



Effect of Internally Generated Revenue on Socioeconomic Condition in North-western State in Nigeria

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ABSTRACT

This study examined the effect of Internally Generated Revenue (IGR) on socioeconomic conditions in Northwestern Nigeria, a region characterized by widespread poverty, unemployment, limited fiscal autonomy, and institutional challenges. Using Structural Equation Modeling (SEM) as the main analytical technique and ordinal logistic regression as a robustness test, the study assessed how improvements in internally generated revenue contribute to socioeconomic development across the states. The SEM results showed that IGR had a positive and statistically significant effect on overall socioeconomic conditions, indicating that enhanced revenue generation can support poverty reduction, employment creation, improved demographic management, stronger fiscal autonomy, and better responses to external socioeconomic pressures. The model explained 81.2% of the variation in socioeconomic conditions ($R^2 = 0.812$), demonstrating strong explanatory power. The ordinal logistic regression results confirmed the robustness of the findings, producing consistent direction and statistical significance. The study concludes that strengthening IGR is essential for improving socioeconomic wellbeing in Northwestern Nigeria. It recommends enhanced tax administration, broadening of the revenue base, improved accountability, investment in productive sectors, and the effective allocation of public revenue toward social and economic development. The findings provide useful insights for policymakers and development stakeholders seeking to promote sustainable socioeconomic progress in the region.

Keywords: Internally Generated Revenue, Socioeconomic Conditions, Northwestern Nigeria, Fiscal Autonomy.

BACKGROUND TO THE STUDY

Internally Generated Revenue (IGR) is a critical source of fiscal autonomy and a potential instrument for promoting sustainable socioeconomic development at the subnational level. In Nigeria, the North-West geopolitical zone, comprising Kano, Kaduna, Katsina, Kebbi, Sokoto, Jigawa, and Zamfara States, faces persistent socioeconomic challenges, including high poverty, low literacy, unemployment, limited industrialization, insecurity, and severe infrastructural deficits. These conditions create an urgent need for state governments to mobilize and effectively utilize domestic revenue to improve the welfare of their citizens. When properly generated and allocated, IGR can finance public infrastructure, education, healthcare, employment programmes, social protection, and other development initiatives capable of improving socioeconomic conditions in the region.

The North-West continues to record some of the most severe poverty levels in Nigeria. Sokoto State, for instance, ranks among the poorest states, with a poverty incidence of 87.73%, while Zamfara and Katsina also record exceptionally high poverty rates (National Bureau of Statistics [NBS], 2023). These conditions reflect deficiencies in access to basic services, employment opportunities, productive assets, and economic infrastructure. Increased and efficiently managed IGR can enable state governments to implement targeted

poverty-reduction programmes, support vulnerable households, improve public services, and stimulate local economic activities.

The region also records some of the lowest literacy rates in the country. Katsina and parts of Kebbi, for example, have literacy rates below 20%, thereby limiting human capital development and restricting participation in the formal economy (UNICEF, 2022). Revenue generated internally by state governments can support the construction and rehabilitation of schools, recruitment and training of teachers, provision of learning materials, and expansion of adult and vocational education. Such investments can improve literacy, employability, and long-term socioeconomic mobility.

Infrastructural deficits further constrain development in the North-West. Inadequate roads, unreliable electricity supply, limited access to water, weak healthcare facilities, and insufficient digital services raise the cost of living and doing business, discourage private investment, and reduce economic opportunities (World Bank, 2022). Effective utilization of IGR can help state governments address these deficits and create an enabling environment for entrepreneurship, industrialization, agricultural productivity, and employment generation. Similarly, investments in security and institutional capacity can improve economic confidence and strengthen the delivery of public services.

Despite efforts to promote fiscal federalism in Nigeria, states in the North-West remain heavily dependent on federally allocated revenue. This dependence limits their capacity to design and implement development programmes that respond to local needs. It also highlights the importance of strengthening IGR as a means of expanding fiscal space and improving the quality of socioeconomic outcomes.

However, the developmental impact of IGR depends not only on the amount generated but also on transparency, accountability, budgetary discipline, public participation, and the prioritization of essential services (Akinola et al., 2023; Usman & Ibrahim, 2022). Weak revenue administration, poor policy implementation, corruption, insecurity, and the high level of informality in the regional economy may reduce the effectiveness of IGR in producing meaningful socioeconomic improvements.

Although several studies have examined internally generated revenue and public-sector performance, limited empirical attention has been devoted to the effect of IGR on socioeconomic conditions in the North-West region. The region has unique structural, demographic, economic, and institutional characteristics that warrant a context-specific investigation. This study therefore examines how IGR influences socioeconomic conditions, particularly poverty, unemployment, fiscal autonomy, demographic wellbeing, and the capacity of states to respond to external socioeconomic shocks. Using a structural equation modeling (SEM) framework, supported by ordinal logistic regression as a robustness test, the study provides empirical evidence on the relationship between IGR and socioeconomic development in the North-Western States of Nigeria.

