



THE SUSTAINABLE INTERACTION OF REVENUE AND BUDGET PERFORMANCE IN ANAMBRA STATE

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ABSTRACT: *This study examines the sustainability of the relationship between revenue sources and budget performance in Anambra State from 2013 to 2023, examining the time series of budget performance, licenses, and fines. The secondary sources of data include Anambra State Government Budgets, Anambra State Government Reports of the Accountant General with Financial Statements, and Anambra State Government Budget Performance Reports. The results, derived from a linear regression model, indicate that past budget performance does not predict future budget performance and this implies budgeting volatility. The short-run effect of license receipts on budget performance is negative but the lagged value indicates a weak positive but statistically insignificant effect. The short-run effect of fines on budget performance is negative but the lagged effect is positive and statistically significant, suggesting that fines have a positive lagged impact on budget performance. In general, the results identify the challenge of obtaining sustainable and stable budget realization within Anambra State and indicate the necessity for better fiscal management procedures and better coordination between revenues and implementation of the budget.*

KEYWORDS: Budget Performance, Revenue, Sustainability, Anambra State.



INTRODUCTION

Budget implementation is the essential aspect of economic development for any country or region because it directly determines the achievement of objectives in the public sector, i.e., improved infrastructure, health, education, and security. Effective budget implementation is equal to effective use of funds allocated by the budget, thereby stimulating economic growth as well as poverty alleviation (World Bank, 2021). On the global front, nations with effective budget systems have portrayed higher degrees of development and delivery of services, where budget execution is one of the drivers of public administration (Organisation for Economic Cooperation and Development, OECD, 2020). In developed economies such as the United States of America and Germany, effective budget execution processes have been at the core of their stability and development (International Monetary Fund, IMF, 2019). Adequate application of budgeting in less-developed countries is even more essential so that the fewer resources present there are maximized to the desired level and spent on activities serving most directly for the welfare of people.

In Africa, the application of the budget and revenue collection are interdependent with each other due to the fact that the majority of African countries rely on the use of internal revenue collection, i.e., taxation and charges, to fund national and regional budgets (African Development Bank, 2020). The governments in the continent have realized that enhanced domestic revenue mobilization and effective utilization of the same revenues can go a long way in enhancing public service delivery and infrastructure development. But governance, corruption problems, and poor collection of revenues have significantly discouraged the success of budget implementation in most African nations (OECD, 2021). Successful implementation and management of their budgets by governments of governments are vital for long-term development.

Anambra State in Nigeria's southeastern region has not been left out of these challenges of alignment of revenue receipts with successful budget implementation. The government has relied on various internally generated revenues (IGRs) like taxes, fees, fines, and licenses to fund its budget. The success of the state government in carrying out its budget is greatly contingent upon how effective these sources of revenue are being mobilized and captured. According to Ogunleye (2022), there were years of financial mismatch between the Anambra State expenditure and the revenue, catalyzed by inefficiency in tax collection and fund embezzlement. Despite the government's efforts towards the enhancement of its own sources of revenue creation through the establishment of the Anambra State Internal Revenue Service (AIRS) and governance reforms enhancement, the budget performance of the state has continued to be unstable. Poor data management systems, lack of accountability mechanisms, and weak infrastructure for collection of revenues have all been blamed for the inability of the state to achieve its budget projections (Ogunleye, 2022).

The government in Anambra State has strived hard to surmount these. E-tax systems and a more efficient system of collecting taxes using technology have been aimed at ensuring the process of revenue collection is made effective (Ariyo, 2018). The government has also attempted to diversify its revenue source by expanding into other revenue collection processes, which include the collection of charges from other industries such as hospitality, transport, and land use (Ariyo, 2018). Despite all these measures, the problem persists due to a number of factors. Ineffective enforcement of tax compliance is one of the major problems, with more skepticism regarding the ability of the government to effectively share and use revenue funds



(Ogunleye, 2022). Political interference and corruption within the revenue system still mar the optimal utilization of revenue collected for budget implementation (OECD, 2021).

