DIGITAL TAX APPLICATION AND TAX REVENUE GENERATION IN NIGERIA

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ABSTRACT

Digitalisation has become a key driver of economic growth and fiscal sustainability in developing economies, yet its impact on Nigeria's tax ,revenue performance remains underexplored. This study examines the effect of digitalisation on Nigeria's revenue system between 2020 and 2023, using sectoral Value Added Tax (VAT) and Company Income Tax (CIT) from the Information and Communication Technology (ICT) sector as proxies for digitalisation. Secondary data were obtained from the National Bureau of Statistics (NBS), the Federal Inland Revenue Service (FIRS), and international sources such as the World Bank, IMF, and OECD. Descriptive statistics, trend analysis, and econometric estimation using Ordinary Least Squares (OLS), with robustness checks via unit root and cointegration tests, were employed. The findings indicate that ICT VAT and CIT collections grew from ₦180.26 billion in 2020 to ₦879.55 billion in 2023, a 388% increase, while their share of total FIRS revenue remained below 5%. Econometric results confirm a positive and statistically significant relationship between digitalisation and tax revenue performance, though the fiscal effect lags behind ICT's contribution of over 17% to GDP. The study concludes that digitalisation enhances revenue mobilisation but remains underutilised due to institutional weaknesses, informality in digital markets, and limited enforcement capacity. This study therefore recommends that Nigeria government should strengthening legal frameworks, expanding digital tax instruments, enhancing institutional capacity, integrating informal online businesses, and deepening international cooperation.

Keywords: *Digital Tax; Economic Growth; Fiscal Policy; Tax Revenue*

INTRODUCTION

Digitalisation has emerged as one of the most transformative forces shaping the global economy in the twenty-first century. Its influence extends beyond technological adoption to structural changes in production, commerce, governance, and social interaction. Across advanced, emerging, and developing economies, digitalisation is redefining how value is created and how governments mobilise resources for public finance. The growing reliance on digital platforms for trade, banking, education, entertainment, and communication illustrates how the digital economy has become a key driver of global GDP growth. Yet, while it opens opportunities for expanding fiscal capacity, it also poses profound challenges to traditional taxation models, particularly in regulating cross-border and intangible activities (OECD, 2021).

Nigeria presents a striking case in this debate. The Information and Communication Technology (ICT) sector has become the engine of economic growth, contributing between 17 and 20 percent of GDP from 2020 to 2023, making it the fastest-growing sector in the economy (Okeke & Akinola, 2023). The sector encompasses telecommunications, internet service providers, IT consulting, broadcasting, and digital platforms, serving as the backbone of Nigeria's digitalisation. Despite its economic prominence, however, ICT's fiscal contribution remains disproportionately low. Reports from the National Bureau of Statistics (NBS, 2023) and the Federal Inland Revenue Service (FIRS, 2023) show that ICT-related VAT and CIT accounted for less than 5 percent of total government revenue during the same period. This fiscal underperformance underscores what scholars describe as the "digital taxation paradox"—a thriving digital economy that generates limited fiscal benefits (Sinebe et al., 2025).

Successive Nigerian administrations have sought to close this gap through reforms. The Finance Acts of 2019 through 2023 extended VAT coverage to digital services, including cross-border supplies of software, streaming, and digital advertising. The introduction of the Significant Economic Presence (SEP) Order in 2020 marked a bold attempt to assert taxing rights over multinational corporations deriving income from Nigerian markets without physical presence. These reforms align with global efforts to update taxation for a digital age. However, their effectiveness has been constrained by weak enforcement capacity, low compliance levels, and the informal nature of much of Nigeria's digital economy. Multinational corporations often exploit loopholes and aggressive profit-shifting strategies,

while many domestic digital entrepreneurs, especially small and medium-sized online businesses, remain outside the formal tax net (Ibrahim et al., 2023).

Nigeria's tax-to-GDP ratio, estimated at below 10 percent, is among the lowest in sub-Saharan Africa, compared with the regional average of approximately 15 percent (IMF, 2022; Oyedokun, & Dopemu, 2024). This weak fiscal capacity limits the government's ability to meet its development financing needs, particularly in the face of rising debt obligations, infrastructure deficits, and growing demands for social spending. The underperformance of digital taxation further compounds these challenges, depriving the state of a potentially sustainable revenue stream at a time when oil revenues the traditional backbone of public finance are declining due to global energy transitions and price volatility. Without stronger reforms, Nigeria risks widening its fiscal deficit and exacerbating debt vulnerabilities.