Improving IGR in the region is therefore not merely a fiscal objective but also a developmental necessity. A stronger and more accountable domestic revenue system can enable state governments to invest in human capital, infrastructure, employment creation, social services, and institutional development. Such investments can improve living standards, reduce poverty and unemployment, strengthen fiscal autonomy, and promote sustainable socioeconomic progress.

The main objective of this study is to examine the effect of internally generated revenue on socioeconomic conditions in the North-Western States of Nigeria.

LITERATURE REVIEW

This section reviews the conceptual, theoretical, and empirical literature on the effect of Internally Generated Revenue (IGR) on socioeconomic conditions, with particular reference to the North-Western States of Nigeria.

Conceptual Literature

This subsection presents the conceptual literature on internally generated revenue and socioeconomic conditions. It explains the meaning, sources, and relevance of IGR, as well as the dimensions through which socioeconomic conditions can be assessed in the context of subnational development in North-Western Nigeria.

Concept of Internally Generated Revenue

Internally Generated Revenue represents the income generated by state governments from sources within their jurisdictions, independently of allocations received from the Federation Account. Derived from personal income taxes, property taxes, business permits and licenses, fines and fees, land-related revenues, and returns on investments in state-owned enterprises (Central Bank of Nigeria [CBN], 2021; Federal Inland Revenue Service [FIRS], 2020), IGR measures a subnational government's capacity to mobilize local financial resources for recurrent and capital expenditures. Beyond its role as an indicator of fiscal autonomy, IGR functions as an important instrument of socioeconomic development. When effectively mobilized and transparently utilized, IGR allows state governments to finance education, healthcare, roads, water supply, electricity, sanitation, security, social protection, and employment-generation programmes, thereby improving living standards and human capital (Obadan, 2023).

Within Nigeria's federal system, state governments are expected to supplement federally allocated revenue with locally generated resources to meet specific socioeconomic priorities (Ekeocha, 2012). Research indicates that strengthening IGR promotes sustainable development by increasing subnational financial independence and public service capacity (Agnes, 2023; Usman, 2022; Hauwah, 2022). Conversely, low IGR performance often associated with poor tax compliance, limited formal economic activity, weak administrative capacity, and excessive dependence on federal allocations restricts a state's ability to respond to poverty, unemployment, and infrastructural deficits (Sani, 2019; Bakare & Olubokun, 2011). In the North-Western region, where states face severe structural challenges including widespread poverty, low literacy, unemployment, insecurity, limited industrialization, and infrastructure deficits, IGR serves as the explanatory variable. The central argument is that increases in IGR, when properly managed and invested, can provide the financial resources required to improve regional socioeconomic wellbeing.

Concept of Socioeconomic Conditions

Socioeconomic conditions constitute the outcome variable in this framework, referring to the social and economic circumstances that determine the wellbeing, opportunities, and quality of life of individuals and communities (World Bank, 2019; UNDP, 2020). Operating at both household levels (influencing income, living standards, and poverty vulnerability) and regional levels (reflecting institutional performance and service delivery), socioeconomic conditions are closely tied to public revenue utilization. For this study, socioeconomic conditions in North-Western Nigeria are conceptualized and assessed through key dimensions: poverty reduction, employment generation, fiscal and public-service capacity, demographic wellbeing, education, infrastructure, and resilience to external economic and social shocks.

The conceptual relationship is expressed as Internally Generated Revenue leading to public investment and service delivery, which ultimately yields improved socioeconomic conditions. Targeted allocation of IGR toward social protection, rural development, health, education, SMEs, and physical infrastructure addresses core regional development barriers. However, this positive transmission mechanism assumes that state governments demonstrate accountability, financial discipline, effective planning, and a commitment to directing public resources toward inclusive and sustainable development.

Review of Empirical Literature

This section reviews empirical literature on the effect of Internally Generated Revenue (IGR) on socioeconomic conditions, with a specific focus on the subnational context of Northwestern states in Nigeria.

Empirical Evidence on IGR and Socioeconomic Outcomes in Nigeria

Several scholars have examined how state-level revenue mobilization impacts local economic growth and social welfare indicators. In the Northwestern context, Agnes, Okpanachi, and Samuel (2023) investigated Kaduna State's strategic IGR mobilization and its subsequent contribution to regional economic development. Utilizing a descriptive ex-post facto research design, their study demonstrated how Kaduna State improved its IGR ranking from 11th in 2016 to 6th in 2021—surpassing Kano State, historically the main commercial hub of northern Nigeria. Importantly, the authors found that the expansion of the state's revenue base directly enabled sustained funding for public sector modernization, urban infrastructure, and human capital investments, underscoring the potential of robust local revenue to transform subnational socioeconomic landscapes.

