Impact of Revenue-Expenditure Gap on Economic Outputs in Kwara State

Peter Kingsanjo Kolawole; and Hassan Mohammed Kamaldeen

1Department of Economics and Development Studies, Kwara State University, Malete. 2Department of Economics, Kwara State College of Education, Oro.

Corresponding author: kolawolepeter764@gmail.com

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Abstract
Internally Generated Revenue has emerged in recent times as a crucial aspect of economic growth and development. Drawing from some of the recent literature on public expenditure, this study estimated the impact of revenue-expenditure gap on output in Nigeria with a case study of Kwara State. The study employed Auto-Regressive Distributed technique on data obtained from the Kwara State Ministry of Finance, Planning and Economic Development for its analysis. The results of the study shows that it has been an upward trend in the revenue-expenditure gap in Kwara State. The implication is that the government expenditure has been more than its revenue and later translated into deficit budget for the state. The findings also indicate that this gap slow the growth of economic outputs in Kwara State. Therefore, the Nigerian government should take urgent and adequate steps to increase their internally generated revenue.

Keywords: Revenue-Expenditure Gap, Economic Development, Estimation, Nigeria.

JEL Classification: C13, H50, O10

Introduction
In recent decades, internally generated revenue has remained the main focus of all States and Local Government Areas in Nigeria. Indeed, this is informed by the important role it played in the development of the society. No system or rule can be effectively functional whether foreign or domestic unless it enjoys an appreciable level of financial buoyancy on a sustainable basis. Due to the issue of inadequate of finance that has been the major problem which both State and Local Governments in Nigeria have been grappling with in recent times, it is a matter of necessity that other means of generating income is exploited. However, many of them have made attempts to exploit economic potentials of their areas which are in abundance, to finance their activities and enhance their development through other means to generate more revenue. It is curious to note that such efforts are yet to yield desired results as the efforts are offset by problems that impede effective and efficient revenue generation.

Every government needs funds to finance its activities. But the sources of such revenues can hardly be exhaustive. This is so because an efficient Internal Revenue Generation plays a crucial role in the developmental drive of governments at any level. It is more pronounced in developing or transitional economies. Over dependent on the crude oil as a sole means
of generating funds has subjected all tiers of governments in Nigeria to serious financial stress as statutory allocations have been fluctuating at abysmal levels. (Abiola and Ehigiamusoe, 2014).

The need for state governments to revisit the optimality and adequacy of their revenue generation drive from internal sources within the state has therefore become a matter of extreme urgency and importance. For example, Taxation which is a necessary ingredient for civilization, in any given society it helps in redistribution of wealth. “The history of man has shown that man has to pay tax in one form or the other, that is, either in cash or in kind, initially to his chieftain and later to organized governments”. (Ojo, 2003).

Therefore, for any state to achieve meaningful economic development, it requires effective and efficient revenue management, budgetary control and other components of public sector. Revenue generation and management in most emerging economies are for social, economic development and provision of infrastructure. These are made possible through implementation of all possible means of revenue generation within the state, since revenue is considered as the oil in the wheel of progress of any economic setting such as states and LGA in Nigeria. Hence this study estimates the impact of revenue-expenditure gap on economic growth in Kwara State. The rest of this research is organized as follows. The next section reviews relevant literature while section three contains the methodology of the study. Section four is devoted to the presentation and discussion of results, and section five focus on policy recommendations and conclusion.

Statement of the Research Problem

Most state governments in Nigeria do no longer perform their civic responsibilities simply because of poor finances arises from internally generated revenue. The bad financial situation is further aggravated by the prevailing inflationary situation in this country which erodes the value of funds available to render essential social services to the people. Economic growth is highly associated with fund, much revenue is needed to plan, execute and maintain infrastructures and facilities at the state government level. Kwara State, like many other states in Nigeria, relies mostly on Federal Government Allocation for her survival. The pitiable state of Nigeria economy as a result of free falling in the price of crude oil has resulted to shortfall in the revenue generated by the federal government from the oil sector. This has seriously affected the federal allocation, to not only Kwara State, but all the states of the federation.

