www.ijarp.com ISSN 2456-9992 Page: 01-21

International Journal Advanced Research Publications

Research Article

Volume: 01

Issue: 02

DIGITAL TAX COLLECTION AND REVENUE GENERATION: A STUDY OF ANAMBRA STATE INTERNAL REVENUE SERVICES (2014-2022)

***[1]Udeoba, Catherine Ekenma, [2]Ass. Prof. Helen Obiageli Obi., [3]Prof. Daniel Chi-Junior Chukwurah**

[1]Department of Public Administration NnamdiAzikiwe University, Awka.

[2]Faculty of Law NnamdiAzikiwe University, Awka.

[3]Department of Public Administration ChukwuemekaOdumegwuOjukwu University, Igbariam.

Article Received: 11 October 2025, Article Revised: 01 November 2025, Published on: 21 November 2025

***Corresponding Author: Udeoba, Catherine Ekenma**

Department of Public Administration NnamdiAzikiwe University, Awka.

Doi: https://doi-doi.org/101555/ijarp.7898

ABSTRACT

This study investigates the effect of digital tax collection on tax compliance and accountability in Anambra State between 2014 and 2022. Using a mixed-method approach, data were collected from taxpayers and officials of the Anambra State Internal Revenue Service and analyzed with descriptive statistics and regression analysis. The findings reveal that digital tax platforms significantly enhance compliance by simplifying payments, improving timeliness, reducing evasion, and boosting taxpayers' willingness to adhere to obligations. Similarly, digital systems were found to promote accountability by strengthening transparency, reducing fraudulent practices, and enhancing official responsibility in revenue collection. These results are consistent with existing literature on the positive role of e-taxation in improving governance outcomes across Nigeria and Sub-Saharan Africa. However, challenges such as low digital literacy, infrastructural deficits, and data security concerns continue to limit the full benefits of adoption. The study concludes that digital tax collection has a transformative effect on revenue administration in Anambra State and recommends taxpayer sensitization and stronger ICT infrastructure as critical steps to consolidating these gains.

KEYWORDS: Digital taxation, tax compliance, accountability, revenue generation, Anambra State, e-governance.

INTRODUCTION

The digital transformation of governance has significantly reshaped tax collection and revenue generation processes globally, with Nigeria being no exception (Qureshi, 2022). Historically, Nigeria's heavy reliance on oil exports has left state and local governments vulnerable to oil price volatility, resulting in fiscal shortfalls during economic downturns (Olayungbo, 2019). This reliance has underscored the importance of internally generated revenue (IGR) for sustaining subnational governments. In response, several states, including Anambra, have adopted digital tools to enhance tax collection efficiency and transparency (Adeyanju, 2023). Traditionally, Nigeria's tax system was plagued by inefficiencies, corruption, and cumbersome manual processes (Ogunbela, Akinboboye, &Ogunbiy, 2021). These limitations created bottlenecks, discouraged compliance, and facilitated tax evasion. Recognizing these weaknesses, the Federal Government, through the Federal Inland Revenue Service (FIRS), initiated reforms such as the Integrated Tax Administration System (ITAS) and the e-Tax platform to modernize operations (Adeyeye, 2019). At the state level, Anambra established the Anambra State Internal Revenue Service (AIRS) in 2010 under Law No. 11, granting it sole authority over tax assessment, collection, and reporting. The agency sought to strengthen IGR by introducing electronic filing systems, mobile payment platforms, and taxpayer education programs (Udegbunam&Nwankwo, 2024).

AIRS's digitalization drive gained momentum with the commissioning of the e-IGR/e-Tax Command and Control Center in 2017. This facility streamlined revenue collection by enabling electronic transactions, reducing bureaucratic hurdles, and enhancing accessibility for taxpayers both within and outside the state (AIRS, 2018). Complementing these reforms was the adoption of a presumptive tax system to simplify assessments and expand the tax net, particularly among small-scale businesses (John-Akamelu&Iyidiobi, 2019). These initiatives contributed to significant increases in IGR: from ₦10.4 billion in 2014 to ₦36.1 billion in 2023, despite temporary setbacks such as the COVID-19 pandemic in 2021.

Despite notable progress, challenges persist. Infrastructure deficits, including unreliable internet connectivity and power supply, remain major barriers to smooth implementation, particularly in rural areas . Furthermore, low digital literacy among taxpayers has limited adoption and sometimes led to errors in filing processes. Resistance to change also undermines adoption, as both taxpayers and some tax officials remain skeptical of digital platforms. In addition, the cost of implementing and maintaining digital systems is often prohibitive, while entrenched corruption practices resist transparency-enhancing technologies (Osemeke, Nzekwu, &Okere, 2020). The persistence of these challenges has contributed to inconsistencies in Anambra's digital tax collection system. For instance, while automation should minimize human intervention and errors, manual processes remain in use, thereby weakening efficiency and transparency. Issues such as poor system integration with financial frameworks and frequent disruptions from infrastructure limitations have further eroded taxpayer trust. Moreover, corruption risks continue to exist, as some stakeholders exploit loopholes to subvert accountability mechanisms.

