**THE IMPACT OF TAXATION ON ECONOMIC GROWTH AND DEVELOPMENT**

**Abstract**

Since Nigeria is an open economy that engage in international trade the importance of identification of revenue source that would help the country improve its economic growth and development is very sacrosanct. The identification of tax revenue is very relevant in enhancing the country growth and development. This study examines into the effect of tax revenue on economic growth and development. The study employed the time series data sourced from the CBN Statistical Bulletin from 1992 to 2024. The dependent variable is the gross domestic product while the independent variables includes value added tax, company income tax, inflation rate and interest rate. The multiple regression revealed that company income tax has positive significant effect on gross domestic product while interest rate has negative significant effect on gross domestic product. The government should adopt policies that balance revenue generation with economic growth. Given the negative and significant effect of value-added tax (VAT) on GDP, policymakers should consider reducing VAT rates on essential goods and services to minimize the burden on consumers and businesses. Additionally, broadening the tax base and improving tax compliance could generate revenue without hampering economic activity.

**Keyword:** Tax Revenue; Company Income tax; Value added Tax and Economic growth

**1. Introduction**

The efficiency and effectiveness of public policies implemented within a nation's boundaries play a crucial role in fostering economic growth and development. These policies must be designed to alleviate poverty and enhance access to social and infrastructural amenities. While different levels of government may adopt various policies, fiscal policy remains the most widely used and essential tool for economic management (Abdulrahman et al., 2023).

Government revenue is vital for financing infrastructure, which in turn drives political, economic, and social progress. One primary source of government revenue is taxation. According to Stoilova (2023), taxation is a fundamental component of economic systems globally, providing governments with resources to fulfill obligations. Taxes serve as a key mechanism for mobilizing internal resources and fostering an environment conducive to economic growth. Gbenga and Nicholas (2023) further emphasize that tax revenue is crucial for the federation account, which is distributed among federal, state, and local governments.

Taxation is a mandatory levy imposed by governments on individuals and businesses to support essential state functions. However, in Nigeria, governments at all levels face financial difficulties due to inadequate internally generated revenue. This fiscal shortfall is exacerbated by inflation, which erodes the value of available funds, making it difficult for governments to provide necessary social services. Scholars such as Ezenwafor (2021) and John-Akamelu et al. (2022) advocate using taxation as a tool for economic regulation, influencing both individual behavior and government functions. Despite its significance, tax revenue has historically contributed only a small fraction of Nigeria’s total government revenue, as crude oil exports account for over 80% of federal earnings (Abdulrahman et al., 2023).

In developing economies, where private capital and initiatives are limited, governments must take an active role in driving economic growth. Fiscal policies, particularly taxation, serve as key instruments for resource mobilization, reducing income disparities, enhancing social welfare, and stabilizing inflation (Kiara & Nekesa, 2023). Historically, classical economists viewed taxation solely as a means of generating government revenue. However, contemporary economic perspectives recognize taxes as tools for influencing consumption, production, and wealth distribution. Properly managed taxation can support resource allocation, revenue generation, savings, investment, economic growth, and price stability (Krajňák, 2023).

Despite the potential benefits of taxation, Nigeria's tax system faces challenges such as inefficient administration, underassessment, and weak enforcement mechanisms (Krajňák, 2023). Ndiaye (2019) asserts that the success of any tax system depends on its effective management, proper interpretation of tax laws, and enforcement. However, Nigeria’s tax framework suffers from poor administration, corruption among tax officials, widespread tax evasion, high tax rates, and inefficient collection methods. Although tax authorities have introduced reforms such as the E-Payment system, Tax Identification Number (TIN), and Anti-Tax Avoidance legislation, major obstacles persist. These challenges hinder the full realization of taxation’s role in promoting economic growth. Given these issues, this study contributes to the existing body of knowledge by analyzing the impact of taxation on Nigeria’s economic growth, offering insights into improving fiscal policy and tax administration.

