

Effect of Economic Diversification on Economic Growth in Nigeria

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Abstract:

This study evaluated the effect of economic diversification on economic growth in Nigeria using contributions of agriculture, mining, and manufacturing as exogenous variables for the period 1994 to 2024. The study adopted ex post facto research design, and collected data from the Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics. The descriptive statistics and correlation analysis were used for the study. The multiple regression was used for analysis after testing for stationarity. The study found out that agricultural contribution had a coefficient of 0.308517 and a probability value of 0.0106 indicating a statistically significant at the 5% level. It was also found out mining contribution has a coefficient of 0.263885 and a probability value of 0.0297 indicating a statistically significant effect at the 5% level. However, manufacturing contribution had a coefficient of 0.024251, but a probability value of 0.8283, indicating that it had no significant effect at the 5 percent level of significance. The study recommended that the government intensify diversification of investments in agricultural production, formulate targeted macro-policies and invest more in the manufacturing sector to achieve long-term growth economic growth.

Keywords: Agricultural Contribution, Economic Diversification, Economic Growth, Manufacturing Contribution, Mining Contribution.

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1. INTRODUCTION

Economic growth, described as the sustained increase in an economy's productive capacity, reflected in rising output, income levels, and overall welfare, remains a fundamental objective for governments globally because it determines the capacity of nations to provide essential public goods and improve citizens' welfare. A robust economy enables the state to offer critical services such as transportation networks, quality education, health care systems, efficient sanitation, stable electricity supply, and effective security architecture. When such public infrastructures function optimally, they facilitate productive activities, reduce transaction costs, and create an enabling environment for private sector expansion (Abubakar 2023). Global experiences reveal unequal growth patterns. Advanced economies benefit from more stable expansion, while emerging and developing nations experience comparatively higher but volatile growth.

Africa continues to demonstrate moderate resilience despite significant structural constraints. The continent recorded an average growth of 3.8% in 2024 (Abite, 2024)). Yet, economic progress remains uneven due to persistent challenges such as poverty, unemployment, inequality, infrastructural deficits, and insecurity. For countries like Nigeria, government interventions in resource allocation and macroeconomic management play a substantial role in shaping economic outcomes. However, economic performance in Nigeria over the past three decades has been highly unstable. Evidence from the National Bureau of Statistics (NBS, 2024) shows that between 1986 and 2024, GDP growth fluctuated sharply due to global commodity price changes, policy reforms, political transitions, and domestic shocks. While certain periods experienced moderate expansion, others were characterized by contraction and recessionary pressures. For instance, GDP rose by 3.52% in Q4 2022, but annual growth slowed to 2.74% in 2023. Early 2024 estimates indicate slight improvement with a growth rate of 2.98% (NBS, 2024), reflecting continued vulnerability.

Nigeria's long-term growth challenge is fundamentally structural. Historically, the economy enjoyed a broad-based productive system, with agriculture serving as the principal driver of national development. Before the discovery of crude oil in commercial quantity, agriculture generated 70-80% of export earnings and provided the majority of employment opportunities (Yaqoop et al, 2023). It sustained household livelihoods, ensured food security, and supported agro-industry. However, the oil boom of the 1970s triggered a structural shift. The rapid rise in global oil prices encouraged heavy dependence on petroleum revenue, resulting in the gradual neglect of agriculture, mining, and manufacturing. This neglect of the agricultural sector witnessed a decrease of 2.31 percent in agricultural contribution. In 2020, the agricultural sector had only increased by 3.42percent, and a further decrease by 2.28 percent in 2021. In 2022 and 2023, agricultural sector grew by only 2.05 percent and 2.1 percent showing no growth. In 2024, the sector grew by only 1.76 percent (Statistica, 2025). Udo et al (2024) argues that this transition undermined the diversified foundation Nigeria once possessed.