The recurring problem of unbundling budget performance from revenue in Anambra State is caused by governance structural and administrative inefficiencies. Despite attempts to remove them through reforms and new technologies, decoupling of revenue collection and effective budget performance remains a behemoth challenge. The sustained dependence on volatile sources of finance like federal grants and the sluggish rate of economic diversification also contribute to the problem (Ogunleye, 2022). Thus, as much as there could be some gains in the revenues received and the budget implementation, broader reforms are required to address the root causes of these inefficiencies as well as to realize the sustainable interplay of revenue and budget performance in Anambra State.

REVIEW OF EMPIRICAL LITERATURE

Ani (2025) examined the relationship between tracking internally generated revenue (IGR) through digital technologies and the development of physical infrastructure in selected local governments in Ebonyi State, from 2015 to 2023. The study employed a descriptive survey design and purposive sampling, selecting 300 respondents, including local government staff and indigenes. The study utilized both primary data (structured questionnaires) and secondary data sources. The analysis was conducted using percentage and simple regression methods. The findings indicated that the tracking of IGR through digital technologies has not significantly contributed to the improvement of physical infrastructure such as roads, electricity, classroom blocks, and potable water in the selected local governments of Ebonyi State.

Akintola et al. (2024) investigated the impact of internally generated revenue on budget implementation in Lagos State, employing an ex-post facto research design. The study used Lagos State as both the population and sample, sourcing data from the Lagos State Internal Revenue Service and the Ministry of Economic Planning and Budgeting, covering the period from 2007 to 2022. Analytical methods include Ordinary Least Squares (OLS) technique and simple linear regression. The results revealed that internally generated revenue had a significant and positive influence on capital, recurrent, and total expenditure. Ogunleye (2024) analyzed the impact of internally generated revenue (IGR) on budget implementation in 24 selected Nigerian states from 2013 to 2022. Using an ex post facto design with secondary data, the study applied descriptive statistics, Pearson correlation, and panel regression analysis. Findings revealed that IGR had a statistically significant positive effect on budget implementation in the states examined.

Duyile et al. (2024) explored the causal relationship between budget implementation and taxation in Nigeria from 2000 to 2022 with the aim of verifying the congruence of tax revenues and fiscal policy outcomes. The study evaluated the Granger causality between budget implementation, company income tax (CIT), value-added tax (VAT), and capital expenditure as a proxy for budget implementation. The evidence was that CIT and budget implementation had no Granger causality between them. Despite this, there was a clear Granger causality between capital expenditure and VAT revenue, i.e., VAT revenue actually drives the implementation of the budget in Nigeria. This goes to make the point that VAT is substantially responsible for financing government capital expenditure.



Okoye and Amobi (2023) conducted a study on the impact of e-taxation registration on tax revenue generation in Anambra State, focusing on the Anambra State Internal Revenue Service (ASIRS) in Awka. The study aimed to assess the effectiveness of digital tax registration systems in enhancing tax revenue collection. Using a survey method, the researchers collected primary data from tax officials and taxpayers within the state, employing structured questionnaires to gather relevant information. The study's findings revealed that e-taxation registration had a significant positive impact on tax revenue generation. The digital system improved tax compliance and facilitated more efficient tax collection processes, leading to an increase in tax revenue.

Asogba (2022) examined the impact of tax revenue on national budget performance. The study employed the time-series data of thirty-four (34) years between the period of 1985-2018. The ARDL was employed for the analysis. It was revealed that CIT has a negative significant effect on government capital expenditure (CAPEX), while VAT has a positive significant effect on CAPEX. Adekunle et al. (2022) examined the impact of tax revenue on national budget performance. The study employed the time-series data of thirty-four (34) years between 1985 and 2018. The ARDL was employed for the analysis. It was revealed that CIT has a negative significant effect on government capital expenditure (CAPEX), while VAT has a positive significant effect on CAPEX.

