MOBILIZATION OF DOMESTIC RESOURCES FOR ECONOMIC DEVELOPMENT FINANCING IN NIGERIA: DOES TAX MATTER?

Callistar Kidochukwu Obi, Innocent Ifelunini

Abstract: The vagaries of flow of external financing and its negative impact on the sustainable financing of development in developing countries has made it expedient that developing countries look inward to domestic resources as a reliable and sustainable source of financing development as well as achieving sustainable economic growth and development. Nigeria as a developing country has heeded this policy option and has initiated different policies and programmes towards strengthening her domestic resource mobilization through improved taxation and non-taxation revenues. This study seeks to investigate whether tax matters to domestic revenue mobilization for development financing in Nigeria. Using time series data sourced from the Central Bank of Nigeria (CBN) and World Bank data base and applying Autoregressive Distributed Lag Model and Error Correction Model, the study found that lagged values of tax and total export matter in domestic resource mobilization. The study also found that certain lagged values of taxation displayed an inverse relationship with development which suggest some level of tax evasion, weak administrative tax system as well as official corruption. On the strength of the findings, the study recommended that government should intensify her tax drive through rationally expanding the tax base through creation of employment, closing loopholes for tax evasion and official corruption as well as reduced over-reliance on crude oil revenue which engenders resource course. In addition, the government should re-enforce the Freedom of Information (FOI) Bill to promote information sharing that will ensure compliance to tax laws by tax payers.

Keywords: ARDL, Domestic Resource Mobilization, Taxation, Economic Development, Financing.

JEL Classification: F63 H20 H27

Introduction

Domestic resource mobilization (DRM) which entails the generation of savings from domestic resources and their allocation to economically and socially productive investments has remained a key precursor to achieving the ambitious sustainable development goals such as poverty reduction (World Bank, 2016; Fakile, Adegbie and Faboyede, 2014). This was reaffirmed by the 2015 Addis Ababa Action Agenda that mobilization and effective use of domestic resources, underscored by the principle of national ownership, are central to achieving the sustainable development goals (United Nations Economic Commission for Africa-ECA, 2016). Financing development has been a key subject of discussion at the international arena; by both developed and developing economies alike. It is the effort made by government through its expenditure to achieve its developmental objectives. It is the process of contributing to the course of a project, in the form of investment, for the well-being of its citizens.

Developed countries are concerned with how to assist developing countries to achieve internal and international development goals and objectives through aids, loans, grants, etc. On the flip side, over the decades, developing countries are faced with enormous
development challenges and have therefore determined that they must build capacity to achieve sustainable growth in their infrastructure, combat corruption, and attract foreign direct investment and develop transparent financial systems as a sure way of achieving national economic objectives and international development goals (OECD, 2009).

To achieve sustainable domestic economic growth and development, financial policies made by developing countries must be designed to align with both national and international objectives. Finance plays prominent role in achievement of these objectives especially for developing economies (Cournede and Denk, 2015). There are different sources of development finance. These include; debt (domestic and foreign), Official Development Assistance (ODA), taxation, revenue from export sales, savings (household, firms and government), aids and grants, private sector financing, e.t.c (Katseli 2005; Gurria, 2008; Kemal, 2000; Kuada, 2013). However, of all the sources of domestic development finance, taxation has been noted as central to achieving the ambitious interrelated or integrated development objectives as envisioned by developing countries (OECD 2009). This perhaps is because taxation provides governments with the funds needed to invest in development and in the longer term, offers an antidote to aid dependence in the poorest countries and predictable fiscal environment to promote growth (OECD, 2009; Moravec, Kukolava, Regnerova and Ptacek 2016)). Furthermore, besides creating the enabling room for development, taxation is integral to the ‘good governance agenda’. This occurs through the stimulation of process of negotiation and bargaining between the States and their citizens thereby playing central role to more effective and accountable States.

