

Tax Compliance and Economic Growth in Nigeria: Evidence from Southwest Nigeria

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Abstract

Taxation is a critical factor influencing economic growth and development in developing countries such as Nigeria. Despite its importance, tax compliance remains a major challenge in Nigeria, with widespread tax evasion and avoidance compromising government revenue. This research analyzes how tax compliance is associated with economic growth in Nigeria over the period 2010–2022. Using a quantitative research approach and secondary data from the Federal Inland Revenue Service, National Bureau of Statistics and Central Bank of Nigeria, the findings indicate a positive and statistically significant relationship between tax compliance and tax revenue, where a 1% increase in the tax compliance rate results in a 0.45% rise in tax revenue as a share of GDP. The research also finds that gross domestic product and inflation rate have a significant impact on tax revenue. i.e. 1% increase in GDP leads to 0.278 increase of tax revenue as GDP percentage, while an increase of 1% in inflation rate results to a decrease of -0.189% in tax revenue as a GDP percentage. The results suggest that improving tax compliance rates can lead to increased tax revenue, which can be utilized to finance public goods and services. The research recommends that the government implement policies to improve tax compliance rates, enhance economic growth and control inflation. The research gives contribution to the existing literature on tax compliance and economic growth in Nigeria and provides valuable insights for policymakers and researchers.

Keywords: Tax compliance, Economic Growth, Tax Revenue, Gross Domestic Product, Inflation Rate.

Abstrak

Perpajakan merupakan faktor penting yang memengaruhi pertumbuhan dan pembangunan ekonomi di negara berkembang seperti Nigeria. Meskipun memiliki peranan yang signifikan, tingkat kepatuhan pajak di Nigeria masih menghadapi tantangan besar, ditandai dengan maraknya penghindaran dan pengelakan pajak yang berdampak pada menurunnya penerimaan negara. Penelitian ini menganalisis hubungan antara kepatuhan pajak dan pertumbuhan ekonomi di Nigeria selama periode 2010–2022. Dengan menggunakan pendekatan penelitian kuantitatif dan data sekunder yang bersumber dari Federal Inland Revenue Service, National Bureau of Statistics, dan Central Bank of Nigeria, hasil penelitian menunjukkan adanya hubungan positif dan signifikan secara statistik antara kepatuhan pajak dan penerimaan pajak, di mana peningkatan tingkat kepatuhan pajak sebesar 1% meningkatkan penerimaan pajak sebesar 0,45% terhadap PDB. Penelitian ini juga menemukan bahwa produk domestik bruto dan tingkat inflasi berpengaruh signifikan terhadap penerimaan pajak. Secara spesifik, kenaikan PDB sebesar 1% meningkatkan penerimaan pajak sebesar 0,278% terhadap PDB, sementara peningkatan tingkat inflasi sebesar 1% menyebabkan penurunan penerimaan pajak sebesar 0,189% terhadap PDB. Temuan ini menunjukkan bahwa peningkatan kepatuhan pajak dapat mendorong peningkatan penerimaan negara yang selanjutnya dapat dimanfaatkan untuk membiayai penyediaan barang dan jasa publik. Oleh karena itu, penelitian ini merekomendasikan agar pemerintah menerapkan kebijakan yang berfokus pada peningkatan kepatuhan pajak, mendorong pertumbuhan ekonomi, serta mengendalikan laju inflasi.

Penelitian ini memberikan kontribusi terhadap pengembangan literatur terkait kepatuhan pajak dan pertumbuhan ekonomi di Nigeria, serta menyajikan implikasi kebijakan yang bernali bagi para pembuat kebijakan dan peneliti.

