

Falana, Gbenga Ayodele; Dakhil, Mustafa Salih; Abbood, Faraj Gheni; Dagunduro, Muiyiwa Emmanuel

Article

Digital Tax Administration and Tax Compliance in Nigeria Informal Sector

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DIGITAL TAX ADMINISTRATION AND TAX COMPLIANCE IN NIGERIAN INFORMAL SECTOR

Gbenga Ayodele Falana

*Department of Accounting, College of Social and Management Sciences,
Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria*

Email: faanaga@pg.abuad.edu.ng

ORCID [0000-0001-8512-6769](https://orcid.org/0000-0001-8512-6769)

Mustafa Salih Dakhil

*Department of Accounting,
Al-Furat Al-Awsat Technical University, (ATU), Kufa, Iraq*

Email: dw.must@atu.edu.iq

ORCID [0000-0002-3610-5088](https://orcid.org/0000-0002-3610-5088)

Faraj Ghani Abbood

*Department of Accounting,
Middle Technical University, (MTU), Baghdad, Iraq*

Email: farajgheni@mtu.edu.iq

ORCID [0000-0002-5940-745X](https://orcid.org/0000-0002-5940-745X)

Muyiwa Emmanuel Dagunduro

*Department of Accounting, College of Social and Management Sciences,
Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria*

Email: dagunduro@pg.abuad.edu.ng

ORCID [0000-0002-1177-7101](https://orcid.org/0000-0002-1177-7101)

Abstract

In an era characterized by growing globalization and increased fiscal oversight, tax compliance has become a significant concern for governments, businesses, and individuals globally. This study seeks to examine the impact of digital tax administration on tax compliance within the informal sector in the Southwest states of Nigeria. The study employed a survey research design to collect primary data using

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a structured questionnaire, targeting artisans, street vendors, small-scale traders, service providers, and other self-employed individuals in the Southwest States of Nigeria. These individuals typically operate outside formal tax channels. A total of 600 questionnaires were distributed, with 547 completed responses received, providing a substantial and representative sample. The study used purposive sampling to select participants with relevant characteristics for the research. To ensure the reliability of the questionnaire, a Cronbach's Alpha test was conducted. Data analysis involved both descriptive statistics (such as mean, variance, skewness, and kurtosis) and inferential statistics (including correlation and regression analysis). The regression analysis showed that both technical know-how and digital payment platforms have positive and statistically significant impacts on tax compliance within the informal sector in the Southwest states of Nigeria. The study concludes that enhancing technical skills and expanding access to digital payment platforms can significantly improve tax compliance within the informal sector in the Southwest states of Nigeria. Therefore, this study suggested that the Government and relevant agencies should invest in training programs aimed at improving the technical know-how of individuals and businesses in the informal sector.

Keywords: Digital tax administration, technical know-how, digital payment platforms, tax compliance

JEL classification: H2, O17

Introduction

In a time marked by expanding globalization and heightened fiscal scrutiny, tax compliance has become a major focus of governments, businesses, and individuals worldwide (Bruce-Twum, 2023). Although the need for tax compliance is universally acknowledged, the factors influencing it differ widely across various regions, shaped by contextual elements such as institutional structures, cultural practices, and historical contexts (Andriani and Tarmidi, 2024). Tax compliance is driven by several factors, including taxpayers' attitudes, perceptions of fairness, enforcement strategies, and the complexity of tax laws (Paojan et al., 2023). Taxpayers' willingness to adhere to tax regulations is influenced by their trust in governmental institutions, their views on the efficiency of tax administration, and their beliefs regarding the fairness of the tax system (Adelekan et al., 2024; Akinadewo et al., 2023). The rise of digital economies presents significant challenges to traditional tax enforcement methods.

The informal sector constitutes a significant portion of the economy in many developing countries, including Nigeria, where it plays a crucial role in providing employment and income for millions of people (Adekoya et al., 2022; Dagunduro et al., 2022). However, the informal sector also presents substantial challenges to tax authorities due to its largely unregulated nature, making tax compliance difficult to achieve (Adewara et al., 2023; Aluko et al., 2023). In recent years, digital tax administration has emerged as a potential solution to these challenges, offering innovative tools and platforms to enhance tax collection, broaden the tax base, and improve compliance rates within the informal sector (Lawal et al., 2024).

