KASU Journal of Accounting Research and Practice (KAJARAP)

Volume 10, Number 2, December, 2025 ISSN: 2360-8889
https://journals.kasu.edu.ng/index.php/accounting

CONTRIBUTION OF DIGITAL VAT SYSTEMS ON VAT COMPLIANCE AMONG SMES: EVIDENCE FROM NIGERIA

Hannatu Yohanna Gimba[1], Ahmed Sule Liman Katagum[2] Rashida Abubakar Barau[3], Abdulaziz Saad[4]

[1,2,3,4]Department of Accountancy and Taxation Abubakar Tatari Ali Polytechnic, Bauchi-Bauchi State

Corresponding Author(s)'email/mobile:ghannatu@gmail.com

Abstract

Digital Value Added Tax (VAT) system has emerged as a critical component of Nigeria's evolving tax administration particurlarly for Small and Medium Enterprises (SMEs). Hence, this study empirically investigates the contribution of Digital VAT systems on VAT compliance among the SMEs in Nigeria. Data was gathered through administration of 300 questionnaires. The respondents are SMEs in Kano, North-west, Nigeria. A total of 21 indicator items were measured on 5-point Likert Scale. IBM SPSS Statistics 29 was employed as the primary statistical analysis tool for the study. The result indicates positive significant relationship of e-filling, e-payment, integrated tax administration system on the transparency, accuracy, and timeliness of VAT remittance which boost the VAT compliance among SMEs in Nigeria. This study recommends the increased adoption of e-filling, e-payment and integrated tax administration system that would enhance VAT compliance by reducing errors, minimizing evasion, and improving record-keeping efficiency. Furthermore, the study concludes that fostering e-filling, e-payment and integrated tax administration through policy support, training, and infrastructure development is crucial for improving VAT compliance. This will foster a culture of compliance within the SME sector thereby enhancing revenue generation and economic growth in Nigeria. In addition, further studies should be conducted on a larger scale as well as in other region of Nigeria to test the consistency of the results.

Keywords: e-filling, e-payment, integrated tax administration system, VAT compliance

1. Introduction

The transition from manual-paper-based tax administration to digital Value Added Tax (VAT) system is a core component of Nigeria's broader tax reform strategy. Digital VAT systems, encompasses e-filing, e-payment, and ITAS, represent a positive and significant leap forward in enhancing VAT compliance among SMEs in Nigeria. This has reduced the administrative burden, improve process efficiency, and increase the tax authority's ability to enforce compliance through VAT.

VAT is a crucial source of internally generated revenue (IGR) for the Nigerian government. Historically, VAT compliance, particularly among Small and Medium

Enterprises (SMEs) which constitutes the vast majority of businesses has been low due to several systemic issues (Etim et al., 2020)

According to Etim et al. (2020) complexity and time cost are some of the challenges faced by the SMEs in VAT compliance. Complexity and time costs deal with manual filing and payment processes which are cumbersome, time-consuming, and prone to human error. In the same vein Nwobia et al. (2021) posited lack of transparency which the manual system created opportunities for rent-seeking behavior and corruption was seen as one of the several systemic issues.

Furthermore, the study emphasized enforcement challenges which are the difficulty in monitoring and auditing a large, geographically dispersed SME base are termed one of the several systematic issues of VAT compliance among SMEs in Nigeria. SMEs form the backbone of the Nigerian economy, and their compliance with VAT regulations is crucial for broadening the tax base and ensuring fiscal sustainability.

SMEs accounts for over 80% of businesses in Nigeria (Small and Medium Enterprises Development Agency of Nigeria, 2022). Despite the large population of SMEs in Nigeria, they contribute less to VAT revenue as compared to other forms of businesses (Ojo & Shittu, 2023). The study further posited complex tax regulations on digital tools, lack of record keeping, low VAT compliance rate are some factors that contributes to the low VAT revenue contributed by the SMES.

As posited by Ojo and Shittu (2023), several challenges continue to limit the full realization of the benefits of digital VAT systems among SMEs in Nigeria. According to Falana et al. (2024), inadequate digital infrastructure which has to do unreliable internet connectivity and inconsistent power supply (electricity) are the most critical inhibitors, particularly outside major urban centers. In addition Server downtime on the tax platforms also frustrates users (Falana et al., 2024).

In another study, digital literacy and skill gaps as many SME operators lack the necessary technical skills and confidence to navigate complex online platforms, leading to reliance on third-party agents, which reintroduces compliance costs (Ologun et al., 2024). The study also posited that cost of adoption, that is the upfront and recurring costs of acquiring digital tools (computers, internet subscriptions, accounting software) can be prohibitive for SMEs.