According to the Kwara State annual financial report (2016), revealed that, the Kwara State IGR dropped from N12 billion in 2014 to N7 billion in 2015, which is 36.8% reduction; and federal government allocation to Kwara State fell from N3.4 billion in 2014 on monthly basis to N1.4 billion in 2015 on monthly basis being about N2 billion in the shortfall which accounted for 58.8% decrease. This shortfall has not made the government of the state to pay the salaries of the workers promptly, incessant strike by government owned schools, non-payment of pensioners most of which stand as backdrops in the proper, effective and reasonable implementation of government policy talk less of execution any project within
the state. There is need therefore to source for more revenue to augment the federal base allocation called for investigating into more ways of sourcing for IGR within the state. Adesoji, Adenugba and Chike (2013) in their studies on the effect of IGR on infrastructural development in Lagos employed a survey design while Edogbanya and Ja’afaru (2013) studied the revenue generation in Kogi state and employed descriptive statistics. Similarly, Nnanseh and Akpan (2013); Oseni and Olusola (2013); Asimiyu and Uyikizito (2014); Matthew (2014); as well as Dagwom (2017) employed descriptive statistics in establishing the impact of IGR on infrastructural development and growth. Therefore, to the best knowledge of the researcher, none of the previous studies have been able to use secondary data in analyzing the subject matter. Hence, this study will contribute to knowledge by making use of secondary data analysis in examining the impact of internally generated revenue on output in Kwara state.

This research work is therefore to examine the impact of internally generated revenue on output of Kwara State from (1988-2017). Based on the above stated issues, it has become necessary to conduct an analysis on revenue generation in Kwara State. Broadly, the objective of this study is to examine the impact of internally generated revenue on economic output in Kwara State of Nigeria. Specifically, this study will achieve the following objectives, to analyze the revenue–expenditure gap in Kwara State, to examine the impact of internally generated revenue on output in Kwara State, to determine the impact of revenue–expenditure gap on output in Kwara State.

Literature

Conceptually, public revenue can be explained both in broad and narrow sense. The broad sense of it includes all income and receipts irrespective of their sources and the nature which the government obtains during any given period of time. On the other hand, the narrow includes all those sources of income which is described as revenue resources. In the broad sense of it. It will also include loans which the government raises under the term public revenue or more properly public income. The distinction however is that in the narrow sense in which the term “public revenues” is used in public finance includes all the receipts of the government irrespective of the facts whether they are subject to future payback.

Revenue generation in Nigeria has been one of the topical issues in recent times especially with the drastically and phenomenal shift from agriculture to crude oil exportation. Nnanseh and Sunday (2013) The occasional dwindle in the price of crude oil and the various predictions of the running out of oil wells in Nigeria in the near future time has rekindled government interest in agriculture and other non-oil sources of revenue to the country and its constituent states. Michael and Akpan (2013). The emphasis has always been on how to boost internally generated revenues so as to be less reliance on oil and other statutory allocations to states and the last tier of government.

Several theories have shown that all government needs revenue which exceeds that which can be provided by non-distortionary taxes or through taxes which give a double divided.
For instance, the optimal taxation theory is a branch of economic that considers how taxes can be structured to give the best outcome in cost. Ramsey (1982) posit that optimal taxation deals with minimizing deadweight lost because deadweight cost are related to the elasticity of supply and demand for good. It follows that putting the highest tax rate on goods for which there is most in elastic supply and demand will result in least overall deadweight cost. Therefore, due the increasing needs of revenue to meet government expenditures, Adolph Wagner, the German economist made an in-depth study relating to rise in government expenditure in the late 19th century. Based on his study, he propounded a law called "The Law of Increasing State Activity". Wagner's law states that "as the economy develops over time, the activities and functions of the government increase".

