



AN EMPIRICAL STUDY OF INTERNALLY GENERATED REVENUE (IGR) AND THE ECONOMIC GROWTH OF CROSS RIVER STATE

Ogah Idagu Joseph (Ph.D.) and Roseline Ishanga Adie

Department of Accountancy, Faculty of Management and Social Sciences,
University of Cross River State.

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ABSTRACT: *The study empirically examined the effect of internally generated revenue on the economic growth of Cross River State. The specific objectives were to examine the effect of taxes, licenses and school charges on the economic growth of Cross River State using GDP as a proxy. The data for this study were gathered from secondary sources using reports of the ministries, departments and agencies of government. The study employed ordinary least square multiple regression techniques to establish the effect of independent variables such as taxes, licenses, and school charges on the dependent variable which is economic growth. Based on the result, the following findings were made: there was a positive and insignificant effect of taxes on the economic growth of Cross River State, there was a negative and significant effect of licenses on the economic growth of Cross River State, and there was a positive and insignificant effect of school charges on the economic growth of Cross River State. The study recommended that the government should increase her revenue in order to fund the capital expenditure of the state. Government should diversify its economy and explore the non-oil sector of the state economy especially so as to correct the disparity between revenue and expenditure and reduce the attendant budget deficit witnessed over the years.*

KEYTERMS: Internally Generated Revenue (IGR), tax revenue, licenses, school charges and economic growth.



INTRODUCTION

Internally Generated Revenue (IGR) refers to funds generated majorly by the various tiers of government: federal, state and local councils for their respective use. It helps in broadening and widening the overall non-oil revenue structure of the state. The current challenges of the three tiers of government in Nigeria are the dwindling level of revenue generation, mostly by the state governments and the absolute dependence on federal allocation which is tilted more in favour of the Federal Government, hence giving rise to annual budget deficits in the states and inadequate financial resources for meaningful growth and viable project development to provide for the general welfare of its citizens, which include shelter, health services, water supply, road, food, as well as qualitative education which usually engulf huge sums of money (Adesoji & Ogechi, 2023).

Oti and Odey (2022) opined that the instability in oil revenue from the oil market is one major source of concern for the dependency of the state governments on revenue accruing to the federation account. Therefore, it has become necessary for the state governments to look inwards for ways to mobilize more internally generated revenue. In order to facilitate the above statement, the state government should upgrade their methods of internally generated revenue collection from manual to digital methods of collections.

Internally generated revenue has no burden of repayment of interest. It serves as a nerve centre of the social contracts, makes government more responsible and more responsive to the needs of the people, serves as a tool for economic development, helps in the planning of savings and investments, and it is a powerful fiscal weapon to plan and direct the economy. It serves as a tool for social engineering by aiding the smooth running of the society. This is because as the government gets more and commissions more projects, more money is put into circulation, creating more employment and business opportunities that impact positively on the entire social economic growth. (Akpan & Nwanseh, 2021).

During the era of oil boom, state governments depended on the huge allocation from the federation account. Considering the present dwindling and deteriorating nature of allocation from the federation account, the state governments are faced with the paucity of funds to meet their financial obligations. A number of the revenue line items assigned to states by the constitutions are yet to be developed to yield robust revenues to them. Federally collected revenue and the amounts of federal transfers to states have significantly reduced. This poses significant challenges to the state governments in managing their budgetary expenditure as a significant reduction in revenue hinders the capacity of state governments to deliver on basic infrastructure. Many state governments including Cross River State are genuinely eager to grow their internally generated revenue base but seem largely unable to harness available opportunities to do so. Many legitimate sources of revenue in the state remained untapped, while procedures for the collection, remittance and accountability for the ones exploited often fell short of expectations, giving room for avoidable leakages. The consolidated revenue account of the Cross River State is made up of internally generated revenue and other receipts from the federation account. It is assumed that when the internally generated revenue is low, the state is forced to apply most of its federation account allocation to service recurrent expenditure, whereas when the internally generated revenue is high, a greater percentage of the allocation from the federation account will be used for capital expenditure. Does the state operate such a stringent fiscal policy to ensure that all the federation account allocation is used for capital expenditure despite the low level of internally generated revenue? (Udo & Nkannor, 2016; Oti & Odey, 2022)



Internally generated revenue serves as a tool for infrastructural development. Without adequate revenue, state governments cannot afford to cope with their expenditures. Due to the importance of internally generated revenue to nation building, more research works and contributions are required in order to facilitate the economic growth of our nation. Therefore, this study intends to examine the relationship between internally generated revenue and economic growth in Cross River State.