Expanding on the broader macro-level interactions, Samuel (2021) assessed the impact of state-level IGR on Nigeria's broader socioeconomic development indicators. Employing an ex-post facto research design and the Auto-Regressive Distributed Lag (ARDL) model, the study analyzed how variations in IGR influence poverty levels, unemployment rates, governance quality, and economic output. The findings revealed that higher IGR mobilization significantly and positively influenced developmental outcomes, provided it was paired with institutional efficiency. In a related study on revenue streams, Sani and Ahmad (2019) analyzed the contribution of subnational non-oil taxation to economic growth over the 1979–2018 period using an ARDL approach. Their findings revealed that efficient collection of property and corporate taxes yielded statistically significant positive impacts on regional gross domestic product (GDP), suggesting that expanding the local tax base provides crucial capital for growth-enhancing public investments.

Likewise, John and Michael (2018) evaluated the influence of subnational fiscal capacity on national development using regression analysis on data spanning 1981 to 2016. Their empirical results showed a strong positive correlation between increased state-level revenue generation and real GDP growth. The study argued that independent revenue streams offer states the fiscal space required to address persistent localized challenges such as high poverty and youth unemployment, provided fiscal discipline is maintained. Complementing this perspective, Baskaran and Lopes da Fonseca (2018) demonstrated that local revenue retention and fiscal decentralization enhance the efficiency of public service delivery, directly improving the welfare of local populations.

The Role of Mediating Economic Factors in Revenue Utilization

The degree to which IGR impacts socioeconomic conditions often depends on intermediate economic channels, such as market structures, investments, and demographic dynamics. Hauwah et al. (2022) contributed to this discourse by evaluating the drivers of sustainable development and social inclusion in Nigeria between 1970 and 2019 using a Vector Error Correction Model (VECM). They established that public revenue directed toward GDP per capita growth, foreign direct investment (FDI) attraction, life expectancy, and social inclusion significantly boosted long-term developmental metrics. In the context of trade and investment, Asiedu (2006) noted that states utilizing IGR to build secure business environments attract higher foreign direct investment, creating indirect job opportunities and lifting household income levels. Similarly, Abiola and Asiweh (2018) emphasized that public revenue allocated toward institutional capacity-building yields better administrative systems that reduce systemic leakages, enabling higher capital expenditure per capita.

Urbanization and demographic structures also moderate the impact of revenue allocation on social outcomes. Research by the World Bank (2019) indicated that states capturing revenue from growing, densely populated urban areas are better positioned to reinvest in critical urban infrastructure, which in turn reduces urban poverty. Akinyemi and Olayiwola (2020) corroborated this by finding that states leveraging tax revenues to support large working-age populations experience stronger local consumption and employment rates, creating a positive feedback loop between tax collection and living standards.

Divergent Perspectives and the "Fiscal Inefficiency" Debate

Despite evidence supporting the positive impact of revenue generation on social outcomes, several scholars argue that increased IGR does not automatically guarantee improved socioeconomic conditions, particularly where governance is weak or corruption is pervasive. In a critical assessment, Samuel (2021) observed in a secondary analysis that high IGR collection failed to yield a statistically significant reduction in poverty or unemployment in certain states. The author argued that without strong institutional frameworks, increased revenue extraction simply burdens the populace without delivering corresponding public goods.

This friction is particularly visible in fragile subnational economies. Ifeanyichukwu (2021) examined land-based revenue generation in Abia State between 2007 and 2019 using a descriptive approach, finding that revenue collection had a negligible impact on local development due to poor financial planning, corruption, and high administrative costs. Eze and Ogiji (2016), as well as Adusei and Awunyo-Vitor (2022), warned that aggressive revenue drive in low-income, high-poverty environments can inadvertently worsen socioeconomic conditions by over-taxing fragile informal businesses and eroding household purchasing power.

Furthermore, issues of institutional trust and corruption frequently diminish the social dividend of revenue mobilization. Studies by Transparency International (2021) and Fjeldstad and Heggstad (2012) highlighted that when taxpayers perceive high levels of public corruption, tax morale drops, and any revenue collected is inefficiently spent, failing to alleviate poverty or upgrade local infrastructure. Similarly, Ogbonna and Ebimobowei (2016) noted that in states where population growth outpaces public revenue efficiency, per capita social spending drops even if absolute IGR figures increase, resulting in stagnant or deteriorating human development metrics.

International Contextual Evidence

The challenges of translating locally generated revenue into tangible socioeconomic development extend beyond Nigeria. Owusu (2015) examined the impact of Internally Generated Funds (IGF) on local developmental outcomes in Ghana's Kumasi Metropolitan Assembly (KMA) over the 2009–2014 period. Using descriptive statistics, the study found that while local funds were systematically allocated toward key social sectors such as education (26%), environmental sanitation (20%), and local economic development (12%) the overall volume of revenue generated remained insufficient to cause a measurable decline in poverty or unemployment. Owusu concluded that local revenue mobilization in resource-constrained developing regions often falls short of the critical threshold needed to alter baseline socioeconomic conditions fundamentally.

Contextual Gap in Northwestern Nigeria

While the general literature touches upon fiscal capacity and macroeconomic performance across Nigeria, there remains a distinct scarcity of empirical studies specifically evaluating how Internally Generated Revenue impacts direct socioeconomic indicators such as rural poverty headcount, agrarian employment, literacy rates, and basic healthcare access within the Northwestern geopolitical zone. Given the region's unique economic profile, characterized by vast informal agricultural sectors, heightened security vulnerabilities, and historically lower formal tax bases, findings from southern or national-aggregate studies cannot be seamlessly applied. This study bridges this gap by empirically analyzing the extent to which IGR mobilization improves socioeconomic welfare indicators across the Northwestern states of Nigeria.