Trust and security concerns on apprehension about the security of online transactions (cybersecurity risk, data privacy) and a general distrust of governmental institutions can discourage full participation in digital systems. Furthermore, regulatory complexity, despite the simplification of the filing method, the underlying tax laws and frequent modifications on the Tax Reforms Act 2025 which were signed into law on June 26 2025 remain complex for SMEs to interpret without professional help (Clark et al., 2025).

Digital VAT systems are designed to simplify tax processes, reduce administrative bottlenecks, improve accuracy, and enhance transparency (Umeh & Emmanuel, 2021). However, the adoption and effectiveness of these digital tools among SMEs remain uncertain due to infrastructural, literacy, and behavioral challenges.

Recently, Nigerian government and FIRS have introduced several new digital tax technologies. However, very limited empirical research exists evaluating the impact of these recentdigital VAT reforms on SME VAT compliance. In addition, most available studies on tax compliance among SMEs in Nigeria focus broadly on tax administration,

tax knowledge and tax audits, but very few studies on digital VAT systems which leaves an empirical gap. Thus, this study examines the contribution of digital VAT systems to VAT compliance among SMEs in Nigeria. Specifically e-filing, e-payment, and the ITAS as constructs to improving VAT compliance among Small and Medium Enterprises (SMEs) in Nigeria.

The specific objectives of the study are:

1. To investigate the relationship between e-filing and VAT compliance among SMEs.
2. To identify the relationship between e-payment and VAT compliance among SMEs.
3. To determine the relationship between ITAS and VAT compliance among SMEs.

2. Literature Review

Concept of VAT Compliance

VAT constitutes a significant non-oil revenue stream for the Nigerian government and remains a key fiscal policy instrument. As the tax burden and regulatory demands on small and medium enterprises (SMEs) increase, understanding compliance behavior becomes essential for revenue mobilization, formalization of businesses, and sustainable economic growth.

The compliance of SMEs is especially critical because they represent a large share of businesses in Nigeria and operate often under informal or semi-formal conditions. The interplay between the formal requirements of VAT and the practical constraints faced by SMEs has important implications for policy design.

Many SMEs lack resources (financial, technical, and human) required to meet compliance obligations. High compliance costs (accounting/bookkeeping, paperwork, multiple taxes), cash-flow constraints, and administrative burdens make compliance difficult. Empirical studies report that compliance costs for VAT among SMEs in Nigeria can be substantial, and that these costs disproportionately burden smaller firms.

According to the Tax Reforms Act (2025) critical analysis of the VAT Act's impact on SMEs, the legal framework (as amended) has introduced obligations that many small firms find burdensome, resulting in increased financial burden, reduced competitiveness, and cash-flow constraints. The structure of VAT enforcement, multiple taxation, and overlapping regulatory demands complicate compliance.

The introduction of e-tax filing systems appears promising in improving compliance rates. In Lagos State, the adoption of electronic filing was linked with higher SME compliance, especially where firms perceived the system as useful and easy to use (high performance and effort expectancy).

Other factors that can influence the VAT compliance among SMEs are e-filing, e-payment online platforms and digital tools which have been found to effectively enforced compliance alongside publicity and formal tax education to tax payers (Nyamwanza et al., 2024).

Despite the contribution of the variables stated, however, the influence of e-filing, e-payment, integrated tax administration system, online platforms and digital tools on VAT compliance intention among SMEs cannot be underestimated (Salawu et al., 2025; Shettima et al., 2024; Ojo & Shittu, 2023). Hence, e-filing, e-payment and ITAS on VAT compliance among SMEs shall be discussed as the constructs for digital VAT systems.

Concept of Digital VAT Systems

Digital VAT systems refer to the integration of Information and Communication Technologies (ICTs) into tax administration to streamline registration, filing, payment, and compliance monitoring processes. Core digital VAT components include electronic filing (e-filing), electronic payment (e-payment), and the Integrated Tax Administration System (ITAS). These systems collectively aim to reduce human interface, minimize compliance burdens, and improve accuracy and timeliness of tax transactions (Organization for Economic Co-operation and Development, 2021).

In Nigeria, the Federal Inland Revenue Service (FIRS) has introduced multiple ICT-based reforms such as the TaxPro-Max platform specifically targeting VAT administration efficiency. These initiatives are expected to enhance taxpayer experience, widen the tax net, and strengthen enforcement mechanisms (FIRS, 2022).