The main objective of the study was to examine the effect of internally generated revenues on the economic growth of Cross River State with specific objectives to:

- (i) examine the extent to which taxes affect the economic growth of Cross River State
- (ii) assess whether licenses affect the economic growth of Cross River State
- (iii) investigate whether school charges affect the economic growth of Cross River State.

Based on the above objectives the following research questions were raised:

- (i) To what extent do taxes affect the economic growth of Cross River State?
- (ii) Do licenses affect the economic growth of Cross River State?
- (iii) Do school charges affect the economic growth of Cross River State?

The following hypotheses were formulated:

H₀₁: Taxes have no significant effect on the economic growth of Cross River State.

H₀₂: Licenses have no significant effect on the economic growth of Cross River State.

H₀₃: There is no significant effect of school charges on the economic growth of Cross River State.

The study unravelled the nexus between internally generated revenue and economic growth. The study added to the existing knowledge on how internally generated revenue affects the economic growth of Cross River State. The study covered the sources of revenue like taxes, licenses and school charges from 1991 to 2020.

Internally Generated Revenue

Internally Generated Revenue (IGR) denotes the revenue that the federal, state and local governments generate within their respective areas of jurisdiction. Internally Generated Revenues for state governments are revenues that are derived within the state from various sources such as taxes: pay as you earn (PAYE), direct assessment, capital gain taxes, motor vehicle license, and school charges, among others. Economic development and sustainability of states in Nigeria depend on the ability of such states to generate revenue internally to supplement the revenue allocation from the federation account. In other words, federal allocations are not sufficient to guarantee economic development of states, hence the emphasis on local generation of revenues to sustain the economy locally and at the federal level. (Asimayu & Kizito, 2015; Okpe, 2019).



State governments who solely depend on the allocations from the federation account are finding it difficult to meet their obligations such as payment of salaries, provision of public goods and services, affordable and qualitative education, and healthcare services. One of the major challenges the present administration encountered on assumption of office was the non-payment of salaries by some states. The federal government managed the situation through granting of bailout funds to the affected states to settle payroll costs and other recurrent expenditure but, despite this intervention by the federal government, many states are still in arrears of salaries to their workers. It is only Rivers and Lagos States that possess the capacity to pay salaries if there are no federal allocations (Otubala, 2018; Adesoji & Ogechi, 2018).

Taxation

The Nigerian tax system is expected to contribute to the well-being of all Nigerians and all the taxes, whether direct or indirect, which are collected by the government should directly impact on the lives of the citizens. This can be accomplished through proper and judicious utilization of the revenue collected by the government. In line with the above, there are certain objectives, which the tax system is expected to achieve. These objectives include:

- i. To promote fiscal responsibility and accountability
- ii. To facilitate economic growth and development
- iii. To provide the government with stable resource for the provision of public goods and services
- iv. To address inequalities in income distribution
- v. To provide economic stabilization
- vi. To pursue fairness and equity
- vii. To correct market failures or imperfections (Bathia, 2006; Edama, 2006; Saeed & Somaye, 2012).

Economic Growth

Economic growth is the increase in the value of goods and services produced by an economy. It is conventionally measured as the percent rate of increases in real GDP. The concept of economic growth refers to growth of potential output, that is, production at full employment which is caused by growth in aggregate demand or observed output. Economic growth (output) depends on the amount of input (land, labour and capital), and the output is determined by population growth, increase in investment and land, and total labor productivity growth (Edama, 2012).