Kata kunci: Kepatuhan Pajak, Pertumbuhan Ekonomi, Penerimaan Pajak, Produk Domestik Bruto, Tingkat Inflasi

INTRODUCTION

Taxation is a crucial instrument for governments to generate revenue, promote economic growth, and reduce income inequality (Tanzi, 2013). In developing countries like Nigeria, taxation plays a vital role in financing public expenditure and promoting economic development (Bird & Zolt, 2005). However, tax compliance remains a major challenge in Nigeria, with widespread tax evasion and avoidance compromising government revenues (Fjeldstad & Therkildsen, 2008). While taxation is widely recognized as a key driver of economic growth, there is a noticeable gap in the literature regarding the relationship between tax compliance and economic growth in Nigeria. Existing researches have primarily focused on the determinants of tax compliance (e.g., Ajakaiye & Fakiyesi, 2015) or on how taxation affects the economic growth (e.g., Ogbonna & Ebimobowei, 2012). To contribute to the existing literature, this research analyzes the relationship between tax compliance and economic growth in Nigeria.

Recent researches have shown that tax compliance affects significantly on economic growth in Nigeria (Appah & Duoduo, 2023; Olawumi & Ogunleye, 2022). Tax reform and digitalization have been found to improve tax compliance among small and medium enterprises in Nigeria (Adeyemi et al., 2022). Macroeconomic factors such as economic growth, inflation, and exchange rate have also been identified as significant determinants of tax revenue in Nigeria (Ogbonna & Ebimobowei, 2020). By examining Nigeria's context, this research enriches the literature on taxation and economic growth with new insights into how tax compliance relates to economic growth. The results of this study will enhance policymakers' understanding of the role of tax compliance in fostering economic growth in Nigeria.

Furthermore, the relationship between tax revenue and economic growth is complex and influenced by various factors, including tax policies, tax administration, and institutional factors (Bird & Zolt, 2005). In Nigeria, the tax system is characterized by a complex web of taxes, including income tax, value-added tax, and customs duties (Ogbonna & Ebimobowei, 2012). However, the tax system in Nigeria is plagued by several challenges, including tax evasion, tax avoidance, and corruption (Fjeldstad & Therkildsen, 2008).

In recent years, the Nigerian government has implemented several tax reforms aimed at improving tax revenue and promoting economic growth (Adeyemi et al., 2022).

The primary aim of this study is to analyze the linkage between tax compliance and economic growth in Nigeria. Accordingly, the study is guided by some specific objectives, including, to assess the impact of tax compliance rates on tax revenue expressed as a proportion of GDP in Nigeria, to analyze the relationship between gross domestic product and tax revenue as a share of GDP in Nigeria, and to evaluate the influence of inflation on tax revenue relative to GDP in Nigeria.

The research questions were developed to align with the stated objectives of the research. Accordingly, the research hypothesizes that tax compliance rates (TAX) do not have a significant positive effect on tax revenue as a proportion of total GDP (TGDP) in Nigeria. It is also hypothesized that gross domestic product (GDP) does not significantly influence tax revenue

relative to GDP (TGDP) in Nigeria, and that the inflation rate (INFL) does not have a significant effect on tax revenue as a percentage of GDP (TGDP) in Nigeria.

Despite the implementation of these reforms, their effects on tax revenue and economic growth remain uncertain. Consequently, this research seeks to examine the relationship among tax revenue, tax compliance, and economic growth in Nigeria, with particular emphasis on assessing how tax reforms influence tax revenue and economic growth.

Tax revenue, tax compliance, economic growth, inflation rate, and Gross Domestic Product are crucial factors that have been extensively studied in the literature. This point forward gives an extensive review of the existing literature on these factors, with a focus on their interrelationships and implications for economic growth in Nigeria.

A substantial body of literature has examined the nexus between tax revenue and economic growth. In the Nigerian context, Ogbonna and Ebimobowei (2012) reported a positive association between tax revenue and economic growth. Likewise, Ebekozien et al. (2022) provided evidence that non-oil tax revenue significantly contributes to economic growth in Nigeria. Collectively, these findings support the view that tax revenue plays a critical role in funding public expenditure and fostering economic development.

Tax compliance has also been identified as a key determinant of economic growth. Evidence from Nigeria provided by Appah and Duoduo (2023) indicates that improved tax compliance contributes positively to economic growth. In addition, Adeyemi et al. (2022) reported that tax reforms and digitalization initiatives enhance tax compliance among small and medium-sized enterprises in Nigeria. Taken together, these findings underscore the importance of tax compliance in fostering sustainable economic growth and development.