To address these concerns, AIRS has introduced measures such as taxpayer training programs, anti-corruption oversight mechanisms, and expanded internet infrastructure. While these initiatives have made modest gains, evidence suggests that they have not sufficiently mitigated challenges of digital illiteracy, infrastructural weakness, or corruption. This has prompted calls for a more comprehensive and context-sensitive approach to digital tax collection in Anambra State. This study investigates the effectiveness of digital tax collection in Anambra State between 2014 and 2022, with a focus on the opportunities and challenges that have emerged.

Objectives of the Study

1. Analyze the effect of digital tax collection on tax compliance among taxpayers in Anambra State.
2. Identify whether digital tax collection has enhanced accountability in the revenue collection process in Anambra State.

Research Questions

1. What is the effect of digital tax collection on tax compliance among taxpayers in Anambra State?
2. How has the implementation of digital tax collection improved accountability in the revenue collection process in Anambra State?

Hypotheses

1. $H_{0:}$ The implementation of digital tax collection has no positive effect on tax compliance among taxpayers in Anambra State.
2. $H_{0:}$ The implementation of digital tax collection systems has not significantly improved accountability in the revenue collection process in Anambra State.

Conceptual Clarifications

Digital Tax Collection

Ciarli, Kenney, Massini, and Piscitello (2021) highlighted a significant transformation brought about by digital technologies, which have woven themselves into the very fabric of our economic and social activities. These technologies are not merely tools; they are catalysts for change, reshaping how we interact, work, and conduct business. In many instances, the implementation of digital technologies disrupts traditional practices, challenging the status quo and compelling individuals and organizations to adapt quickly. For example, industries like retail and finance have experienced profound shifts as e-commerce platforms and mobile banking apps alter how consumers shop and manage their finances. This disruption often leads to a rethinking of established business models and the creation of new opportunities. Conversely, in some cases, the impact of digital technologies is more gradual and complementary. Instead of completely overhauling existing practices, they enhance and streamline processes, making them more efficient. For instance, automation tools in manufacturing may not replace human workers but instead enable them to focus on more complex tasks by handling repetitive ones. This incremental change allows businesses to leverage the strengths of both digital tools and human expertise.

Yasar (2023) defined "digital" as a term that refers to electronic technologies designed for generating, storing, and processing data. This technology operates based on two primary states: positive and nonpositive. The concept of digital technology can be likened to the way we interact with the world around us. Just as we use our senses to perceive our environment, digital technology allows us to capture and interpret information. For example, think of how your smartphone converts the sound of your voice into digital signals that can be transmitted across vast distances, allowing you to communicate with someone on the other side of the world in real time. Moreover, the duality of positive and nonpositive states in digital technology highlights the binary nature of data processing. In simple terms, this means that data can exist in one of two forms—either as a “1” (representing an active or positive state) or a “0” (indicating an inactive or nonpositive state). This binary system is foundational to the way computers and digital devices operate, enabling them to perform complex calculations, store vast amounts of information, and execute various tasks efficiently.

The Queen Rania Foundation (n.d.) emphasizes the transformative role of digital technology in education. When we refer to digital technology, we are talking about the innovative use of computers and technology-assisted strategies designed to enhance and support learning experiences within schools. This approach goes beyond merely integrating devices into classrooms; it encompasses a holistic view of how technology can enrich the educational landscape. Digital tools enable teachers to create interactive and engaging lessons that cater to diverse learning styles, allowing students to explore subjects in new and exciting ways (Queen Rania Foundation, n.d.). For instance, through the use of multimedia presentations, virtual simulations, and online collaboration platforms, students can actively participate in their learning journey, fostering a sense of ownership and curiosity. Furthermore, technology facilitates access to a vast array of resources, breaking down geographical barriers and ensuring that learners from various backgrounds can benefit from quality educational materials.

Fluckiger and Zabban (2023) emphasize that digital technologies are fundamentally rooted in the realm of information and communication technologies (ICTs). This perspective highlights the intrinsic relationship between digital advancements and the way we share, process, and store information in today's interconnected world. Digital technologies, whether they manifest as smartphones, social media platforms, or cloud computing, serve as the backbone of modern communication. They enable seamless interaction across geographical boundaries, fostering connections among individuals and communities. These tools not only facilitate the exchange of ideas and information but also empower users to engage in collaborative endeavors, driving innovation and creativity.

On the other hand, Oyedokun (2020) explains that tax is a mandatory financial contribution imposed by the government on the earnings of individuals and corporations. This levy serves a vital purpose: it generates essential revenue needed to fund the various activities and services provided by the government. Taxes play a crucial role in maintaining and improving public infrastructure, such as roads, schools, and healthcare systems, all of which are fundamental to a functioning society. By contributing to the tax system, citizens and businesses participate in the collective responsibility of supporting the community and ensuring that essential services are accessible to everyone. Thus, taxes are not merely financial obligations; they represent a civic duty that helps sustain and enhance the quality of life for all members of society.