Concept of E-filling

E-filing allows taxpayers to submit VAT returns electronically without physical visitation to tax offices. Prior research suggests that e-filing significantly reduces compliance costs and administrative bottlenecks, especially for SMEs operating with limited resources. Studies across developing economies indicate that e-filing increases filing accuracy, reduces errors, and improves timely submission (Loo et al., 2010; Muita, 2011).

Within the Nigerian context, e-filing adoption has been shown to positively influence compliance behavior by reducing paperwork, enhancing convenience, and minimizing opportunities for tax officials' discretionary interference (Owolabi, 2020). SMEs often struggle with manual filing due to poor recordkeeping, high transport costs to tax offices, and time constraints; thus, digital filing systems lower the operational burden and encourage voluntary compliance (Ezenwa & Nwadialor, 2021).

Furthermore, Shettima et al. (2024) stated that e-filing largely affects VAT compliance intention among SMEs in Bauchi and Yobe states. In the same vein, e-filing has been so effective in VAT compliance intention among SMEs in Nigeria (Ogunsola, 2024; Egbara et al., 2024). According to Mendoza and Wielhouwer (2024), e-filing in the field of taxation simplifies, records and execute tax related operations such as invoicing, record keeping, VAT computation and compliance.

In another study conducted by Salawu et al. (2025), on adoption of e-filing and tax compliance among SMEs in Lagos State. The study was conducted on 398 SMEs and analysis were made on effect of performance expectancy, effort expectancy, e-filing awareness on compliance using ordinal logit regression. The study opined that, performance expectancy, effort expectancy, e-tax filing awareness positively and significantly influence VAT complince among SMEs in Lagos state.

In addition, Inegbedion (2025), focused on SMEs in the Niger Delta region of Nigeria, were a survey of 179 SMEs was conducted using Structural Equation Modelling (SME). The findings of the study states that acceptance of e-filing has a significant positive influence on VAT compliance among SMEs. However, Adegoke (2025) argues that e-filing cannot work effectively in isolation. Hence, for a positive outcome, e-payment should be considered as a factor under digital VAT systems to influence VAT compliance among SMEs in Nigeria. Therefore, this study considers the concept of e-payment in the next sub-heading.

Concept of E-payment

E-payment enables taxpayers to remit VAT liabilities electronically through online banking, debit cards, or digital platforms linked to tax administration portals. In addition, Nkundabanyanga et al. (2017) described e-payment as a tool which reduces errors and fraud, thereby increasing the revenue generated from VAT. The study was conducted in Uganda, where it was found that electronic tax systems significantly improved compliance among SMEs by reducing the time and cost of filing returns. Furthermore, Muita et al. (2020) showed that the adoption of e-filling and mobile payment systems increased voluntary compliance by improving perceived ease of use and convenience.

Digital payment methods reduce the risks associated with cash handling, minimize delays in payment processing, and enhance transparency in revenue collection (World Bank, 2020). In the same vein, OECD (2021) reported that mandatory e-payment in countries such as Italy, Portugal and Mexico has greatly reduced VAT fraud and increased compliance rates.

Research has shown that e-payment reduces compliance costs and enables real-time transaction recording, which increases taxpayer confidence and reduces opportunities for corruption (Okunogbe & Pouliquen, 2022). In Nigeria, FIRS's deployment of digital payment channels such as the Remita platform has improved efficiency in VAT collection, particularly among SMEs with decentralized or mobile operations (Joseph & Adebisi, 2022).

A study conducted by Fasina et al. (2024) described e-payment as a tool used by revenue services to streamline administration, enhance compliance, and increase revenue. The study assessed the factors influencing adoption of digital tax administration using the states internal revenue service in southwestern Nigeria. The study opined that, e-payment adoption is less practice by the SMEs as compared to other businesses.

The contribution of e-payment has encouraged and sustained the compliance behaviour among SMEs of various countries. Thus, Omondi et al. (2024) discussed the importance of digital tools on VAT compliance. However, the study opined that integration of ITAS will improve accuracy and voluntary compliance intention. Hence, this study considered the concept of ITAS in the next sub-heading

Concept of Integrated Tax Administration System (ITAS)

The Integrated Tax Administration System (ITAS) is a comprehensive digital platform designed to automate the end-to-end tax cycle including taxpayer registration, filing, assessment, payment, audit, and enforcement. ITAS enhances compliance monitoring and reduces the incidence of underreporting, tax evasion, and administrative inefficiencies (OECD, 2019). Empirical research indicates that integrated systems increase compliance through enhanced transparency and reduced opportunities for discretion by tax officials (Kangave et al., 2020).