According to Adolph Wagner, "Comprehensive comparisons of different countries and different times show that among progressive peoples (societies), with which alone we are concerned; an increase regularly takes place in the activity of both the central government and local governments constantly undertake new functions, while they perform both old and new functions more efficiently and more completely. In this way economic needs of the people to an increasing extent and in a more satisfactory fashion, are satisfied by the central and local Governments."

The empirical findings of Mbah and Onuona (2018), Cordelia et al. (2018) and Dagwom (2017) shows that the state IGR has little and insignificant contribution to economic growth in Nigeria. Their studies recommend amongst others that more financial control and value for money audit should be carried out to minimize wastages, inefficient and corruption in the Nigeria tax system. That may increase the contribution of states IGR to economic growth. Examining the relationship between expenditure and internally generated revenue in local governments in Adamawa State, Ahamed et al. (2015) used static panel estimation of pooled OLS, fixed effect and random effect estimation. The study used internally generated revenue and recurrent and capital expenditures as dependent and independent variables respectively. It was found that the impact of change in recurrent expenditure on internally generated revenue is higher than the impact of change in capital expenditure on the internally generated revenue. It was concluded that there exists a presence of a significant relationship between capital and recurrent expenditure and internally generated revenue (IGR).

Analyzing internally generated revenue and its implication on fiscal viability of state governments in Nigeria, Asimiyu and Uyikizito (2014) examine the relationship between IGR and state government expenditure using analytical and descriptive approaches. The findings suggest that a direct relationship exist between the growth rate of IGR and capital expenditure. Mathew (2014) the impact of tax revenue on Nigeria economy: (A case study of federal board of inland revenue) used descriptive survey design and chi-square tool of analysis, the findings show that tax revenue significantly affect the revenue generated in Nigeria, the recommendation notice of tax reform at the beginning of every financial year should be supported with handbills and poster written in local languages as this will enable illiterate perform their civic responsibilities.
In the same vain, Nnanseh and Akpan (2013) ascertained the extent to which internally generated revenue has contributed to the provision of infrastructure in Akwa-Ibom State. Using an ex-post factor research design, data was analysed with simple percentages while simple regression statistics was used. The study found that internally generated revenue (IGR) significantly and positively to the provision of water, electricity, and road networks, the study concludes that IGR has contributed to infrastructural development in the State. However, these studies omitted the impact of revenue-expenditure gap on output in Nigeria. Also, the study (for instance, Cordelia et al. 2018; Dagwom, 2017) did not cater for the trend in the revenue-expenditure gap; thus, they are included in this study.

**Methodology**

**Theoretical Framework**

This study is anchored on the synthesis of both the Adolph Wagner theory of public expenditure and Peacock-Wiseman theory of expenditure. This is because there seems to be an existing consensus between the two theories that public expenditure has tendency to increase overtime as revenue increases. Nonetheless, the view of the Adolph Wagner was that in progressive societies like most states in Nigeria, the activities of government increase on regular basis and also that the expansion and intensification of government functions and activities lead to increase in public expenditure. On the other hand, Peacock-Wiseman is of the view that the rise in public expenditure greatly depends on revenue collection and that over the year economic development results insubstantial revenue to the government. This enables increase in public expenditure. These arguments are what the study sort to build on as both emphasize the role of government revenue either at the state level or national on expenditure.

\[ \text{OPT} = f(GA) \]  
\[ \text{OPT} = f(G_E, G_R) \]  

where \( OPT \) = Economic outputs and \( GA \) = Government Activities

At equilibrium;

\[ G_E = G_R \]

Since \( G_R = f(IGR, SA) \)

where IGR is internally generated revenue, and SA the statutory allocation

Thus, from equation (2) substitute \( Gr = IGr, SA \)

\[ \text{OPT} = f(G_E, IGR, SA) \]

However, \( IGR = TX, LC, FF, RGP \)

Where TX = Tax
LC = Licenses
FF = Fees and Fines
RGP = Rent on government property

From equation (3.4), replace IGR = TX, LC, FF and RGP

OPT = f (TX, LC, FF, RGP, SA)  \hspace{1cm} (6)

Model Specification
In order to ascertain the extent of which internally generated revenue have impact on output in Nigeria. The models in equation (6) are modifying as follows;

\[ OPT_t = \beta_0 + \beta_1 TX_t + \beta_2 LC_t + \beta_3 FF_t + \beta_4 RGP_t + \beta_5 SA_t + \mu \]  \hspace{1cm} (7)

where \( \beta_3 = \) intercept of the regression, \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \) are the parameters of the model, and \( \mu \) is the error term.