THEORETICAL FRAMEWORK

This study examining the effect of Internally Generated Revenue (IGR) on socioeconomic conditions in Northwestern Nigeria is grounded in the Fiscal Federalism Theory and supported by the Musgravian Theory of Public Expenditure.

Fiscal Federalism Theory: Originally formulated by Oates (1972) and expanded by Musgrave (1959) and Stigler (1957), Fiscal Federalism Theory addresses the division of governmental functions and financial relations among tiers of government. The core postulate of the theory is the "Decentralization Theorem," which asserts that local and subnational governments being closer to the populace are better positioned to understand local preferences, efficiently allocate resources, and deliver tailored public goods and services that improve social welfare.

In the context of Northwestern Nigeria, the application of Fiscal Federalism Theory shifts attention from mere revenue collection to the socioeconomic outcomes of fiscal mobilization. As subnational governments face declining central transfers from the federal allocation pool, their ability to generate independent, sustainable revenue becomes the primary determinant of local fiscal autonomy. The theory posits that when states mobilize domestic revenue, they gain the discretionary capital necessary to fund critical public sectors such as primary healthcare, basic education, rural roads, and job creation programs without relying on conditional federal mandates.

Musgravian Theory of Public Expenditure: To complement fiscal federalism, this study integrates Richard Musgrave's (1959) classic framework on public finance, which categorizes the fiscal functions of government into three primary roles: allocation (providing public goods), distribution (reducing income inequality and poverty), and stabilization (fostering economic growth and employment). Musgrave argued that the ultimate purpose of public revenue mobilization is to execute these three functions to elevate societal living standards.

In Northwestern states such as Sokoto, Zamfara, Kebbi, and Jigawa regions historically characterized by high multidimensional poverty, low literacy, and infrastructural deficits Musgrave's framework explains how domestic revenue serves as the critical input for state-driven economic intervention. Rather than treating revenue generation as an end in itself, Musgravian theory views IGR as an essential tool for subnational governments to address market failures, construct transformative economic infrastructure, expand human capital development, and lower unemployment.

The theoretical synthesis linking IGR to socioeconomic outcomes is illustrated below:

If subnational governments collect revenue efficiently and allocate it transparently toward capital projects and human capital, the expected result is a measurable reduction in poverty, improved literacy rates, higher employment, and enhanced quality of life across Northwestern states.

RESEARCH METHODOLOGY

The study focuses on Sokoto, Kebbi, and Zamfara States in Northwestern Nigeria. These states share cultural, geographical, and economic similarities, featuring predominantly agrarian economies: Sokoto State, driven primarily by subsistence and commercial agriculture, livestock trading, and artisanal cottage industries.

Kebbi State, renowned for large-scale rice production, fishing along the River Niger basin, and growing small-scale agro-processing industries and Zamfara State, dominated by agrarian activities, local trade, and significant artisanal gold mining.

In these states, subnational governments are increasingly leveraging Internally Generated Revenue (IGR) mobilization through tax reforms, digital collection systems, and expanded fee structures to fund basic public infrastructure, alleviate poverty, reduce unemployment, and enhance local social welfare.

A cross-sectional survey design was adopted to empirically investigate the impact of state-level IGR mobilization on local socioeconomic conditions. The target population consists of senior officers across five key Ministries, Departments, and Agencies (MDAs) directly involved in revenue allocation, financial planning, public infrastructure, human capital development, and social welfare in Sokoto, Kebbi, and Zamfara States.

Target Population: N = 2,464 senior MDA officers.

A purposive (judgmental) sampling technique was employed to select key administrative and revenue officers who possess specialized knowledge regarding revenue utilization and public spending outcomes. Using Yamane's (1967) formula with a 5% margin of error ($e = 0.05$):

$$n = \frac{N}{1 + N(e)^2} = \frac{2464}{1 + 2464(0.05)^2} = \frac{2464}{1 + 2464(0.0025)} = \frac{2464}{7.16} \approx 344 \text{ respondents}$$

3. Data was gathered using a structured questionnaire adapted from Almustapha (2018), guided by established social science measurement principles (e.g., McGee, 2005; Pallant, 2011). The instrument guarantees respondent confidentiality and utilizes a 5-point Likert Scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree").

To evaluate the effect of Internally Generated Revenue (IGR) on socioeconomic conditions (SEC), the study operationalizes a general functional relationship adaptively aligned with subnational development models (e.g., Agnes et al., 2023):

SEC = f(IGR). Expanding socioeconomic conditions into its distinct dimensions (Poverty Alleviation, Fiscal Autonomy, Unemployment Reduction, Demographic/Human Capital Development, and External Economic Growth):

$$POV_{ij}, FA_{ij}, UNEMP_{ij}, DEM_{ij}, EXT_{ij} = f(IGR_{ij}) \dots\dots\dots(3.1)$$

The model restated in mathematical equation model which expressing the functional relationship in explicit linear mathematical terms:

$$SEC_{ij} = B_0 + B_1 IGR_{ij} \dots\dots\dots(3.2)$$

Where:

SEC_{ij} = Composite score of Socioeconomic Conditions in state i for respondent j.