Most African countries especially Sub-Saharan countries (SSA) rely more on external finances than domestic finances (Kuada, 2013) to the neglect of developing domestic resource channels. (Gutman, Sy and Chattopadhyay, 2015) noted that Sub-Saharan African Countries need to raise domestic finance to augment the progress being made in fiscal revenue. It therefore implied that Government of these countries must look inward for other means of financing development as there are diverse sources of finance for developmental purposes. Other sources of mobilizing revenue must be identified by these governments and not rely on foreign sources. Moreover, there has been improvements in revenue raising effort of Sub-Saharan African countries in the last few years, yet, these countries still mobilize less than 17% of their GDP in tax revenue which is far cry from the 35% average by OECD countries (OECD, 2009). Inter-Agency Task Force on Financing for Development (2016) noted that as at 2014, most low-income-countries of the world have their tax revenue share of GDP less than 15%.

In Nigeria in particular, the situation is not different. There was over-dependence on external finances (external debt), revenue from oil exploration among other sources to finance its developmental projects and policies and ensured a sustainable growth path. In recent years, Nigeria had faced challenges of financing its development given the revenue shock caused by decline in world oil price in 2016. This had led to a decline in government development expenditures, thereby leaving development financing gaps in all sectors of the economy. This has increased government deficit financing with external debt profile rising from 3,627.50 million USD in 2009 to 15,050 million USD in the second quarter of 2017. This has its attendant negative contemporaneous and intertemporal generational effects. To reverse this trend, Nigeria government has initiated some policies and programmes geared towards strengthening DRM. This step follows from research evidence that the only reliable and sustained sources of
government revenue are taxes and some non-tax revenue instruments, such as royalties and resource rents from extractive industries, to a limited extent, user fee for public services, generally delivered by local government (Junquera-Varela, Verhoeven, Shukia, Haven, Awasthi, and Moreno-Dodson, 2017).

1 Statement of a problem

The clamour for DRM for economic development financing of developing economies has made countries to start looking inward for resource mobilization. The Nigeria government has recognized the fact that external resources such as Aid, Foreign Direct Investment and other sources may not provide a sustainable means of financing Nigeria ambitious development goals-both the sustainable development goals and that of becoming a major world player in the year 2030. In addition, there has been negative impact of the declining global oil price on the Nigerian economy. Given these scenarios, Nigeria government has shifted emphasis; focusing more on DRM through tax and non-tax revenues through policies and programmes. Nigerian government has carried out several reforms and restructuring and revamping of the tax system with the sole objective of making it its main source of revenue for financing its developmental projects rather than relying more on crude oil sales. For instance, the strengthening of the operation of the Federal Inland Revenue Services (FIRS) through improvement in tax administration, the introduction of the Tax Identification Number (TIN), the current Voluntary Assets and Income Declaration Scheme (VAIDS) are all parts of effort designed by government to raise the contribution of tax-to-GDP in the national economy.

Despite the various effort by government, it is yet to be clear whether tax matters in DRM in Nigeria. Moreover, while in some developing countries there have been positive results with massive increase in domestic revenue –direct and indirect tax, natural resource revenue (Runde, Savoy, and Perkins, 2014), there is yet to be sufficient empirical evidence in Nigeria on the place of tax in DRM for development financing beyond some anecdotal evidence. Hence, a key policy concern is whether tax matters in DRM for financing development in Nigeria? This forms the objective of the present study; to investigate whether tax matters to DRM in financing development in Nigeria.

2 Literature Review

There are plethora of studies on external sourcing of finance for economic development of developing countries, with its challenges and effects (debt burden, debt overhang, crowding out effects of debt, etc) on these economies, yet few studies have been carried out on DRM especially for developing countries and low-income-countries. This section explored some of the studies relating to domestic revenue mobilization.

Ovunda (2018) in examining burning issues in the Nigeria tax system and tax reforms on revenue generation, using Rivers State as a case study, revealed that tax reform has positive relationship with and influence revenue generation significantly.

Similarly, Nwadozie, Munthali Nantchouany and Diawara (2017) in their study on the capacity aspect of DRM identified weak tax regulation, tax evasion in informal sectors and agricultural sector, among others as capacity challenges in the mobilization of domestic resources. This idea was corroborated by Johnson (2016) in his study on
capacity building for DRM in Africa. He identified weaknesses of tax policy, among others as one of the main constraints inhibiting capacity building for DRM in Africa.

A study by Morrissey (2015) on aid and DRM in SSA countries established a link between aid and tax revenue. He noted that aid discourages tax effort when seen politically as a low cost of sourcing revenue, unless otherwise, seen from different perspectives (policies cum reforms). He further established that country studies revealed that aids associated with efficient tax reforms increased tax revenue. A similar study done by Mascagni (2016) corroborated that of Morrissey (2015). It was also observed that aid positively correlates tax revenue. This conclusion was reached from a study on Ethiopia.