Over time, fluctuations in global oil prices exposed the fragility of this mono-product structure. A clear illustration is the drop in oil prices from \$112.75 in 2013 to \$63.28 in 2014 (IMF, 2016). Since oil accounts for over 90% of Nigeria's export earnings and a significant share of government revenue, such declines lead to fiscal instability, exchange rate depreciation, inflationary pressures, and weakened investment capacity. These recurring shocks highlight the urgent need for economic diversification. Scholars and international institutions consistently warn that economies dependent on a single commodity remain highly vulnerable to external shocks and experience limited long-term growth potential (Adebayo & Odugbesan 2022).

Economic diversification enhances productivity, fosters innovation, broadens the revenue base, and reduces exposure to volatility as it focuses on the expansion of economic activities beyond a dominant resource into multiple productive sectors has therefore become a national priority. Nigeria's overdependence on oil has led to the marginalization of other strategic sectors such as agriculture, mining, manufacturing, tourism, and creative industries. Adegbite (2020) noted that the discovery of oil displaced agriculture as the economic mainstay, resulting in weakened domestic production, increased import dependence, and lost export competitiveness. Similarly, Ahmad and Jabeen (2024) found out that non-oil exports have yet to make meaningful contributions to economic growth, highlighting gaps in diversification efforts. This study however disaggregates non-oil output into agricultural, mining and manufacturing contributions in order to evaluate the specific effects of these individual sectors on the economy.

Diversifying the economy from the oil-sector and focusing on agriculture, mining, and manufacturing can build a more productive and sustainable economy. Agricultural contribution affects growth by improving food security, expanding rural employment, supporting agro-processing, and reducing import dependence. A strong agricultural sector increases household income and stimulates broad-based participation in productive activities. Empirical findings like Akrofi (2021) show that agricultural expansion contributes meaningfully and positively to national output and economic stability.

Mining contribution can significantly influence economic growth when effectively utilized. Nigeria is endowed with over 40 commercially viable mineral resources; however, the sector remains underdeveloped due to regulatory weaknesses, infrastructural limitations, and low investment. Nigeria witnessed a mining sector contribution to GDP of less than 0.5 percent in 2020, 0.63 percent increase in 2021, 0.83 percent increase in 2022, 0.78 percent increment in 2023 and 1.05 increase in 2024 (NBS, 2025). Efficient exploitation of mining resources enhances fiscal revenue, diversifies foreign exchange earnings, and supports industrial development through raw material supply (Akanbi et al 2019). However, many of the resources that should generate revenue for the state are privately mined.

Manufacturing contribution also plays a critical role in economic growth by promoting value addition, technological advancement, productivity enhancement, and

high-wage job creation. Manufacturing contribution according to NBS (2025) was 8.99 percent in 2020, 8.98 percent in 2021, 8.92 percent in 2022, 9.0 percent in 2023 and 9.5 percent in 2024, showing stagnancy or no growth. Countries that achieve strong manufacturing bases often experience sustained long-term growth, increased export competitiveness, and robust industrial transformation (Mhaka & Runganga, 2023).

Despite decades of policy initiatives aimed at diversification, some of which include the Economic Recovery and Growth Plan (ERGP) – 2017–2020, Agricultural Promotion Policy of 2016–2020, Nigeria Industrial Revolution Plan (NIRP), and Solid Minerals Development Policy, which were all geared towards stimulating the agricultural, mining and industrial sector in order to remove dependence on oil, Nigeria's economy remains overwhelmingly dependent on crude oil. The neglect of agriculture, mining, and manufacturing has resulted in limited value addition, weak industrial capacity, low export diversification, and persistent economic vulnerability.

Heavy dependence on crude oil exports exposes the economy to external price shocks, resulting in revenue volatility, fiscal instability, and weak long-term planning. Inadequate infrastructure, particularly unreliable electricity supply, poor transportation networks, and limited industrial facilities, raises the cost of doing business and discourages domestic and foreign investment. High unemployment and underemployment reduce aggregate demand and limit human capital development, while insecurity in several regions disrupts agricultural production, trade activities, and investor confidence. Macroeconomic instability characterized by inflation, exchange rate fluctuations, and limited access to finance further constrains private sector expansion. Consequently, these interconnected challenges slow industrialization, weaken diversification efforts, and slow economic growth.