Nevertheless, the success of ITAS depends on the quality of data input, inter-agency cooperation, system reliability, and user acceptance. System downtimes and limited taxpayer training have been identified as barriers to optimal ITAS utilization in Nigeria (Nwaiwu & MacBarango, 2021). In Nigeria, the introduction of TaxPro-Max under the FIRS has significantly improved VAT automation, taxpayer profiling, and cross-matching of data between agencies (FIRS, 2022).

According to Salawu et al. (2024), ITAS has positive significant influence on SMEs compliance intention. The study sampled 398 SMEs in Lagos state, Nigeria. Furthermore, there are other empirical studies that discussed high tax rates and complex filing procedures are major factors causing non-compliance among SMEs in Nigeria (Sunday & Lawal, 2024; Atawodi & Ojeka, 2012).

In addition, Okwudili and Michael (2025) conducted an empirical investigation on the factors influencing tax awareness among e-commerce SMEs in Nigeria. The study found that ITAS has positive significant influence on SMEs tax compliance. The contribution of ITAS in VAT compliance among SMEs cannot be overemphasized, because studies have proven ITAS as one of the strong factors to curb non-compliance.

Prior studies have shown that, e-filing, e-payment and ITAS influence the transparency, accuracy, and timeliness of VAT remittance by SMEs. Hence, this study considers e-filing, e-payment and ITAS as variables to influence VAT compliance intentions among SMEs in Nigeria. The model for this study is presented in Figure 1.

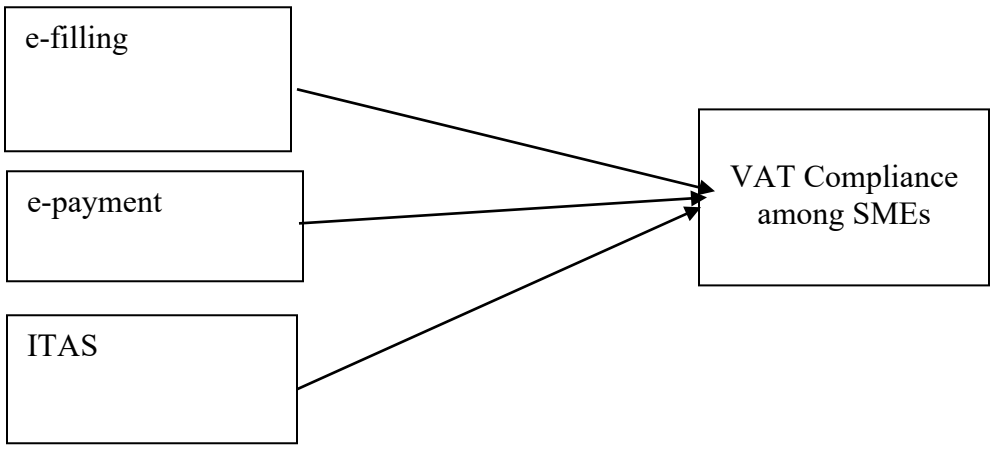


Figure 1: Research Framework
Source: Researcher's Compilation (2025)

Based on the research framework in Figure 1, the study proposed the following hypotheses for validation:

H_1: There is a positive relationship between e-filing and VAT compliance among SMEs.

H_2: There is a positive relationship between e-payment and VAT compliance among SMEs.

H_3: There is a positive relationship between ITAS and VAT compliance among SMEs.

3. Methodology

The Small and Medium Enterprises (SMEs) that are registered for VAT purposes and are operating in Nigeria are those targeted for this study. Furthermore, the sample size was drawn from Kano state, north-west Nigeria. Kano state has about 70% of the SMEs in the north-west, Nigeria.

A total of 400 questionnaires were personally administered using cluster sampling technique, based on geographical location of the SMEs in the industrial areas of Kano state, north-west Nigeria. A total of 300 questionnaires were retrieved, representing 75% response rate. The questionnaire was divided into four parts: perceptions on VAT

compliance, digital VAT systems (e-filling, e-payment and ITAS), demographic information, comments and suggestion.

Measurements of Variables for the Study

This study measured all the variables using a five-point Likert scale ranging from '1' "strongly disagree" to '5' "strongly agree". Furthermore, all the items used for this study were adapted from previous studies with modifications.

4. Results and Discussion

Demographic Information of Respondents

The demographic information of the respondents as presented in Table 1 indicates that about 53.3% of the respondents were male and 14.7% were females and approximately 86.7% of the respondents do not make use of tax agents. See Table 1 for a comprehensive detail of demographic information.