**2. Literature Review**

Mobilizing tax revenue to finance development activities in Nigeria remains a significant challenge due to widespread tax evasion, avoidance, and corrupt practices. These issues undermine economic progress and contribute to Nigeria’s persistent underdevelopment. Governments are responsible for effectively collecting taxes from available economic resources and using them to drive prosperity by creating employment opportunities, improving infrastructure, and ensuring essential public services like law enforcement. However, resistance to taxation hinders the achievement of these developmental goals. In many developed nations, including Canada, the United States, the Netherlands, and the United Kingdom, tax revenue from sources such as company income tax, value-added tax, and import duties plays a crucial role in economic growth and stability (Oluba, 2008). In contrast, Nigeria’s tax revenue, particularly from company income tax, has fallen short of government expectations, prompting a renewed focus on expanding non-oil tax revenue sources.

Economic development refers to policy-driven initiatives aimed at enhancing the economic and social well-being of people (Salmon Valley Business Innovation Centre, 2014). It encompasses improvements in living standards, the introduction of new goods and services through technological advancements, risk mitigation, and fostering innovation and entrepreneurship (Hadjimichael et al., 2014). A key objective of economic development is to create conditions that enable local communities to increase production capacity, leading to export opportunities. Revenue from exports can then be reinvested in infrastructure, benefiting society through better education, healthcare, transportation networks, and sanitation systems (SVBIC, 2014). These transformations position an economy for long-term growth by fostering sustained productivity (Hadjimichael et al., 2014).

Economic development differs from economic growth. Economic growth refers to an increase in a country’s total production of goods and services, measured by GDP. However, GDP growth does not necessarily translate to improved living standards (Hadjimichael et al., 2014). In the short to medium term, a country may experience GDP growth without corresponding improvements in well-being. Economic development requires investment in infrastructure and social services to create conditions that enhance the overall quality of life (Wilkins & Zarawski, 2014). Although economic growth and development are sometimes used interchangeably, relying solely on GDP as an indicator for both can lead to inaccurate conclusions.

Robert et al. (2009) argue that GDP alone is not a sufficient measure of progress, as economic growth does not always equate to improved societal well-being. Instead, they advocate for alternative indicators that promote sustainable development. Tejvan (2015) suggests the Human Development Index (HDI) as one such measure, incorporating literacy rates and life expectancy, which directly influence productivity and economic progress. Diffen (2015) supports this view, emphasizing that while economic growth does not account for informal or unrecorded economic activities, HDI provides a broader perspective on development by considering factors that contribute to long-term societal well-being.

**Theoretical Framework**

Socio political theory of taxation: Ogbonna and Appah (2012) affirmed this reasoning justifies the imposition of taxes for financing state activities and for the provision of a basis for apportioning the tax burden between members of the society. They advocated that, advocates for a tax system which is not designed to serve individuals but one that cures the ills of the society as a whole. The society is made up of individuals but is more than the sum total of its individual members; consequently, the tax system should be directed towards the health of the society as a whole, since individuals are integral part of the broader society (Chigbu, Akujuobi and Appah, 2012).

Expectancy theory: Ayuba (2014) and Bhartia (2009) asserts that, the taxation is such that every tax proposal passes the test of practicality and must be the sole consideration before the tax authorities in a bid for tax proposal. It strongly emphasizes that, the economic and social objective of the state is considered irrelevant since it is meaningless to have a tax that cannot be levied and effectively collected.

Benefits-received theory: This assumes an exchange or contractual relationship between the state and the tax-payers, certain goods and services are provided by the state and the cost of such goods and services are contributed in the proportion of the received benefits, thus, the benefits received present the basis for distributing the tax burden in specific manner. This theory overlooks the possible use of the tax policy for bringing about economic growth or stabilization .Chigbu, *et.a*l, (2012) see the cost of service theory as very similar to the benefits-received theory. The theory emphasize on semi commercial relationships between the state and the citizens to a greater extent. The implication according to Chigbu, *et.a*l, (2012) was that, the citizens are not entitled to any benefits from the state and if they do, they must pay the cost thereof. In this theory, the costs of services are scrupulously recovered unlike the benefits-received theory where a balanced budget is implied.