Ayoki, Obwona, and Ogwopus (2005) assessed tax reforms and domestic revenue mobilization in Uganda and found that tax contributes to domestic revenue mobilization but at the same time with discriminating coefficients between direct and indirect taxes. The study by Fakile et al. (2014) also corroborates the finding that tax revenue contribute to domestic revenue mobilization.

Ohemeng and Owusu (2013) noted that the quest to mobilize revenue domestically has resulted in many tax reforms in Ghana and other countries. They adopted social learning theory and RA (revenue authority) model in their study.

Bhatt and Meerman (1978) conducted a study on the role financial institutions play alongside government policies in DRM of developing countries. They identified tax expenditure as part of government policies, linking it to government savings and financial institutions at large. It was concluded that government policies (tax expenditure) and financial institutions play major role in DRM.

Smith and Wahba (1995) focused on role played by government finance (taxes) in economic development of 56 developing countries. The empirical result showed that tax (government finance) played a significant role in the development of these countries.

3 Method

The study adopted ex-post facto research design and secondary sources of information/data were used. Data were sourced from Central Bank of Nigeria online Statistical Bulletin, 2016 and World Bank online data on Nigeria, 2016. Variables used include Gross Domestic Product (GDP) as a proxy for economic development (dependent variable), Taxation and Total Export variables (independent variable) as proxy for internal resource mobilization, all from 1970 to 2016. The choice of these variables lied in the fact that Nigeria generates its revenue internally from sales of its domestic resources (crude oil and their non-oil products: agriculture, manufacturing, mining and services), to outside world (export), and through taxation (direct and indirect tax). The value of GDP used is GDP at constant basic prices which does not incorporate indirect taxes. This takes care of the assumption of taxes revenue being a component of GDP. Also, for the assumption of export value being a component of GDP, the data used is that computed by the ITS (International Trade Statistics) from customs Bills of Entry (BE), showing the values and quantities of goods exported (Central Bank of Nigeria, 2005). This detached the components of taxes and export from GDP, thereby making the variables (taxes and export) independent of GDP.

The method chosen to analyse the data is bounds testing method of analysing level relationship and ADRL (Autoregressive Distributed Lag) by (Pesaran, Shin and Smith, 2001). The choice lied in the fact that a level relationship can be determined without
ascertaining the order of integration of the variables, that is, if they are stationary at levels or at first difference. (Pesaran, Shin and Smith, 2001) stated that ‘The asymptotic distributions of these statistics (F-and t-statistic) are non-standard under the null hypothesis that there exists no level relationship, irrespective of whether the regressors are I(0) or I(1)’. Therefore, the existence of a level relationship between variables can be tested irrespective of the state of the regressors, whether purely integrated of order zero, order one, or mutually cointegrated as this will help reduce the degree or rate of uncertainty in the analysis and loss of information in the process of differencing at either first or second differencing. But for the avoidance of doubt, the study tested the stationarity status of the variables using Augmented Dickey-Fuller unit root test

Error Correction Mechanism (ECM) alongside Autoregressive Distributed Lag Model (ARDL) was used to test the significance of the lagged variables and their speed of adjustment to equilibrium in the course of displacement from equilibrium position. To ascertain the reliability of the results, relevant diagnostic tests (Serial Correlation LM test and CUSUM Stability Test) were carried out.

It has been observed that time series data/variables give spurious results when estimated with OLS technique. To correct this abnormality, unit root and cointegration tests are conducted. The standard DF(Dickey-Fuller) test is estimated as;

\[ y_t = \phi y_{t-1} + x_t \beta + \epsilon_t \]  \hspace{1cm} (1)

From equation (1), subtract \( y_{t-1} \) from the two sides

\[ \Delta y_t = \Omega y_{t-1} + x_t \beta + \epsilon_t \]  \hspace{1cm} (2)

where \( \Omega = \phi - 1 \)

The null hypothesis can be written as;

\[ H_0: \Omega = 0, \text{ otherwise, } \]
\[ H_0: \Omega \neq 0. \]

The validity of Equation (2) lies in the fact that the series is AR(1). If this doesn’t apply i.e. the violation of error term, the application of the ADF test for stationarity becomes the correcting measure. Thus;

\[ \Delta y_t = \Omega y_{t-1} + x_t \beta + \Delta \Delta y_{t-1} + \Delta \Delta y_{t-1} + \Delta \Delta y_{t-1} + \Delta \Delta y_{t-1} + \ldots \]  \hspace{1cm} (3)

Equation (3) helps to eliminate the serial correlation in the residuals.

