

Non-oil tax revenue and budget implementation in Nigeria (1997-2016)

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ABSTRACT: The study investigated the effect of personal and company income taxes on total government expenditure. The study covered time period spanning from 1997 to 2016. Data for the study were sourced from Central Bank of Nigeria Statistical Bulletin, as well as the data base of National Bureau of Statistics. The study employed multivariate time series estimation techniques such as the co-integration regression and error correction model (ECM) estimation following pre-test such as unit root test and co-integration test. Result revealed that on the short run, personal income tax exert inconsequential positive influence on total government expenditure 0.075747 ($p = 0.7140 > 0.05$), but on the long run the impact of personal income tax on total government expenditure become negative though no significant, -0.035629 ($p = 0.9162 > 0.05$); while company income tax exert unimportant positive effect on total government expenditure both on the short run 5.096910 ($p = 0.3082 > 0.05$) and long run 6.034018 ($p = 0.0613 > 0.05$). The study concluded that revenue generation from non-oil taxes in Nigeria do not contribute substantially to maintaining and sustaining full budget implementation in terms of government expenditure.

Keywords: Budget implementation, company income tax, non-oil tax revenue, personal income tax.

INTRODUCTION

Budget implementation is the second to the last stage of the budgeting procedure before the control stage. This includes the real usage or application of public funds in carrying out the activities and projects that have been numbered in the budget. Budgeting has been in practice in Nigeria and definitely other countries for a long time, to support the policy process and planning and also, to provide the basis for monitoring income and spending (Sheffrin, 2003). The major source of anticipated revenue to back up budgetary expenditure by government is from indirect taxation because of the difficulties in the assessment and collection of direct taxes from taxable individuals. The inefficiency of tax officials and the corruption of some of them make it difficult for adequate revenue to be realized by government through direct taxes (Oluba, 2008). This possibly explains why the government shows great concern for a channel through which funds can be made accessible to achieve set goals for the

society (Fagbemu and Noah, 2010). Government needs money to be able to perform its social responsibilities to the public and these social duties include but not limited to the establishment of infrastructure and social services as contained in the budget. Relative to this, Murkur (2001) stated that, meeting the needs of the society calls for enormous funds which individual or society cannot fund and one medium through which fund is derived is through taxation. Tax is one of the major sources of government revenues all over the world. Government uses tax incomes to present their traditional purpose, such as the establishment of public goods, safeguarding of law and order, defence against external aggression, regulation of trade and business to ensure social and economic preservation (Azubike, 2009; Edame, 2008). Tax revenue plays a vital role in promoting economic activity, growth and development.

In Nigeria, non-oil proceeds has accounted for a small

percentage of total government revenue over the years. This is because the majority of revenue required for developmental purposes is generated from oil. Crude oil export has continued to account for over 80% of the total federal government revenue, while the remaining 20% is generated through non-oil sector in which taxation (direct and indirect) is a part (CBN, 2010). Moreover, non-oil revenue as a source for financing developmental activities in Nigeria has been a problematic issue, primarily because of various forms of resistance, such as evasion, avoidance and corrupt practices. Also, despite the contribution of non-oil revenue, federal government independent revenue and foreign inflows in the form of grants, and financial aids from developed countries and multinational institutions, yet the country overall economic performance have been disappointing in the last few decades. Reasons while Elbadawi and Mwega (2010) and Ekpo (2012) describe Nigeria's growth performance as slow, below expectation, tragic and of crisis proportion.

As noted by Yakubu (2016), in spite of the tax revenue and expenditure stated yearly by the government, 80% of the population live in poverty, high unemployment rate, and the physical state of the nation in terms of infrastructure and social amenities is regressive. This is evident in the lack of electricity supply, portable drinking water, basic health care delivery, bad roads, just to mention but a few. More so, some laxities in the management of non-oil revenue resources like the company income tax and custom and excise duties were encouraged as a result of the oil boom (Onwuchekwa and Aruwa, 2014).

Taxes from oil form the bulk of government revenue with the highest contribution of 94.7% in 2012 because the oil sector became the mainstay of the Nigerian economy (Yakub, 2016). Oil has dominated Nigeria's revenue structure. It has contributed for over 90 per cent of the revenue profile of Nigeria in the last two decades (Oduola, 2006; Yakub, 2016). Rather than improving the existing revenue base, fiscal management has transited from one primary product-based to another with relative reduction of the contribution of taxation to total government revenue and budget implementation. This neglect of other sectors has exposed Nigeria economy to the difficulties of the international oil market. This calls for an urgent need in the improvement of the tax system to enhance the evaluation of the performance and facilitate adequate budget planning and implementation.