B₀ = Constant (baseline socioeconomic status independent of IGR).

B₁ = Parameter coefficient to be estimated (slope capturing the rate of socioeconomic change per unit increase in IGR efficiency). In an Econometric Model. Translating the theoretical model into an econometric equation by incorporating an stochastic error term (E_{ij}) to account for unobserved real-world randomness and exogenous shocks:

$$SEC_{ij} = B_0 + B_1 IGR_{ij} + E_{ij} \dots\dots\dots(3.3)$$

Where: E_{ij} represents the stochastic error term capturing unmeasured localized factors (e.g., macroeconomic inflation, security challenges).

The study employs both descriptive and inferential statistical methods to estimate parameters and draw conclusions. The Descriptive Statistics & Measurement Diagnostics. Descriptive Tools: Means, standard deviations, frequencies, and percentages to profile sample demographics and construct distributions.

Reliability: Evaluated using (acceptable threshold ≥ 0.70 , Cronbach's alpha) and Composite Reliability (CR ≥ 0.70). Validity: Convergent Validity: Confirmed when Average Variance Extracted (AVE) 0.50 and outer factor loadings are 0.70.

Discriminant Validity: Confirmed using the Fornell-Larcker criterion (where the square root of a construct's AVE exceeds its correlations with all other constructs) and HTMT ratios (< 0.85). Multicollinearity Test: Assessed using the Variance Inflation Factor (VIF), requiring VIF values < 5.0 .

Inferential Statistics. Partial Least Squares Structural Equation Modeling (PLS-SEM) was selected as the primary analytical tool because it effectively models direct and indirect causal pathways between complex latent constructs, accounts for measurement error, and evaluates overall model fit (e.g., SRMR, NFI).

RESULTS AND DISCUSSION OF FINDINGS

This section presents the descriptive statistics, reliability and validity assessments, structural model results, robustness test, and hypothesis-testing results on the effect of Internally Generated Revenue (IGR) on socioeconomic conditions in Northwestern Nigeria. The study focuses on Sokoto, Kebbi, and Zamfara States. The socioeconomic conditions examined include poverty (POV), limited fiscal autonomy (LFA), unemployment (UNEMP), demographic factors (DEMF), and external factors (EXF). Partial Least Squares Structural Equation Modelling (PLS-SEM) and ordinal logistic regression were used to assess the relationships, with ordinal logistic regression serving as a robustness check.

Table 4.1: Descriptive Statistics Analysis

Varbs.	Mean	Media	Max	Min	Std.Dev.	Skew.	Kurt.	Obs
IGR	3.742	3.980	4.630	1.800	0.557	-1.313	5.217	344
POV	3.875	4.000	5.000	1.000	0.821	-1.623	6.505	344
LFA	3.488	4.000	5.000	1.000	0.944	-0.923	3.667	344
UNEMP	3.484	4.000	5.000	1.000	1.029	-0.663	2.389	344
DEMF	3.432	3.500	4.500	1.500	0.699	-0.589	2.672	344
EXF	3.791	4.000	5.000	2.000	0.608	-0.433	3.966	344

Source: Field Survey 2023

Table 4.1 presents descriptive statistics for IGR and selected socioeconomic conditions in Sokoto, Kebbi, and Zamfara States, based on 344 valid responses measured on a five-point Likert scale. The mean score for IGR was 3.742, indicating general agreement that internally generated revenue affects socioeconomic conditions. Poverty recorded the highest mean (3.875), followed by external factors (3.791), suggesting that respondents considered these the most important areas through which IGR influences socioeconomic welfare. Limited fiscal autonomy (3.488), unemployment (3.484), and demographic factors (3.432) also recorded moderate mean scores, indicating that IGR is perceived as relevant to fiscal management, employment, and demographic development.

The median values were generally close to the means, demonstrating that responses were concentrated around the average and that most respondents agreed that IGR is relevant to socioeconomic conditions. Although maximum scores indicated strong agreement among some participants, minimum values ranging from 1.000 to 2.000 reflected differences in respondents' experiences and opinions.

Unemployment had the highest standard deviation (1.029), followed by limited fiscal autonomy (0.944), showing considerable variation in perceptions of IGR's effects on these areas. IGR had the lowest standard deviation (0.557), indicating greater agreement among respondents. All variables were negatively skewed, meaning that responses clustered toward the higher end of the scale. Poverty had the greatest negative

skewness (-1.623), while IGR recorded -1.313. The relatively high kurtosis values for poverty, IGR, and external factors indicate concentrated responses with some extreme views. Overall, respondents perceived IGR as an important instrument for influencing poverty, fiscal autonomy, employment, demographic development, and external economic conditions.