The null hypotheses for the level testing under the bound testing procedure between \( y_t \) and \( x_t \) as developed by Pesaran, Smith and Shin (2001) is shown below;

\[ H_0: \theta_{yy} = 0, H_0: \theta_{yx x} = 0, \text{ otherwise, } \]
\[ H_0: \theta_{yy} \neq 0, H_0: \theta_{yx x} \neq 0. \]

The bound test also allows for \( \theta_{yy} \neq 0, \theta_{yx x} = 0 \) and vice versa. This implies that the variables can be of different orders i.e. I(0) or I(1) as long as \( \Delta y_t \) is I(1). With the bound testing of the null hypothesis \( H_0: \theta_{yy} = 0, H_0: \theta_{yx x} = 0, \) if the value of the Wald test computed falls within the critical value bounds, the decision on the level relationship becomes inconclusive. If it falls outside the critical level (below the lower bound or above the upper bound), a conclusion is reached whether to accept or reject the null hypothesis.
The conditional ECM is given as
\[
\Delta y_t = \alpha_0 + \theta y_{t-1} + \theta x_{t-1} + \sum_{i=1}^{p-1} v_i \Delta z_{t-i} + \Gamma \Delta x_{t-i} + \mu_i \tag{4}
\]
This can be rewritten as
\[
\Delta y_t = c_0 + c_1 x_t + c_2 (Y - \beta X)_{t-1} \tag{5}
\]
where,
\[
\Delta y_t = \text{dependent variable,}
\]
\[
x_t = \text{vector of independent variables}
\]
\[
(Y - \beta X)_{t-1} = \text{cointegration model stationary residuals}
\]

Based on the above, the model for the study is specified as;
\[
\ln GDP = \beta_0 + \beta_1 \ln TAX + \beta_2 \ln TEXPO + U_i \tag{6}
\]
where;
\[
GDP = \text{Gross Domestic Product, a proxy for economic development}
\]
\[
TEXPO = \text{Total Export (oil and non-oil export)}
\]
\[
TAX = \text{Taxation}
\]
\[
\ln = \text{logarithm}
\]

The conditional ECM is thus specified as;
\[
D\ln GDP = \beta_0 + \beta_1 D\ln TAX_t = 1 + \beta_2 \ln TEXPO_t = 1 + U_i \tag{7}
\]
where,
\[
D\ln GDP \text{ is the difference of the log value of GDP}
\]
\[
D\ln TAX_t = 1 \text{ is the vector of the lag values of tax as an independent variable}
\]
\[
\ln TEXPO_t = 1 \text{ is the vector of the lag values of export as an independent variable}
\]
\[
\beta_0, \beta_1 \text{ and } \beta_2 \text{ are coefficients}
\]

4 Problem Solving

The results for the study are shown in the tables below. Tab. 1 is the lag length selection which was done using Least Square method. Tab. 2 is the unit root test using ADF test Tab. 3 is the Pesaran Bound Test (Wald Test) of determining level relationship among the variables. Tab. 4 is the Error Correction Mechanism (ECM), establishing the relationship between taxation and development financing, and determining the speed of adjustment to equilibrium in case of any displacement. Relevant preliminary tests (CUSUM test and Breusch-Godfrey Serial Correlation Test) were done to ascertain the stability of the model and the presence of serial correlation as shown in fig. 1 and Tab. 5. Tables 6 and 7 show the Wald Test of Short Run Causality for Taxation and Total Export on Economic Development.
Tab. 1: Selection of Lag order of the Economic Development Financing Equation