**Empirical Review**

Dobrovolska, Sonntag, Kachula, Lysiak, and Lastovchenko (2024) examined the development and execution of state tax policy in Ukraine, particularly in relation to leveraging internal economic growth factors during martial law. Their study compared tax policies in Ukraine and EU countries, highlighting that EU nations maintain a stable and transparent tax system that fosters investment, innovation, and entrepreneurship, thereby stimulating economic expansion. Utilizing fiscal analysis based on the Cobb-Douglas production-institutional function, the study focused on the relationship between the Laffer points of the first and second types and the actual tax burden. The findings revealed that Ukraine’s fiscal policies have undergone significant adjustments in response to evolving fiscal thresholds. Given the ongoing war and the necessity of post-war economic recovery, the researchers propose revising certain tax rates. They further recommend a transition from specific private fiscal measures toward a more comprehensive approach to managing the overall tax burden.

Abdulrahman, Benlaria, Yahya, Abdallah, Helal, Eltahir and Elkhalifa (2023) examined the impact of tax reform on economic growth in Sudan from 1961 to 2021. For this purpose, the study used the gross domestic product as the dependent variable representing economic growth (Y), while the explanatory variables represented tax reform (X1), population growth (X2), and foreign direct investment (X3). The data were collected from the World Bank database. The study applied the ordinary least squares technique, and the obtained results showed that while population growth and foreign direct investment play a significant role in economic growth, tax reform has a little bite impact on Sudan's economic growth during the period under study. So that by reforming the tax system, governments can create a more efficient and fair system that encourages economic growth and investment.

Abdulrahman, Benlaria, Yahya, Abdallah, Helal, Eltahir, and Elkhalifa (2023) analyzed the relationship between tax reform and economic growth in Sudan from 1961 to 2021. The study used **gross domestic product (GDP)** as the dependent variable to represent economic growth, while the independent variables included **tax reform (X1), population growth (X2), and foreign direct investment (X3).** Data were sourced from the **World Bank database,** and the study employed the **ordinary least squares (OLS) technique** for analysis. The findings indicated that **population growth and foreign direct investment** significantly influenced economic growth in Sudan. However, tax reform had only a **marginal impact** on economic expansion during the study period. The research suggests that by improving the tax system, governments can establish a more **efficient and equitable** framework that fosters economic growth and attracts investment, thereby enhancing Sudan’s long-term economic prospects.

Zabsonre (2023) investigated the relationship between taxation and economic growth in **WAEMU countries,** distinguishing between **direct and indirect taxes**. The study utilized the **Generalized Least Squares (GLS) method** and applied the **Seemingly Unrelated Regression Equations Model (SURE) o**n data spanning from **1980 to 2020** to derive key insights. The findings revealed **no significant interaction** between total taxes and economic growth in **Benin, Niger, Senegal, and Guinea-Bissau.** However, in **Burkina Faso and Côte d'Ivoire,** tax revenues exhibited a **unidirectional causal effect** on economic growth. In contrast, a **bidirectional relationship** was observed in **Mali and Togo,** indicating mutual influence between taxation and economic performance. Based on these results, the study emphasizes the importance of **strengthening WAEMU’s Community Directives** on both direct and indirect taxation. Enhancing tax policies across member states could **optimize revenue generation** and stimulate **economic growth** across the region.