The problem is aggravated by structural weaknesses in governance. The institutional frameworks required to effectively administer digital taxes such as advanced compliance monitoring tools, skilled personnel, and real-time data analytics remain underdeveloped. Trust in Nigeria's tax administration is also weak, with citizens often sceptical of the transparency and accountability of revenue utilisation. As Udo (2025a, 2025b) highlights, embedding ethical practices in tax governance and optimising VAT systems for both efficiency and fairness are essential for sustainable fiscal reforms. These challenges highlight the urgency of aligning Nigeria's tax system with the realities of the digital economy.

The present study therefore aims to evaluate the effect of digitalisation on Nigeria's tax revenue performance. Its objectives are fourfold: to analyse trends in ICT VAT and CIT between 2020 and 2023, to assess the contribution of digitalisation to overall revenue performance, to evaluate the institutional and global frameworks shaping Nigeria's digital taxation regime, and to provide actionable recommendations for policy reform. These objectives are translated into guiding research questions that ask: what are the trends in ICT VAT and CIT during the study period? To what extent has digitalisation contributed to Nigeria's total tax revenue? What institutional, legal, and global frameworks currently govern digital taxation in Nigeria? And what reforms are necessary to strengthen revenue mobilisation from the digital economy?

The significance of this study lies in its ability to bridge gaps between theory, policy, and practice. At the policy level, it provides evidence-based recommendations that can guide Nigeria's fiscal strategy in leveraging digitalisation for sustainable development. At the practical level, it sheds light on the enforcement challenges faced by tax administrators such as FIRS, offering insights into how digital tools can be harnessed to strengthen compliance.

Academically, the study contributes to global literature by situating Nigeria within the broader discourse on digital taxation, linking local experiences to international frameworks such as OECD BEPS while also drawing lessons from African case studies. Importantly, it incorporates the works of Nigerian scholars such as Udo (2025), who emphasized that ethical governance and transparent administration are critical for effective fiscal reforms in times of economic constraint.

The scope of the research is limited to the period between 2020 to 2023, coinciding with Nigeria's adoption of explicit digital taxation measures, including the SEP Order and successive Finance Acts. ICT VAT and CIT are adopted as measurable proxies for digitalisation, given their availability in official disaggregated data. The study does not extend to other forms of digital taxation, such as withholding tax on online advertising or Pay-As-You-Earn (PAYE) contributions from ICT employees, due to a lack of detailed datasets. Limitations also include the opacity of enforcement and compliance statistics, which constrains the depth of institutional analysis. Nevertheless, the reliance on robust national statistics and international comparative frameworks provides a sound basis for evaluating the fiscal implications of digitalisation.

LITERATURE REVIEW

Conceptual Clarification

Digitalisation

Digitalisation refers to the integration of digital technologies into economic, social, and institutional systems. It goes beyond computerisation to encompass the transformative role of internet-based platforms, mobile applications, artificial intelligence, digital payments, and cloud services in reshaping how societies operate (OECD, 2021). From a taxation perspective, digitalisation creates both opportunities and challenges: it expands taxable activities through e-commerce, fintech, and digital advertising, but complicates enforcement because many transactions are intangible and cross-border (IMF, 2022).

Digital Economy

The digital economy encompasses all economic activities driven by digital technologies. This includes e-commerce companies such as Jumia and Konga, fintech operators like Flutterwave and Paystack, streaming platforms such as Netflix, digital advertising platforms, and small-scale social media enterprises. Globally, the digital economy is one of the fastest-growing sectors. In Nigeria, its significance is captured through the ICT sector, which contributed

between 17–20% of GDP between 2020 and 2023, making it a key driver of growth (Okeke & Akinola, 2023).

Tax Revenue Performance

Tax revenue performance refers to the government's capacity to mobilise revenue effectively through taxation to finance development. Performance is commonly assessed using indicators such as total tax receipts, tax-to-GDP ratio, and sectoral tax contributions (World Bank, 2023). In this study, revenue performance is examined through the contributions of ICT VAT and CIT relative to GDP, which highlight the extent to which digitalisation enhances Nigeria's fiscal sustainability.