Revenue Generation

Revenue and revenue generation have been defined in various ways by scholars across different times and contexts, but there is no single, universally accepted definition. The concept of revenue, while essential to both public and private sector financial management, has been interpreted through different lenses depending on the field of study or focus area.

For instance, in economics, revenue typically refers to the total income generated by the sale of goods or services before expenses are deducted. In public finance, it often describes the income a government receives through taxes, fees, and other financial streams to fund its operations. These variations in definition reflect the dynamic nature of revenue as a concept. Different industries, contexts, and time periods influence how revenue is understood, but at its core, it remains a fundamental measure of financial performance, sustainability, and growth. The absence of a universally accepted definition emphasizes the complexity of the term and its reliance on the specific needs or objectives of those who define it.

Egwuonwu, Ikeh, and Jandiya (2023) described revenue as the lifeblood of government operations, essential for supporting the day-to-day functioning of a country. In simple terms, revenue refers to the funds that a government collects to pay for public services like healthcare, education, infrastructure, security, and social welfare. These funds are typically gathered from various sources, including taxes paid by citizens and businesses, duties on imports and exports, levies on specific goods or services, fines for legal violations, and other fees. They stressed that without sufficient revenue, a government would struggle to meet the needs of its citizens and maintain the infrastructure that keeps society functioning smoothly. Revenue allows the government to build roads, supply clean water, provide electricity, improve public health services, and ensure that schools are equipped to educate the next generation. It also helps maintain law and order, safeguard national security, and address social inequalities through welfare programmes.

Braimah and Onuoha (2022) defined revenue as the total sum of money that the government generates to finance its activities and operations. This revenue is collected by various levels of government—federal, state, and local—and serves as the primary source of funds for covering public expenditures within a specific fiscal year. Revenue collection is essential for maintaining the government's ability to provide public goods and services, execute development projects, ensure security, and promote economic stability. Sources of government revenue typically include taxes, levies, duties, fines, and earnings from government-owned assets or enterprises. Revenue management is crucial as it ensures that the government can meet its obligations without incurring excessive debt, contributing to sustainable economic growth and public welfare.

On the other hand, Barron (2024) defines revenue generation as a diverse process that involves the strategic planning, marketing, and selling of products or services with the primary goal of generating income and enhancing overall profitability. This process begins with comprehensive planning, which includes identifying potential markets, setting revenue targets, and developing a roadmap for reaching these goals. Marketing plays a crucial role, as it involves creating awareness of the products or services, positioning them effectively in the market, and engaging potential customers. Sales efforts are then directed towards converting these prospects into paying customers, ensuring that the organization not only generates income but also maximizes profitability by managing costs, optimizing pricing strategies, and focusing on customer retention. Revenue generation is critical for the sustainability and growth of any business, as it directly impacts the company's financial health, its ability to reinvest in operations, and its capacity to compete effectively in the marketplace.

Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM), originally developed by Davis (1986), which has become a widely applied framework for explaining technology adoption in information systems. TAM posits that individuals' acceptance of technology is primarily shaped by two perceptions: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU reflects the degree to which a user believes that a system enhances job performance, while PEOU concerns the extent to which a system is free of effort (Marikyan&Papagiannidis, 2023). Both constructs jointly influence attitudes toward technology, behavioral intention, and eventual use (Lai, 2017).

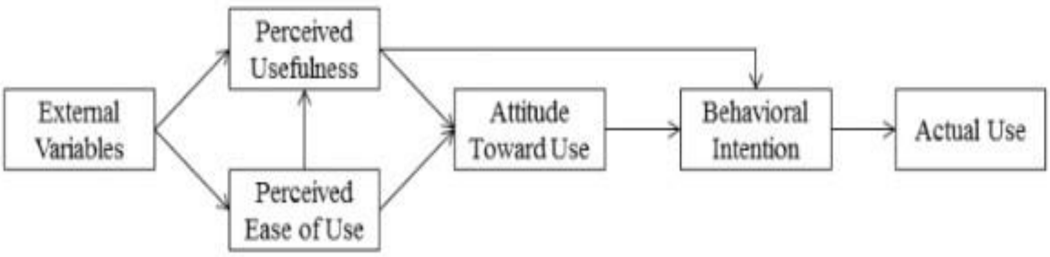

Figure 1. Technology Acceptance Model.

Source: Adapted fromDurodolu (2016)

In practice, technologies that are user-friendly, supported by training, and demonstrate tangible efficiency gains are more likely to be adopted (Bolanle, Igbinoba, Salau, Chukwudi, &Idia, 2022). Despite its popularity, TAM has faced sustained criticism. Scholars argue that its reliance on only two constructs explains limited variance in adoption behavior and overlooks institutional, cultural, and demographic factors (Shachak, Kuziemsky, & Petersen, 2019). Furthermore, the model has been critiqued for theoretical rigidity, privileging rational decision-making while neglecting emotional, social, and goal-oriented dynamics in technology use (Bagozzi, 2007). These limitations have led to several extensions of TAM, incorporating social influence, facilitating conditions, and user characteristics, thereby improving its contextual relevance.