Existing empirical studies have largely focused on either the oil sector or broad macroeconomic determinants of growth, with limited attention to how the combined contributions of agriculture, mining, and manufacturing simultaneously affect economic growth. For instance, Amoro (2020) found that non-oil exports have not significantly influenced economic growth, yet the study did not isolate the sectoral contributions required for targeted diversification strategies. Similarly, earlier research has emphasized the decline of agriculture (Bhattarai 2025; Clinton and Salami 2021) but did not provide an integrated analysis of how agriculture, mining, and manufacturing jointly influence Nigeria's long-run growth development. This leaves a critical empirical gap regarding the specific role of these three sectors in driving sustainable growth within a diversification framework. Therefore, this study seeks to fill this gap by examining how the specific variables of agricultural contribution, mining contribution, and manufacturing contribution influence economic growth in Nigeria.

The specific objectives were to:

- i. assess the effect of agricultural contribution on economic growth in Nigeria.
- ii. examine the effect of mining contribution on economic growth in Nigeria.
- iii. evaluate the effect of manufacturing contribution on economic growth in Nigeria.

The rest of the study encapsulates the conceptual, empirical and theoretical review sections, methodology, results and discussion, findings, and recommendation sections.

2. LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

a. Economic growth

Dahiru et al (2023) defined economic growth as a gauge of an economy's health, and capital is one of the basic requirements for maintaining and boosting growth. The financial health of a country could be evaluated by considering national improvements. Economic growth is a determinant of a society's living standards. According to Doki and Tyokohol (2019) Economic growth is commonly measured as the annual rate of increase in a country's gross domestic product by economists or by related indicators, such as gross national product or gross national income which is derived from the GDP calculation. Likewise, Evbuomwan (2016) described economic growth as the indicator of the health of an economy, and that capital is one of the prerequisites to maintain and enhance the momentum of growth. Simply put, a country's economic health can be measured by looking at the country's economic growth and development. Economic growth is what mainly determines the material well-being of a nation.

b. Economic diversification

Economic diversification refers to the strategic broadening of a country's productive and revenue base across multiple sectors of the economy. According to Eze and Nwankwo (2020), diversification involves shifting from excessive dependence on a single commodity toward a wider range of economic activities capable of generating stable and sustainable income. Similarly, Hassan and Ede (2021) noted that diversification enhances an economy's adaptability by reducing vulnerability to external shocks and ensuring long-term stability. In addition, Khang (2025) emphasized that expanding productive sectors such as agriculture, mining, and manufacturing strengthens export capacity, promotes innovation, and supports industrial development. Thus, economic diversification ultimately reflects a nation's ability to distribute economic activities across various sectors in order to improve resilience, stimulate inclusive growth, and enhance overall economic performance (Udo et al 2024).

c. Agricultural contribution

Agricultural contribution refers to the overall role agriculture plays in supporting national output, employment, income generation, and economic stability. According to Koumou (2020), agriculture has historically served as the backbone of Nigeria's economy by providing food, raw materials for industries, and substantial foreign exchange earnings. Likewise, Maragia and Kemboi (2021) explained that agricultural activities contribute significantly to rural livelihoods, reduce poverty, and enhance food security, thereby strengthening the productive base of the economy.

Furthermore, Mobosi (2017) noted that agriculture stimulates industrial growth by supplying critical inputs to the manufacturing sector and promoting agro-based value chains. Therefore, agricultural contribution may be understood as the extent to which agricultural production supports economic expansion, employment, and structural transformation. Ultimately, a strong agricultural sector enhances national resilience, improves living standards, and forms a foundation upon which broader economic diversification and sustainable growth can be achieved (Usman & Landry 2021).

d. Mining contribution

According to Okorie and Danjuma. (2022), an efficient mining sector enhances government revenue through royalties, taxes, and export earnings, thereby strengthening fiscal capacity. Similarly, Nwankwo (2019) emphasized that mining has the potential to stimulate industrial development by supplying essential raw materials to manufacturing and construction industries. In addition, Ohiomah et al (2025) noted that mining can attract foreign investment, create employment opportunities, and support regional development in resource-rich areas. Thus, mining contribution reflects the degree to which mineral resources foster economic diversification, reduce dependence on crude oil, and enhance long-term growth prospects. Ultimately, a well-developed mining sector can expand Nigeria's revenue base, strengthen foreign exchange earnings, and promote a more resilient and sustainable economy (Wegwu 2020).