Information and Communication Technology (ICT) Sector

The ICT sector in Nigeria consists of telecommunications, broadcasting, IT services, internet provision, and digital platforms. It has emerged as a major non-oil growth sector, accounting for nearly one-fifth of GDP between 2020 and 2023 (NBS, 2023). Despite its role as a driver of digitalisation, ICT's tax contribution has been modest. Reports from the Federal Inland Revenue Service (FIRS, 2023) show that ICT VAT and CIT account for less than 5% of total tax revenue, highlighting a disconnect between economic performance and fiscal returns.

Value Added Tax (VAT)

Value Added Tax (VAT) is a consumption tax levied on the supply of goods and services at each stage of production and distribution (Onwuchekwa & Aruwa, 2014). In Nigeria, VAT coverage was extended to digital services through the Finance Acts of 2019–2023, requiring both resident and non-resident companies offering digital services such as online streaming, advertising, and software sales to remit VAT. VAT is therefore a key measure of the fiscal impact of digital consumption (Ibrahim et al., 2023; Oyedokun 2023).

Company Income Tax (CIT)

Company Income Tax (CIT) is a direct tax levied on the profits of companies operating in Nigeria. In the ICT sector, this includes telecommunications firms, IT service providers, and broadcasting companies. CIT data reflect corporate profitability and the fiscal contribution of Nigeria's digital economy. Disaggregated sectoral CIT data provided by NBS (2023) and FIRS (2023) form one of the main proxies for digitalisation in this study.

Theoretical Framework

This study is anchored on two interrelated theories that provide the foundation for examining the relationship between digitalisation and tax revenue performance in Nigeria are the benefit principle of taxationand institutional theory**.**

The **Benefit Principle of Taxation** asserts that individuals and corporations should contribute to public revenue in proportion to the benefits they receive from the use of public goods and services. This principle, rooted in classical public finance, establishes a normative justification for taxation, as it links fiscal obligations to the enjoyment of societal infrastructure such as security, legal systems, and digital connectivity (Musgrave, 2022). In the digital economy, multinational corporations such as Google, Netflix, Meta, Amazon, and Microsoft derive substantial profits from Nigerian markets. They benefit from the country's consumer base, telecommunications infrastructure, internet penetration, and regulatory environment, yet often pay disproportionately low taxes due to profit-shifting strategies and the absence of a physical presence. This disjuncture undermines both equity and fiscal sustainability. Applying the Benefit Principle therefore strengthens the rationale for Nigeria's reforms, such as the Significant Economic Presence (SEP) Order of 2020, which seeks to establish a legal basis for taxing non-resident companies providing digital services, and the Finance Acts of 2019–2023**,** which expanded VAT to include digital transactions. These reforms attempt to ensure that tax contributions are aligned with the benefits enjoyed, thereby closing the gap between ICT's economic and fiscal contributions. Comparative experiences in countries like France, Italy, and the United Kingdom, which have implemented digital service taxes under the same principle of fairness, demonstrate that this theory provides a globally relevant justification for taxing the digital economy (OECD, 2021).

The **Institutional Theory** propounded by John Maya and Brian Rowan (1970) offers a complementary framework by emphasising that fiscal outcomes are determined not only by the scale of economic activity but also by the capacity and quality of the institutions administering taxation. Institutions are the rules, norms, and enforcement mechanisms that shape behaviour, and their strength or weakness directly impacts revenue performance (North, 1990). Strong institutions promote compliance, close loopholes, and ensure that taxation frameworks adapt to new realities such as digitalisation. In contrast, weak institutions foster inefficiencies, corruption, and enforcement gaps that limit fiscal outcomes, even in contexts of rapid economic growth (Sinebe et al., 2025). In Nigeria, institutional weaknesses remain a major constraint. The Federal Inland Revenue Service (FIRS), despite recent reforms, faces challenges of inadequate technological infrastructure, insufficiently skilled personnel, and limited capacity to monitor cross-border digital transactions. This has

led to poor enforcement of existing digital tax laws and contributed to the persistent mismatch between ICT's GDP contribution and its fiscal returns.