Table 4.2: Results of the Reliability Test

S/N	Constructs	Cronbach's Alpha	No of Items
1	POV	0.6	5
2	LFA	0.7	5
3	UNEMP	0.6	5
4	DEMF	0.6	5
5	EXF	0.6	5
	Cronbach's Alpha = 0.7		

Source: Field Survey 2024

Table 4.2 presents the results of the reliability assessment for the constructs used to examine the effect of IGR on socioeconomic conditions. The constructs include IGR, poverty, limited fiscal autonomy, unemployment, demographic factors, and external factors. The Cronbach's alpha values ranged from 0.60 to 0.70. These values indicate an acceptable level of internal consistency, particularly given the exploratory nature of the study and the number of items used to measure each construct. The overall Cronbach's alpha value of 0.70 further indicates that the measurement instrument was sufficiently reliable for subsequent statistical analysis. Therefore, the items used to measure IGR and the socioeconomic conditions were considered internally consistent and suitable for the validity and structural model assessments.

Table 4.3: Results of the Convergent Validity Test

S/N	Constructs	Components Factor	Average Factor Loading
1	IGR	0.840	0.70
2	POV	0.823	0.70
3	LFA	0.783	0.70
4	UNEMP	0.818	0.70
5	DEMF	0.851	0.70
6	EXF	0.789	0.70
Kaiser-Mayer-Olkin 743 (0.000)			

Source: Field Survey 2023

Table 4.3 presents the results of the convergent validity assessment. The findings indicate that convergent validity was achieved for the constructs used in the study. The average factor loadings were approximately

0.70, which is above the generally accepted minimum threshold of 0.50. The factor results indicate that the measurement items adequately represented their respective constructs. The Kaiser-Meyer-Olkin value of 0.743 indicates adequate sampling adequacy. The statistically significant result further confirms that the data were appropriate for factor analysis. Consequently, the constructs were considered suitable for examining the relationship between IGR and socioeconomic conditions.

Table 4.4: Results of the Discriminants Validity Test

S/N	Constructs	Variance Components	Factor	Average Components
1	IGR	0.70		0.53
2	POV	0.67		0.53
3	LFA	0.61		0.53
4	UNEMP	0.66		0.53
5	DEMF	0.73		0.53
6	EXF	0.71		0.53
Square Correlation Matrix 0.002				

Source: Field Survey 2023

Table 4.4 presents the results of the discriminant validity assessment. The results indicate that the constructs are empirically distinct from one another. The square correlation matrix value of 0.002 is lower than the average component factor values reported for the constructs. This suggests that IGR, poverty, limited fiscal autonomy, unemployment, demographic factors, and external factors measure different concepts and do not overlap excessively. The result supports the use of inferential statistical techniques, including PLS-SEM and ordinal logistic regression, to assess the effect of IGR on socioeconomic conditions.

Table 4.5: Results of the Path Coefficients (Total Effects)

Dependent Variable: IGR					
Variables	Org. Sample	Sample Mean	Std Devi	t-Statistics	P-value
IGR > POV	0.244	0.239	0.054	4.531	0.000***
IGR > LFA	0.388	0.392	0.055	7.099	0.000***
IGR>UNEMP	0.216	0.216	0.039	5.556	0.000***
IGR > DEMF	0.250	0.250	0.034	7.437	0.000***
IGR > EXF	0.179	0.174	0.041	4.337	0.000***

Source: Author's Computation Smart PLS 4 Note: Significant at 1%.

Table 4.5 presents the path coefficients showing the relationship between IGR and the selected socioeconomic conditions. All the relationships are positive and statistically significant at the 1% level. The coefficient for the relationship between IGR and poverty was 0.244, with a t-statistic of 4.531 and a p-value of 0.000. This indicates a statistically significant association between IGR and poverty conditions. In substantive terms, the finding suggests that the effect of IGR on poverty depends on how the revenue is generated and utilized. Although increased IGR can provide governments with additional resources for poverty-reduction programmes, a positive association may indicate that revenue increases occur in response to worsening poverty or that revenue is not being efficiently translated into improved living conditions. Therefore, higher IGR alone does not automatically guarantee poverty reduction.

The relationship between IGR and limited fiscal autonomy was the strongest, with a coefficient of 0.388, a t-statistic of 7.099, and a p-value of 0.000. This indicates that IGR is strongly associated with the fiscal independence of state governments. Increased internally generated revenue can reduce dependence on federal allocations and enhance the ability of state governments to design and implement policies suited to their local needs. Stronger IGR performance may therefore improve budgetary flexibility, expenditure planning, and the delivery of public services. The coefficient for the relationship between IGR and unemployment was 0.216 and statistically significant. This indicates that IGR is significantly associated with employment conditions. In principle, improved IGR can finance infrastructure development, public works, skills acquisition, entrepreneurship programmes, and investment incentives capable of creating employment opportunities. However, the positive coefficient should be interpreted carefully. It may also suggest that higher revenue is associated with higher unemployment where revenue growth is driven by increased taxation or levies without corresponding expansion in productive economic activities.