Hence to specify the model for this study, we consider revenue-adjustment model from a simple Auto-Regressive Distributed Lag (ARDL) model for variables \( OPT \) as follows:

\[ \Delta \log OPT_t = \alpha_0 + \sum_{j=1}^{K} \alpha_{1j} \Delta \log OPT_{t-j} + \sum_{j=1}^{K} \alpha_{2j} \Delta \log TX_{t-j} + \sum_{j=1}^{K} \alpha_{3j} \Delta \log LC_{t-j} + \sum_{j=1}^{K} \alpha_{4j} \Delta \log FF_{t-j} + \sum_{j=1}^{K} \alpha_{5j} \Delta \log RGP_{t-j} + \sum_{j=1}^{K} \alpha_{6j} \Delta \log SA_{t-j} + \epsilon_{1t} \]  \hspace{1cm} (8)

where \( \Delta \) denotes the first difference operator; \( \alpha_0 \) is the drift component, \( \mu_t \) is the error term residuals and the first until fifth expressions (\( \beta_1 \) ... \( \beta_5 \)) on the right-hand side correspond to the long-run relationship.

Sources of Data
The data source for this research were obtained from the audited and published annual reports of various years for the period under review. The variables for which data was collected included internally generated revenue (IGR) from the Kwara State Ministry of Finance. The economic output (OPT) in (billion Naira) was from Kwara State Ministry of Planning and Economic Development and other various sources of revenue such as: taxes, licenses, fines and fees, earning and sales, rent on government property, interest payment and dividend, re-imbursement, retained revenue from parastatal organization. While inflation rate and interest rate were collected from CBN statistical bulletin for the periods of 1988 and 2018.

Results
Preliminary Results
The trends of the series were presented in Figure 1. This study found that the trend of all the variables were moving both upward and downward sloping in all the series. It appears that the behaviors of the series are unstable for the period under review.
Unit Root test

The result of the unit root test is presented in Table 1. The results of the ADF unit root tests in Table 1 show that SA, FF, RGP, and GAP are stationary at level (at I (0)). However, OPT, TX, LC, INF, and INT are stationary at first order difference (I (1)). The unit root result suggests that statutory allocation, fines and fees, rent on government property and gap are all I (0) while output, tax, license, inflation and interest rate are I (1). As a result, the study used Auto-Regressive Distributed Lag (ARDL) technique for its estimation.

Table 1: Results of Unit Root Test Augmented Dickey Fuller (ADF)

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF calculated value in level</th>
<th>ADF calculated value at 1st difference</th>
<th>McKinnon 5% critical value</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA</td>
<td>-3.9679*** (0.0050)</td>
<td>-</td>
<td>-2.9677</td>
<td>1(0)</td>
</tr>
<tr>
<td>OPT</td>
<td>-1.6860 (0.4271)</td>
<td>-4.8337*** (0.0006)</td>
<td>-2.9718</td>
<td>1(1)</td>
</tr>
<tr>
<td>TX</td>
<td>-1.9727 (0.2965)</td>
<td>-6.4136*** (0.0000)</td>
<td>-2.9718</td>
<td>1(4)</td>
</tr>
<tr>
<td>LC</td>
<td>-1.4871 (0.5258)</td>
<td>-4.3926 (0.0018)</td>
<td>-2.9718</td>
<td>1(1)</td>
</tr>
<tr>
<td>FF</td>
<td>-3.5106*** (0.0149)</td>
<td>-</td>
<td>-2.9677</td>
<td>1(0)</td>
</tr>
<tr>
<td>INF</td>
<td>-2.782019 (0.7730)</td>
<td>-4.3477*** (0.0020)</td>
<td>-2.9718</td>
<td>1(4)</td>
</tr>
<tr>
<td>INT</td>
<td>-2.8599 (0.6205)</td>
<td>-7.1562*** (0.0000)</td>
<td>-2.9718</td>
<td>1(1)</td>
</tr>
<tr>
<td>RGP</td>
<td>-2.9025*** (0.0573)</td>
<td>-</td>
<td>-2.9677</td>
<td>1(0)</td>
</tr>
<tr>
<td>GAP</td>
<td>-3.967974*** (0.0050)</td>
<td>-</td>
<td>-2.9677</td>
<td>1(0)</td>
</tr>
</tbody>
</table>