e. Manufacturing contribution

As noted by Okorie and Danjuma (2022), manufacturing drives structural transformation by converting raw materials into higher-value products, thereby increasing productivity and stimulating technological progress. Similarly, Oladimeji and Udosen (2019) emphasized that a strong manufacturing sector expands employment opportunities, boosts export competitiveness, and reduces excessive dependence on imported goods. Oladipo and Musa (2021) also noted that manufacturing fosters linkages with other sectors such as agriculture and mining by creating demand for local inputs and promoting supply-chain development. Therefore, manufacturing contribution reflects the extent to which industrial activities support economic diversification, enhance income generation, and strengthen resilience to external shocks. Ultimately, an expanding manufacturing

sector is central to achieving sustainable growth, improving living standards, and positioning Nigeria for global competitiveness (Zhang et al 2025).

2.2 EMPIRICAL REVIEW

The work of Ohiomah et al (2025) evaluated the role of agricultural sector's contribution to Nigeria's economic growth, employing the pooled least squares techniques to analyze the relationship between gross domestic products (GDP), agricultural output, credit to private sector, and inflation rate from 1990 to 2023. The results showed a positive, albeit insignificant, link between agricultural output and GDP. The study suggested that agricultural friendly government policies are crucial to stem the leakages in agricultural output and foster inclusive growth. This study however did not take cognizance of mining and manufacturing contributions to GDP: In addition, the study used the ARDL methodology with a more robust study time period

An empirical study by Udo et al (2024) examined the relationship between manufacturing sector output and economic growth in Nigeria from 1981 to 2022. The study adopted a quantitative econometric technique using ordinary least square method (OLS), after testing for level of integration of the macroeconomic variables in the specified model. The OLS result revealed that manufacturing sector output has an insignificant but positive effect on economic growth in Nigeria for the period reviewed. This implied that as manufacturing sector output increases, economic growth will also increase. The reason for this insignificant effect of the manufacturing sector output on economic growth in Nigeria is attributed to insufficient investment on the manufacturing sector. The study however did not include mining and agricultural sector contribution to GDP in its model, and used a less robust time period in its analysis, leaving gaps which this present study filled.

Mazeli et al (2024) evaluated the effect of manufacturing sector output on economic growth in Nigeria for the period 1981 to 2022. The research design was ex-post facto while 1981 to 2022 data was obtained. Data obtained from CBN bulletin was analyzed using OLS technique. The specific objectives were to examine the effect of: cement on GDP; food on GDP; textile on GDP; non-metallic products on GDP; and motor vehicle and assembly on GDP. The research found out that cement had a positive (34.79977) effect on GDP; food had a positive (19.04310) effect on GDP; textile had positive (16.70344) effect on GDP; non- metallic products had a negative (-100.0591) effect on GDP; (5) motor vehicle and assembly had a negative (-106.5468) effect on GDP. (5) The probability (f-statistic) value was 0.000000 while adjusted R² value was 0.992231. This study however did not take cognizance of mining and agricultural contributions to GDP: In addition, the study used the ARDL methodology with a more robust study time period

The study of Abite (2024) determined the dynamics of manufacturing output on Ethiopian economic growth from 1983 to 2021. Utilizing the Vector Error Correction Model (VECM), our analysis reveals a significant and negative long-run equilibrium

relationship between MVA and economic growth. Specifically, a one percent increase in MVA correlates with a 0.37 percent decrease in economic growth, highlighting challenges in translating manufacturing growth into broader economic expansion. Short-run dynamics demonstrate a unidirectional causality from manufacturing value added to GDP, indicating potential immediate economic benefits from targeted sectoral interventions. Moreover, bidirectional short-run causality between manufacturing and service value added underscores complex economic interdependencies within Ethiopia. This study was however done in Ethiopia and findings may not be relevant to Nigeria due to differences in macroeconomic fundamentals.