The relationship between IGR and demographic factors was positive and significant, with a coefficient of 0.250 and a t-statistic of 7.437. This suggests that IGR is associated with demographic development and population-related socioeconomic outcomes. Increased revenue may enable state governments to invest in education, health care, housing, transportation, sanitation, and other social infrastructure required to support a growing population. However, the effectiveness of IGR in addressing demographic pressures depends on the quality, equity, and efficiency of public expenditure. External factors also recorded a positive and statistically significant relationship with IGR, with a coefficient of 0.179. This indicates that IGR is associated with the capacity of the states to respond to external economic conditions, including foreign investment, development assistance, inflationary pressures, economic shocks, and broader national or international developments. Internally generated revenue can provide a more stable domestic resource base with which governments can respond to external shocks. Nevertheless, excessive dependence on external funding may weaken the incentive to strengthen internal revenue systems.

Overall, the results indicate that IGR has a statistically significant relationship with poverty, fiscal autonomy, unemployment, demographic factors, and external conditions in Northwestern Nigeria. The strongest relationship was observed between IGR and limited fiscal autonomy. This emphasizes the importance of strengthening state revenue systems as a means of improving fiscal independence and socioeconomic development.

Nevertheless, the results should not be interpreted to mean that increases in IGR automatically improve all socioeconomic outcomes. The impact of IGR depends on the transparency of revenue collection, the efficiency of public expenditure, the quality of governance, and the extent to which generated revenue is invested in productive and socially beneficial activities.

Robustness Test

This section presents an ordinal logistic regression analysis as a robustness check. The purpose of the robustness test is to determine whether the observed relationship between IGR and socioeconomic conditions remains consistent when an alternative estimation technique is employed. Robustness checks increase confidence in empirical results by examining whether the findings are sensitive to the assumptions of a particular analytical method (Agresti, 2018; Wooldridge, 2016; Long, 1997; Menard, 2002).

Table 4.6: Results of the Model Fitting Information

Model	-2Log Likelihood	Chi-square	Df	P-value
Intercept only	1696.558			
Final	1430.556 ^b	265.992	8	0.000

Source: Author's Computation, SPSS 20

Table 4.6 indicates that the final model provides a significantly better fit than the intercept-only model. The likelihood-ratio chi-square statistic of 265.992 is statistically significant at the 1% level. This indicates that the explanatory variables, including IGR, significantly improve the prediction of socioeconomic conditions in the selected states.

Table 4.7: Results of the Goodness-of-Fit

Model	Chi-square	Df	P-value
Pearson	248.465	390	1.000
Deviance	327.191	390	0.991

Source: Author's Computation, SPSS 20

The Pearson and deviance goodness-of-fit statistics are not statistically significant. This indicates that there is no evidence of a serious mismatch between the observed data and the fitted ordinal logistic regression model. The model is therefore considered appropriate for examining the relationship between IGR and socioeconomic conditions.

Table 4.8: Results of the Socio-Economic Factor Affecting IGR

Dependent Varb.: SEFIGR				
Indp. Varb.	Coefficient	Std. Error	Exp(B)	P-Value
POV	-12.15	1.803	3.240	0.000***
LFA	36.96	3.200	8.252	0.000***
UNEMP	32.55	3.128	2.654	0.000***
DEMF	-31.51	2.466	7.539	0.000***
EXF	1.589	0.203	6.775	0.000***
Pseudo R ² = 24.3%, F-Statistics = 10.6621 (0.0000)				

Source: Author's Computation, EvIEWS 12, Note: Significant at 1 % (***), 5 % (**), 10 % (*)

The ordinal logistic regression results indicate that IGR is significantly associated with the socioeconomic conditions of the selected states. The model explains approximately 24.3% of the variation in the dependent socioeconomic conditions, while the overall model statistic is statistically significant. The negative

coefficient associated with poverty indicates that the relationship between IGR and poverty conditions is inverse in the estimated model. This suggests that improved IGR may contribute to poverty reduction when revenue is channelled into social protection, education, health care, rural infrastructure, agricultural development, and employment programmes. However, the effectiveness of this relationship depends on whether revenue is equitably distributed and efficiently utilized. The positive coefficient associated with limited fiscal autonomy indicates that higher IGR is associated with improved fiscal independence. This is expected because stronger internally generated revenue enables state governments to rely less on transfers and exercise greater control over their fiscal decisions. The odds ratio further suggests that the likelihood of improved fiscal autonomy increases as IGR performance improves.

The positive coefficient for unemployment indicates a significant relationship between IGR and employment conditions. While increased revenue can support employment creation through public investment and enterprise development, the positive sign may also reflect the fact that governments increase revenue collection in response to unemployment-related fiscal pressures.

Thus, the result should be interpreted as an association rather than definitive evidence that IGR increases unemployment. The negative coefficient for demographic factors suggests that the effect of IGR on demographic conditions may vary depending on the quality of public service provision and population management. Where IGR is invested in education, health, housing, and infrastructure, it can help governments manage population growth and demographic pressures. However, where population growth outpaces revenue growth, demographic challenges may remain unresolved.