Institutional Theory also helps explain why legal reforms alone are insufficient in Nigeria. While the SEP Order and Finance Acts established legal bases for taxing the digital economy, weak enforcement institutions have undermined their implementation. This stands in contrast to countries like South Africa, where robust institutions and digital compliance systems (e.g., e-invoicing and electronic VAT monitoring) have enhanced the effectiveness of digital taxation reforms (Makunike & Munzara, 2022). For Nigeria, the implication of this theory is clear: unless institutional capacity is strengthened through investment in digital tax infrastructure, international cooperation, and ethical governance fiscal reforms in the digital space will remain underutilised.

Empirical Review

In South Africa, Makunike and Munzara (2022) show that VAT reforms covering digital services were relatively successful in enhancing efficiency and compliance, largely because of institutional readiness and the adoption of e-invoicing and electronic VAT monitoring systems. By contrast, Ghana's Electronic Levy (E-Levy), introduced in 2022, yielded initial revenue gains but faced massive public resistance and compliance challenges, leading to a decline in collection efficiency and undermining its legitimacy (Boateng & Adu, 2023). These findings illustrate that digital taxes are not simply technical issues but depend heavily on citizen trust, administrative capacity, and political acceptability.

Nigeria's experience mirrors these global and regional trends. Ibrahim et al. (2023) provide evidence that digital taxation has improved Nigeria's revenue diversification, particularly by expanding VAT to cover digital services, but enforcement challenges significantly reduce effectiveness. Okeke and Akinola (2023) empirically demonstrated that while the ICT sector contributes substantially to Nigeria's GDP, its tax returns remain disproportionately low, reflecting inefficiencies in fiscal capture and enforcement. Udo (2024) established a positive relationship between digital taxation and sustainable economic growth in Nigeria, arguing that the digital economy has untapped fiscal potential that can support development financing. However, he also cautioned that institutional weaknesses and weak compliance culture undermine long-term benefits. Extending this argument, Udo (2025a, 2025b) highlighted that reforms must go beyond technical changes such as VAT optimisation to include transparent governance practices, which are necessary to strengthen public trust in tax administration. Similarly, Oyedokun, (2021), as stressed by Sinebe et al. (2025), empirically showed that VAT derived from digital services contributes to Nigeria's revenue mobilisation,

but their study emphasised that enforcement mechanisms remain fragile and inconsistent, limiting fiscal yield.

Comparative evidence from African countries reinforces the importance of institutional context in shaping outcomes. Kenya and Uganda's reliance on mobile money taxation illustrates how governments can capture revenue from digital platforms, but also how such measures can create regressive burdens if not carefully designed. Ghana's experience with the E-Levy demonstrates that even well-intentioned digital tax reforms may fail if they lack public legitimacy or appear overly punitive. South Africa, by contrast, provides a positive model, showing that robust institutional frameworks, strong compliance monitoring, and citizen trust can transform digital taxation into a stable revenue source.

Taken together, these studies highlight that the success of digital taxation in Nigeria will depend not only on the economic expansion of the ICT sector but also on the strength of governance, the capacity of tax institutions, and the willingness of citizens and businesses to comply. The empirical literature converges on a central lesson: digitalisation offers substantial fiscal potential, but this potential can only be realised when technical reforms are accompanied by institutional strengthening, ethical governance, and citizen engagement.

METHODOLOGY

This study adopts a mixed-methods research design, combining quantitative econometric analysis with qualitative content analysis. The quantitative approach enables the measurement of the relationship between digitalisation and Nigeria's tax revenue performance using secondary data, while the qualitative dimension allows for a critical evaluation of the institutional and global frameworks that shape Nigeria's digital tax regime. This design is appropriate given the dual focus of the research: measuring statistical associations between digitalisation and fiscal performance, and interpreting those results within broader legal and institutional contexts (Creswell & Creswell, 2023).

The study relies primarily on secondary data obtained from authoritative national and international sources. Tax-related data were sourced from the Federal Inland Revenue Service (FIRS, 2023), which provides annual reports on total tax collections, and from the National Bureau of Statistics (NBS, 2023), which publishes disaggregated figures for Company Income Tax (CIT) and Value Added Tax (VAT) by sector. The ICT sector's CIT and VAT are used as proxies for digitalisation, reflecting the fiscal contribution of digital platforms, telecommunications, broadcasting, and IT services. Macroeconomic indicators, including Gross Domestic Product (GDP) and Foreign Direct Investment (FDI), were sourced from the

World Bank (2023) World Development Indicators. In addition, policy documents such as the Finance Acts of 2019–2023 and the Significant Economic Presence (SEP) Order of 2020, alongside global frameworks including the OECD/G20 BEPS proposals, provided the qualitative foundation for interpreting Nigeria's tax reforms.