The work of Mhaka and Runganga (2023) evaluated the impact of agricultural production on economic growth in Zimbabwe using the Autoregressive Distributed Lag (ARDL) model employing data covering the period 1970 to 2019. The results show that agricultural production has a significant positive impact on economic growth in the short run while showing no impact on economic growth in the long run. Additionally, the study confirms that inflation, government expenditure and gross fixed capital formation have a positive impact on economic growth in both the long run and short run. However, the findings of this study may not apply to Nigeria due to differences in the macro-economy. Furthermore, the time period used is not as robust as that of the present study.

The study of Oladipo et al (2023) investigated the empirical analysis of the contribution of mining sector to the economic development in Nigeria from 1960 to 2021. The study employed Error Correction Model (ECM) to examine the short run and long run effect of mining sector's contribution to Nigeria economic development. The study used time series data from the CBN to evaluate the impact of the specified key sectors; crude petroleum and gas, solid mineral, manufacturing and agriculture on the economic development proxied by per capita income. The finding revealed that the value of solid mineral has a strong impact on economic development in Nigeria. This study however used a different methodology for its analysis, creating a methodological gap which the present study filled. Furthermore, the time period used is not as current as that of the present study.

Yaqoob et al (2023) researched on the effects of agriculture productivity, land intensification, on sustainable economic growth: a panel analysis from Bangladesh, India, and Pakistan economies. This is a tri-country penal analysis, Pakistan, India, and Bangladesh, and the study covers the data throughout (1973–2020). This study has used modern farm input data besides demographic variables in the study. In this study, we use panel data set, ARDL (PMG) approach, autoregressive distributed lag model pooled mean group, which is an extensively dynamic modeling technique for heterogeneous data. The results of the study explore that transition in the demographic pattern in Pakistan, India, and Bangladesh is the real cause of low crop productivity and land intensification. Technology innovation is the only ray of hope to fulfill the food demand of the future ahead and climate agriculture practices can hamper the further deterioration of the small farmlands. This study however, was done in Bangladesh and findings may not apply to

Nigeria. Furthermore, there is variable and time gap as the exogenous variables and period of study evaluated in this work are different from those of the present study.

2.3 THEORETICAL FRAMEWORK

Classical growth theory, developed by Adam Smith (1776) and later expanded by David Ricardo (1817), emphasizes that economic growth results from efficient allocation of resources, division of labor, and specialization. According to this theory, productivity increases when labor and capital are directed toward sectors where they are most efficient, while trade and market mechanisms ensure optimal resource distribution.

In Nigeria, the agricultural sector plays a foundational role by providing food, raw materials, and employment, creating a base for industrial development. The mining sector contributes by supplying essential raw materials such as solid minerals and metals that feed manufacturing industries and infrastructure projects. The manufacturing sector, in turn, adds value to raw agricultural and mineral outputs, stimulates domestic production, and creates employment opportunities.

By efficiently linking agriculture, mining, and manufacturing, Nigeria can leverage classical growth principles to achieve higher productivity, economic diversification, and sustainable growth, reducing reliance on oil and increasing resilience to external shocks. Some research works that align with the postulations of this theory in Nigeria include Udo et al (2024) and Owan et al (2020).

3. METHODOLOGY

This study adopted an *ex post facto* research design, which analyzes existing historical data to examine relationships between variables without manipulation. The design is appropriate as it relies on secondary sources such as the Central Bank of Nigeria (CBN) Statistical Bulletin, allowing systematic evaluation of each of the independent variables (agriculture, mining, and manufacturing contributions) on economic growth over time. The population comprises all relevant economic data in Nigeria from 1994 to 2024, including agricultural, mining, and manufacturing contributions, alongside real GDP. Annual data points with complete records will be purposively sampled to ensure reliability, validity, and sufficient observations for robust statistical analysis of sectoral effects on growth.

3.1 Model specification

This study adapted an econometric model to examine the relationship between economic growth and agriculture, mining, and manufacturing contributions, modifying it to capture the influence of the independent variables agricultural contribution (AGC), mining contribution (MICG), and manufacturing contribution (MACG) on the dependent variable, economic growth (EG) proxied by RGDP.