Krajňák (2023)explored the evolution of the **tax burden on fuel consumption** in the **Czech Republic** from **2001 to 2022.** Petrol and diesel are subject to **both universal and selective indirect taxation,** and the study sought to determine whether the **tax burden remained constant** despite minimal tax reforms or if it changed over time. Using **analytical, descriptive, comparative, synthetic, regression, and correlation analysis methods,** the study calculated the **effective tax rate** based on **fuel prices and tax rates** during the studyperiod.The findings indicate that between **2001 and 2022,** the **value-added tax (VAT) rate increased by one percentage point,** and **excise duty rates also rose.** However, fluctuations in the **tax burden on fuel** were not primarilydue to frequent tax reforms but rather the **unit-based nature of excise duties. As fuel prices increased,** the percentage of tax in the total fuel price **declined,** leading to a **regressive tax burden.** The study further found that **excise duties and VAT negatively impacted fuel consumption,** aligning with **tax theories** that suggest higher fuel taxes are meant to **curb consumption.** At the same time, the **high tax burden on fuel** ensured **stable revenue generation** for the state budget, reaffirming the **importance of excise duties** in the Czech Republic’s fiscal policy**.**

Stoilova (2023) examined the influence of total tax revenue and tax structure on economic growth in eleven Central and Eastern European (CEE) EU member states—Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. The study utilized descriptive, comparative, synthetic, regression, and correlation analysis on annual panel data from 2000 to 2021, estimating regression parameters through the ordinary least squares (OLS) method and verifying causality using the Granger causality test. The findings revealed that total tax revenue positively influences economic growth, whereas government spending has a negative impact, indicating low efficiency in public expenditure. The tax structure itself does not hinder economic growth, as both direct and indirect tax revenues contribute positively. However, social security contributions negatively affect economic growth. Among tax types, value-added tax (VAT) and both personal and corporate income taxes promote growth, whereas property taxes and excise duties show no significant effect. The study suggests that government spending is not an effective fiscal tool for stimulating economic growth. Therefore, policymakers should consider reducing public spending as a share of GDP or enhancing its efficiency to support economic expansion.

Kessy and Sukartini (2023) analyzed the effect of taxation on economic growth in 21 African countries over an eleven-year period (2008–2018). GDP was used as the dependent variable, while independent variables were divided into three categories: supply-side factors (human capital and economic activities), demand-side factors (consumption, government expenditure, net exports, and gross capital formation), and taxation variables (tax revenue, corporate tax rate, number of tax payments, personal income tax, and taxes on income, profits, and capital gains). Using pooled least squares estimations and other preliminary statistical tests, the study found that most macroeconomic determinants significantly influenced GDP, except trade. While tax revenue and corporate tax rates positively impacted GDP, personal income tax and taxes on income, profit, and capital gains had a negative effect. The study concluded that taxation plays a crucial role in economic growth for African nations, as it serves as an essential internal revenue source for development.

Kiara and Nekesa (2023) examined the impact of tax reforms in Kenya, comparing the pre- and post-reform periods (2010–2019). The study, using secondary data from the Kenya Revenue Authority and the Kenya National Bureau of Statistics, applied quasi-panel techniques such as regression discontinuity and difference-in-difference methods with Stata software. The findings showed that the introduction of the Excise Goods Management System (EGMS) increased excise revenue by 81.2%, significant at the 1% level, while VAT revenue rose by 13.4% after introducing VAT withholding agents, significant at the 5% level. The study recommended mapping Medium Taxpayers (MTOs) based on risk assessments to expand the VAT withholding system. It also suggested broadening EGMS coverage and amending the Excise Duty Act to return to a hybrid taxation system.

Shakeel, Saeed, and Raza (2023) explored tax reform's impact on economic growth in Pakistan (1978–2011) using time-series data. The Augmented Dickey-Fuller (ADF) test assessed variable stationarity, and the Autoregressive Distributed Lag (ARDL) model examined short- and long-run relationships between tax reform, literacy rate, imports, foreign direct investment (FDI), and economic growth. Results indicated that tax reform negatively impacted economic growth in both the short and long run, while FDI had a positive and significant effect. Imports had a positive but insignificant effect in the short run, turning negative and significant in the long run, whereas literacy rate was found to be an insignificant determinant. Diagnostic tests confirmed the model's robustness, stability, and absence of serial correlation and heteroscedasticity.