<table>
<thead>
<tr>
<th>Lag Order</th>
<th>AIC</th>
<th>SBC</th>
<th>Obs*R-Squared</th>
<th>Prob Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-2.61</td>
<td>-2.33</td>
<td>3.15</td>
<td>0.2078</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>-2.52</td>
<td>-2.12</td>
<td>12.65</td>
<td>0.0018</td>
<td>SC</td>
</tr>
<tr>
<td>3</td>
<td>-2.54</td>
<td>-2.00</td>
<td>19.23</td>
<td>0.0001</td>
<td>SC</td>
</tr>
<tr>
<td>4</td>
<td>-2.62</td>
<td>-1.95</td>
<td>6.35</td>
<td>0.040</td>
<td>SC</td>
</tr>
<tr>
<td>5</td>
<td>-3.09</td>
<td>-2.29</td>
<td>3.27</td>
<td>0.195</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>-3.45</td>
<td>-2.53</td>
<td>15.19</td>
<td>0.0005</td>
<td>SC</td>
</tr>
</tbody>
</table>

N/A (Not Available), SC (Serial Correlation)

Source: Authors analysis

The result in Tab. 1 revealed that lag order 1 and 5 had no serial correlation, judging from their probability values (0.2078 and 0.195 respectively) while Lags 2, 3, 4 and 6 are serially correlated. Among lags 1 and 5, the best lag order to be chosen is that with the lowest AIC and/or SBC value, and this results in the selection of lag length lag order 5, with AIC of -3.09 and SBC of -2.29.

Unit Root Test

As noted earlier, the choice of the bound testing method of analysis by Pesaran, Shin and Smith (2001) lied on the fact that a long-run relationship can be determined without ascertaining the order of integration of the variables. For the benefit of doubt and for the robustness of the results, the order of integration of the variables was ascertained as shown in Tab. 2.

Tab. 2: Unit Root Test (ADF Test)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Levels</th>
<th>First Difference</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnGDP</td>
<td>0.827803</td>
<td>-5.751903</td>
<td>I(1)</td>
</tr>
<tr>
<td>LnTEXPO</td>
<td>-1.351984</td>
<td>-6.913035</td>
<td>I(1)</td>
</tr>
<tr>
<td>LnTAX</td>
<td>-2.633312</td>
<td>-7.092141</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

ADF Critical Value = 2.92

Source: Authors result

The result in Tab. 2 shows that all the variables are integrated of order one (1), judging from the values of the first difference which is greater than the ADF critical value of 2.92. At levels, the ADF test statistics is less than the ADF critical value. Therefore, it can be inferred that the variables are stationary at first difference.

Tab. 3: Bounds Testing for the existence of level relationship (Wald Test)

<table>
<thead>
<tr>
<th>Lag Order</th>
<th>F-statistics/ Prob.</th>
<th>Lower Bound I(0)</th>
<th>Upper Bound I(1)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>13.94423/ 0.0000</td>
<td>3.79</td>
<td>4.85</td>
<td>Existence of a level relationship</td>
</tr>
</tbody>
</table>

Source: Authors analysis
Tab. 3 shows that the value of the F-statistic (13.94423) lied above the upper bound value of 4.85 at lag length or lag order 5. In other words, the value of the F-statistics is greater than upper bound value Therefore, we reject the null hypothesis of no level relationship between variables and state that a long-run relationship exists between the variables. Thus, we conclude that a level relationship exists between the variables used for this study.

**Tab. 4: ECM Form of ARDL for Economic Development Financing**

**Dependent Variable: lnGDP**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.016564</td>
<td>0.012011</td>
<td>1.379069</td>
<td>0.1784</td>
</tr>
<tr>
<td>D(lnGDP(-1))</td>
<td>0.491003</td>
<td>0.139735</td>
<td>3.513818</td>
<td>0.0015</td>
</tr>
<tr>
<td>D(lnTAX(-3))</td>
<td>-0.010053</td>
<td>0.007340</td>
<td>-1.369652</td>
<td>0.1813</td>
</tr>
<tr>
<td>D(lnTAX(-4))</td>
<td>0.003493</td>
<td>0.007222</td>
<td>0.483636</td>
<td>0.6323</td>
</tr>
<tr>
<td>D(lnTAX(-5))</td>
<td>-0.007509</td>
<td>0.006332</td>
<td>-1.185869</td>
<td>0.2453</td>
</tr>
<tr>
<td>D(lnTAX(-6))</td>
<td>-0.032130</td>
<td>0.006383</td>
<td>-5.033684</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(lnTEXP(-1))</td>
<td>0.019766</td>
<td>0.020202</td>
<td>0.978385</td>
<td>0.3360</td>
</tr>
<tr>
<td>D(lnTEXP(-2))</td>
<td>-0.036829</td>
<td>0.020723</td>
<td>-1.777216</td>
<td>0.0860</td>
</tr>
<tr>
<td>D(lnTEXP(-3))</td>
<td>0.051815</td>
<td>0.021821</td>
<td>2.374556</td>
<td>0.0244</td>
</tr>
<tr>
<td>D(lnTEXP(-4))</td>
<td>-0.030470</td>
<td>0.022172</td>
<td>-1.374213</td>
<td>0.1799</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>0.957583</td>
<td>0.277208</td>
<td>-3.454386</td>
<td>0.0017</td>
</tr>
</tbody>
</table>

