The Impact of Tax Revenue on Economic Growth: Evidence from Nigeria

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Abstract: The study examined the impact of tax revenue on the Nigerian economy. The objectives of the study were: to examine the relationship between petroleum profit tax and the Nigeria economy, the impact of company income tax on the Nigerian economy and the effectiveness of non oil revenue on the Nigerian economy. Data were sourced from Central Bank Statistical Bulletin and extracted through desk survey method. Ordinary least square of multiple regression models was used to establish the relationship between dependent and independent variables. The finding revealed that there is a significant relationship between petroleum profit tax and the growth of the Nigeria economy. It showed that there is a significant relationship between non oil revenue and the growth of the Nigeria economy. The finding also revealed that there is no significant relationship between company income tax and the growth of the Nigeria economy. It was recommended that government should endeavour to provide social amenities to all nooks and crannies of the country. Also that government should engage in a complete re-organization of the tax administrative machineries; in order to reduced tolerable problems of tax evasion and avoidance and finally, to enhance the tax base of government, employment opportunities should be created and a good environment for entrepreneurship and innovation to thrive made using tax proceeds.

Keywords: Taxation, Economic Growth, Company Income Tax, Petroleum Profit Tax Non Oil Revenue Tax Compliance, Tax Evasion and Tax Avoidance

I. Introduction

The need for tax payments has been a phenomenon of global significance as it affects every economy irrespective of national differences (Oboh & Isa, 2012). Taxation is an age long event. The need for its payment was emphasized by Jesus in “Mathew 22 vs 17-21” when the Pharisees asked Him whether it was lawful to pay taxes or not. His reply ‘render therefore unto Caesar the things which are Caesar’s and to God the things that are to God’s’ suggests that tax payments should be compulsory, non negotiable, binding and obligatory on all citizens of a country regardless of religion and social status. What then is tax?

Tax is a compulsory charge imposed by a public authority on the income and properties of individuals and companies as stipulated by the government Decree, Acts or Laws irrespective of the exact amount of service of the payer in return (Omotoso, 2001). Tax payment is not for the direct exchange of good and/or services but a transfer of resources and income from the private sector to the public sector in order to achieve some of the nation’s economic and social goals (Okpe, 2000). Such goals may be in for of high level of employment, stable prices, rapid growth of gross national product, favourable balance of payments position, promotion of a free market economy, satisfaction of collective demands, equitable income redistribution, promotion of infant industries, the encouragement of priority sector, encouragement of balance population development and promotion of labour and capital development (Onoh, 2013).

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 and 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 businesses, 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 Nigerian economy amidst high level of evasion and avoidance.
Objectives of the Study
The general objective of the study was to examine the effect of taxation on the growth of the Nigerian economy. The specific objectives include:
(i) To examine the relationship between petroleum profit tax and the Nigerian economy.
(ii) To examine the impact of personal income tax on the Nigerian economy.
(iii) To ascertain the effectiveness of company income tax on the Nigerian economy.

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

$H_0$: There is no significant relationship between petroleum profit tax and gross domestic product.

$H_0$: There is no significant relationship between personal income tax and gross domestic product.

$H_0$: There is no significant relationship between company income tax and gross domestic product.

In order to achieve the above objectives, this paper is divided into five different sections. Section one is the introduction. It captures key elements relating to taxation and the growth of the Nigerian economy. Section two is on theories underlying taxation and how they relate with economic growth and literature review. Section three covers research methodology. Section four focuses on data presentation, analysis and discussion of findings relating to this study. Section five is on summary, conclusion and recommendations emerging from the study.