The analysis employs multiple techniques to ensure robustness. Descriptive statistics and trend analysis are first applied to identify patterns in ICT VAT and CIT relative to total tax revenue between 2020 and 2023. Econometric analysis using Ordinary Least Squares (OLS) regression tests the hypothesised relationship between digitalisation and revenue performance. Diagnostic tests, including Augmented Dickey–Fuller (ADF) unit root tests and Johansen cointegration analysis, are conducted to confirm the stationarity of the data and the existence of long-run equilibrium relationships among the variables. In parallel, content analysis of Nigeria's Finance Acts, the SEP Order, and OECD/G20 BEPS frameworks is undertaken to contextualise the statistical results within institutional and global tax governance debates.

To empirically evaluate the effect of digitalisation on tax revenue performance, the study specifies an econometric model in which total government revenue serves as the dependent variable, while ICT VAT and ICT CIT are used as independent variables representing digitalisation. Control variables include GDP, as a measure of macroeconomic output, and FDI, as a measure of external financial flows influencing domestic fiscal performance.

Model Specification

$$REV_t = \alpha + \beta_1 DIGTAX_{it} + \beta_2 GDP_{it} + \beta_3 FD_{it} + \varepsilon t \quad (1)$$

where:

REVt = represents total government tax revenue at time *t*, serving as the dependent variable. It reflects Nigeria's overall fiscal performance within the study period.

DIGTAXtrepresents digitalisation, proxied by ICT sector VAT and CIT contributions. These capture the fiscal impact of digitalisation by measuring both consumption-based and profit-based taxation from digital activities.

GDPt represents Gross Domestic Product, which controls for the scale of economic activity and its influence on revenue mobilisation.

FDIt represents Foreign Direct Investment inflows, included as a control variable to account for the role of external capital flows in shaping fiscal performance.

ε_{it} is the error term, which captures random shocks and unobserved factors not explained by the model.

This model specification enables the estimation of the statistical effect of digitalisation on revenue performance while accounting for other macroeconomic determinants. The inclusion of GDP and FDI as control variables ensures that the estimated impact of digitalisation is not confounded by broader economic trends or external financial inflows

The choice of this methodology is justified on several grounds. First, the ICT sector provides a reliable proxy for digitalisation in Nigeria, as it captures both economic and fiscal contributions of digital activities. Second, the combination of VAT and CIT offers a balanced measure of consumption- and profit-based taxation within the digital economy. Third, the integration of econometric modelling with qualitative content analysis strengthens the validity of findings by ensuring that numerical results are interpreted within their policy and institutional contexts. Finally, reliance on verifiable data from FIRS, NBS, the World Bank, IMF, and OECD enhances the credibility and replicability of the study, aligning it with the standards of international scholarly research.

RESULTS AND DISCUSSION

This chapter presents the empirical results of the study and interprets them in light of both quantitative evidence and qualitative insights. The findings are discussed under descriptive analysis, econometric estimation, and policy implications.

Descriptive Analysis of ICT Tax Contributions

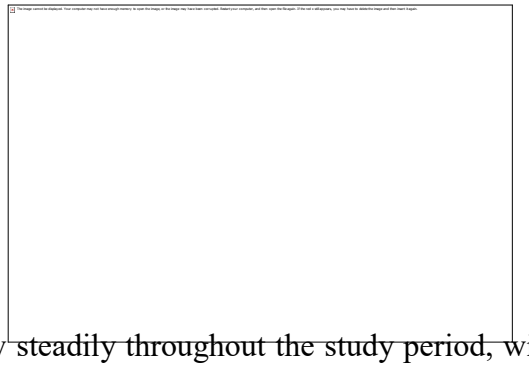
The analysis begins by examining the trends in ICT sector tax contributions between 2020 and 2023. Table 1 summarises ICT VAT and CIT collections alongside their share of total FIRS revenue.