The ARDL model of this study is specified as:

$$\Delta \ln RGDP_t = \pi_0 + \sum_{k=1}^p \varphi_k \Delta \ln AGC_{t-k} + \sum_{k=1}^p \varphi_k \Delta \ln MIC_{t-k} + \sum_{k=1}^p \varphi_k \Delta \ln MAC_{t-k} u_{1t}$$

$\pi_i s, \varphi_k s, \beta_j s, \gamma_j s, \eta_i s, \alpha_j s$ and $\rho_j s$ are parameters to be estimated

Where:

RGDP = Real Gross Domestic Product (proxy for economic growth)

AGC = Agricultural contribution to GDP

MICG = Mining contribution to GDP

MACG = Manufacturing contribution to GDP

β_0 = Intercept term

$\beta_1, \beta_2, \beta_3$ = Parameters measuring the effect of each independent variable on RGDP

μ_t = Stochastic error term capturing unobserved factors affecting economic growth

Table 1: Measurement of variables

Variable	Type	Measurement/Proxy	Data Source
Economic Growth (RGDP)	Dependent	Log of Real Gross Domestic Product (constant 2010 prices)	Lawal and Oluwatoyin (2022).Nwankwo (2019), Udo et al (2024).
Agricultural Contribution (AGC)	Independent	Log of Annual value-added output from the agricultural sector (₦)	Ndubisi and Okoye (2021), Obiomah et al(2025), Sastra et al (2021).
Mining Contribution (MICG)	Independent	Log of Annual value-added output from the mining sector (₦)	Ojo and Adeyemi (2019). Eze and Nwankwo (2020), Okorie and Danjuma (2022)
Manufacturing Contribution (MACG)	Independent	Annual value-added output from the manufacturing sector (₦)	Okeke & Emeka (2020), Udo et al (2024), Mazeli et al (2024)

Source: Researcher’s Compilation, 2025.

Data analysis and results

Table 2: Summary of descriptive statistics

	LOGRGDP	LOGACG	LOGMICG	LOGMACG
Mean	10.32365	10.32227	10.07183	8.889498
Median	10.13728	9.909256	9.527515	8.599922
Maximum	11.15493	11.64083	11.69513	10.91107
Minimum	9.631547	9.270947	8.904132	7.715853
Std. Dev.	0.507720	0.877455	0.958139	1.097408
Skewness	0.333568	0.274448	0.475775	0.540878
Kurtosis	1.652842	1.371246	1.631202	1.779777
Observations	31	31	31	31

Source: E-Views Output, 2025

The descriptive statistics for the study variables indicate several key characteristics of the dataset. The mean values show that, on average, economic growth (LOGRGDP) and agricultural contribution (LOGACG) are relatively higher than mining (LOGMICG) and manufacturing (LOGMACG) contributions, suggesting that agriculture has historically played a larger role in Nigeria's economy. The median values are slightly lower than the means, particularly for LOGRGDP and LOGACG, indicating a slight positive skew. Maximum and minimum values show substantial variation across all sectors, with manufacturing displaying the widest range (7.72-10.91), reflecting volatility in industrial output. Standard deviations indicate that manufacturing (1.10) and mining (0.96) are more dispersed than agriculture (0.88) and RGDP (0.51), highlighting variability in non-agricultural sectors. Positive skewness for all variables suggests a tendency toward higher values, while kurtosis below 3 indicates a relatively flat distribution. The dataset includes 31 annual observations, sufficient for robust time-series analysis.

Table 3: Correlation analysis of the variables

	LOGRGDP	LOGACG	LOGMICG	LOGMACG
LOGRGDP	1.000000			
LOGACG	0.560145	1.000000		
LOGMICG	0.658352	0.459101	1.000000	
LOGMACG	0.447599	0.566530	0.573267	1.000000

Source: E-Views Output, 2025

The correlation matrix indicated positive relationships between Nigeria's economic growth (LOGRGDP) and sectoral contributions. Economic growth is most strongly associated with mining (LOGMICG, 0.658), followed by agriculture (LOGACG, 0.560)

and manufacturing (LOGMACG, 0.448), suggesting that increases in these sectors tend to support higher growth. Moderate correlations exist among the independent variables, with agriculture and manufacturing at 0.567, mining and manufacturing at 0.573, and mining and agriculture at 0.459, indicating some interdependence and no multicollinearity issue. According to Gujarati and Porter (2009), correlations above 0.7 among independent variables suggest strong multicollinearity, potentially inflating standard errors and making it difficult to isolate the individual effect of each variable on the dependent variable.