Table 1

Demographic Information of the Respondents

Category	Frequency (N=300)	Percentage (Total=100)
Gender		
Male	234	78.0
Female	66	22.0
Age		
Below 15 years	0	0
15 years – 30 years	192	36.7
Above 30 years	108	63.3
Position in the Business		
Owner/manager	110	36.7
Accountant/finance officer	70	23.3
Admin/clerical officer	80	26.7
Others	40	13.3
How long Business Established		
Less than 1 year	20	6.7
1 year – 5 years	60	20.0
6 years – 10 years	140	46.7
Above 10 years	80	26.6

Table 1 (Continued)

Category	Frequency (N=300)	Percentage (Total=100)
Business Annual Turnover		
Less than N5m	110	36.7
N5m – N50m	100	33.3
N51m – N200m	60	20.0
Above N200m	30	10.0
Employees in the Company		
Less than 10 persons	0	0
10 persons – 49 persons	230	76.7
50 persons – 199 persons	60	20.0
Above 200 persons	10	3.3
Nature of Business		
Educational services	30	10.0
Wholesale/retail	90	30.0
Manufacturing	30	10.0
Accommodation and food	100	33.3
Others	50	16.7
Tax IT Agent		
Yes	40	13.3
No	260	86.7

Source: Author's Compilation, 2025

Reliability Analysis

This study used the Cronbach's alpha to test the reliability of measures and also to test the internal consistency of the measurement items. Cronbach's alpha was used because it is widely recommended for social science research (Hair, Black, Babin, & Anderson, 2010; Sekaran & Bougie, 2010). As posited by Hair et al. (2010) a Cronbach's alpha coefficient of at least .70 is considered sufficient and acceptable. The results of the Cronbach's alpha for this study is shown in Table 2.

Table 2

Reliability Test

Variable	Items	Alpha
e-filing	7	.734
e-payment	7	.738
ITAS	9	.716

Source: STATA Output, 2025

Table 2 shows that the calculated value of alpha for each of the variable is above .70. Therefore, it concludes that the instruments used to measure the constructs for the study has fulfilled the reliability test, which is in line with Hair et al. (2010) on at least .70 is considered sufficient and acceptable.

Multiple Regression Analysis

To test the hypotheses on the direct relationship between e-filing, e-payment and ITAS as variables to influence VAT compliance intentions among SMEs in Nigeria, multiple regression analysis was used as recommended by Hair et al. (2010). The results of the analysis are presented in Table 3 and 4.

Table 3

Summary of Regression Model

Model	R	R Square	AdjustedR Square	Std. Error of the Estimate	Durbin-watson
1	.908a	.868	.855	.233	1.704

Source: STATA Output, 2025

a. Predictors: (Constant), e-filing, e-payment, ITAS.

b. Dependent Variable: VC

The result as measured by adjusted R^2 indicates the effect of the independent variables (e-filing, e-payment, ITAS) over the dependent variable (VC). This explains that the extent to which the independent variables affect the dependent variable is about 0.855 or 85.5% as seen in Table 3.

Table 4

Coefficient of the Regressio

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	p-Value
e-filing	1.410	.559	1.013	2.521	.018
e-payment	1.093	.319	.964	3.429	.002
ITAS	1.226	.362	1.067	3.388	.002

Source: STATA Output, 2025

Note: Significance levels are: p<.05; p<.10

Discussion of Findings

Going by the results of the t values in Table 4, e-filing, e-payment and ITAS show a positive relationship with VC. Therefore, the hypotheses H_1, H_2, and H_3 formulated for the study should be accepted. The result is consistent with previous findings, which state a positive relationship with compliance (Okwudili & Michael, 2025; Ogunsola, 2024; Egbara et al., 2024).

Shettima et al. (2024) stated that e-filing largely affects VAT compliance intention among SMEs in Bauchi and Yobe states. In the same vein, e-filing has been so effective in VAT compliance intention among SMEs in Nigeria (Ogunsola, 2024; Egbara et al., 2024). According to Mendoza and Wielhouwer (2024), e-filing in the field of taxation simplifies, records and execute tax related operations such as invoicing, record keeping, VAT computation and compliance.

Furthermore, Salawu et al. (2025) posited that, adoption of e-filing influences VAT compliance among SMEs in Lagos State. The study was conducted on 398 SMEs and analysis were made on automated system including performance expectancy, effort expectancy, and e-tax filing awareness on compliance using ordinal logit regression. The

study opined that, performance expectancy, effort expectancy, e-tax filing awareness positively and significantly influence VAT compliance among SMEs in Lagos state.