Though various studies have been carried out on tax structures in Nigeria, drawing critical analysis of the contributions of oil revenue on budget implementation, the present study is unique as it examined the contributions of non-oil taxes to budget implementation and the loopholes that have been responsible for rendering the budget implementation ineffective in Nigeria, thereby not achieving the desired objectives.

LITERATURE REVIEW

Conceptual review

Budget

A budget is a financial plan expressed in quantitative, usually monetary terms that covers a specified period of time usually one year (Ogboru, 2016). It can also be described as an overall plan of operations showing how resources are to be acquired and used over a specified time interval (Sehu, 1997). The preparation and use of budgets therefore involve the development of a set of estimates of future costs and revenues in a form which will coordinate the activities of the organisation in accordance with selected objectives, and will serve as a standard for cost control. A budget may therefore include income, expenditure and employment of capital. Budgeting is not simply an accounting exercise but a management function as well, and for this reason, the monetary statement of plans for the year also includes a statement of objectives that are to be accomplished during the year.

Budget implementation

Budget may be considered the high way map which shows the roads to reach the desired destination. It is the administration of first full declaration of its priorities, procedures and offers for meeting the national needs. Government budget is a quantitative and qualitative statement of estimates of in-flows and out-flows that are expected to be realised and incurred respectively in a particular fiscal year (Ogboru, 2016). Budget in the public sector is a document or a collection of documents that denotes the financial condition of the government (Turn, 2006). A budget is prospective in the sense that it refers to predictable future revenue and expenditure. In the Federal Government and State Government year, the budget is greatly limited in legal status. It is the official reference of the President to the congress. In other to provide for accountable government, budgeting is generated to a cycle. The cycle allows for the system to absorb and respond to new information and in doing so the government is held accountable for its action though it should be known that many factors curtail the extent to which the president can make major modifications in the budget.

Oil revenue

Nigeria is a developing country whose major export is crude oil. Oil revenue is the main source of government revenue in Nigeria (Anfofum, 2011; Ogbonna and

Ebimobowei, 2012). However, the overwhelming evidence of positive impact of oil revenue on economic development in Nigeria cannot be overemphasized. It is made up of:

1. Crude oil and gas sale.
2. Oil taxes. This include, royalties, petroleum profit tax, rent and others.

Non-oil revenue

This is the second class of revenue to the federation account. These are revenue that are not derived from or associated with oil. They include; companies income tax (CIT), Personal Income Tax (PIT), Custom and Excise Duties (CED), Valued Added tax (VAT), Levies and Others.

Personal income tax: Personal income tax is Pay as you Earn (PAYE) basis. That is, the tax payable depends on how much is earned by the tax payer. The tax is easy to collect from tax payers because it is taken from the source by the appropriate tax authorities (CISLAC and Abu, 2012). Research from different scholars indicated that with all exertions through various tax reforms by Nigerian government to increase tax revenue over the years, prior statistical indication has proven that the input of income taxes to the government's total revenue remained constantly low and is relatively shrinking. Nevertheless, of all the taxes, personal income tax has persisted to be the most disappointing, nonperforming, unsatisfactory and problematic in Nigerian tax system (Asada, 2005; Kiabel and Nwokah, 2009; Nzotta, 2007; Odusola, 2006).

Companies income tax: Companies Income Tax Act, 1990 is the current enabling law that governs the collection of taxes on profits made by companies operating in Nigeria apart from companies engaged in petroleum exploration activities. This tax is payable for each year of assessment of the profits of any company at a rate of 30% (Onwuchekwa and Aruwa, 2014). According to Ola (1988), companies' income tax in Nigeria does not amount up to appropriate standards. If good old tests of equity, certainty, convenience and administrative efficiency are applied, Nigeria will score low considering the following points: Due to inadequate monitoring, persons in the self-employed and unquoted private companies evade taxes. In a study conducted by Festus and Samuel (2007) on company income tax and the Nigerian economy, they established that company income tax is a major source of revenue in Nigeria but non-compliance with tax laws and regulations by tax payers is deep in the system because of weak control. There is the need for a tax reform in Nigerian.

Empirical review

Widmalm (2001) examined the connection between taxation mix and budget implementation in Greece from 1965-1990 using cross sectional data for 23 OECD countries by looking particularly if there is any evidence that taxation variables have a causal role in the process of budget implementation. He found that tax structure affects budget implementation, specifically the tax revenue raised by taxing personal income which has a negative correlation with budget implementation.

Musaga (2007) analysed the effects of tax revenue on budget implementation in Uganda's experience for the period 1987-2005. From the study, tax revenue was found to have had an impact on budget implementation of the country, with direct taxes having a positive effect while indirect taxes had a negative impact.