II. Literature Review Theoretical Framework

Theoretical framework
This study review three theories of taxation: the cost of service theory, the benefit theory and the socio-political theories of taxation. According to the cost of service theory, the cost incurred by government in providing certain services to the people must collectively be met by the people who are the ultimate receivers of the service (Jhingan, 2009). This theory believes that tax is similar to price. So if a person does not utilize the service of a state, he should not be charged any tax. Some criticisms have been leveled against this theory. According to Jhingan (2009), the cost of service theory imposes some restrictions on government services. The objective of government is to provide welfare to the poor. If the theory is applied, the state will not undertake welfare activities like medical care, education, social amenities, etc. Furthermore, it will be very difficult to compute the cost per head of the various services provided by the state, again, the theory has violated the correct definition and tenets of tax, finally the basis of taxation as propounded by the theory is misleading.

The limitations inherent in the cost of service theory led to the modernization of the theory. This modification gave birth to the benefit received theory of taxation. According to this theory, citizens should be asked to pay taxes in proportion to the benefits they receive from the services rendered by the government. The theory assumes that there is an exchange relationship or quid pro quo between tax payers and government. The government confers some benefits on tax payers by providing social goods which the tax payers pay a consideration in the form of taxes for using such goods. The inability to measure the benefits received by an individual from the services rendered by the government has rendered this theory inapplicable (Ahuja, 2012).

The socio-political theory of taxation states that social and political objectives should be the major factors in selecting taxes. The theory advocated that a tax system should not be designed to serve individuals, but should be used to cure the ills of society as a whole (Bhartia, 2009). This study is therefore anchored on this theory.

The nature and scope of taxation
Taxation is a compulsory but non-penal levy by the government through its agent on the profits, income, or consumption of its subjects or citizens. It is also viewed as a compulsory and obligatory contribution made by individuals and organization towards defraying the expenditure of government (Dandago and Alabede 2001). Kotler (1975) posits that it is a charge levied by the government on the income or wealth of a person or corporate organization for the common benefit of all. The term does not include specific charges made against a particular person or properties for current or permanent benefits and privileges accruing only to those paying such charges. Similarly, Ogundele (1999) defines taxation as the transfer of real economic resources from private sector to the public sector to finance public sector activities. It may be inferred from the foregoing that taxation is the transfer of financial resources from private economic agents like households and corporate bodies, to the public sector to finance the development of the society.

Going by the definition of taxation, Nzotta (2007) identified four key issues which must be understood for taxation to play its functions in any society. First, a tax is a compulsory contribution made by the citizens to the government and this contribution is for general common use. Secondly, a tax imposes a general obligation on the tax payer. Thirdly, there is a presumption that the contribution to the public revenue made by the tax...
payer may not be equivalent to the benefits received. Finally, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family. Thus, it is evident that a good tax structure plays a multiple role in the process of economic development of any nation which Nigeria is not an exception (Appah, 2010).

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 (2006), 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. Nwaezaku (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/incomes or 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.

Ogbonna and Ebimobowei (2012) investigated the impact of petroleum profit tax on the economic growth of Nigeria. To achieve the objective of this paper, relevant secondary data were collected from the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS) from 1970 to 2010. The secondary data collected from the relevant government agencies in Nigeria were analysed with relevant econometric tests of Breusch-Godfrey Serial Correlation LM, White Heteroskedasticity, Ramsey RESET, Jarque Bera, Johansen Co-integration and Granger Causality. The results show that there exists a long run equilibrium relationship between economic growth and petroleum profit tax. It was also found that petroleum profit tax does granger cause gross domestic product of Nigeria.

III. Research Methodology

Research design
This study adopts the exploratory and ex-post facto design. The exploratory design will be used to gather relevant materials from text books, journal articles and so on while the ex-post facto design was adopted on the basis that it does not provide the study an opportunity to control the variables mainly because they have already occurred and cannot be manipulated.

Method and sources of data
The study predominantly used secondary source of data. These data were time series data collected using the desk survey approach from text books, journals, internet, CBN statistical bulletin and other relevant government publications. The study covers the period from 1986 to 2010.