In addition, Inegbedion (2025), focused on SMEs in the Niger Delta region of Nigeria, were a survey of 179 SMEs was conducted using Structural Equation Modelling (SME). The findings of the study state that e-filing has a significant positive influence on VAT compliance among SMEs. These findings are in line with the current finding which states a positive relationship between e-filing and VAT compliance among SMEs in Nigeria.

According to the studies conducted by Nkundabanyanga et al. (2017), e-payment significantly improved compliance among SMEs by reducing the time and cost of filing returns as a tool which reduces errors and fraud, thereby increasing the revenue generated from VAT. The study was conducted in Uganda. Furthermore, Furthermore, Muita et al. (2020) showed that the adoption of e-payment and mobile payment systems increased voluntary compliance by improving perceived ease of use and convenience.

Digital payment methods reduce the risks associated with cash handling, minimize delays in payment processing, and enhance transparency in revenue collection (World Bank, 2020). In the same vein, OECD (2021) reported that mandatory e-payment in countries such as Italy, Portugal and Mexico has greatly reduced VAT fraud and increased compliance rates.

Research has shown that e-payment reduces compliance costs and enables real-time transaction recording, which increases taxpayer confidence and reduces opportunities for corruption (Okunogbe & Pouliquen, 2022). In Nigeria, FIRS's deployment of digital payment channels such as the Remita platform has improved efficiency in VAT collection, particularly among SMEs with decentralized or mobile operations (Joseph & Adebisi, 2022).

A study conducted by Fasina et al. (2024) described e-payment as a tool used by revenue services to streamline administration, enhance compliance, and increase revenue. The study assessed the factors influencing adoption of digital tax administration using the states internal revenue service in southwestern Nigeria. The study opined that, e-payment adoption is less practice by the SMEs as compared to other businesses. These findings are in line with the current finding which states a positive relationship between e-payment and VAT compliance among SMEs in Nigeria.

Furthermore, the last variable in the model of this study is ITAS. ITAS enhances compliance monitoring and reduces the incidence of underreporting, tax evasion, and administrative inefficiencies (OECD, 2019). Empirical research indicates that integrated systems increase compliance through enhanced transparency and reduced opportunities for discretion by tax officials (Kangave et al., 2020).

In Nigeria, the introduction of TaxPro-Max under the FIRS has significantly improved VAT automation, taxpayer profiling, and cross-matching of data between agencies (FIRS, 2022). Salawu et al. (2024) posited that, ITAS has positive significant influence on SMEs compliance. The study sampled 398 SMEs in Lagos state, Nigeria. Furthermore, there are other empirical studies that discussed high tax rates and complex filing procedures are major factors causing non-compliance among SMEs in Nigeria (Sunday & Lawal, 2024; Atawodi & Ojeka, 2012).

In addition, Okwudili and Michael (2025) conducted an empirical investigation on the factors influencing tax awareness among e-commerce SMEs in Nigeria. The study

found that ITAS has positive significant influence on SMEs tax compliance. These findings like the previous findings are in line with the current finding which states a positive relationship between ITAS and VAT compliance among SMEs in Nigeria.

The views of other studies on digital VAT systems (e-filing, e-payment and ITAS) and VAT compliance among SMEs, this study encourages the adoption of e-filing, e-payment and ITAS as tools to improve VAT compliance among SMEs in Nigeria. The application of e-filing, e-payment and ITAS will go a long way to ensure VAT compliance among SMEs as well as improving the revenue generation of Nigeria as SMEs constitute about 80% of businesses in Nigeria.

5. Conclusion and Recommendations

The transition from manual-paper-based tax administration to digital Value Added Tax (VAT) systems is a core component of Nigeria's broader tax reform strategy. This study examines the contribution of digital systems specifically e-filing, e-payment, and the Integrated Tax Administration System (ITAS) to improving VAT compliance among SMEs in Nigeria, while also addressing the persistent challenges to adoption.

The following conclusion and recommendations were made based on the findings of the study.

(i) The implementation of digital VAT systems, such as e-filing, significantly improvesVAT compliance among SMEs in Nigeria. To maximize this contribution, tax authorities should focus on improving user experience in ensuring that digital platforms are more user-friendly and addressing technical issues. Secondly, increasing awareness and training of IT staff through conducting targeted sensitization programs and training on the effective use of e-tax services. Lastly, investing in digital infrastructure through enhancing network reliability and power stability to support seamless digital transactions.