In Nigeria, the implementation of digital tax systems is increasingly seen to address the persistent issue of tax evasion and underreporting within the informal economy (Adelekan et al., 2024). These digital platforms aim to simplify the tax filing process, improve record-keeping, and increase transparency, thereby encouraging voluntary compliance among informal sector participants (Oladipo and Adekunle, 2021). Despite the promise of digital tax administration, its effectiveness in enhancing tax compliance within the informal sector remains underexplored.

This study seeks to examine the impact of digital tax administration on tax compliance within the informal sector in the Southwest states of Nigeria. By analysing the extent to which digital tools influence compliance behaviour, this research aims to provide insights into the potential of digital tax systems to transform tax administration in regions where the informal sector is predominant. The findings of this study will be critical for policymakers, tax authorities, and stakeholders in designing and implementing strategies to enhance tax compliance and revenue generation in Nigeria's informal sector.

Literature Review

Conceptual review

Tax compliance

Paojan et al. (2023) defined tax compliance as the adherence to tax laws and regulations through the accurate reporting of income, expenses, and other financial details to the relevant tax authorities. This includes timely filing of tax returns, and the correct payment of any taxes owed. Alm (2019) suggested that tax compliance can be divided into two main categories: voluntary compliance, where taxpayers willingly follow tax laws, and enforced compliance, driven by the fear of legal consequences and audits. Governments use a range of strategies to improve tax compliance, such as simplifying tax regulations, enhancing taxpayer services, and increasing the perceived fairness and transparency of the tax system. Similarly, Lawal et al. (2024) defined tax compliance as the voluntary observance of tax regulations and administrative procedures by taxpayers, a description that Adekoya et al. (2022) also supported. As noted by Lawal et al. (2024) and Aluko et al. (2023), the key indicators of tax compliance include the timely filing, accurate reporting of tax returns, enforcement actions and the tax gap.

Several factors influence tax compliance, including economic conditions, the complexity of tax laws, enforcement strategies, and perceptions of the fairness of the tax system. Research suggests that both intrinsic and extrinsic motivations impact tax compliance. Intrinsic motivations include personal values and ethics, while extrinsic motivations involve the fear of audits, fines, and legal consequences (Abdulrasaq and Babatunde, 2024). In this study, tax compliance is defined as the adherence to tax laws and regulations by taxpayers, both individuals and entities, ensuring the timely and accurate reporting of income, deductions, and payment of taxes owed. It involves filing tax returns, providing accurate financial information, and paying the required taxes on time. This concept is vital for the functioning of government systems, as it ensures the collection of revenue needed for public spending and services.

Digital tax administration

Digital tax administration refers to the use of technology-based systems and platforms to streamline and enhance the processes of tax collection, compliance monitoring, and revenue management, enabling tax authorities to efficiently manage taxpayer data, facilitate real-time tax filing, and improve overall transparency in tax administration (Ayeeni and Ogbeta, 2022; Awotomilusi et al., 2023). Digital tax administration encompasses the integration of digital tools, such as online portals, mobile applications, and data analytics, into traditional tax collection and management practices, aimed at simplifying the tax process for both taxpayers and tax authorities while reducing the likelihood of errors, fraud, and tax evasion (Asomba et al., 2023).

Digital tax administration involves the application of advanced information and communication technologies (ICTs) to automate and digitize various aspects of tax administration, including registration, filing, assessment, and payment, to enhance the accuracy, efficiency, and accessibility of tax-related services (Paojan et al., 2023). Digital tax administration is the process of leveraging digital infrastructure and innovative technologies to modernize tax systems, enabling governments to monitor and manage tax activities more effectively, ensure compliance, and improve taxpayer engagement through digital channels (Oladipo and Adekunle, 2021).

Technical Know-How

Technical know-how refers to the practical knowledge, skills, and expertise required to perform tasks or solve problems within a specific technical domain. It encompasses both theoretical understanding and hands-on proficiency in utilizing tools, techniques, and methods relevant to a particular field or industry (Adekoya et al., 2022). Wardhani et al. (2020) described technical know-how as mastery of specialized procedures, protocols, and best practices that enable individuals or organizations to effectively navigate complex technical challenges. This knowledge can be acquired through formal education, training programs, on-the-job experience, or collaboration with experts in the field.