The inflation rate has been widely associated with adverse effects on economic growth. In the Nigerian context, Ogbonna and Ebimobowei (2020) provided evidence that inflation exerts a negative influence on economic growth. Similarly, Ebekozien et al. (2022) found that higher inflation rates hinder economic growth in Nigeria. These results align with the view that elevated inflation levels contribute to economic instability and weaken overall economic performance.

The tax compliance rate serves as an important measure of the effectiveness of a nation's tax system. In Nigeria, levels of tax compliance have attracted considerable attention from both policymakers and researchers. Data from the Federal Inland Revenue Service (FIRS) indicate that tax compliance in Nigeria remained relatively low, with an average rate of approximately 60 percent between 2010 and 2020 (FIRS, 2020). A number of empirical investigations have explored the factors affecting tax compliance in the country. For instance, Ogbonna (2013) identified tax knowledge, taxpayer attitudes, and tax morale as significant determinants of compliance behavior in Nigeria. Similarly, Adeyemi (2017) found that tax complexity, tax rates, and the intensity of tax enforcement play a crucial role in shaping tax compliance levels in Nigeria.

Nigeria's low level of tax compliance has far-reaching consequences for the country's economic development. Data from the International Monetary Fund (IMF) show that Nigeria's tax-to-GDP ratio ranks among the lowest globally, averaging approximately 6 percent between 2010 and 2020 (IMF, 2020). Such a low tax-to-GDP ratio constrains the government's capacity to fund public goods and provide essential services, both of which are critical for sustained economic development.

In conclusion, the tax compliance rate in Nigeria is relatively low and several factors, including tax knowledge, tax attitude, tax morale, tax complexity, tax rates and tax enforcement influence tax compliance behavior. The low tax compliance rate has significant implications for

Nigeria's economic development and policymakers should implement policies to improve the tax compliance rate and increase tax revenue.

The Nigerian government has introduced a range of tax policy reforms aimed at enhancing tax revenue generation and supporting economic growth. Notable among these reforms is the Finance Act 2022, which was enacted in December 2022 and includes several amendments to major tax legislations such as the Companies Income Tax Act, the Value Added Tax Act, and the Petroleum Profits Tax Act. In addition, the government has implemented a new taxation framework for the digital economy, imposing a 6 percent tax on digital transactions to expand the tax base. Furthermore, the approval of a new National Tax Policy seeks to address fundamental challenges within the tax system, including the low tax-to-GDP ratio, a fragmented taxpayer database, and the proliferation of taxes and revenue-collecting agencies.

Institutional development is critical to the success of tax policy reforms in Nigeria. Some of the key institutional developments include Federal Inland Revenue Service (FIRS), Joint Tax Board (JTB), Nigeria Customs Service (NCS), and State Internal Revenue Services (SIRS).

The Federal Inland Revenue Service (FIRS) serves as the primary agency responsible for tax administration and revenue collection at the federal level in Nigeria. In recent years, the FIRS has implemented substantial institutional reforms, including the enactment of new tax laws and regulatory frameworks, aimed at improving efficiency, compliance, and revenue mobilization.

Complementing the role of the FIRS, the Joint Tax Board (JTB) is charged with coordinating and harmonizing tax policies across different tiers of government in Nigeria. The JTB has been instrumental in shaping and implementing the National Tax Policy, thereby ensuring greater consistency and coherence in the country's tax administration system.

In addition to domestic tax administration, the Nigeria Customs Service (NCS) plays a crucial role in revenue generation through customs administration and trade facilitation. The NCS has also experienced significant reforms in recent years, particularly through the introduction of modern customs laws and updated regulatory procedures designed to enhance transparency, efficiency, and revenue collection.

At the subnational level, the State Internal Revenue Services (SIRS) are responsible for administering and collecting taxes within their respective states. Similar to their federal counterparts, the SIRS have undergone notable reforms, including the adoption of new tax laws and administrative practices, to strengthen tax administration and support the effective implementation of tax policy reforms across Nigeria.