(ii) Digital VAT system such as e-payment has the potential to transform VAT compliance in Nigeria, particularly among SMEs. The findings based on the empirical studies reveal that e-payment if accessible and trusted, can improve VAT compliance among SMEs in Nigeria. Through the adoption of e-payment, it has a positive influence on VAT compliance among SMEs in Nigeria. Empirical studies from Lagos, Kogi, Anambra, Bauchi & Yobe, and national samples verified that e-payment is a significant predictor to VAT compliance among SMEs as well as improving the revenue generation of Nigeria as SMEs constitute about 80% of businesses in Nigeria.

(iii) Despite, infrastructure gaps, training, cost constraints, legal and regulatory misalignment, and behavioral resistance remain impediments, digital VAT system’s potential can be harnessed through policies. Doing so can lead to higher VAT revenue, better formalization of SMEs, and more equitable tax systems. SMEs often face high compliance costs due to limited capacity, informal recordkeeping, and financial constraints. Digital VAT systems through ITAS reduce these burdens by simplifying processes, automating calculations, and providing user-friendly interfaces. Studies in African economies show that digitalization significantly improves VAT compliance by enhancing convenience,

reducing costs, and promoting transparency (Okunogbe & Santoro, 2023; IMF, 2021).

In conclusion, digital VAT reforms have improved taxpayer experience in Nigeria. However, adoption remains constrained by infrastructural and knowledge-based challenges (Uzonwanne, 2020). Digital literacy, trust in government systems, and access to technology remain significant determinants of the effectiveness of e-filing, e-payment, and ITAS in driving compliance (Olaoye & Ekundayo, 2019).

Hence, this study recommends the adoption of e-filing, e-payment and ITAS as tools to improve VAT compliance among SMEs in Nigeria and curb VAT non-compliance in developing countries. The government and policy makers have great roles to ensure that, SMEs remit the VAT collections with ease so as to boost the revenue generation of Nigeria. Thus, this method will work effectively as posited by prior literature and will also assists Nigeria as well as other developing countries in policy formulation on strategies to improve VAT compliance among SMEs as well increase the revenue generation particularly in this time of unstable revenue from oil.

Furthermore, the study recommends simplify VAT processes by reducing paperwork and streamlining filing requirements, expanding digital tax platforms to reduce compliance burdens and enhance transparency. Increase taxpayer education through trainings, workshops, and accessible online materials, strengthening enforcement while promoting fairness and transparency, providing incentives such as reduced penalties for early voluntary compliance and support record keeping through encouraging adoption of affordable digital tools for SMEs.

The study was focused on 300 SMEs in Nigeria; hence having a larger number of respondents may give a different perception of IT on VAT compliance intention among SMEs. Therefore, the study suggests having a larger sample to check the consistency of the results.

References

Adegoke, A. (2023). Evaluating taxpayers attitude and its influence on tax compliance decisions in Tamale, Ghana. *Journal of Accounting and Taxation*, *5*(3), 48–57. http://doi.org/10.5897/JAT2013.0120

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2012). Martin fishbein's legacy: The reasoned action approach. *American Academy of Political and Social Science*, *640*(1), 11–27. http://doi.org/10.1177/0002716211423363

Egbara, E. A., Ofodu, H. I., & Egbara, I. U. (2024). Electronic taxation and improved tax compliance: The case of tax evasion and avoidance in Enugu state, Nigeria. *Arts and Social Sciences Journal. 15*(4), 01–09. ISSN- 2151-6200. Retrieved from www.hilarispublisher.com

Etim, R. S., Jeremiah, O. O., & Udonsek, A. (2020). The implementation of value added tax (Vat) on e-transactions in Nigeria: Issues and Implications. *American International Journal of Business Management, 3*(4), 01–09. ISSN- 2379-106X. Retrieved from www.aijbm.com

Fasina, H. T., Oladejo, H. A., & Yinus, S. O. (2024). Assessment of the factors influencing adoption of digital tax administration: Lesson from the state intrrnal

revenue service in southwestern Nigeria. *Fuoye Journal of Accounting and Management, 7*(2), 186–195.