Olaoye and Akinola (2019) analyzed how different tax revenues affect budget implementation in Nigeria from 2008 to 2017, using fully modified OLS and ECM based on the ARDL approach. It found that petroleum profit tax and company income tax positively influenced capital budget execution, while customs and excise duties had a negative effect. Conversely, for recurrent budgets, customs, excise duties, and VAT had positive impacts, but petroleum profit tax was negative. Olaoye and Olugbamiye (2019) examined the influence of internally generated revenue (IGR) on budget implementation in Ekiti State, Nigeria. The study analyzed various IGR components, including taxes, fines, licenses, earnings, and interest, using time series data from the state's annual budgets between 2007 and 2016. Employing techniques such as trend analysis, descriptive statistics, correlation analysis, ordinary least squares regression, and Granger causality tests, the study concluded that while IGR components showed an increasing trend, their effect on budget implementation was not statistically significant. It found no causal relationship between IGR components and budget execution, suggesting that the growth in IGR did not meaningfully influence the state's budget performance.

Okafor et al. (2018) examined the efficiency of budget allocation and implementation in Anambra State, focusing on the administration of Peter Obi. The study analyzed how budget allocation and execution, particularly through the Anambra Integrated Development Strategy (ANIDS) and the Millennium Development Goals (MDGs), influenced the state's development process. The research employed the system theory framework and utilized secondary data, analyzing it descriptively to assess the impact of budget allocation on state development. The findings indicated that effective budget implementation, along with accountability, played a crucial role in fostering development in Anambra State.



METHODOLOGY

Research Design

This study adopted the ex post facto research design to examine the sustainable interaction of revenue and budget performance in Anambra State from 2013 to 2023. The choice of this design was deemed appropriate because it enables researchers to establish the temporal sequence of the variables based on logical reasoning, allowing for a clear assessment of the relationship between revenue and budget performance.

Area of the Study

This study focuses on Anambra State, located in the southeastern region of Nigeria. The name "Anambra" is derived from a combination of the northern riverine clan "Anam" and the term "branch." Colonial travelers from the current Anambra area referred to their origin as the "Anam branch," which, when merged with "Omambala," the Igbo name for the Anambra River, resulted in the name Anambra.

Anambra State borders Delta State to the west, Imo State and Rivers State to the south, Enugu State to the east, and Kogi State to the north. The majority of the population is Igbo (98%), with a small percentage of Igala people (2%) residing primarily in the northwestern part of the state. Anambra is Nigeria's second-most densely populated state, after Lagos, comprising 21 local government areas and approximately 178 towns.

The capital city is Awka, while Onitsha, a historic port city from pre-colonial times, has grown into the largest urban area in the state. Nnewi, an industrial city, is home to INNOSON MOTORS, Nigeria's indigenous vehicle manufacturer. The state's motto is "Light of the Nation," formerly known as the "Home for All."

Population of the Study

The population of the study comprised technology-driven internally generated Taxes' implementation during the period 2013 to 2023. However, the budgets under consideration are for 11 years.

Sample Size and Sampling Technique

All the eleven years' budgets that form our population are adopted as our sample.

Nature and Sources of Data

This study utilized secondary data sources for its analysis. These sources include the Anambra State Government Budgets, Reports from the Accountant General, Financial Statements, and the Anambra State Government Budget Performance Reports covering an eleven-year period from 2013 to 2023.



Model Specification

The study adapted and modified the model used by Duyile et al. (2024). This is shown below:

$$CAP_t = \beta_0 + \beta_1 CIT_{it} + \beta_2 VAT_{it} + \mu_{it} \quad (1)$$

where CIT = company income tax, VAT = value-added tax, and CAP = capital expenditure as a proxy for budget implementation. Our study modified the model as follows:

$$\text{In a functional form, we have } BGPF = f(LICE, FIN) \quad (2)$$

Expressing Equation 2 in econometric form, we have:

$$BGPF_{it} = \alpha + \beta_1 LICE_{it} + \beta_2 FIN_{it} + \mu_{it} \quad (3)$$

where:

$BGPF_{it}$ = Budget implementation in time period t ; $LICE_{it}$ = Licenses in time period t ; FIN_{it} = Fines in time period t ; β_1 - β_2 are the coefficients of the model variables; and μ_{it} is the error term.

Method of Data Analysis

The study utilized linear regression analysis and analysis through SPSS 23.0 software to analyze the data and examine the relationship between the variables. Linear regression was chosen because it allows for the determination of cause-and-effect relationships.