Applied to digital tax collection in Anambra State, TAM offers insight into the adoption process. Taxpayers and administrators' willingness to embrace digital platforms depends on their perceptions of efficiency, transparency, and ease of use. Evidence suggests that well-designed systems improve accuracy, reduce delays, and build trust, but challenges such as limited digital literacy, infrastructure gaps, and data security concerns remain. Addressing these barriers through training, simplified interfaces, and public sensitization can strengthen adoption. Moreover, endorsements from business leaders and community influencers, combined with reliable infrastructure, enhance acceptance. Thus, TAM not only illuminates the central role of perceptions in technology uptake but also underscores the need for supportive conditions and cultural alignment to ensure success in developing contexts.

Empirical Review

Umenweke, Nwabachili, and Anushiem (2023) appraised the challenges for taxation of digital economy in Nigeria. They defined taxation as a mandatory government levy on economic transactions, particularly focusing on online activities. Given the increasing number of Nigerians engaging in digital activities daily—many interacting with global giants like Amazon and Walmart—the issue of effective taxation becomes even more critical. The scholars highlighted several key challenges, including the difficulty of identifying these non-resident companies, tracking their income, and understanding their digital activities. Issues such as inaccuracies in data reporting, the absence of a specialized court to handle digital taxation cases, pervasive corruption, and a shortage of IT expertise further complicate the landscape. To address these challenges, the paper emphasizes the importance of diversifying Nigeria's revenue sources beyond its traditional reliance on oil. It advocates for the establishment of clear legislation governing a digital services tax, encouraging collaboration between tax authorities and financial institutions, and ensuring effective implementation of these laws. Such steps are essential to enhance government revenue and better adapt to the realities of the digital economy.

Ajuonu (2023) investigated how online tax adoption enhances accountability and improves Internally Generated Revenue (IGR) in Abia State, Nigeria. The study employs an ex-post facto design and uses secondary data sourced from the National Bureau of Statistics (NBS). Online tax adoption is proxied by Online Direct Tax Assessment (ODTA) and Online Road Taxes (ORT). The Wilcoxon statistical test shows that ODTA and ORT have a positive and significant relationship with IGR at 1% and 5% significance levels, respectively. The findings suggest that transitioning from manual to online tax systems fosters accountability and transparency, thereby enhancing the efficiency and volume of revenue collection. The study concludes that the adoption of online tax platforms ensures improved remittance of taxes, reducing the incidence of revenue leakage. Consequently, it recommends broader adoption of online taxation methods across Abia State to replace manual processes that often result in mismanagement and non-remittance of collected funds. The research supports digital transformation as a viable strategy for enhancing revenue accountability in state-level tax systems.

Falana, Dakhil, Abbood and Dagunduro (2024) examine how digital tax administration affects tax compliance within the informal sector in Nigeria's Southwest states. The informal sector—comprising artisans, traders, vendors, and service providers—typically operates outside formal tax systems, posing significant compliance challenges. Using a survey design, 600 structured questionnaires were distributed, with 547 valid responses received. Participants were selected purposively, and data were analyzed using descriptive (mean, skewness, kurtosis) and inferential statistics (correlation, regression). The study's findings show that technical know-how and access to digital payment platforms positively and significantly influence tax compliance. Specifically, individuals with better technical skills and access to digital payment options are more likely to comply with tax obligations. The authors conclude that enhancing digital literacy and expanding payment infrastructure are crucial steps toward improving tax compliance in Nigeria's informal sector. They recommend that government agencies invest in training programs and awareness campaigns to build the capacity of informal sector participants. Ultimately, the study underscores the transformative potential of digital tools in bridging the tax compliance gap in an economically critical yet under-regulated segment of the Nigerian economy, which holds significant implications for national revenue generation and public service funding in a digital age.

Ogunsola (2023) examines the influence of electronic taxation on tax compliance among Small and Medium Enterprises (SMEs) in Kogi State, Nigeria. The study focuses on how the perceived ease of use of e-tax systems moderates the relationship between e-tax registration, filing, payment, and compliance. Using a convenience sampling method, data were collected from 40 registered SME owners via structured questionnaires. The results, analyzed through multiple regression at a 5% significance level, reveal that electronic tax registration has a negligible and statistically insignificant effect on tax compliance. In contrast, electronic tax filing and payment show a positive and significant influence on compliance levels. Surprisingly, perceived ease of use does not significantly moderate the effects of electronic tax components on compliance. The findings suggest that while registration might be burdensome or misunderstood by users, filing and payment are increasingly accepted as effective tools. The study concludes that awareness and understanding of e-tax services need substantial improvement. Ogunsola recommends that tax authorities ramp up educational initiatives and outreach programs to help SME owners appreciate the benefits and operational simplicity of digital taxation systems. Strengthening such initiatives could significantly enhance voluntary compliance and broaden the tax base among SMEs.