Federal Inland Revenue Service (FIRS). (2022). *TaxPro Max: Simplifying tax compliance*. Abuja: FIRS

Inegbedion, H. E. (2025). Acceptance of eletronic tax system and the contribution of SMEs to tax revenue through the mediation of tax compliance. *Journal of Innovation And Entrepreneurship, Springer 14*(1), p 1-20. http://doi.10.1186/s13731-025-00582-w

Izedonmi, F. I. O., & Okunbor, J. A. (2014). The role of value added tax on economic growth of Nigeria. *British Journal of Economics, Management & Trade, 4*(12), 156. http://doi.org/10.9734/BJEMT/2014/11013

Langham, J., Paulsen, N., & Hartel, C. E. J. (2012). Improving tax compliance strategies: Can the theory of planned behaviour predict business compliance? *eJournal of Tax Research*, *10*(2), 364–402. http://doi.org/http://www.asb.unsw.edu.au/research/publications/ejournaloftaxresearch/Pages/currentissue.aspx

Mendoza, J. P., & Wielhouwer, J. L. (2024). Automated systems in tax compliance: Incorporating digital tools in tax compliance. *PLoS ONE*, *10*(2), 1–18. http://doi.org/10.1371/journal.pone.0117212

Musau, N. (2015). Determinants of tax compliance among small and medium enterprises in Kenya: A case of Nairobi county, (December).

Nkundabanyanga, S. K., Mvura, P., Nyamuyonjo, D. Opiso, J. & Nakabuye, Z. (2017). Tax compliance in a developing country: Understanding taxpayers compliance decision through digital tools. *Journal of Economics Studies. 44*(6), 931–957.

Nyamwanza, T., Mavhiki, S., Mapetere, D., & Nyamwanza, L. (2024). An analysis of SMEs' attitudes and practices toward tax compliance in Zimbabwe. *Sage*, *10*, 26. http://doi.org/10.1177/2158244014542776.

OECD (2021), "Broader tax challenges raised by the digital economy", in addressing the tax challenges of the digital economy. OECD Publishing, Paris. DOI: https://doi.org/10.1787/9789264218789-10-en

OECD. (2023). Tax administration 2023: Comparative information on OECD and other advanced and emerging economies. Paris: OECD Publishing. https://doi.org/10.1787/74d162b6-en

Ogunsola, A. (2024). Electronic taxation and tax compliance among SMEs in Kogi State. *Malete Journal of Accounting and Finance, 2*(1), 45–60.

Ojo, O., & Shittu, B. (2023). VAT compliance and SMEs: Analysis of influential factors in Nigeria. *Cogent Economics & Finance, 11*(1), 2228553. https://doi.org/10.1080/23311975.2023.2228553

Okoye, P. V., Akenbor, Cletus O. C., &Obara, L. C. (2022). Promoting sustainable tax compliance in the informal sector in Nigeria. *An International Journal of Arts and Humanities Bahir*, *1*(2), 195–210. Retrieved from http://afrrevjo.net/journals/ijah/Vol_2_no_1_art_18_Pam.pdf

Okoyeuzu, C. (2020). Value added tax remittance: Observations from developing countries. *Global Conference of Management and Business Research Finance, 13*(9). Retrieved from

https://www.zra.org.zm/commonHomePage.htm?viewName=ValueAddedTax

Onwucheka, P. V., & Suleiman, L. C. (2014). The effects of value added tax on the economic growth of Nigeria. *International Journal of Arts and Humanities Behaviour, 1*(2), 195 210. Retrieved from http://afrrevjo.net/journals/ijah/.

Salawu, M. K., Adigun, O. A., Lawal, Q. A., & Olaleye, J. A. (2024). Electronic tax filing system and compliance among SMEs in Lagos State. *International Journal of Economics and Financial Issues, 15*(1), 32–41.

Saliu, A., Otapo, D., Sodiq, A. S., & Otunubi, D. A. (2022). Factors influencing value added tax (VAT) collections on e-commerce among operators in developing countries. *eJournal of Tax Research, 10*(2), 364 402.http://doi.org/http://www.asb.unsw.edu.au/research/publications/ejournaloftaxre se arch/Pages/currentissue.aspx

Shettima, M., Abubakar, A., & Baba, B. U. (2024). Determinants of e-tax filing adoption by SMEs in Bauchi and Yobe States. *Kashere Journal of Management Sciences, 7*(1), 112–127.

SMEDAN. (2022). *SME Development Report*. Abuja: Small and Medium Enterprises Development Agency of Nigeria.

Udoma, U., & Osagie, B. (2021). Nigeria's new VAT regime. Modaq Connecting Knowledge and People. Retrived from www.mondaq.com

Umeh, G. N., & Emmanuel, A. (2021). *Digital tax administration and VAT compliance among SMEs in Nigeria*. *Journal of Finance and Taxation Studies, 3*(1), 45–58

Webley, P., & Ashby, J. (2010). The economic psychology of value added tax compliance. *Accessed on May 7, 2014. Available from http://www.routledge.com/books/details/9780415576987/*, 1–30. http://doi.org/10.4324/9780203851616