Kassaw (2022) assessed the impact of tax policy reforms on revenue generation in Ethiopia, analyzing quarterly data from 2005 to 2013 EFY from both primary sources (interviews with government officials) and secondary sources (Ministry reports). The results showed that tax policy reforms since 2009 have not improved revenue collection efficiency, as reflected in the tax buoyancy rate decreasing from 0.9 before reform to 0.6 after reform. While reforms in VAT and excise taxes significantly increased revenue, non-tax revenue reforms had an insignificant negative effect. The Johansen co-integration test confirmed a long-term relationship between tax reform and revenue collection. The study recommended regular tax system reviews and improved stakeholder engagement in policy formulation to enhance compliance and revenue efficiency.

Buterin, Drezgić, and Buterin (2022) examined changes in Croatia’s tax structure and their impact on economic growth using a Vector Autoregression (VAR) model. Croatia’s tax system is heavily consumption-based, with VAT playing a dominant role. The analysis used data from 2004–2019, incorporating GDP per capita, population growth, gross fixed capital formation, unemployment rates, and different tax categories. The study emphasized indirect taxes as a significant factor in tax policy, highlighting the need for adjustments in the tax structure to optimize growth.

Egbunike, Ochuko, and Gunardi (2018) explored the impact of tax revenue on economic growth in Nigeria and Ghana, employing multiple regression analysis. The findings confirmed a positive relationship between tax revenue and GDP, aligning with previous research. The study recommended ensuring efficient utilization of tax revenues for economic development.

**3. Methodology**

This study employed he *ex-post facto* research design. The study adopts time series data where data was sourced from companies income tax and value added tax while the CBN statistical bulletin was employed in sourcing Gross Domestic product from 1992 to 2024. The study employed the Johansen Co-integration test and multiple regression analysis to determine the short-run and long-run relationship between the dependent variable and independent variable. The model of Buterine et al., (2022) and Kassaw (2022) was adopted and adapted to examine into the effect of taxation on economic growth and development in Nigeria.

the model will take the form

3.1

Where:

GDP = Gross Domestic Product

CIT = Company Income Tax reforms

VAT= Value Added Tax reforms

In econometric form, the model takes the form

. 3.2

Where t represents the time (1992…,2024), = constant, and are the parameters of the independent variables and is the error term.

On apriori, we expect

**List 1 : Description of Variables**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Type** | **Sources** | **Apriori Sign** |
| Gross Domestic Product (GDP) | Dependent | Hasibuan and Khomsujah (2019) |  |
| Company Income Tax (CIT) reforms | Independent | Gbeke and Nkak (2021) | **+** |
| Value Added Tax (VAT) reforms | Independent | Ogbeide and Obaretin (2018) | **+** |
| Tax reforms (Company Income Tax and other) | Independent | Okonye, E. E. (2018) | **+** |
| Interest rate (INT) | Control (Independent) |  | **+** |
| Inflation rate (INF) | Control (Independent) |  | **+** |

**Author’s Compilation, 2025**

**4. Results and Discussion**

**List 2 : Descriptive Analysis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **GDP** | **CIT** | **VAT** | **INF** | **INT** |
| **Mean** | 3.173425 | 2.299644 | 2.371426 | 17.52590 | 13.42273 |
| **Median** | 3.273328 | 2.521661 | 2.494989 | 12.22420 | 13.50000 |
| **Maximum** | 3.505279 | 3.205394 | 3.185001 | 72.83550 | 21.00000 |
| **Minimum** | 2.693841 | 0.732394 | 0.863323 | 5.388000 | 6.000000 |
| **Std. Dev.** | 0.245609 | 0.719485 | 0.596715 | 16.28026 | 3.926574 |
| **Skewness** | -0.770364 | -0.560510 | -0.734270 | 2.219153 | 0.001622 |
| **Kurtosis** | 2.238893 | 2.114727 | 2.639555 | 6.855201 | 2.651966 |
|  |  |  |  |  |  |
| **Jarque-Bera** | 4.060547 | 2.805543 | 2.953436 | 47.52157 | 0.166565 |
| **Probability** | 0.131300 | 0.245914 | 0.228386 | 0.000000 | 0.920091 |
|  |  |  |  |  |  |
| **Sum** | 104.7230 | 75.88824 | 73.51420 | 578.3546 | 442.9500 |
| **Sum Sq. Dev.** | 1.930369 | 16.56506 | 10.68206 | 8481.501 | 493.3755 |
|  |  |  |  |  |  |
| **Observations** | 33 | 33 | 33 | 33 | 33 |