Otekunrin, Nwanji, Eluyela, Inegbedion, and Eleda (2021) conducted a study to explore how effective electronic tax systems (E-tax systems) are in reducing tax evasion in Nigeria. Their research focused on the experiences of employees at the Federal Inland Revenue Service (FIRS) and small to medium-sized enterprise taxpayers based in the Federal Capital Territory (F.C.T.), Abuja. To gather information, the researchers distributed questionnaires to a group of 60 FIRS officials and employees, as well as to taxpayers from small and medium enterprises in the F.C.T. They also looked at secondary data, analyzing tax revenue reports from FIRS that covered a 20-year period, from 2000 to 2019. The study was designed to provide clear conclusions and employed various statistical techniques, including the General Linear Model and Linear Regression, to analyze the data collected. The effectiveness of the E-tax system was assessed by examining actual tax revenues and the level of electronic tax services available. In contrast, tax evasion was evaluated by looking at how compliant taxpayers were and their attitudes towards the E-tax system. The findings revealed a significant and negative relationship between the implementation of the E-tax system and instances of tax evasion. In simpler terms, this means that a well-implemented electronic tax system can lead to a notable decrease in tax evasion. This finding emphasizes the critical role of effective E-tax system implementation in tackling tax evasion, which can negatively impact both the economy and the overall integrity of Nigeria's tax administration system.

Nwokike, Ananti, and Okonkwo (2021) examined the relationship between accountability and internal revenue generation in Anambra State's local government system from 2006 to 2014. The study addressed the persistent problem of poor revenue generation, largely attributed to corruption among revenue collectors and weak adherence to financial control mechanisms. Guided by system theory and employing a descriptive survey design, the research involved 14,881 workers and utilized a five-point Likert-scale questionnaire. Data were analyzed using the Chi-square statistical method. Findings revealed that corruption and incompetence among revenue officials significantly contributed to the poor revenue performance of local governments in the state. The authors recommended establishing strong monitoring and prosecution mechanisms for corrupt officials, enforcing proper documentation and auditing of funds, and organizing regular training programs, such as seminars and workshops, to enhance staff competence and promote accountability in local government financial management.

John-Akamelu and Iyidiobi (2019) investigated the impact of electronic taxation (e-taxation) on revenue generation in Anambra State. Their research aimed to achieve three primary objectives: first, to assess how e-taxation influences tax revenue generation in the state; second, to determine whether the implementation of e-taxation has led to a reduction in tax malpractice; and third, to examine improvements in tax revenue following the adoption of e-taxation. To conduct this study, the researchers employed a survey design and collected relevant data, which they subsequently analyzed using a one-sample t-test to evaluate their hypotheses. The results yielded several noteworthy findings. Firstly, the study concluded that e-taxation has a significant effect on tax revenue generation in Anambra State. Secondly, the adoption of e-taxation has contributed to a reduction in instances of tax malpractice. Lastly, there was evidence suggesting that tax revenue has positively increased as a result of implementing e-taxation in the state. In light of these findings, the researchers made several recommendations. They emphasized the importance of the government establishing well-equipped databases containing comprehensive information on taxpayers. Such databases would aid in identifying all potential sources of income, thereby facilitating more efficient and accurate tax collection processes. Overall, the study highlights the positive impact of e-taxation on revenue generation and the potential for reducing tax-related misconduct in Anambra State, underscoring the significance of leveraging technology in tax administration.

Oloyede and Funmilayo (2022) explored the role of electronic governance in improving tax revenue collection and remittance in Nigeria. In light of mounting governance responsibilities—such as infrastructure provision and security—taxation remains a vital revenue source. However, persistent tax evasion and corruption undermine revenue performance. To counter this, the government adopted electronic taxation under the broader umbrella of e-governance, aligning with global digital trends. The study, which utilized a qualitative research method and relied on secondary data, reveals that e-taxation minimizes manual processing errors, reduces fraud, and improves reconciliation processes in tax offices. It enhances transparency, limits revenue leakages, and ultimately increases government revenue. The authors highlight that the shift to electronic platforms saves time and reduces the cost of tax administration while promoting efficiency. Based on the findings, the study recommends full adoption of e-taxation by local, state, and federal revenue agencies. Furthermore, the researchers advocate for robust taxpayer education and awareness initiatives to encourage acceptance and effective use of digital tax systems. The study concludes that e-taxation, when integrated into governance reforms, plays a pivotal role in overcoming traditional barriers in tax administration and positioning Nigeria toward improved fiscal sustainability and public accountability.