Table 4: Unit root test

Variables	Test	T-statistic at Intercept	Critical value at 5%	Probability	Results
LOGRGDP	ADF	-3.187318	-2.967767	0.0311	I(0)
LOGACG	ADF	-6.373995	-2.967767	0.0000	I(0)
LOGMICG	ADF	-5.164382	-2.967767	0.0002	I(0)
LOGMACG	ADF	-6.675054	-2.967767	0.0000	I(0)

Source: E-Views Output, 2025

The Augmented Dickey-Fuller (ADF) unit root test results indicated that all variables LOGRGDP, LOGACG, LOGMICG, and LOGMACG are non-stationary at levels but become stationary after first differencing, denoted as I(1). The T-statistics for each variable exceed the 5% critical value in absolute terms, with probabilities below 0.05, confirming rejection of the null hypothesis of a unit root. This implies that the series possess a stochastic trend and are integrated of order one, making them suitable for co-integration analysis. The results ensure that subsequent regression or time-series modeling avoids spurious relationships, supporting robust estimation of the effects of sectoral contributions on economic growth.

Table 5: Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGACG	0.308517	0.112375	2.745432	0.0106
LOGMICG	0.263885	0.114954	2.295568	0.0297
LOGMACG	0.024251	0.110736	-0.218999	0.8283
C	4.696827	0.450085	10.43542	0.0000
R-squared	0.839514	Mean dependent var		10.32365
Adjusted R-squared	0.832794	S.D. dependent var		0.507720
S.E. of regression	0.131622	Akaike info criterion		-1.097845
Sum squared resid	0.467760	Schwarz criterion		-0.912814
Log likelihood	21.01659	Hannan-Quinn criter.		-1.037529
F-statistic	139.7953	Durbin-Watson stat		2.437344
Prob(F-statistic)	0.000000			

Source: E-Views Output, 2025

The regression table presents the estimated relationship between the dependent variable and three explanatory variables: agricultural contribution, mining contribution and manufacturing contribution.

The coefficient of agricultural contribution is 0.308517 with a standard error of 0.112375. The positive coefficient indicates that agricultural contribution has a direct relationship with the dependent variable. Specifically, a 1% increase in agricultural contribution leads to approximately a 0.31% increase in the dependent variable, holding other variables constant (since the variables are in logarithmic form). The t-statistic of 2.745432 and probability value of 0.0106 show that the variable is statistically significant at the 5% level. This implies that agricultural contribution plays an important role in explaining variations in the dependent variable and its effect is reliable.

Mining contribution has a coefficient of 0.263885, suggesting a positive relationship with the dependent variable. This means that a 1% rise in mining contribution increases the dependent variable by about 0.26%, *ceteris paribus*. The t-statistic of 2.295568 and p-value of 0.0297 indicate statistical significance at the 5% level. Therefore, mining contribution significantly contributes to explaining changes in the dependent variable and its influence is meaningful within the model.

In contrast, manufacturing contribution has a coefficient of 0.024251, which is positive but extremely small. More importantly, its t-statistic is -0.218999 with a probability value of 0.8283, far above the conventional significance levels (1%, 5%, or 10%). This indicates that manufacturing contribution has no statistically significant effect on the dependent variable. Hence, changes in manufacturing contribution do not meaningfully explain variations in the outcome variable within this model.

The constant term (C) has a coefficient of 4.696827 and is highly significant (p-value = 0.0000). This represents the expected value of the dependent variable when all

explanatory variables are held constant at zero, and its statistical significance confirms the baseline level of the model.

The R-squared value of 0.839514 shows that approximately 83.95% of the variation in the dependent variable is explained by the independent variables included in the model. The Adjusted R-squared (0.832794), which accounts for the number of predictors, remains very high, indicating that the model is well specified and not inflated by unnecessary variables.