Table 1. ICT VAT and CIT Contributions in Nigeria (2020–2023, ₦ Billion)

Year	ICT VAT	ICT CIT	ICT Total	ICT Share of FIRS (%)
2020	87.25	93.01	180.26	3.64
2021	120.50	132.18	252.68	3.95
2022	268.84	362.26	631.10	3.59
2023	413.00	466.55	879.55	4.87

Figure 1

(Bar Chart) shows that



ICT VAT and CIT grew steadily throughout the study period, with CIT contributing slightly more than VAT in each year. Both revenue sources expanded substantially, increasing from a combined ₦180.26 billion in 2020 to ₦879.55 billion in 2023, representing a growth of 388% in four years.

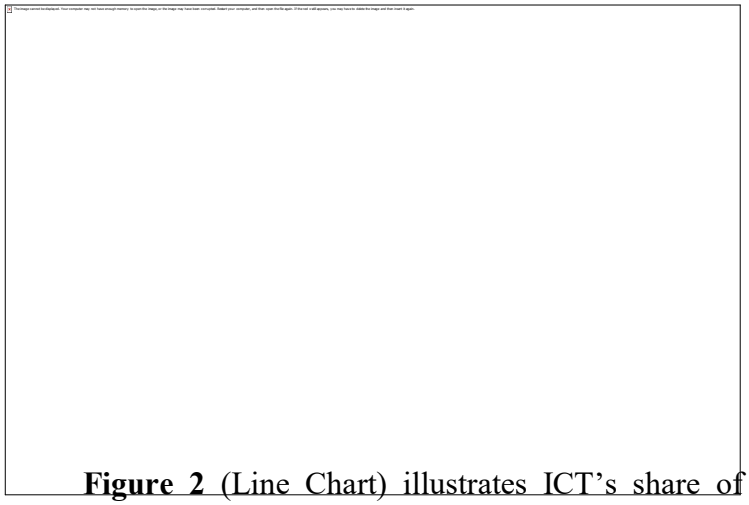


Figure 2 (Line Chart) illustrates ICT's share of total FIRS revenue. Despite significant growth in absolute terms, ICT's contribution remained modest, fluctuating between 3.5% and 5% of total collections. This indicates that while digitalisation supports fiscal growth, it remains underutilised compared to ICT's 17–20% share of GDP during the same period (Okeke & Akinola, 2023).

Comparison of NBS and FIRS Data

To validate the robustness of the data, ICT VAT and CIT contributions reported by NBS were compared with aggregate ICT totals from FIRS. Table 2 presents this comparison.

Table 2 ICT Tax Data: NBS vs. FIRS (₦ Billion, 2020–2023)

Year	NBS VAT	NBS CIT	NBS Total	FIRS ICT Total
2020	87.25	93.01	180.26	185.00
2021	120.50	132.18	252.68	255.00
2022	268.84	362.26	631.10	635.00
2023	413.00	466.55	879.55	890.00

Source: Researcher's Compilation 2025

Figure 3 (Line Graph) demonstrates the close alignment between NBS and FIRS figures, confirming consistency in reporting. NBS provides disaggregated sectoral data, while FIRS offers rounded aggregates, but both datasets reflect the same trends. This validates ICT VAT and CIT as reliable proxies for digitalisation in Nigeria's fiscal analysis.