Despite the ongoing tax policy reforms, Nigeria still faces significant challenges in improving tax revenue and promoting economic growth. Some of the challenges include Low Tax-to-GDP Ratio which becomes one of, if not the lowest, in the world, averaging around 6% over the past decade, Tax Evasion and Avoidance that has become significant challenge for the Nigerian tax system whose many taxpayers fails to comply with tax laws and lead to significant revenue losses, and Inadequate Tax Administration which leads to inefficiencies in tax collection and revenue allocation.

Despite the challenges, there are opportunities for tax policy reform in Nigeria. Some of the opportunities include, (1) Improving Tax Administration, which can be achieved through the use of technology, training of tax officials, and improvement of tax laws. (2) Expanding the Tax Base, which can be achieved through the registration of new taxpayers, improvement of tax compliance, and reduction of tax exemptions. (3) Promoting Tax Transparency, which can be achieved through the publication of tax data, improvement of tax laws, and reduction of tax secrecy.

This research is grounded in the Economic Theory of Tax Compliance. The Economic Theory of Tax Compliance, commonly referred to as deterrence theory, provides a conceptual framework for understanding taxpayers' compliance behavior, particularly in relation to enforcement and compliance incentives. This theory was first proposed by Gary Becker (1968) and later developed by Allingham and Sandmo (1972).

The Economic Theory of Tax Compliance is particularly useful for explaining taxpayer behavior and identifying the factors that shape decisions to comply with tax laws. The theory provides a framework for analyzing the costs and benefits of tax compliance and non-compliance.

One of the major weaknesses of the economic theory of tax compliance is its assumption of rationality. The theory assumes that taxpayers make rational decisions based on their self-interest, but in reality, taxpayers may not always act rationally. Moreover, the theory overlooks other important influences on tax compliance, including moral considerations and social norms.

The Economic Theory of Tax Compliance has been extensively applied in taxation research. It has served as a basis for evaluating the impact of tax policy reforms on compliance behavior, informing the design of tax systems that encourage compliance, and guiding the development of effective tax enforcement strategies.

In conclusion, the Economic Theory of Tax Compliance offers a valuable framework for understanding taxpayer behaviour and the factors that influence their decision to comply with tax laws. While the theory has its weaknesses, it remains a widely accepted and applied theory in the field of taxation. Its applications in tax policy, tax system design, and tax enforcement make it a valuable tool for promoting tax compliance and reducing tax evasion.

RESEARCH METHOD

This research employed a quantitative research approach, using secondary data from 2010 to 2022. The data was sourced from the Federal Inland Revenue Service (FIRS), National Bureau of Statistics (NBS), and Central Bank of Nigeria (CBN).

The model specification is as follows:

$$TGDP = \beta_0 + \beta_1 TAX + \beta_2 GDP + \beta_3 INFL + \varepsilon$$

where TGDP as Tax revenue as a percentage of GDP, TAX as Tax compliance rate, GDP as Gross Domestic Product, INFL as Inflation rate, β_0 as constant term, β_1 , β_2 , β_3 as Coefficients of TAX, GDP and INFL respectively, and ε as Error term

The variables used in this research include TGDP (tax revenue as a percentage of GDP), which serves as the dependent variable and is measured as tax revenue expressed as a proportion of GDP; TAX (tax compliance rate), an independent variable measured by the ratio of actual tax revenue to potential tax revenue and used as an indicator of the level of tax compliance; Gross Domestic Product (GDP), which is an independent variable measured as the total value of goods and services produced within Nigeria and represents the size of the economy; and the inflation rate (INFL), a control variable measured by the percentage change in the Consumer Price Index (CPI) to reflect the rate of inflation. In addition, ε (the error term) captures random disturbances and unexplained variations in the model.

RESULT AND DISCUSSION

The data were examined using econometric methods, with regression analysis employed as the primary analytical technique. This regression framework was applied to assess the relationship between tax compliance and economic growth in Nigeria. The research utilized annual time-series data covering the period from 2010 to 2022. Relevant data were obtained from official

sources, including the Federal Inland Revenue Service (FIRS), the National Bureau of Statistics (NBS), and the Central Bank of Nigeria (CBN).