R\(^2\) = 66\%, Adj. R\(^2\) = 54\%, F-statistic – 5.646977(p-value of 0.000118), AIC = -3.047062, SC = -2.582620

*Source: Authors result*

The result in Tab. 4 shows that the first lagged value of GDP \([D(lnGDP(-1))]\) is statistically significant in explaining the current value of GDP (dependent variable), with a probability value (\(\rho\)-value) of 0.002. The sixth lagged value of tax \([D(lnTAX(-6))]\) is also negative and statistically significant in explaining current GDP value, with \(\rho\)-value of 0.0000. On the other hand, the third lagged value of Total Export \([D(lnTEXP(-3))]\) is statistically significant in explaining current GDP value. The other variables are not statistically significant. The ECM coefficient (-0.9575) with \(\rho\)-value of 0.002, is largely negative and statistically significant, implying that the speed of adjustment to equilibrium in the cause of any displacement is 96%. R-squared of 66% shows that 66% of the dependent variable is explained by the independent variable. This implies goodness of fit in the result. F-statistic of 5.646977 with a probability value of 0.000 shows that the explanatory variables are statistically significant in explaining the dependent variable.

It is necessary to ascertain the stability of the variables used and this was done using CUSUM Stability Test shown in fig. 1.
The CUSUM Stability Test revealed that the variables are stable, judging from the CUSUM line which lies between the 5% significance lines. Thus, economic development equation is stable, effortlessly passing the 5% significance level.

On the other hand, Breusch-Godfrey Serial Correlation Test was also used to test for the presence of serial correlation in the model as shown in Tab. 5.

Tab. 5: Breusch-Godfrey Serial Correlation L.M Test

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>1.212385</td>
<td>0.3132</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>3.296231</td>
<td>0.1924</td>
</tr>
</tbody>
</table>

The result of the Breusch-Godfrey Serial Correlation LM Test shows that the Observed R-Squared is 3.296231 (ρ-value = 0.1924). This implies that no serial correlation exists in the model. Thus, we accept the null hypothesis of no serial correlation in the model. Therefore, we can confidently accept the result from the Error Correction Model.

4.1. Short run Causality of Economic Development Financing Equation

To determine the short run causal relationship between the dependent and the independent variables, the study applied Wald test as shown below in tables 6 and 7.

Tab. 6: Wald Test of Short Run Causality for Taxation

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>Df</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>5.333899</td>
<td>3.29</td>
<td>0.0047</td>
</tr>
<tr>
<td>Chi-square</td>
<td>16.00170</td>
<td>3</td>
<td>0.0011</td>
</tr>
</tbody>
</table>

Source: Authors result.
Tab. 6 result indicates a short run causality between all the lagged values of taxation and economic development. This implies that all the lagged values of tax put together can cause economic development. Therefore, income or revenue from tax can be used to finance economic development. This conclusion was reached from the F-statistic value of 5.333899 with a \( \rho \)-value of 0.0047.

**Tab. 7: Wald Test of Short-Run Causality for Total Export**

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>Df</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>3.498257</td>
<td>4, 29</td>
<td>0.0190</td>
</tr>
<tr>
<td>Chi-square</td>
<td>13.99303</td>
<td>4</td>
<td>0.0073</td>
</tr>
</tbody>
</table>

Source: Authors’ result.