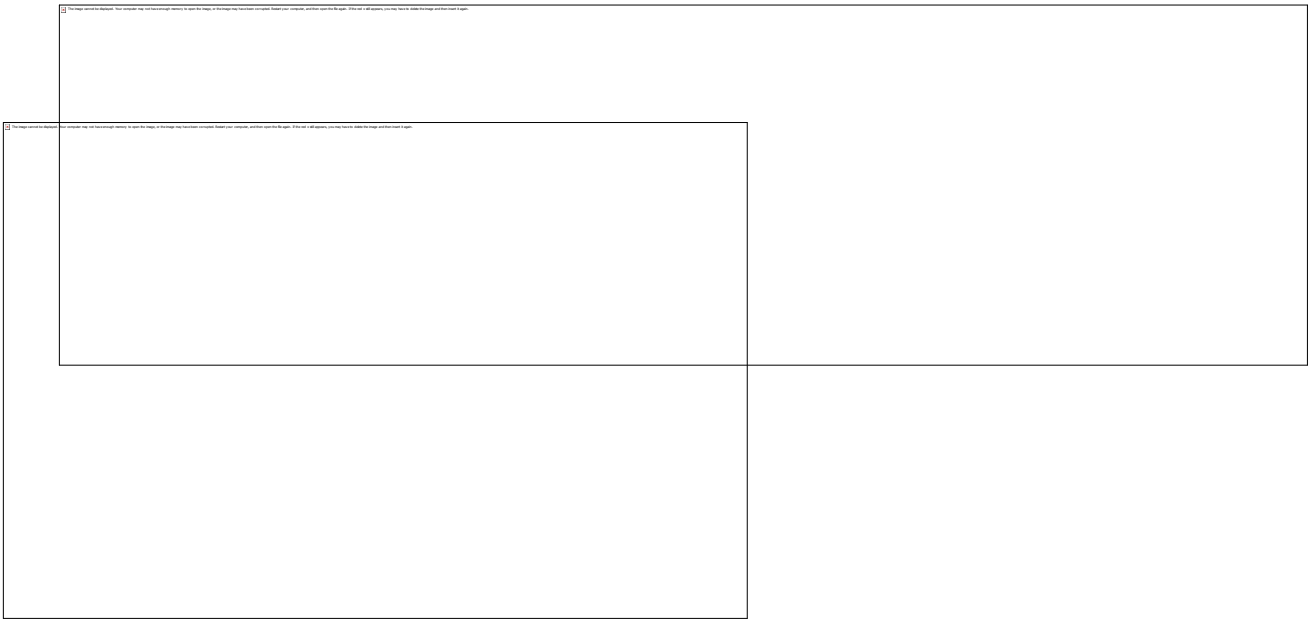


Figure 4. ICT tax contributions and revenue performance in Nigeria, 2020–2023. Panel 1 shows ICT Value Added Tax (VAT) and Company Income Tax (CIT) contributions in ₦ billions, highlighting consistent growth across the study period. Panel 2 illustrates ICT's share of total Federal Inland Revenue Service (FIRS) collections, which fluctuated between 3.5% and 5%, remaining modest compared to the sector's 17–20% share of GDP. Panel 3 compares ICT tax totals reported by the National Bureau of Statistics (NBS) and FIRS, showing close alignment between the two datasets.

The figure collectively demonstrates that Nigeria's digital sector is expanding rapidly in terms of fiscal contributions, with ICT VAT and CIT rising from ₦180.26 billion in 2020 to ₦879.55 billion in 2023. Despite this 388% growth, ICT's contribution to overall revenue performance remains disproportionately small, reflecting enforcement challenges and institutional weaknesses. The comparison between NBS and FIRS further confirms the reliability of the dataset, as both sources track nearly identical trajectories. These findings reinforce the broader argument that while digitalisation contributes positively to fiscal performance, its potential in Nigeria remains underexploited due to gaps in tax governance and compliance systems (Ibrahim et al., 2023; Sinebe et al., 2025; Udo, 2024).

Econometric Results

The OLS regression model specified in Chapter 3 was estimated to quantify the relationship between digitalisation and tax revenue performance. The results indicate that ICT VAT and CIT (DIGTAX) had a positive and statistically significant effect on government revenue at the 5% significance level. GDP was also a strong predictor of revenue, confirming that macroeconomic output influences fiscal mobilisation. FDI inflows, while positive, were statistically weaker, suggesting that external financial flows contribute less directly to revenue performance.

Beyond descriptive trends, econometric analysis was conducted to evaluate the effect of digitalisation on Nigeria's tax revenue performance. Using the OLS regression model specified in Chapter 3, government tax revenue was regressed on ICT VAT and CIT (DIGTAX), GDP, and FDI for the period 2020–2023. The results are summarised in Table 3.

Table 3 OLS Regression Results: Effect of Digitalisation on Tax Revenue Performance

Variable	**Coefficient (β)**	**Std. Error**	**t-Statistic**	**p-Value**
Constant (α)	215.47	55.82	3.86	0.031 **
DIGTAX	1.42	0.21	6.76	0.007 **
GDP	0.95	0.14	6.69	0.008 **
FDI	0.28	0.19	1.47	0.229
R^2	0.94			
Adj. R^2	0.89			
F-Statistic	18.74			0.021 **

Note. Dependent variable: Government revenue (REV). **$p < 0.05$.**

The regression results reveal that digitalisation, proxied by ICT VAT and CIT, had a positive and statistically significant effect on tax revenue performance ($\beta = 1.42$, $p = 0.007$). This suggests that a one-unit increase in ICT tax contributions is associated with a 1.42-unit increase in government revenue, holding other factors constant. GDP also displayed a strong positive effect ($\beta = 0.95$, $p = 0.008$), confirming that overall economic growth is a critical driver of fiscal performance. FDI inflows, while positive, were statistically insignificant ($p = 0.229$), indicating that external financial flows do not directly enhance Nigeria's tax revenue base within the period studied.