The positive coefficient for external factors indicates that IGR is significantly associated with the ability of the selected states to manage external economic influences. A stronger domestic revenue base may improve resilience to external shocks and reduce excessive dependence on federal transfers and foreign assistance.

The results of the ordinal logistic regression generally support the conclusion that IGR is significantly associated with socioeconomic conditions in Sokoto, Kebbi, and Zamfara States. The consistency between the PLS-SEM and ordinal logistic regression results provides methodological support for the findings. However, the different signs and magnitudes across the estimates show that the effects of IGR are multidimensional and should be interpreted in relation to the specific socioeconomic outcome being examined.

Table 4.9: Results of the Test of Parallel Line

Model	-2 Log Likelihood	Chi-Square	Df	P-value
Null Hypothesis	0.000			
General	0.000	0.000	390	1.000

Source: Author's Computation, Field Survey 2024, SPSS 20

The test of parallel lines produced a non-significant result, indicating that the proportional-odds assumption of the ordinal logistic regression model was not violated. Therefore, the model is considered appropriate for estimating the relationship between IGR and the ordered categories of socioeconomic conditions.

Test of Hypothesis

The hypothesis was tested using ordinal logistic regression. The decision rule was based on the p-value at the 5% and 1% levels of significance.

Table 4.10: Summary of Hypothesis-Test Result

S/N Null Hypotheses

HO1 Internally Generated Revenue does not significantly affect socioeconomic conditions in Northwestern Nigeria. P-value 0.000*** Decision Rejected

Source: Authors' Computation

The findings show that IGR has a meaningful connection with the socioeconomic conditions in Sokoto, Kebbi, and Zamfara States. With a p-value of 0.000, which falls below the 1% significance level, the study confidently reject the null hypothesis. This study concludes that IGR plays a significant role in shaping socioeconomic conditions in Northwestern Nigeria. Specifically, it relates to issues like poverty, fiscal autonomy, unemployment, demographic growth, and how well state governments can adapt to external economic influences.

DISCUSSION OF FINDINGS

Internally Generated Revenue (IGR) plays a crucial role in fostering socioeconomic development in Sokoto, Kebbi, and Zamfara States. It's not just a financial figure; IGR is a key resource for funding public goods, supporting employment initiatives, and decreasing dependence on federal allocations and external economic shocks. When we look at the core dynamics and impact areas, we see that fiscal autonomy is significantly linked to IGR. By boosting internal revenue, states can gain more independence, allowing local governments to prioritize their spending and implement development programs that are tailored to their specific needs.

In terms of poverty alleviation, a rise in IGR means more funds can be directed towards healthcare, education, agriculture, and social protection. However, the data shows that simply increasing revenue doesn't guarantee improved living standards, which underscores the pressing need for transparent management of expenditures. When it comes to employment generation, investing IGR in infrastructure, small and medium-sized enterprises (SMEs), vocational training, and public works can create job opportunities. On the flip side, over-taxing businesses and households can hinder economic growth, making it essential to adopt revenue strategies that promote growth.

Addressing demographic demands, effective utilization of IGR enables states to develop the necessary infrastructure—like schools, hospitals, and housing—to cater to the rapidly growing youth population in Northwestern Nigeria, turning demographic challenges into opportunities for productive human capital.

Lastly, having a robust domestic revenue base provides a reliable financial cushion against external economic fluctuations. It's important to view federal transfers and foreign aid as complementary to, rather than replacements for, internal revenue generation. In summary, the success of IGR as a development tool hinges on transparent collection processes, strong institutional quality, efficient spending, and targeted investments that promote inclusive growth.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study highlights the significant impact of Internally Generated Revenue (IGR) on socioeconomic outcomes in Sokoto, Kebbi, and Zamfara States. While boosting IGR creates the fiscal space needed to tackle issues like poverty, unemployment, and demographic challenges, simply increasing revenue doesn't automatically lead to better social welfare. The benefits of IGR depend heavily on the quality of governance, the integrity of institutions, sound financial management, and targeted investments in productive areas. Additionally, the trends observed suggest that revenue growth may often be a response to economic pressures rather than a straightforward improvement in living conditions.

Recommendations

To improve revenue collection and reduce poverty in Sokoto, Kebbi, and Zamfara States, state governments should adopt tailored fiscal strategies that emphasize a modernized, efficient tax administration. This includes utilizing verified taxpayer databases and simplifying processes to minimize leakages while safeguarding local businesses from unfair taxation. Moreover, establishing fiscal accountability through regular quarterly reports, strong public procurement practices, and oversight from civil society will help ensure that the revenue generated is well-protected and effectively utilized. Ultimately, a significant portion of the internally generated revenue (IGR) should be strategically allocated to support pro-poor initiatives and impactful social investments such as rural infrastructure, primary healthcare, basic education, and social protection as well as sectors that create jobs like agro-processing, digital skills training, and small and medium enterprises (SMEs). This approach will lay a solid foundation for sustainable economic relief in the long run.

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