METHODOLOGY

This study examined the role of digital tax collection systems in enhancing revenue generation within the Anambra State Internal Revenue Service (AIRS) between 2014 and 2022. A descriptive survey design was employed, which was deemed appropriate for analyzing perceptions, attitudes, and experiences of AIRS staff toward digital tax systems, while also enabling generalization to the wider organizational population.The study area was Anambra State, southeastern Nigeria, with AIRS as the focal agency due to its central role in tax administration and fiscal management. The population comprised all 331 permanent staff across seven departments. Given the manageable size, the study adopted a census sampling technique, thereby eliminating sampling error and increasing the robustness of findings.

Table 1: Population of the study.

S/N	Departments	No. of Staff	Percentage %
1	Administration	36	10.9%
2	Collection	86	26%
3	Account	22	6.6%
4	Planning, Research and statistics	21	6.3%
5	Assessment.	36	10.9%
6	PAYE	54	16.3%
7	Inspection and Other Taxes	76	23%
	Total	**331**	100%

Source: Administration Department of the agency, 2025

Primary data were collected using a structured, pre-coded questionnaire, complemented by secondary data from AIRS reports, government publications, and scholarly sources. The questionnaire design followed a five-point Likert scale to capture staff perceptions on tax compliance, accountability, revenue leakages, and digital innovation. To ensure instrument quality, validity was established through expert reviews, while reliability was tested using the test–retest method, yielding a correlation coefficient of 0.932, indicating high consistency (Bolarinwa, 2015; Taherdoost, 2016).

For data analysis, descriptive statistics (frequency tables and percentages) summarized demographic and perception data, while inferential statistics—specifically multiple linear regression and ANOVA—tested hypotheses on the relationship between digital tax systems and revenue generation. Statistical significance was determined at $\alpha = 0.05$. This mixed analytical approach provided both explanatory and predictive insights into the effectiveness of digital tax collection in strengthening revenue administration in Anambra State.

RESULTS AND DISCUSSION

Demographic Data of Respondents

Table 2: Gender Distribution of Respondents.

Gender	Frequency	Percentage%
Male	215	66%
Female	111	34%
Total	326	100%

Source: Field Survey, 2025

The results in Table 2 indicate the gender distribution of respondents in the study. Out of the 326 valid responses, 215 (65.95%) were male, while 111 (34.05%) were female. This shows that male respondents constituted the majority of the study sample.

Table 3: Age of Respondents.

Range	Frequency	Percentage
20-30	56	17.2
31-40	167	51.2
41-50	87	26.7
51 and Above	16	4.9
Total	**326**	**100%**

Source: Field Survey, 2025

Table 3reveal the age distribution of respondents in the study. Out of the 326 valid responses analyzed,56 respondents (17.2%) fell within the 20–30 years age range, 167 respondents (51.2%) were between 31–40 years, 87 respondents (26.7%) were between 41–50 years, while 16 respondents (4.9%) were 51 years and above.

Table 4: ***Educational Qualification of Respondent.***

Education Qualification	**Frequency**	**Percentage**
OND/NCE	79	24.2%
HND/B. Sc/BA/B. Ed	164	50.3%
M. Sc / MPA/MBA and Above	83	25.5%
Total	**326**	100%

Source: Field Survey, 2025

Table 4present the educational qualifications of the respondents. Out of the 326 valid responses,79 respondents (24.2%) held OND/NCE qualifications, 164 respondents (50.3%) possessed HND/B.Sc./B.A./B.Ed. degrees, while 83 respondents (25.5%) had postgraduate qualifications such as M.Sc., MPA, or MBA and above.

Table 4: Years of Service in Anambra State Internal Revenue Services.

Status	**Frequency**	**Percentage**
Less than 5 years	65	20%
6–10 years	153	47%
Above 11 years	108	33.1%
Total	**326**	100%

Source: Field Survey, 2025

Research Question One

Research question one wants to analyze the effect of digital tax collection on tax compliance among taxpayers in Anambra State.

Table 6: Digital Tax Collection Tools on Compliance.

S/N	**Item Description**	**SA**	**A**	**UN**	**D**	**SD**	**Total**
1	Digital tax collection tools have simplified the tax payment process.	182 (55.8%)	102 (31.3%)	6 (1.8%)	24 (7.4%)	12 (3.7%)	326 (100%)
2	Digital tax platforms make it easier to meet tax obligations on time.	151 (46.3%)	119 (36.5%)	5 (1.5%)	31 (9.5%)	20 (6.1%)	326 (100%)
3	Digital tax systems increase taxpayers' willingness to comply with tax laws.	138 (42.3%)	112 (34.4%)	7 (2.1%)	39 (12.0%)	30 (9.2%)	326 (100%)
4	Digital tax tools have reduced cases of tax evasion.	129 (39.6%)	116 (35.6%)	4 (1.2%)	42 (12.9%)	35 (10.7%)	326 (100%)

5	Digital tax tools provide adequate reminders for tax obligations.	137 (42.0%)	121 (37.1%)	3 (0.9%)	38 (11.7%)	27 (8.3%)	326 (100%)
	Total	**737 (45.2%)**	**570 (35%)**	**25 (1.5%)**	**174 (10.7%)**	**124 (7.6%)**	**1630 (100%)**

Note: Figures in Parenthesis are percentages

Table 6 reveal that the majority of respondents provided positive assessments of digital tax collection tools. Specifically, 737 responses (45.2%) strongly agreed and 570 responses (35.0%) agreed. In contrast, 25 responses (1.5%) were undecided, while 174 (10.7%) disagreed and 124 (7.6%) strongly disagreed. These findings indicate that a large proportion of respondents believe digital tax collection tools simplify tax payments, enhance compliance, provide timely reminders, and help reduce tax evasion, despite a small segment expressing contrary views.