3.4 Techniques of data analysis
In analyzing the data gathered regressions model was employed to establish the relationship between dependent and independent variables. The study made use of economic approach in estimating the relationship between taxation and economic growth. The Ordinary Least Square (OLS) technique was employed in obtaining the numerical estimates of the coefficient in different equation. The ordinary least square method was chosen because it possesses some optimal properties. Its computational procedure is fairly simple and it possesses the BLUE property.

3.5 Model specification
The functional relationship between tax revenue and the economic growth of Nigeria is expressed thus:

\[ \text{GDP} = F(\text{PPT}, \text{CIT}, \text{NOR}) \]

Obtaining the OLS model from the above expression, we had:

\[ \text{GDP} = \beta_0 + \beta_1 \text{PPT} + \beta_2 \text{CIT} + \beta_3 \text{NOR} + \epsilon \]

Where:

- GDP = Gross Domestic Product
- PPT = Petroleum Profit Tax
- CIT = Company Income Tax
- NOR = Non oil Revenue
IV. Data Analysis And Discussion Of Findings

4.2 Analysis of data

Table 4.2: Regression results Dependent variable: LGDP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>t-Stat</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.514769</td>
<td>0.742064</td>
<td>3.388886</td>
<td>0.0028</td>
</tr>
<tr>
<td>LPPT</td>
<td>-0.043859</td>
<td>0.132579</td>
<td>-0.330792</td>
<td>0.7441</td>
</tr>
<tr>
<td>LNO</td>
<td>1.007663</td>
<td>0.041708</td>
<td>24.16692</td>
<td>0.0000</td>
</tr>
<tr>
<td>LCT</td>
<td>0.083840</td>
<td>0.127865</td>
<td>0.655686</td>
<td>0.5191</td>
</tr>
</tbody>
</table>

Source: Computer Software

$R^2 = 0.974457$

$R^2$ (adj) = 0.970808

SER = 0.322139

F- stat = 267.0448

DW = 1.757822

Significant at 1% level

The regression results of effect of taxation on the growth of Nigerian economy (1986-2010). The goodness of fit of the model as indicated by adjusted R-square shows a good fit of the model. An adjusted R-Square value of 0.970808 or 97% indicated that the model fits the data well, the total variation in the observed behaviour of Gross Domestic Product is jointly explained by variation in Petroleum Profit Tax (PPT), Non Oil Revenue (NOR) and Company Income Tax up to 97%. The remaining 3% is accounted for the stochastic error term. To test for the overall significance of the model, the ANOVA of the F-statistics is used. To test for the individual statistical significant of the parameters, the t-statistics of the respective variables were considered. Considering their probability values which were automatically generated during the computation process by the computer software, the constant term is significant at 1% level and NOR is significant at 1% level.

The a priori expectations about the signs of the parameter estimates were also considered. Here, NOR and CIT entered the model with a positive sign by interpretation, a one percent increase in NOR and CIT amounted to a 1.00%, and 0.08% increase in the Nigeria economy respectively, ceteris paribus. The variables in the growth equation indicate their economic importance on growth of the Nigerian economy, given the data set. One also tests for auto correlation in the residual of the model. Here the reports DW statistic is used to compare with the table DW values. The decision rules for a non auto correction in the residuals of the model is that the calculated DW value must lie between the du and 4-du since k = 4 variable and n = 25 years then reading up from DW table it is shown that du = 1.77 and 4-du = 2.23, du = 1.04 and 4- du = 2.96. Since the calculated DW (1.757822) lies outside du and 77 and 2.23), one could report that the model is not free from serial correlation of residual. Therefore the estimates should be taken with caution.

4.3 Test of hypothesis

In order to test the already stated hypothesis in chapter one, specify the following decision rule.

DECISION RULE

The decision rule is to reject the null hypothesis if t-calculated is > tabulated accept the null hypothesis if the t-calculated is < t-tabulated.