Rusdi et al. (2023) defined technical know-how as encompassing both documented and undocumented information and knowledge pertaining to the design, development, production, installation, and operation of a product. The significance of technical know-how extends across various sectors, from

manufacturing and engineering to information technology and healthcare. It is a critical resource for innovation and competitiveness, enabling individuals and organizations to develop new products, improve processes, and adapt to changing technological landscapes (Mascagani et al., 2021). In the context of this study, technical know-how can be described as the expertise and knowledge accumulated by taxpayers during their survey, production, and business activities. This encompasses understanding tax laws, regulations, and reporting requirements, as well as the ability to effectively manage and optimize tax-related processes. Technical Know-How in tax compliance is crucial for ensuring accurate and timely reporting, minimizing tax liabilities, and maximizing compliance with relevant tax regulations.

Digital payment platforms

Nsangu and Haabazoka (2024) defined digital payment platforms as online systems or applications that facilitate electronic transactions and fund transfers between individuals, businesses, and financial institutions. These platforms provide users with a convenient and secure way to send and receive payments, make purchases, and manage their financial transactions digitally (Adelekan et al., 2024). Similarly, Ghosh (2020) defined digital payment platforms as online or electronic systems that facilitate financial transactions between individuals, businesses, and organizations. These platforms enable users to transfer funds, make payments, and conduct financial activities electronically through various channels such as websites, mobile applications, or other digital interfaces. Digital payment platforms typically offer a range of payment options, including credit/debit card payments, bank transfers, digital wallets, and mobile payment solutions. They may also integrate additional features such as bill payment services, peer-to-peer transfers, and financial management tools to enhance user experience and convenience (Afriani et al., 2023).

The adoption of digital payment platforms has grown significantly in recent years, driven by advancements in technology, changes in consumer behavior, and the increasing prevalence of e-commerce and mobile commerce. These platforms play a crucial role in enabling cashless transactions, promoting financial inclusion, and supporting the digital economy (Ashafoke and Obaretin, 2023). Digital payment platforms offer a range of services, including peer-to-peer transfers, online purchases, bill payments, and mobile wallet transactions. Users can link their bank accounts, credit cards, or other payment methods to the platform, allowing for seamless and secure transactions. These platforms have become increasingly popular due to their convenience, accessibility, and efficiency. They provide users with flexibility in managing their finances, allowing for instant transfers and real-time monitoring of transactions. Additionally, digital payment platforms often incorporate security features such as encryption and authentication to protect users' financial information and prevent fraud (Ghosh, 2020).

Theoretical Review

Tax Benefit Theory

Tax Benefit Theory, introduced by economists Martin Allingham and Agnar Sandmo in their influential 1972 paper "Income Tax Evasion: A Theoretical Analysis," argues that individuals' tax compliance is shaped by their perception of the benefits they gain from paying taxes (Andreoni et al., 1998). The theory posits that individuals assess the advantages of complying with tax laws against the costs of doing so. People are more likely to follow tax regulations when they perceive tangible returns, such as access to public goods, social welfare programs, or infrastructure development, for their tax contributions (Allingham and Sandmo, 1972). According to this theory, taxpayers engage in a cost-benefit analysis, weighing the benefits of compliance like access to public services and societal benefits against the risks and costs of evasion, including fines, penalties, and legal repercussions (Andreoni et al., 1998).

In the Nigerian informal sector, where businesses may have limited access to formal public services and infrastructure, the perceived benefits of paying taxes become especially critical in influencing compliance behavior. Investments in digital tax tools can significantly boost tax compliance by improving access to government services, enhancing transparency and accountability in tax administration, and making tax collection processes more efficient (Slemrod, 2007). For example, digital tax platforms and electronic payment systems can simplify tax compliance for businesses in Nigeria's informal sector, reducing administrative burdens and transaction costs. Additionally, IT-enabled solutions can improve the visibility and accountability of tax revenues, thereby increasing taxpayers' trust in the fairness and effectiveness of the tax system (PwC, 2019).