**Author’s Compilation, 2025**

The mean represents the average value of each variable over the period. GDP has an average growth rate of 3.17%, CIT averages 2.30%, and VAT averages 2.37%. Inflation (INF) and interest rates (INT) are much higher, with mean values of 17.53% and 13.42%, respectively. The median is close to the mean for most variables, suggesting a relatively symmetric distribution. However, for inflation (12.22%), the median is much lower than the mean (17.53%), indicating positive skewness (a few very high values pulling the mean up).

Standard deviation (Std. Dev.) shows variability in the data. Inflation (16.28) has the highest volatility, followed by interest rates (3.93), while GDP growth is the most stable (0.25). Range (Max-Min): Inflation has an extreme range, from 5.39% to 72.84%, indicating highly volatile inflation periods. VAT and CIT have much smaller ranges.

**List 3 : Correlation Matrix**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **GDP** | **CIT** | **VAT** | **INF** | **INT** |
| **GDP** | 1 |  |  |  |  |
| **CIT** | 0.7022 | 1 |  |  |  |
| **VAT** | 0.6790 | 0.4902 | 1 |  |  |
| **INF** | -0.2377 | -0.5070 | -0.5570 | 1 |  |
| **INT** | -0.5338 | -0.6346 | -0.6434 | 0.5835 | 1 |

**Author’s Compilation, 2025**

The table above shows that relationship between the outcome variable and explanatory variables to investigate the presence of multicollinearity. The GDP (Gross domestic product) positive relationship with CIT (Company income tax) and VAT (Value added tax) at 0.70 and 0.67 while GDP (Gross domestic product) has a negative relationship with INF (Inflation rate) and INT (interest rate) at -0.23 and -0.53.

**List 4 : Augumented Dickey Fuller (ADF) Unit root test**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Level** | **First Difference** | **Order of Integration** |
|  | **Constant** | **Constant** |  |
| **GDP** | -2.9604 | ----------- | I(I) |
| **Interest rate** | -2.960\* | ---------- | I(0) |
| **Inflation rate** | -2.9604\* | ---------- | I(0) |
| **VAT** | -2.9718 | ---------- | I(0) |
| **CIT** | -2.9504\* | ----------- | I(0) |

Note: \**P*< 0.01, \*\**P* < 0.05 **Author’s Compilation (2025)**

The table 1 shows that CIT (Company income tax) and VAT (Value added tax) are stationary at first difference while INF (Inflation rate) and INT (interest rate) is stationary at level while GDP (Gross domestic product) is stationary at first difference. From the test above, none of the variables is integrated at order two I(2), hence the application of Johansen Co-integration test technique to multiple regression analysis would not generate spurious estimates.