Source: Authors’ computation using E-view: version 10.0

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Main Findings

Table 2: ARDL Results

Dependent Variable: OPT (Economic Output)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGOPT(-1)</td>
<td>0.226925</td>
<td>0.1319</td>
</tr>
<tr>
<td>LOGOPT(-2)</td>
<td>0.177876</td>
<td>0.2992</td>
</tr>
<tr>
<td>LOGOPT(-3)</td>
<td>-0.057004</td>
<td>0.7285</td>
</tr>
<tr>
<td>LOGOPT(-4)</td>
<td>0.211120</td>
<td>0.1182</td>
</tr>
<tr>
<td>LOGGAP</td>
<td>0.008945</td>
<td>0.9303</td>
</tr>
<tr>
<td>LOGGAP(-1)</td>
<td>-0.116557</td>
<td>0.2143</td>
</tr>
<tr>
<td>LOGGAP(-2)</td>
<td>-0.091091</td>
<td>0.3020</td>
</tr>
<tr>
<td>LOGGAP(-3)</td>
<td>-0.177923*</td>
<td>0.0657</td>
</tr>
<tr>
<td>INTEREST_RATE</td>
<td>-0.000187</td>
<td>0.7379</td>
</tr>
<tr>
<td>INTEREST_RATE(-1)</td>
<td>0.000941</td>
<td>0.1616</td>
</tr>
<tr>
<td>INTEREST_RATE(-2)</td>
<td>-0.001605**</td>
<td>0.0149</td>
</tr>
<tr>
<td>INFLATION</td>
<td>-0.001164***</td>
<td>0.0006</td>
</tr>
<tr>
<td>INFLATION(-1)</td>
<td>-6.79E-06</td>
<td>0.9809</td>
</tr>
<tr>
<td>INFLATION(-2)</td>
<td>0.000391</td>
<td>0.1206</td>
</tr>
<tr>
<td>C</td>
<td>0.443550*</td>
<td>0.0651</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation E­views 10

The findings in Table 2 shows that the LOGGAP (-1) coefficient is about -0.116. This implies that a per cent increase in the gap between revenue and expenditure with one year lag will decline economic output by 0.116. Although this is not statistically significant at 5 per cent confidence level. The LOGGAP (-2) coefficient is about -0.09. This implies that a per cent increase in the gap with two years lag will bring about 0.09 reduction in output however it is statistically significant at 5 per cent confidence level. However, LOGGAP(-3), the gap between revenue and expenditure in Kwara State is statistically significant at 10% confidence level to reduce OPT (the economic output) over time. The result suggests that a per cent increase in the gap with three years lag will bring about 0.177 reduction in output. This is statistically significant at 10 per cent level.