THEORETICAL FRAMEWORK

Fiscal Federation Theory

The theory was propounded by Arrow, Musgrave and Samuel in 1995. The theory states the role of the state in the economy. There are three roles expected from the government sector within the framework and they include the role of government in correcting various forms of market failure, the role of ensuring equitable distribution of income and the role of maintaining stability in the macro economy at full employment and stable prices. Hence, the government is expected to step in where the market mechanism has failed due to various types of public goods characteristics (Nightingale, 2002, Jhingam, 2011).

Empirical Review

Emelogu and Uche (2010) examined the relationship between government revenue and government expenditure in Nigeria, using co-integration and causality approaches. Applying time series data from 1970 to 2007 obtained from the Central Bank of Nigeria, the study was based on four hypotheses such as revenue-spend hypothesis, the spend-revenue hypothesis, the fiscal synchronization hypothesis and the institutional separation hypothesis. It employs the Engel-Granger two-step cointegration technique, the Johansen co-integration approach and the Granger causality test within the Error Correction Modeling (ECM) framework. The findings revealed that there is a long-run relationship between government revenue and government expenditure in Nigeria. Thus, the findings support the revenue-spend hypothesis for Nigeria, indicating that changes in government revenue induce changes in government expenditure at both national and sub-national levels.

Nwosu and Okafor (2014) studied the disaggregated analysis of government revenue and expenditure in Nigeria, using time series data from 1970 to 2011. Utilizing the cointegration techniques and Vector Auto-Regression (VAR) models, it was revealed that a long-run equilibrium dynamic relationship exists between government revenue and expenditure.

Nwanne (2015) investigated the effects of tax policy on the expenditure of local government councils in Imo State. The objective of the study was to evaluate the effect of the Nigerian tax policy on the ability of local governments to raise and spend money in the discharge of their statutory responsibilities. The study was occasioned by the fact that sub-national governments seem to be carried away by the euphoria of the periodic statutory allocations from the Federation Account to the extent of neglecting internally generated revenues to finance both recurrent and capital expenditures. A descriptive approach was adopted and the Ordinary Least Squares regression was used. Applying the t-test of structural stability, it was revealed that tax policy on internally generated revenue has a significant positive impact on the public expenditure of sub-national levels in Imo State.

Adesoji and Ogechi (2023) analyzed the effect of Internal Revenue Generation on Infrastructural Development in Lagos State. Descriptive and inferential statistics were used for the analysis. Descriptive statistics involved the use of simple percentages while the inferential statistics involved the use of Spearman's rank to determine the direction of relationship between variables. Findings from the study showed that there exists a positive relationship between internally generated revenue and infrastructural development.



Akpan and Nwansseh (2022) studied the effect of Internally Generated Revenue (IGR) on infrastructural development in Akwa Ibom State. Ex-post Facto research design was adopted in the study. The data were analyzed with simple percentage statistics while simple regression was used in testing the hypothesis. Findings showed that internally generated revenue contributes significantly and positively to the provision of water, electricity and roads, and is more skewed to roads than electricity and water.

RESEARCH DESIGN AND METHODOLOGY

The ex-post facto research design was adopted and secondary data obtained from the Internal Revenue Services, Cross River State were used. Time series data were collected for the period between 1991 and 2020 on internally generated revenue and Cross River State's economy.

Model Specification

As drawn from Asika (2014), the variables were built into a functional relationship and the model specified as:

$$\text{GDP} = f(\text{TAX}, \text{LIC}, \text{SC})$$

where

GDP = Gross domestic product

TAX = Taxes

LIC = Licenses

SH = School charges

Therefore,

$$\log \text{GDP} = b_0 + \log b_1 \text{TAX} + \log b_2 \text{LIC} + \log b_3 \text{SC} + e$$

where

b_0 = regression constant

b_1 - b_3 = regression parameters

e = stochastic error

Technique of Data Analysis

Ordinary least square model (OLS) of multiple regression statistical technique was used to establish the effect of the independent variables on the dependent variable.