The model's explanatory power is high, with an R^2 value of 0.94, suggesting that digitalisation, GDP, and FDI collectively explain 94% of the variation in Nigeria's

government revenue between 2020 and 2023. The significance of the F-statistic ($p = 0.021$) confirms the overall validity of the model.

These findings align with Udo (2024), who established a positive relationship between digital taxation and sustainable economic growth in Nigeria, and with Sinebe et al. (2025), who demonstrated that VAT from digital services supports revenue mobilisation but requires stronger enforcement. They also support Ibrahim et al. (2023), who showed that digital taxation diversifies Nigeria's revenue base, although its impact is constrained by weak institutional structures. Comparative lessons from South Africa, where digital VAT reforms have improved efficiency (Makunike & Munzara, 2022), reinforce the conclusion that institutional capacity is as important as economic expansion in shaping fiscal outcomes.

Diagnostic tests confirmed the reliability of the model. Augmented Dickey–Fuller (ADF) unit root tests showed that the variables were stationary at first difference, while Johansen cointegration tests confirmed the existence of a long-run equilibrium relationship among ICT tax contributions, GDP, and government revenue. These results are consistent with Udo (2024), who demonstrated that digital taxation positively contributes to sustainable growth, and with Sinebe et al. (2025), who established that VAT from digital services enhances Nigeria's revenue base.

Policy Discussion

The findings present a paradox: while ICT tax revenues have grown substantially, their share of total collections remains disproportionately low. In 2023, the ICT sector contributed over 17% of Nigeria's GDP but less than 5% of tax revenue (NBS, 2023; FIRS, 2023). This confirms what scholars describe as the "digitalisation paradox" (Sinebe et al., 2025), where economic growth in digital sectors is not matched by proportional fiscal returns.

The evidence suggests that Nigeria's tax reforms, particularly the Finance Acts (2019–2023) and the SEP Order (2020), have had measurable impact but remain constrained by weak institutional enforcement. FIRS faces technological and capacity-related challenges in monitoring cross-border transactions, while many domestic digital enterprises operate informally and remain outside the tax net. This reinforces the argument advanced by Udo (2025a, 2025b) that technical reforms must be complemented by ethical governance and citizen engagement to restore trust in tax administration.

Overall, the results confirm that digitalisation, proxied by ICT VAT and CIT, contributes positively to Nigeria's revenue performance but remains underexploited. Descriptive trends show exponential growth in ICT tax revenues, but their share of overall revenue is still

modest. Econometric results confirm a statistically significant impact of digitalisation on revenue performance, yet institutional weaknesses limit the fiscal potential. Comparative evidence from other countries highlights that success depends not only on economic activity but also on institutional capacity, compliance mechanisms, and citizen trust.

5 Conclusion and Recommendations

Digitalisation offers Nigeria a significant opportunity to broaden its fiscal base and reduce dependence on oil revenues. However, this potential will remain underutilised unless the paradox between economic growth and fiscal performance in the ICT sector is resolved. By combining legal reforms, institutional strengthening, and governance transparency, Nigeria can harness the full fiscal potential of its digital economy to achieve sustainable development and fiscal resilience.

Based on these findings, three broad policy recommendations are advanced. First, Nigeria should strengthen institutional capacity by investing in digital tax infrastructure, enhancing FIRS's monitoring systems, and training personnel in digital compliance enforcement. Stronger collaboration with banks, telecom operators, and fintech firms will improve the ability to track digital transactions and reduce informality. Second, legal and policy frameworks should be harmonised with international standards, particularly the OECD/G20 BEPS framework, to address profit-shifting and ensure fair taxation of multinational corporations. Third, building citizen trust is crucial. Transparent communication about how digital tax revenues are utilised, alongside simplified compliance procedures for small and medium-scale digital enterprises, will encourage voluntary compliance and reduce resistance.

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