DATA PRESENTATION AND INTERPRETATION OF RESULTS

Data Analysis

Table 1: The interaction of revenue and budget performance in Anambra State is not sustainable at any lag length

Budget performance	Coefficient	Std. Err.	t-value
Budget performance:			
L1.	-0.363	0.415	-0.87
Licenses:			
--.	-0.179	0.073	-2.47**
L1.	0.028	0.019	1.46
Fines:			
--.	-0.050	0.083	-0.6
L1.	0.202	0.100	2.02**
_cons	0.172	0.095	1.81
F-statistics	3.09		
Log-likelihood	7.779		
R-squared	0.8372		
Adj R-squared	0.566		

Source: Researcher (2024), significant at 5% (**)



The results from the analysis presented in Table 1 suggest that the interaction of revenue and budget performance in Anambra State is not sustainable at any lag length. The F-statistic of 3.09 (**) is significant at a 1% level of probability and an R-squared value of 0.837 suggests that the model explains a good portion of the variance in budget performance. However, the adjusted R-squared of 0.566 indicates that once the number of predictors is accounted for, the model's explanatory power decreases.

The lagged value of budget performance (L1) has a coefficient of -0.363 with a t-value of -0.87 which is not statistically significant at any probability level, indicating that previous budget performance does not significantly predict future budget performance. This negative and insignificant coefficient suggests that past performance does not strongly influence current budget outcomes, which may imply instability or unsustainability in the budget process, though data inadequacy would have contributed to this assumption.

Again, the immediate effect of licenses on budget performance has a coefficient of -0.179 with a significant t-value of -2.47 (**) at a 5% probability level, showing that an increase in revenue from licenses initially has a negative impact on budget performance. However, the lagged value (L1) of licenses has a small positive coefficient of 0.028 with an insignificant t-value of 1.46, suggesting that while the immediate impact is negative, there might be a slight positive influence in the subsequent period, although not statistically significant.

Furthermore, the immediate effect of fines on budget performance is also negative with a coefficient of -0.050 and an insignificant t-value of -0.6. However, the lagged value (L1) has a positive and significant coefficient of 0.202 with a t-value of 2.02 significant at a 5% level of probability, indicating that fines might positively influence budget performance in the following period.

DISCUSSION OF FINDINGS

The finding that the interaction between revenue and budget performance is not sustainable at any lag length indicates that the current system of revenue collection and budget implementation in Anambra State is volatile and lacks consistency over time. This volatility could undermine the effectiveness of budgetary planning and execution, leading to inefficiencies. However, the introduction of technology-driven IGR mechanisms could address these sustainability issues by providing more accurate, timely, and consistent revenue collection. This finding aligns with Adler et al. (2019) who submitted that technology can reduce the lag between revenue collection and its impact on budget performance by improving transparency, reducing leakages, and ensuring more reliable data for forecasting and planning.

Again, the mixed results for licenses and fines suggest that while there may be some delayed positive impacts, these are currently weak and inconsistent. Technology-driven approaches could help stabilize these revenue streams, making their impact on budget performance more predictable and sustainable over time.

Sadly, this unsustainable interaction between revenue and budget performance highlights the need for strategic planning and policy interventions. By leveraging technology, Anambra State could enhance the alignment between revenue inflows and budgetary needs, ensuring more sustainable and effective fiscal management.



CONCLUSION AND RECOMMENDATIONS

The research has established that the relationship between sources of revenue and budget performance in Anambra State is not very sustainable, with mixed outcomes across various categories of revenues. While some of the sources of revenue like fines and licenses have immediate negative effects on budget performance, the lagged effects of fines indicate areas for improvement in future periods. Low correlation between previous budget performance and recent outcomes is a sign of a continuity or sustainability deficiency in the budget process, perhaps because of inefficiencies in the management or erroneous strategic planning. These results show that fiscal reforms should be undertaken holistically; there is a need for better revenue management, and more alignment between revenue generation and budget implementation. Moreover, addressing the questions of governance, transparency, and accountability in the state's fiscal process is key to the degree of ensuring that revenue is effectively directed into development objectives and, consequently, to sustainable economic development and public good.

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