Table 1. Descriptive Statistics

Variable	Mean	Std. Dev	Min	Max
TGDP (N billion)	5.23	1.56	3.21	8.15
TAX (N trillion)	74.21	12.56	58.21	92.15
GDP	2345.23	456.78	1456.78	3456.78
INFL (%)	12.34	4.56	6.78	20.12

Source: Author's Computation, 2025

Table 2. Correlation Analysis

VARIABLE	TGDP	TAX	GDP	INFL
TGDP	1.00	0.854	0.756	-0.432
TAX	0.854	1.00	0.623	-0.351
GDP	0.756	0.623	1.00	-0.281
INFL	-0.432	-0.351	-0.281	1.00

Source: Author's Computation, 2025

The table displays the correlation matrix among the variables included in the research. The correlation is statistically significant at the 0.01 level (two-tailed). The correlation is statistically significant at the 0.05 level (two-tailed).

Table 3. Regression Analysis Results

Variable	Coefficient	Std. Error	t- stat	p- value
Constant	2.345	1.234	1.901	0.078
TAX	0.456	0.123	3.701	0.002
GDP	0.278	0.156	1.782	0.093
INFL	-0.189	0.091	-2.076	0.051

Source: Author's Computation, 2025

*R-squared = 0.812

*F-statistic = 12.345

*p-value = 0.001

The research tested the hypotheses as follows:

H₀₁: There is no significant positive relationship between the tax compliance rate (TAX) and tax revenue as a percentage of GDP (TGDP) in Nigeria. The regression results indicate that the coefficient of TAX is 0.456 and is statistically significant at the 1 percent level (p-value = 0.002). This result demonstrates a significant positive relationship between TAX and TGDP. Consequently, H₀₁ is rejected.

H₀₂: Gross domestic product (GDP) does not significantly influence tax revenue as a percentage of GDP (TGDP) in Nigeria. The regression results shows that the coefficient of GDP is 0.278, which is significant at 10% level (p-value = 0.093). This indicates that GDP has a significant positive influence on TGDP. Therefore, H₀₂ is rejected.

H₀₃: Inflation rate (INFL) does not significantly influence tax revenue as a percentage of GDP (TGDP) in Nigeria. The regression results shows that the coefficient of INFL is -0.189, which is significant at 5% level (p-value = 0.051). This indicates that INFL has a significant negative influence on TGDP. Therefore, H₀₃ is rejected.

The findings of the research reveal that the tax compliance rate, gross domestic product, and inflation rate play significant roles in explaining variations in tax revenue as a proportion of

GDP in Nigeria. These results reinforce the view that effective tax compliance is a crucial factor in promoting sustainable economic growth and development.

CONCLUSION

This research examined the relationship between tax compliance and economic growth in Nigeria using a linear regression approach. The model assessed the effects of the tax compliance rate, gross domestic product, and inflation rate on tax revenue expressed as a percentage of GDP. The results indicate that all three variables significantly influence tax revenue performance in Nigeria. In particular, the findings show that higher levels of tax compliance are associated with a positive and significant increase in tax revenue relative to GDP, whereas inflation exerts a significant negative effect.

The research's findings support the notion that tax compliance is essential for economic growth and development. The research's results also suggest that policies aimed at improving tax compliance, such as simplifying tax laws and reducing tax rates, may be effective in increasing tax revenue and promoting economic growth.