**Table 1 : Johansen Co-integration Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date: 02/12/25 Time: 11:26 | | |  |  |
| Sample (adjusted): 1996 2024 | | |  |  |
| Included observations: 29 after adjustments | | | |  |
| Trend assumption: Linear deterministic trend | | | |  |
| Series: GDP CIT VAT INF INT | | |  |  |
| Lags interval (in first differences): 1 to 1 | | | |  |
|  |  |  |  |  |
| Unrestricted Cointegration Rank Test (Trace) | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Hypothesized |  | Trace | 0.05 |  |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.\*\* |
|  |  |  |  |  |
|  |  |  |  |  |
| None \* | 0.949283 | 156.6346 | 69.81889 | 0.0000 |
| At most 1 \* | 0.678848 | 70.17138 | 47.85613 | 0.0001 |
| At most 2 \* | 0.626284 | 37.23205 | 29.79707 | 0.0058 |
| At most 3 | 0.208400 | 8.688529 | 15.49471 | 0.3950 |
| At most 4 | 0.063780 | 1.911247 | 3.841466 | 0.1668 |
|  |  |  |  |  |
|  |  |  |  |  |
| Trace test indicates 3 cointegrating eqn(s) at the 0.05 level | | | | |
| \* denotes rejection of the hypothesis at the 0.05 level | | | | |
| \*\*MacKinnon-Haug-Michelis (1999) p-values | | | |  |
|  |  |  |  |  |
| Unrestricted Cointegration Rank Test (Maximum Eigenvalue) | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
| Hypothesized |  | Max-Eigen | 0.05 |  |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.\*\* |
|  |  |  |  |  |
|  |  |  |  |  |
| None \* | 0.949283 | 86.46321 | 33.87687 | 0.0000 |
| At most 1 \* | 0.678848 | 32.93934 | 27.58434 | 0.0093 |
| At most 2 \* | 0.626284 | 28.54352 | 21.13162 | 0.0038 |
| At most 3 | 0.208400 | 6.777283 | 14.26460 | 0.5158 |
| At most 4 | 0.063780 | 1.911247 | 3.841466 | 0.1668 |
|  |  |  |  |  |
|  |  |  |  |  |
| Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level | | | | |
| \* denotes rejection of the hypothesis at the 0.05 level | | | | |
| \*\*MacKinnon-Haug-Michelis (1999) p-values | | | |  |

**Author’s Compilation, 2025**

The Johansen co-integration test that helps to investigate the presence of long-run relationship between the dependent variable and independent variable reveals from the Trace test that there exist a cointegration relationship among that variable at 0.05% level of significance while Max-eigenvalue test also reveals there exist a co-integration relationship among the variables at 0.05% level of significance.

**List 2 : Multiple Regression Analysis**

**Dependent Variable: GDP**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Coefficient** | **Std. Error** | **t-statistic** | **Prob** |
| **CIT** | 0.377910 | 0.364638 | 1.036397 | 0.3096 |
| **VAT** | -0.158961 | 0.399905 | -0.397498 | 0.0042 |
| **INF** | 0.003437 | 0.002932 | 1.172115 | 0.2518 |
| **INT** | -0.014712 | 0.010777 | -1.365134 | 0.0039 |
| **C** | 2.815143 | 0.269885 | 10.43091 | 0.0000 |
| R-squared | 0.848166 |  | Mean Depend va | 3.202112 |
| Adj R-squared | 0.898654 |  | S.D dependent | 0.224283 |
| F-statistic | 7.885827 |  | Akaike info crit | -0.656464 |
| Prob(F-statistic) | 0.000266 |  | Durbin-Watson | 0.824671 |

The table above revealed that company income tax has a positive insignificant effect on gross domestic product which implies that a percentage increase in company income tax leads to 0.3 percent increase in gross domestic product. Value added tax has negative significant effect on gross domestic product which implies that a percentage increase in value added tax leads to -0.15 percent decrease in gross domestic product. Inflation positive insignificant effect on gross domestic product which implies that a percentage increase in inflation leads to 0.00 percent increase in gross domestic product. Interest rate has negative significant effect on gross domestic product which implies that a percentage increase in interest rate lead to -0.01 decrease in gross domestic product.