Research Question Two:

Research question two wants to identify whether digital tax collection has enhanced accountability in the revenue collection process in Anambra State.

Table 7: Accountability in Service Delivery.

S/N	Item Description	SA	A	UN	D	SD	Total
1	Digital tax systems improve transparency in revenue collection processes.	160 (49.1%)	118 (36.2%)	7 (2.1%)	25 (7.7%)	16 (4.9%)	326 (100%)
2	Digital platforms allow taxpayers to track their payments effectively.	148 (45.4%)	122 (37.4%)	6 (1.8%)	30 (9.2%)	20 (6.1%)	326 (100%)
3	Digital tax collection has reduced fraud within the tax system.	140 (42.9%)	116 (35.6%)	4 (1.2%)	37 (11.3%)	29 (8.9%)	326 (100%)
4	Tax officials are more accountable due to digital tax tools.	135 (41.4%)	110 (33.7%)	5 (1.5%)	41 (12.6%)	35 (10.7%)	326 (100%)
5	Digital systems ensure payments are directed to appropriate government accounts.	145 (44.5%)	120 (36.8%)	3 (0.9%)	33 (10.1%)	25 (7.7%)	326 (100%)
	Total	**728 (44.7%)**	**586 (35.9%)**	**25 (1.5%)**	**166 (10.2%)**	**125 (7.7%)**	**1630 (100%)**

Note: Figures in Parenthesis are percentages

Table 7 indicate that respondents overwhelmingly agreed that digital tax systems enhance accountability in service delivery. Specifically, 728 responses (44.7%) strongly agreedand586 responses (35.9%) agreed**,** showing strong consensus that digital tools improve transparency, reduce fraud, enhance accountability of tax officials, and ensure payments reach the correct government accounts. Meanwhile, only 25 responses (1.5%) were undecided**,** whereas166 (10.2%) disagreedand 125 (7.7%) strongly disagreed**.** These results suggest that the majority of respondents perceive digital tax collection as a vital mechanism for improving transparency and accountability in Anambra State's revenue system, despite some reservations among a smaller group of participants.

Test of Hypotheses

In testing the hypotheses, the calculated value of the test statistic is compared with the corresponding critical value obtained from statistical tables. The critical value serves as the benchmark for making decisions regarding the null hypotheses. Accordingly, the decision rule adopted in this study is as follows:

1. Reject the null hypothesis (H_0**)** if the calculated value of the test statistic at the 5% level of significance with the appropriate degrees of freedom is greater than the table (critical) value.
2. Do not reject the null hypothesis (H_0**)** if the calculated value is less than or equal to the table (critical) value.

The hypotheses formulated in this study were tested using Multiple Linear Regression (MLR)**.** MLR was considered appropriate because the study examines how multiple independent variables simultaneously affect the dependent variable.

Hypothesis One

H_0: The implementation of digital tax collection has no positive effect on tax compliance among taxpayers in Anambra State.

H_1: The implementation of digital tax collection has a positive effect on tax compliance among taxpayers in Anambra State.

The first hypothesis of the study was tested to determine whether the implementation of digital tax collection has a positive effect on tax compliance among taxpayers in Anambra State. The null hypothesis (H_0) posits that the implementation of digital tax collection has no positive effect on tax compliance, while the alternative hypothesis (H_1**)** maintains that digital tax collection positively affects tax compliance.

The regression analysis revealed a strong positive correlation ($R = 0.9459$) between digital tax collection and tax compliance. The coefficient of determination ($R^2 = 0.8948$) indicates that approximately 89.5% of the variation in tax compliance can be attributed to the implementation of digital tax collection. The F-statistic of 25.5166 with a significance level of $p = 0.015$ ($p < 0.05$) confirms the overall significance of the regression model. Furthermore, the coefficient of the independent variable (0.1911) is positive, and its probability value (0.015) is less than the 5% level of significance, implying that digital tax collection contributes significantly to improving tax compliance.

Based on these results, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This finding suggests that the adoption of digital tax collection systems has a significant and positive effect on tax compliance among taxpayers in Anambra State. In practical terms, this means that the deployment of digital tools in tax administration enhances efficiency, reduces leakages, and fosters greater compliance with tax obligations.

Hypothesis Two

H_0: The implementation of digital tax collection systems has not significantly improved accountability in the revenue collection process in Anambra State.