Co-integration and Error Correction Results

We followed the two steps Engel and Granger model which suggest that any set of co-integrated time series has an error correction representation which reflects the short run adjustment mechanism. The motive of the analysis is to discover whether the short run dynamic are influenced by the estimated long run equilibrium condition that is the co-integration vector. A crucial parameter in the estimation of the short run dynamic model is the coefficient of the error correction term which measures the speeds of adjustment in the short run to restore long run equilibrium level running from internally generated revenues to output. The estimation of equation six using lag specification of one and incorporating the error correction term (-ecm) yields the result presented in Table 3.
Table 3: Result of Estimated ECM

<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>ECT</td>
<td>-0.206193</td>
<td>0.031378</td>
<td>-6.571349</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LOGGAP)</td>
<td>0.126990</td>
<td>0.070575</td>
<td>1.799355</td>
<td>0.0908</td>
</tr>
<tr>
<td>D(LOGGAP(-1))</td>
<td>-0.157501</td>
<td>0.076886</td>
<td>-2.048507</td>
<td>0.0573</td>
</tr>
<tr>
<td>D(LOGGAP(-2))</td>
<td>-0.171757</td>
<td>0.065764</td>
<td>-2.611700</td>
<td>0.0189</td>
</tr>
<tr>
<td>D(INTRATE)</td>
<td>-0.000737</td>
<td>0.000406</td>
<td>-1.814190</td>
<td>0.0884</td>
</tr>
<tr>
<td>D(INTRATE(-1))</td>
<td>0.000698</td>
<td>0.000494</td>
<td>1.411366</td>
<td>0.1773</td>
</tr>
<tr>
<td>D(INTRATE(-2))</td>
<td>-0.001862</td>
<td>0.000444</td>
<td>-4.194713</td>
<td>0.0007</td>
</tr>
<tr>
<td>D(INFLATION)</td>
<td>-0.000914</td>
<td>0.000136</td>
<td>-6.729057</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation using E-view 10.0

From the table 3, the ECT shows the level of adjustment from short run disequilibrium to long run equilibrium which is about 2% and it is statistically significant at 5%, confidence level. It is useful when long-run forecast is desired; it shows that there is short run causality running from gap, interest rate and inflation to output. The stability test of the result shows that the parameter of the ecm-term in the model is correctly signed such that it dynamically stable to restore equilibrium. This confirms that output in Kwara State, has automatic adjustment mechanism and that output responds to deviation from equilibrium in a moderate speed.

The results of this study is in support of Adeoti et al (2014) on Oyo State that rent on government property is least negative on output. The study by Hakan, Ali and Hasan (2008) on Turkish also confirmed that there is negative relationship between inflation rate and output. Oseni (2013) confirmed that statutory allocation as a direction have lower proportion on output that depending on the statutory allocation by states does not necessary translate to good dividend. On the contrary, Nnanseh and Akpan (2013) Oseni and Olushola (2013) Ogundayo, Onakoya and Afintini (2017) confirmed that internally generated revenue has positive effect on output. While Olubukunola (2011) shows the other ways round confirmed that rent on government property, fines and fees and licenses are significant factors influence internally generated revenue, Mathew (2014) shows that tax revenue significantly affects revenue generation in Nigeria.
Conclusion
This study aimed at estimating the impact of internally generated revenue on economic output in Kwara state. The result reveals a negative and statistically significant at 10% confidence level among the entire variable in the model. Therefore, the study concludes that effort should be made toward improvement on internally generated revenue in Kwara State so as to help State Government to enhance productivity and build better infrastructure for more business to strive. Furthermore, the findings of the study shows that Kwara State appears to have experienced a rise in the expected long-run adverse effect of internally generated revenue on total output. However, this is not withstanding because a good percentage of the funds are gotten from the federation account with the fact that such allocation may drastically decline in the near future. This implies that if care is not taken, all the burden will be on the State internally generated revenue of the state government.

Therefore, to sustain the gains made so far in the reduction of long run positive impact of internally generated revenue on economic output in Kwara State, the government should identify more sustainable sources of revenue through the restructuring of revenue collection system. This can be achieved by realigning their IGR with current realities by changing the people, processes and technology for revenue collection. Other state governments in Nigeria should also imbibe the culture of fiscal discipline as well as huge capital expenditure so as to ensure growth in output level in the state.

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