Arisoy and Unlukaplan (2010) considered the link between direct and indirect taxes and economic growth, using data from 1968-2006. Ordinary least square econometric technique was used and it was found that actual output is positively related to indirect tax revenue. They resolved that indirect taxes are significantly associated with economic growth in Turkey.

Akwe (2014) studied the impact of non-oil tax revenue on budget implementation from 1993 to 2012 in Nigeria. Secondary data were used from the 2012 Statistical Bulletin of the Central Bank of Nigeria (CBN). The data were analysed using the Ordinary Least Squares Regression. Result from the test shows that there exists a positive relationship between non-oil revenue and budget implementation in Nigeria.

Monakgisi (2015) evaluate capital budgeting processes for public sector development projects in South Africa. A qualitative research was done where interviews were held with key stakeholders involved with capital investment authorizations and management in the South African State Owned Entities (SOE) to find out what capital budgeting procedures are followed by the SOEs. Even with the use of capital budgeting processes within the public sector entities, there are variances in the application for each stage of the process i.e., identification, selection, authorization, implementation and control and post audit stages. The problems range from political meddling; lack of detailed planning of the project due to urgency of projects; implementation of project before the assessments are done and poor monitoring by the public offices during implementation and post completion of capital investment projects.

Akhor and Ekundayo (2016) observed the impact of indirect tax revenue on economic growth in Nigeria. The study used value added tax revenue and custom and excise duty revenue as independent variables and budget implementation was proxy with real gross domestic product as the dependent variable. The study employed secondary data collected from Central Bank of Nigeria

statistical bulletin for the period covering 1993 to 2013 for the empirical analysis using the convenient sampling techniques. The data were analysed using descriptive statistics, correlation, unit root test, co-integration test and error correction model regression. The result revealed that value added tax had a negative and significant impact on real gross domestic product. In the same vein, custom and excise duty had a negative and weakly significant impact on real gross domestic product.

METHODOLOGY

Model specification

In order to examine the effect of non-oil taxes on budget implementation, this study adapted linear model from Garba (2014). The model captured the influence of personal income tax, and company income tax. This is represented in functional and linear forms as:

Functional representation:

$$\text{TEXP} = f(\text{PIT}, \text{CIT})$$

Linear representation:

$$\text{TEXP}_t = \delta_0 + \delta_1 \text{PIT}_t + \delta_2 \text{CIT}_t + \mu_{it} \quad \text{--- (3.2)}$$

Where: TEXP = Totals Government expenditure (Measure of budget implementation), PIT = Personal income tax, CIT = Company income tax, U = Stochastic error term.

Source(s) of data and method of analysis

Data for this study were collected from the Central Bank of Nigeria Statistical Bulletin and Federal Inland Revenue Service (FIRS), as well as Nigeria's Budget document from 1997 to 2016. Data collated were analysed using Descriptive Analysis correlation analysis, Unit Root Analysis, Co-integration Regression Result, and Parsimonious ECM Estimation.

RESULTS AND DISCUSSION

According to Table 1, the average total expenditure of government for the period under study stood at 2679.579 billion, with minimum and maximum values of 428.2200 billion and 5185.320 billion respectively. Average value personal income tax, company income tax, value added tax and custom and and excise duties stood at 2176.219 billion, 290.3175 billion, 776.5500 billion, 289.7817 billion naira respectively. Minimum and maximum value reported on Table 1 stood at 68.00000 billion and 5424.633 billion

for personal income tax, 26.00000 billion and 715.5600 billion for company income tax. Skewness statistics reported in Table 1 revealed that all the variables used in the study are skewed to the right, with reported values of 0.191226, 0.522490 and 0.634715 for total government expenditure, personal income tax, and company income tax, respectively. Reported kurtosis statistics stood at 1.408228, 1.762768, and 1.903583 for total government expenditure, personal income tax and company income tax, respectively. Jarque-bera statistics reported in Table 1 stood at 2.233339 ($p = 0.327368 > 0.05$) for total government expenditure, 2.185605 ($p = 0.335276 > 0.05$) for personal income tax, 2.344650 ($p = 0.309646 > 0.05$) for company income tax.

Correlation analysis

Table 2 reports correlation coefficient of pairs of variables used in the study. Result showed existence of positive correlation between total government expenditure and non-oil tax variable. Specifically, correlation statistics stood at 0.9313224 and 0.9447393 for TEXP and PIT, TEXP and CIT, TEXP. The result reflects that total government expenditure moves predominantly in the same direction with personal income tax and company income tax.

Correlation coefficient reported in Table 1 also revealed that there is positive correlation between pairs of non-oil tax variable. Specifically, correlation statistics stood at 0.971656 for PIT and CIT, which implies that over the years covered in the study, non-oil tax revenue such as personal income tax and company income tax, move predominantly in the same direction. Discoveries made in this study are in congruence with the findings and/submission of previous studies such as Akwe (2014) and Umoru and Anyiwe (2013).