H_1: The implementation of digital tax collection systems has significantly improved accountability in the revenue collection process in Anambra State.

The second hypothesis sought to examine whether the implementation of digital tax collection systems has significantly improved accountability in the revenue collection process in Anambra State. The null hypothesis (H_0) states that the implementation of digital tax collection systems has not significantly improved accountability, while the alternative hypothesis (H_1) asserts that digital tax collection systems have significantly improved accountability in the revenue collection process.

The regression analysis shows a strong positive relationship between digital tax collection and accountability. The correlation coefficient (R) of 0.9459 indicates a very high degree of association between the independent variable (digital tax collection) and the dependent variable (accountability). The coefficient of determination ($R^2 = 0.8948$) further suggests that about 89.5% of the variation in accountability is explained by digital tax collection. The F-statistic of 25.5166 with a significance value of $p = 0.015$ ($p < 0.05$) confirms the overall significance of the regression model. In addition, the coefficient of the independent variable

(0.1911) is positive, and its p-value (0.015) is statistically significant, indicating that digital tax collection has a meaningful effect on accountability.

Based on these results, the null hypothesis (H_0) is rejected, while the alternative hypothesis (H_1) is accepted. This finding implies that the implementation of digital tax collection systems has significantly improved accountability in the revenue collection process in Anambra State.

DISCUSSION OF FINDINGS

The study examined the effects of digital tax collection on tax compliance and accountability in Anambra State. Results indicate a strong positive relationship between digital tools and compliance, with 80.2% of respondents affirming that such platforms simplify payments, ensure timeliness, reduce evasion, and enhance willingness to comply. Hypothesis testing confirmed this ($R = 0.9459$, $R^2 = 0.8948$, $p = 0.015$), thereby rejecting the null hypothesis. These findings align with prior evidence. For example, Falana et al. (2024) demonstrated that digital literacy and access to platforms significantly improve informal sector compliance, while Ogunsola (2023) found that e-tax filing boosts SME compliance in Kogi State. Likewise, Otekunrin et al. (2021) reported that e-taxation reduces evasion at the Federal Inland Revenue Service, reinforcing the efficiency benefits observed in this study. Conversely, Adejuwon and Olasunkanmi (2023) cautioned that gaps in adoption may undermine revenue outcomes, underscoring the dissenting minority (18.3%) who cited literacy and accessibility barriers.

On accountability, findings revealed 80.6% positive responses regarding transparency, fraud reduction, and official responsibility, with statistical evidence confirming a strong effect ($R = 0.9459$, $R^2 = 0.8948$, $p = 0.015$). This corroborates Nigerian scholarship emphasizing digitalization's governance benefits. Oloyede and Funmilayo (2022) argued that e-governance minimizes leakages, while Ajuonu (2023) found that online tax systems in Abia State strengthened accountability and improved internally generated revenue. Similarly, John-Akamelu and Iyidiobi (2019) highlighted that digital tax collection in Anambra curbs malpractice, a finding echoed in this study. Broader African evidence, such as Bassongui and Houngbédji (2023), also supports the link between digitalization and accountability, although challenges remain. Indeed, the 17.9% dissenting responses reflect concerns identified by Adegoke and Lawal (2022), who stressed risks such as data insecurity and weak IT capacity.

CONCLUSION

This study examined the role of digital tax collection in strengthening revenue administration and enhancing accountability in Anambra State. The findings show that digital platforms—such as e-filing, mobile payments, and automated reminders—have significantly improved taxpayers' willingness to comply with tax obligations and have helped reduce cases of tax evasion. In addition, digitalization has enhanced transparency and accountability within the revenue collection process, as taxpayers are better able to track payments while revenue leakages and fraudulent practices have been curtailed. Despite these achievements, the research highlights persisting challenges. Infrastructure deficits, particularly unreliable power supply and internet connectivity, remain barriers to effective implementation, especially in rural areas. Low digital literacy among taxpayers has also slowed adoption and occasionally led to errors in filing. Furthermore, entrenched resistance to change and corruption practices within the system continue to undermine the full benefits of automation. Nevertheless, the evidence suggests that digital tax systems represent a viable and sustainable pathway for increasing internally generated revenue in Anambra State. By reducing manual intervention, limiting opportunities for fraud, and simplifying tax procedures, digital platforms contribute to fiscal stability and improved public trust in governance. To consolidate these gains, the study recommends continuous taxpayer sensitization, investment in ICT infrastructure, robust anti-corruption mechanisms, and stronger integration of digital systems with existing financial frameworks.

Recommendations

1. Since digital tax tools significantly improve compliance, the Anambra State Government should intensify taxpayer education and capacity-building programs. Targeted sensitization campaigns, especially for small business owners and less digitally literate groups, will ensure wider adoption and minimize resistance to e-taxation.
2. Given the positive effect of digital systems on transparency, the government should invest in stronger ICT infrastructure and data security frameworks. This will not only improve reliability but also safeguard against fraud, thereby reinforcing public trust in the revenue administration process.

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