Hypothesis one

t-calculated for PPT = - 0.330792
t-critical at 21 = -2.518

Based on this result (-0.333>-2.51) and our decision rule, the null hypothesis was rejected, we therefore concluded that there is a significant relationship between Petroleum Profit Tax and the growth of the Nigerian economy.

Hypothesis two

t-calculated for NOR = 24.16692
t-critical at df 0.01 = 2.831

Based on this result and our decision rule the alternate hypothesis was upheld and concluded that there is a significant relationship between Non Oil Revenue and the growth of the Nigerian economy.

Hypothesis three

t-calculated for CIT = 0.655686
t-critical at 21 = 2.518
The Impact Of Tax Revenue On Economic Growth: Evidence From Nigeria

Based on these result and our decision rule the null hypothesis is upheld and concluded that there is no significant relationship between Company Income Tax and the growth of the Nigeria economy.

4.4 Discussion of the findings
The study empirically examined the effect of taxation on the growth of the Nigerian economy. It showed the relationship between incorporated variable (PPT NOR, CIT). Non Oil Revenue contributed to the growth of the economy in Nigeria, Company Income Tax had a positive impact on the performance of Nigerian economy. The results refuted that a rise in the Non Oil Revenue leads to an increased in economy growth. The findings of this study are in agreement with the finding of Okafor (2012) who investigated the impact of income tax revenue on the economic growth of Nigeria, adopting the ordinary least square (OLS) regression analysis technique to explore the relationship between 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. These findings have also been supported by Akwe (2014) who analyzed the impact of Non-oil Tax Revenue on Economic Growth from 1993 to 2012 in Nigeria. The study used the Ordinary Least Squares Regression technique to analyzed the data collected for the study. The result from the test shows that there exists a positive impact of Non-oil Tax Revenue on economic Growth in Nigeria.

V. Summary Of Finding, Conclusion And Recommendations

5.1 Summary of findings and conclusion
Major findings of this study revealed that there is a significant relationship between Petroleum Profit Tax and the growth of the Nigerian economy; there is a significant relationship between Non Oil Revenue and Gross Domestic Product and there is no significant relationship between Company Income Tax and Gross Domestic Profit.

Apparently, the place of taxation in a nation building has been described as irreplaceable. According to economic analysis, taxation remains a strong socio-political and economic tool for economic growth and national prosperity. Although the issue of tax leakages is of global concern the Nigerian situation seems inimicable when viewed against the scale of corrupt practices prevalent in Nigeria. As pointed out by Reynolds (1963), since tax is a principal source of government revenue, if persons are able to escape by legal or illegal means, the theoretical equity of the tax to a large extent is lost, and so, tax evasion and avoidance to a large extent depress the effectiveness of the government in enhancing economic growth and development. (Sanin, 2005 and Nzotta, 2007).

Also, the provision of basic infrastructure is quite necessary for development and growth of any society, and it is only by a good and an efficient tax system can a nation achieve its social responsibility. However, the poor state of the present economic growth rate in Nigeria is pointing to the direction of tax leakages in the form of avoidance and tax evasion (Kiable and Nwokah, 2009) which the government could minimize if proper tax reform strategies are established. In addition, this study reveals that the most fundamental challenges with respect to tax leakages is expedited by the lack of good governance on the part of the government which highly discourages the populace from complying willingly with their tax obligations.

5.3 Recommendations
The following policy recommendations were proffered from the findings of this study.
(i) Government should endeavour to provide social amenities to all nooks and crannies of the country as this will boost the level of tax compliance in Nigeria.
(ii) To enhance the tax base of government, employment opportunities should be created and a good environment for entrepreneurship and innovation to thrive made using tax proceeds.
(iii) Also the government should engage in a complete re-organization of the tax administrative machineries in order reduce tolerable problems of tax evasion and avoidance.
(iv) Finally, the culture of good governance should be embraced by the government so as to secure the loyalty of the populace to good tax culture.

References

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