Unit root analysis

Unit root test result presented in Table 3 reports Augmented Dickey Fuller (ADF) test statistics alongside critical values at 1% and 5% significant level respectively. Result showed that all the variables are not stationary at level, given the fact that the reported ADF statistics is less than the critical values both at 1% and 5% respectively. However all the variables become stationary after first difference, which implies that difference stationary, and integrated of order one I(1). Reported order of integration of the variables reflect how long the variables retained innovative shocks past on them. Observably result showed that all the variables used in the study only retain innovative shock passed on them for a short period of time, after which they let go. Following the confirmation of the variables being integrated of order one I(1), it stands that

Table 1. Descriptive statistics of variables.

Parameters	TEXP	PIT	CIT
Mean	2679.579	2176.219	290.3175
Median	2194.450	1702.750	253.9500
Maximum	5185.320	5424.633	715.5600
Minimum	428.2200	68.00000	26.00000
Std. Dev.	1773.898	1871.405	247.0587
Skewness	0.191226	0.522490	0.634715
Kurtosis	1.408228	1.762768	1.903583
Jarque-Bera	2.233339	2.185605	2.344650
Probability	0.327368	0.335276	0.309646
Obs	20	20	20

Note: TEXP = Total expenditure (billion naira), PIT = Personal Income Tax, CIT = Company income Tax.
Source: Data analysis, (2019).

Table 2. Correlation Matrix.

	TEXP	PIT	CIT
TEXP	1.00000		
PIT	0.9313224	1.00000	
CIT	0.9447393	0.971656	1.00000

Source: Data analysis, (2019).

Table 3. Summary of Unit Root Test result.

Variables	At Level			At First Difference			Order of integration
	ADF statistics	1% critical value	5% critical value	ADF statistics	1% critical value	5% critical value	
TEXP	-0.185902	-3.831511	-3.029970	-5.544780	-3.857386*	-3.040391	I(1)
PIT	-0.242411	-3.831511	-3.029970	-5.229852	-3.857386*	-3.040391	I(1)
CIT	0.618524	-3.831511	-3.029970	-3.560395	-3.857386	-3.040391	I(1)

Note: *(**) connote significance at 1% and 5% significant levels respectively.

Source: Data Analysis, (2019).

there is no equilibrium relationship among the variables in the short run with the presence of unit root. However, there is likelihood of long run equilibrium relationship among the variable in the condition that they co-integrate. In the bit to ascertain whether set of variables co-integrate, Johansen co-integration test was conducted and the result presented in the next section.

Co-integration regression result

Estimation result presented in Table 4 revealed that on the long run, personal income tax exerts insignificant negative impact on total government expenditure, with reported coefficient estimate of -0.035629 ($p = 0.9162 > 0.05$), company income tax exerts insignificant positive long run

impact on total government expenditure, with coefficient estimate of 6.034018 ($p = 0.0613 > 0.05$). Reported Adjusted R-square statistics stood at 0.916574, which reflect that on the long run, non-oil taxes including personal income tax and company income tax can jointly explain about 92% of the systematic variation in total government expenditure, other things held constant.

Error Correction Model (ECM)

Parsimonious error correction model estimation result presented in Table 5 revealed that on the short run, personal income tax exert insignificant positive impact on total government expenditure, with coefficient estimate of 0.075747 ($p = 0.7140 > 0.05$), company income tax exert

insignificant positive impact on total government expenditure, with coefficient estimate of 5.096910 ($p = 0.3082 > 0.05$). R-square statistics of 0.913394 reported in Table 5 revealed that about 91% of the systematic variation in total government expenditure can be explained jointly by non-oil tax variables included in the model. Discoveries made in this study are in congruence with the findings of previous studies such as Akwe (2014) and Umoru and Anyiwe (2013).

Conclusion and recommendations

Discoveries made in the study established that personal income tax exerts insignificant impact on the level of budget implementation in Nigeria both on the short run and on the long run, with long run impact reported to be negative; that company income tax exerts insignificant positive impact on total government expenditure both on the short run and on the long run. In a nutshell revenue generation from non-oil tax in Nigeria does not contribute substantially to maintaining and sustaining full budget implementation in terms of government expenditure. From these discoveries, the study recommends that government should reform tax collection framework so as to block all forms of leakages in the tax revenue mobilization process in Nigeria. Government should also put in place measures to minimize tax collection cost of various non-oil taxes, so as to strengthen the contribution of non-oil taxes (such as personal income tax and company income tax) to budget implementation in the country.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

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