Tab. 7 on the other hand revealed a short run causal relationship between the lags of total export and economic development, judging from the F-statistic value of 3.498257 with \( \rho \)-value = 0.02. This implies that income generated from export sales can also be used to augment Tax in financing economic development in Nigeria.

### 5 Discussion

The analysis revealed the robustness of the result. The result of the short-run causality for taxation Wald test in Tab. 6 suggests that tax revenue matters in domestic mobilization of resources for development financing judging from the significance of the F-statistic as shown in Tab. 6. The result corroborates earlier studies by (Ovunda 2018; UNECA, 2016; Runde, Savoy, and Perkins, 2014; Fakile et al, 2014; Ohemeng and Owusu, 2013; Ayoki, 2005). The implication of the above is that tax revenue when properly expended on the country’s development policies and infrastructure provision can help to boost the rate of development of the economy. The same is applicable to export in Tab. 7. On the other hand, the significance of the third lagged value of total export (Tab. 4) in explaining economic development goes to show that besides tax revenue, revenue generated from previous exports of domestically produced resources (goods and services) play important role in financing development in Nigeria. This implies that government can finance development from accumulated proceeds from export sales. Another important point to note is the significance of the sixth lagged value of tax revenue in the ARDL/ECM result (Tab. 4). This suggests that an inverse long-run relationship between tax and domestic revenue mobilization for development financing. This result has serious implication for policy intervention. There could be some plausible explanations to this seemingly counter-intuitive result. One possible reason for such result is the resource course argument in which Nigeria government has paid less attention to the proceed from tax as a source of fund for development financing, and hence rely mainly on revenue from crude oil sales. Thus, constraining development financing to tax revenue could not facilitate development in the long run. Another plausible reason for such relationship/result may be that there is high level of tax evasion in the economy as well as weak tax administration and official corruption which could lead to misappropriation of tax revenue proceeds. All these reasons call for proactive policy and programmes.

Another important issue from the results is the speed of adjustment to equilibrium in the case of displacement. The ECM result effortlessly passed the 5\% significant test. Therefore, the stability level of the model is high since the speed of adjustment is 96\%.
The robustness of the result is further enhanced with the reliability and stability test using the Breusch-Godfrey LM test for serial correlation, and CUSUM test respectively. Thus, the model is highly stable and reliable.

**Conclusion.**

Tax as revenue for government is an asset to the government of any country and when properly generated and utilized can be channeled into financing development expenditure. Several studies had shown that tax had a significant role to play in development financing for developing economies. This study aligned with the others by ascertaining that domestically mobilized resource (tax) matters in financing development of developing economies. This was confirmed from the analysis of a long-run relationship existing between taxation and Economic development financing. Even the short-run Wald test also revealed that taxation matters in development financing in Nigeria. This goes to show that Nigeria government can harness more tax revenue or resources by increasing their tax revenue through expansion of their tax base, expanding their export trade for more revenue generation, augmenting it with income sourced from other domestic resources, to finance its developmental projects without relying more on Foreign aids, foreign borrowing, and donations from foreign countries. Importantly, the findings that the sixth lagged value of taxation exhibits an inverse relationship with development suggests that proactive policy steps need to be taken. For instance, there is need for government to strengthen the tax administrative machinery; close loopholes for tax evasion and official corruptions, thus ensuring improved tax revenue and effective utilization of tax revenue proceeds respectively. Creation of employment will also guarantee increased tax base which will also improve tax revenue mobilization. The much reliance of foreign resources had made the country to experience the debt overhang problem and crowding out effect of external borrowing. Also, some conditionalities given by the multilateral bodies (International Monetary Fund and World Bank) had yielded no positive outcome in the amelioration of the challenges that led to the contraction of these loans. Given that the clamour for domestic mobilization of resources by developing countries had been a global debate, Nigeria should continue to harness its domestic resources, reform its tax system from time to time in line with global best practices and finance its development without much reliance on aid/loans from developed countries. This is where the recent Nigeria government effort towards prosecuting tax defaulters is a welcome development. In fact, government should strengthen legislation to punish tax defaulters at the same time making the tax payers-friendly and convenient. Nigeria government should give more bite to the freedom of information (FOI) bill to promote information sharing that will ensure that eligible tax payers comply with tax laws.

**References**


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