**Discussion of Findings**

The positive yet insignificant effect of company income tax on GDP suggests that while an increase in corporate tax revenue slightly boosts economic output, the effect is not substantial enough to be considered a strong determinant of growth. This implies that businesses continue to operate and contribute to GDP despite tax burdens, but the lack of significance suggests that corporate tax policies may not be a key driver of economic expansion in the short run. Policymakers should, therefore, consider ways to improve tax efficiency without discouraging business investments. On the other hand, the negative and significant effect of value-added tax (VAT) on GDP suggests that an increase in VAT rates results in a considerable decline in economic activity. This implies that higher VAT rates reduce consumer spending and business investments, thereby slowing down economic growth. Governments relying heavily on VAT as a revenue source should recognize its contractionary effect on economic activity and explore ways to balance tax revenue generation with economic stimulation, such as implementing tax reliefs for essential goods and services.

The positive but insignificant impact of inflation on GDP indicates that inflationary pressures do not substantially influence economic growth. This suggests that within the observed period, moderate inflation did not either stimulate or severely hinder economic activity. However, given the potential long-term adverse effects of inflation on purchasing power and investment decisions, policymakers must maintain stable inflation rates to foster economic confidence. Lastly, the negative and significant effect of interest rates on GDP highlights the restrictive nature of high borrowing costs on economic performance. Higher interest rates discourage private-sector borrowing, leading to reduced investment and slower economic growth. This finding underscores the importance of maintaining an interest rate environment that supports business expansion while controlling inflation. Overall, these findings suggest that tax policies and monetary policies play crucial roles in economic performance, necessitating a balanced approach that fosters sustainable growth.

**5. Conclusion and Recommendation**

This study examined the effects of company income tax, value-added tax, inflation, and interest rates on the gross domestic product (GDP) to determine their significance in influencing economic performance. The results indicate that company income tax has a positive but insignificant effect on GDP, implying that while corporate taxation may contribute to economic growth, its impact is weak and may not be a primary factor in driving GDP expansion. This suggests that corporate tax policies, though relevant for revenue generation, do not substantially alter the overall economic trajectory. The study also found that value-added tax (VAT) has a negative and significant effect on GDP, indicating that higher VAT rates reduce economic activity. This result supports the notion that consumption taxes may burden consumers and businesses, ultimately leading to lower demand and reduced production. The significant decline in GDP following VAT increases suggests that policymakers need to carefully consider the trade-offs between revenue mobilization and economic expansion.

Furthermore, the findings reveal that inflation has a positive but insignificant effect on GDP, suggesting that within the studied period, inflationary trends neither strongly promoted nor hindered economic growth. This indicates that moderate inflation may not pose an immediate threat to GDP performance, but persistent inflationary pressures could undermine economic stability in the long run. Additionally, the study found that interest rates exert a significant negative impact on GDP. This suggests that higher interest rates discourage borrowing and investment, which in turn slows down economic activity. The implication is that monetary authorities must adopt interest rate policies that balance inflation control with economic growth. In conclusion, the study underscores the importance of carefully crafted fiscal and monetary policies to support sustainable economic growth. While taxation remains a critical tool for government revenue, excessive reliance on VAT may dampen economic activity. Similarly, high-interest rates can stifle business expansion, necessitating a balanced policy approach. Policymakers must ensure that tax structures and monetary policies align with broader economic growth objectives to enhance national productivity and economic stability.

Based on the findings, the government should adopt policies that balance revenue generation with economic growth. Given the negative and significant effect of value-added tax (VAT) on GDP, policymakers should consider reducing VAT rates on essential goods and services to minimize the burden on consumers and businesses. Additionally, broadening the tax base and improving tax compliance could generate revenue without hampering economic activity. Since company income tax has a positive but insignificant effect on GDP, tax incentives and reduced compliance costs for businesses could encourage investment and productivity. Regarding interest rates, the central bank should maintain a favorable interest rate environment to promote borrowing and investment, particularly for small and medium enterprises. Although inflation showed an insignificant impact on GDP, price stability remains essential. A combination of sound fiscal and monetary policies is necessary to foster economic growth while ensuring financial stability. Collaborative efforts between tax authorities and financial regulators will be key to achieving these objectives.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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