
R-squared	0.843504	Mean dependent var		20964093
Adjusted R-squared	0.773950	S.D. dependent var		16045995
S.E. of regression	7629027.	Akaike info criterion		34.80527
Sum squared resid	5.24E+14	Schwarz criterion		35.03351
Log likelihood	-238.6396	Hannan-Quinn criter		34.78414
F-statistic	12.12733	Durbin-Watson stat		1.809513
Prob. (F-statistic)	0.001138			

Source: *Computer output data using E-views*

The personal income tax coefficient of -15.10968 suggests that a unit increase in personal income tax would decrease Nigeria gross domestic product by a factor of 15.109.

The value of the Adjusted R-squared which has the predisposition of eradicating the influence of the number of independent variables involved is 0.773950. This suggests that 77.39% variation in Nigeria gross domestic product was due to changes in personal income tax. This suggests that changes in personal income tax have to a high extent improved Nigeria gross domestic product from 2000 to 2013.

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as indicated in Table 4.3 is 12.12. These values are greater than tabulated F-statistic of 3.48, and by implication, the model in statistical term has a goodness of fit. Furthermore, the probability of the F-statistic is 0.001138 and less than 0.05 (5% level of significance). The Durbin Watson statistic value is 1.80 quite close to 2.0. This suggests that there is no autocorrelation problem in the model.

The OLS estimation in Table 4.3 depicts that personal income tax has negative effect on Nigeria gross domestic product. However, the effect is not statistically significant. In the light of this, the null hypothesis that there is no significant effect of personal income tax on gross domestic product in Nigeria is rejected since the probability of 0.001138 < 0.05

Result of Hypothesis Two

Restatement of research hypothesis

H_o: There is no significant effect of company income tax on economic growth in Nigeria.

Table 4.4 reveals the outcome on the effect of company income tax on economic growth in Nigeria. The result depicts that company income tax have negative but insignificant effect on economic growth. The coefficient of the constant -21.42878 entails that if company income tax are kept constant, company income tax would stand at -21.42878.

The company income tax coefficient of -1.82E-05 indicates that a percentage increase in company income tax would decrease economic growth by a factor of 1.82.

Table 4.4: Effect of Company Income Tax on Inflation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.42878	22.81212	-0.939359	0.3838
CIT	-1.82E-05	1.77E-05	-1.026433	0.3443
R-squared	0.481880	Mean dependent var		12.03571
Adjusted R-squared	-0.122594	S.D. dependent var		3.895285
S.E. of regression	4.127153	Akaike info criterion		5.968612
Sum squared resid	102.2003	Schwarz criterion		6.333787
Log likelihood	-3378028	Hannan-Quinn criter		5.934808
F-statistic	0.797189	Durbin-Watson stat		2.419174
Prob. (F-statistic)	0.617257			

Source: *Computer output data using E-views*

he value of the Adjusted R-squared which has the predisposition of eradicating the influence of the number of independent variables involve is -0.122594. This suggests that -12.25% variations on economic growth in Nigeria was due to changes in company income tax. This suggests that changes in company income tax have not in any way reduced economic growth in Nigeria during the period of the study.

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as indicated in Table 4.4 is 0.79. These value is less than tabulated F-statistic of 3.48, and by implication, the model in statistical term has no goodness of fit. Furthermore, the probability of the F-statistic is 0.61 and higher than 0.05 (5% level of significance). The Durbin Watson statistic value is adequate at 2.4 suggesting no autocorrelation problem in the model.

The regression result in Table 4.4 reveals that company income tax has negative effect on economic growth. Nevertheless, the effect is not statistically significant. To this effect, the null hypothesis that there is no significant effect of company income tax on economic growth in Nigeria is accepted since probability of 0.617257 > 0.05.

8. CONCLUSION

The study examined the link between tax revenue and economic growth in Nigeria. The statistical result offer tantalizing evidence that personal income tax and company income tax is an instrument of economic growth in Nigeria. It was established in this study that personal income tax and company income tax affect economic growth in Nigeria either negatively or positively. The implication is that if those variables are neglected by the government in their quest to increase economic growth in Nigeria, it might be difficult for government to achieve its fiscal policy target.

9. RECOMMENDATIONS

- The findings revealed that personal income tax affect gross domestic product negatively. Therefore, it beholds

on Nigeria government to remove the problem of multiple taxation. This include the withholding taxes on dividend, interest etc. The presence of multiple taxes also discourages entrepreneurship as businesses as subjected to different kind of taxes (which in most case are not approved). These taxes are levied across the three different tiers of government (i.e. at the federal, state and local government levels). These multiple taxes negatively affect business performance and sometimes lead to closure of business organizations. This impact negatively on economic growth of the country.

- Since company income tax have negative effect on economic growth; Central Bank of Nigeria should not hesitate to use the necessary monetary policy instrument such as reducing the monetary policy rate, cash reserve ratio and liquidity ratio thereby reducing the interest rate charged by banks so as to attract investment in Nigeria.

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