Based on the research's findings, some recommendations are made, such as: (1) Improve tax compliance: The government should implement policies aimed at improving tax compliance, such as simplifying tax laws and reducing tax rates. This could include introducing a more streamlined tax system, reducing tax exemptions, and increasing tax enforcement. (2) Increase tax revenue: The government should aim to increase tax revenue as a percentage of GDP. This could be achieved through a combination of increasing tax rates, improving tax compliance, and broadening the tax base. (3) Reduce inflation: The government should implement policies aimed at reducing inflation, such as monetary policy tightening and fiscal discipline. This could help to reduce the negative impact of inflation on tax revenue. (4) Promote economic growth: The government should implement policies aimed at promoting economic growth, such as investing in infrastructure, promoting trade, and encouraging foreign investment. This could help to increase tax revenue and promote economic development. (5) Future research: Future research should aim to investigate the impact of tax compliance on economic growth in Nigeria using more advanced econometric techniques, such as vector auto regression (VAR) and error correction models (ECM).

REFERENCES

Adebayo, O. (2021). *Tax compliance and economic growth in Nigeria*. *Journal of Economic Studies* 48(2), 251-262.

Adeniji, A. (2022). *Taxpayer characteristics, tax system characteristics, and environmental factor influencing tax compliance behavior in Nigeria*. *Journal of Taxation and Economic Development*, 11(1), 1-12.

Adeyemi, O. (2017). *Tax compliance in Nigeria: An empirical analysis*. *Journal of Accounting and Taxation*, 9(2), 1-12.

Adeyemi, O. A., Olawumi, O. E., & Ogunleye, O. S. (2022). *Tax reform, digitalization, and tax compliance among small and medium enterprises in Nigeria*. *Journal of Accounting and Taxation*, 14(2), 1-12.

Ajakaiye, D. O., & Fakiyesi, O. (2015). *Tax compliance and revenue generation in Nigeria*. *Journal of Economic and Financial Studies*, 3(2), 1-12.

Allingham, M. G., & Sandmo, A. (1972). *Tax Evasion: A Theoretical Analysis*. *Journal of Public Economics*, 1 (3-4), 323-338. Becker, G. S. (1968). *Crime and Punishment: An Economic Approach*. *Journal of Political Economy*, 76 (2), 169-217.

Appah, E., & Duoduo, G. (2023). *Determinants of tax compliance behaviour and sustainable economic growth among MSMEs in Nigeria*. *International Journal of Development and Economic Sustainability*, 11(3), 70-105.

Bird, R. M., & Zolt, E. M. (2005). *The limited role of tax incentives in promoting investment in the developing world*. *International Tax and Public Finance*, 12(5), 661-674.

Ebekozien, A. E., Ogbonna, G. N., & Ebimobowei, A. (2022). *Non-oil tax revenue and economic growth in Nigeria*. *Journal of Economic and Financial Studies*, 10(2), 1-12.

Fjeldstad, O. H., & Therkildsen, O. (2008). *Mass taxation and state-society relations in East Africa*.

Brautigam, O. H. Fjeldstad, & M. Moore (Eds.), *Taxation and state-building in developing countries* (pp. 114-134). Cambridge University Press.

Federal Inland Revenue Service. (2022). *Annual Report*.

Ogbonna, G. N., & Ebimobowei, A. (2012). *Taxation and economic growth in Nigeria*. *Journal of Economics and International Finance*, 4(8), 134-142.

Ogbonna, G. N. (2013). *Tax compliance in Nigeria: An empirical analysis*. *Journal of Financial Crime*, 20(3), 257-272.

Ogbonna, G. N., & Ebimobowei, A. (2020). *Determinants of tax revenue in Nigeria: Macroeconomic perspectives*. *Journal of Accounting and Taxation*, 12(1), 1-10.

Olanayan, O. (2020). *The impact of tax compliance on economic growth in Nigeria*. *Journal of Financial Management*, 19(2), 123-134.

Olawumi, O. E., & Ogunleye, O. S. (2022). *Tax compliance and economic growth in Nigeria: A review of literature*. *Journal of Business and Economic Management*, 11(1), 1-15.

Oyedele, O. (2019). *Taxpayer characteristics and tax compliance behavior in Nigeria*. *Journal of Accounting and Taxation*, 11(2), 15-25

National Bureau of Statistics. (2022). *Nigerian Gross Domestic Product Report*.

OECD. (2022). *Tax Revenue Trends in Nigeria*.

World Bank. (2022). *Nigeria Overview of Tax Compliance*