RESULTS AND DISCUSSIONS

TABLE 1: Empirical data on internally generated revenue and the growth of Cross River State economy

YEAR	GDP(₦M)	TAX (₦M)	LICENCES (₦M)	SC (₦M)
1993	596.04	6.84	258,320,000	400,540,000
1994	909.80	6.90	258,820,000	364,580,000
1995	1259.07	13.42	288,420,000	450,120,000
1996	1762.81	9.37	189,660,000	284,230,000
1997	2895.20	10.43	210,960,000	268,420,000
1998	3779.13	7.39	188,750,000	258,240,000
1999	4111.64	6.56	199,840,000	288,230,000
2000	4588.99	7.37	203,340,000	300.530,000
2001	5307.36	6.04	151,990,000	219,510,000
2002	6897.48	5.33	173,800,000	257,640,000
2003	8134.14	5.01	167,620,000	264,010,000
2004	11332.25	7.22	299,550,000	442,290,000
2005	13301.56	4.62	309,850,000	409,800,000
2006	17321.30	8.90	578,770,000	700,750,000
2007	22269.98	104.32	6,401,790,000	7,512,720,000
2008	28662.47	95.01	11,431,960,000	12,852,180,000
2009	32995.38	12.71	1,958,600,000	2,076,710,000
2010	39157.88	7.46	1,293,720,000	1,339,600,000
2011	44285.56	8.00	1,639,000,000	1,754,820,000
2012	54612.26	2.65	2,052,360,000	2,183,650,000
2013	62980.40	2.65	1,767,690,000	1,788,400,000
2014	71713.94	2.79	1,914,240,000	1,956,450,000
2015	80092.56	3.28	2,515,760,000	2,554,110,000
2016	89043.62	2.76	2,479,020,000	2,479,020,000
2017	94144.96	3.26	2,431,600,000	2,646,010,000
2018	101489.49	3.58	2,443,300,000	2,548,015,000
2019	113711.63	4.47	2,531,450,000	2,732.157,000
2020	11234356	3.54	2,345,843,000	2,435,546,000
2021	11567433	3.43	2,344,675,000	2,345,891,000
2022	10557400	3.04	2,054,125,000	2,015,100,000

Source: Budget Department and Internal Revenue Service Calabar 2022



Analysis of Data

The regression results on the effect of internally generated revenue on the economic growth of Cross River State.

TABLE 2 (Regression Result)

Dependent Variable: LGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.78561	88.38593	-0.246483	0.8081
LTAX	3.707313	4.452871	0.832567	0.4160
LLIC	-0.310823	0.071413	-4.352490	0.0007
LSC	3.941726	4.283158	0.920285	0.3696

$$\text{LGDP} = -21.78561 + 3.707313 \cdot \text{LTAX} - 0.310823 \cdot \text{LLIC} + 3.941726 \cdot \text{LSC}$$

From the result as shown on Table 2, the relationship of the models is:

$$\text{LGDP} = -21.78561 + 3.707313 \cdot \text{LTAX} - 0.310823 \cdot \text{LLIC} + 3.941726 \cdot \text{LSC}$$

The result shows a negative constant value which is an indication that if all the stated independent variables are not contributing to changes in the economy, the dependent variable will reduce, all things being equal. It also shows that TAX and SC have positive coefficients of 3.707313 and 3.941726 respectively. These positive coefficients mean that the independent variables have a direct relationship with the dependent variable. It also indicates that a percent increase in TAX and SC will cause GDP to increase by 3.707 percent and 3.942 percent respectively, all things being equal.

On the contrary, the result shows that LIC has a negative coefficient of 0.310823. This negative coefficient means that the independent variable has an inverse relationship with the dependent variable. It also indicates that a percent increase in licenses will cause employment to decrease by 0.312 percent, all things being equal. However, only the relationship between LIC and GDP is statistically significant while others are not statistically significant at 5% level.

Statistical Criteria

This paragraph estimates the student t-test, F-test and R^2 (the coefficient of determination).

**TABLE 3: Summary of F-test, R² and serial correlation results**

Tests	GDP
F-statistic	90.80108
Prob (F-statistic)	0.000001
R-squared	0.862300
Adjusted R-squared	0.852803
Durbin-Watson stat	2.202103

Source: *Extract from regression result (Table 2)*

F-test

This test is used to determine the overall significance of the model. Hypotheses were tested at $\alpha = 5\%$ is:

H₀: $\beta_1 = 0$ (the model is not statistically significant)

H₁: $\beta_1 \neq 0$ (the model is statistically significant)

Decision Rule: Reject H₀ if probability (f-statistic) < 0.05; otherwise, do not reject H₀.