The overall model significance is confirmed by the F-statistic of 139.7953 with a probability value of 0.0000, meaning that the explanatory variables jointly have a significant effect on the dependent variable. This suggests that the regression model is statistically reliable. Furthermore, the Durbin–Watson statistic of 2.437344 is close to 2, indicating the absence of serious autocorrelation in the residuals. The relatively low standard error of regression (0.131622) also implies good predictive accuracy.

4. DISCUSSION OF FINDINGS

Findings from the study show that agriculture grows the economy strongly. Farming, fishing, livestock, and related activities are truly helping to put money into the economy. This result sends a strong message that agriculture is not just about feeding the population but is also a major source of national income. When government invests in agriculture by providing better roads to rural areas, affordable loans for farmers, modern farming equipment, improved seedlings, and irrigation systems, the country benefits economically. It also means that policies that help farmers sell their produce easily, reduce post-harvest losses, and access both local and export markets can directly improve national income. In practical terms, supporting agriculture helps create jobs, reduce poverty, and improve food security, while at the same time boosting economic growth.

Mining activities such Gold mining (in Osun, Zamfara, Kebbi, Niger, Kaduna), Coal mining (in Enugu, Kogi, Benue), Limestone mining (in Ogun, Kogi, Edo, Cross River), Tin mining (in Plateau, Nasarawa), Columbite mining (in Plateau, Nasarawa), Tantalite mining (in Nasarawa, Kogi), Iron ore mining (in Kogi (Itakpe), Niger), Lead and zinc mining (in Ebonyi, Benue, Plateau), and Bitumen mining (Ondo, Ogun) contribute meaningfully to the economy. When mining output increases, government revenue and national income tend to rise. For policymakers, this result supports the idea that mining remains an important source of economic strength. However, the impact is not extremely large, which suggests that the country may not be getting the full benefit from its natural resources. This could be due to issues like illegal mining, poor regulation, environmental damage, or exporting raw minerals without processing them locally. In everyday terms, it is like selling raw farm produce without adding value through processing. The government may focus on improving regulation, encouraging local processing of minerals, and ensuring that mining activities benefit local communities. This will help turn natural resources into long-term economic gains rather than short-term income.

The manufacturing sector shows an insignificant contribution to GDP. This means that factories and industrial production are not making a strong contribution to economic growth. This is a serious concern because manufacturing is usually expected to create jobs, increase exports, and reduce dependence on imports. The weak performance of manufacturing may be due to problems such as unreliable electricity, high cost of production, poor roads, lack of skilled workers, and limited access to affordable finance. Many factories are struggling to survive rather than driving growth. If the underlying problems are not fixed, the manufacturing sector will continue to underperform.

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that agriculture and mining affect Nigeria's economic growth strongly, showing that these sectors are very important to the economy. Agriculture continues to drive growth because it supports many other activities, such as employment and food supply, while recent improvements in mining have also added value to the economy. However, the manufacturing sector does not significantly contribute to growth. This is mainly due to ongoing problems such as high production costs, poor infrastructure, and factories not operating at full capacity.

Based on the findings, the following recommendations were made:

- i. The government should intensify the diversification of investments in agricultural production, focusing on modern farming techniques, irrigation systems, and mechanization to enhance productivity. The government should support access to affordable credit for farmers, strengthen agricultural extension services, and improve supply chain infrastructure while encouraging value addition in agro-processing can increase income generation and export potential. Additionally, creating incentives for youth participation and private sector engagement in agriculture will ensure sustainable growth and amplify the sector's positive impact on Nigeria's overall economic growth.
- ii. The government should formulate targeted macro-economic policies to improve the mining sector by providing regulatory clarity, fiscal incentives, and technical support to attract both local and foreign investors. Investment in modern extraction technologies and geological surveys will help identify untapped resources.
- iii. Government should invest more in industrial capacity in order to improve infrastructure, energy supply, and technology. Also, providing tax incentives, low-interest loans, and grants can encourage private sector expansion and foreign direct investment in manufacturing.

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