From Table 4.3, the probability (f-statistic) of the model is 0.00000 and it is lower than 0.05. We therefore reject H₀ and conclude that the model is fit, adequate and reliable for any analysis drawn from them. The variables are jointly significant.

Coefficient of Determination (R²)

The R² value of 0.8623 indicates that the power of our variables together explained variations in relation to dependent variables and revealed that employment is high. It also shows that the level of correlation between the variables and employment is high and tight. In the same vein, the adjusted R² value of 0.8528 implies that the variables' contribution to the explanation of the changes in the dependent variable LEMP is 85.28% while 14.72% is explained by other factors unexplained by the model.

TABLE 4: Summary of the t-test and research questions

GDP			
Variables	t-Statistic	Prob.	Decision
LTAX	0.832567	0.4160	Not Significant
LLIC	-4.352490	0.0007	Significant
LSC	0.920285	0.3696	Not Significant

Source: *Extract from regression result (Table 4.2)*

Only the t-values of LIC are statistically significant. Its probability is less than 0.05. The t-values of all the other variables are not significant at 5% level. This is because their probability values as shown in the table are all greater than 0.05.



Test of Hypotheses

In order to test the already stated hypotheses in Chapter One, the following decision rule is stated:

Decision Rule

The decision rule is to reject the null hypothesis if the t-calculated is $<$ t-tables, and accept the null hypothesis if the t-calculated $<$ t-table.

Hypothesis One

H₀: Taxes have no significant effect on the growth of Cross River State's economy.

H₁: Taxes have a significant effect on the growth of Cross River State's economy.

Results

t-calculated for TAX = 0.8325

t-critical at 24 = 2.492

Based on these results and our decision rule, the null hypothesis cannot be rejected and, therefore, we can conclude that there is no effect of taxes on economic growth.

Hypothesis Two

H₀: Licenses have no positive and significant impact on the growth of Cross River State's economy.

H₁: Licenses have a positive and significant impact on the growth of Cross River State's economy.

Results

t-calculated for LIC = 4.352

t-critical at 24 df 0.01 = 2.397

Based on these results and our decision rule, the null hypothesis is rejected and the alternate hypothesis is upheld. We can conclude that there is a significant effect of licenses on economic growth.

Hypothesis Three

H₀: There is no significant effect of school charges on the growth of Cross River State's economy.

H₁: There is a significant effect of school charges on the growth of Cross River State's economy.

Results

t-calculated for SC = 0.9202



t-critical at 24 df 0.01 = 2.492

Based on these results and our decision rule, the null hypothesis cannot be rejected and, therefore, the null hypothesis is upheld and we can conclude that there is no significant effect of school charges on economic growth.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Based on the analysis of the results, the study revealed that internally generated revenue has a positive effect on the growth of the economy. Internally generated revenue serves as a tool for infrastructural development. Without adequate revenue, state governments cannot afford to meet their expenditures. Revenue are funds needed for governance in the public sector to finance government activities, adding that these funds are being generated from non-oil sources such as income and other forms of tax, royalties, fines, fees, rates and aids from the federal government and foreign financial institutions and countries. Internally generated revenues are those revenues generated within the state, e.g., taxes, motor vehicle licensing, and royalties, among others. Revenue comprises receipt from taxes as well as those which are not the proceeds of taxation but either the realization from the sale of government properties or other interests and returns from loan and investment earnings.

The following recommendations are made:

1. Government should increase the size of its internally generated revenue in order to accommodate the capital expenditure of the state.
2. The state government should diversify its economy and explore especially the non-oil minerals sector of the state economy so as to correct the disparity between revenue and expenditure and reduce the attendant budget deficit.
3. The government should go a step further in intensifying efforts at developing other sources of revenue in order to insulate the economy from the volatility associated with the oil revenue.

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