While Tax Benefit Theory offers important insights into the factors affecting tax compliance behavior, it has several limitations and has faced criticism. The theory is based on simplified assumptions about human behavior, such as the rationality of taxpayers and their ability to accurately evaluate the costs and benefits of complying with tax laws (Alm, 2012). Critics argue that real-world decision-making is far more complex, often influenced by psychological, social, and cultural factors that the theory does not fully consider (Bae et al., 2014). They suggest that tax compliance behavior is shaped by a broad range of psychological, sociological, and institutional elements, which cannot be entirely explained by an economic framework alone (Alm, 2012). Additionally, empirical research indicates that tax compliance behavior can impact taxpayers' perceptions of the fairness and legitimacy of the tax system (Dedrick et al., 2003). Critics believe that Tax Benefit Theory overlooks this diversity in behavior and may oversimplify the complexities involved in tax compliance.

Empirical Review

This section covers the relevant empirical studies on digital tax administration and tax compliance. This was done according to the objectives of this study.

Technical know-how and tax compliance

This study delves into the relationship between technical expertise and tax compliance behaviors across various countries and contexts. Smith and Johnson (2023) investigation in the United States highlighted the positive impact of technical training programs on tax compliance among small businesses, indicating a correlation between acquiring technical know-how and improved compliance rates. Similarly, Chen and Wang (2022) found in China that technical assistance programs provided by the government significantly enhance tax compliance behavior among small and medium enterprises (SMEs), emphasizing the importance of technical support initiatives in promoting compliance.

Contrastingly, Garcia and Rodriguez's (2022) study on SMEs in Mexico revealed a nuanced perspective, showing that access to technical expertise had a negative and insignificant effect on tax compliance, indicating potential complexities in the relationship between technical support services and compliance behavior. Nevertheless, studies in India (Kumar and Gupta, 2021), Vietnam (Nguyen and Tran, 2022), Nigeria (Bello and Ibrahim, 2021), and Korea (Park and Lee, 2023) collectively underscored the significance of capacity-building initiatives and government support in fostering tax compliance among businesses. These findings collectively contribute to a nuanced understanding of the interplay between technical know-how and tax compliance behaviors, emphasizing the importance of tailored strategies and policy interventions to promote compliance across diverse socio-economic landscapes.

The proposed study addresses significant research gaps within the existing literature on tax compliance by focusing specifically on Nigeria's informal sectors. While past research has explored the relationship between technical expertise and tax compliance across various countries and sectors, there's a notable lack of studies dedicated to understanding this dynamic within Nigeria's informal economy. Given the sector's substantial contribution to the Nigerian economy and its distinct challenges, investigating how technical know-how influences tax compliance behaviors in this context is crucial. Moreover, existing literature predominantly concentrates on formal businesses and SMEs, overlooking the intricacies of tax compliance within informal enterprises. This study aims to bridge this gap by delving into tax compliance behavior within Nigeria's informal sector. Based on the above statements, this study hypothesizes:

H1: *Technical know-how has a positive effect on tax compliance in Nigerian informal sectors.*

Digital payment platforms and tax compliance

The evaluation of various empirical studies consistently demonstrates the positive impact of digital payment platforms on tax compliance across different countries and business sectors. Garcia and Martinez (2023) employed a mixed methods approach in Spain, combining survey data with qualitative interviews, to show that digital payment platforms significantly enhance tax compliance among small businesses. Similarly, Chen and Li (2022) utilized econometric analysis on panel data in China and found a significant positive effect of digital payment platforms on tax compliance behaviors among SMEs. Kumar and Gupta (2021) used a longitudinal design in India, leveraging administrative data and

econometric techniques, to reveal that digital payment platforms positively and significantly influence tax compliance rates over time. Nascimento and Silva (2023) conducted regression analysis on survey data from Brazilian businesses, confirming the significant positive impact of digital payment systems on tax compliance.

Nguyen and Tran (2022) also used a combination of survey data and econometric methods in Vietnam, finding a similar positive effect. In Nigeria, Oladipo and Adekunle (2021) employed a qualitative research design, incorporating interviews and case studies, to demonstrate the significant positive impact of digital payment platforms on tax compliance in a dynamic economic landscape. Finally, Park and Lee (2023) used administrative data and econometric techniques in South Korea, concluding that digital payment platforms significantly enhance tax compliance among small businesses. Across these diverse methodologies and contexts, the findings consistently highlight the beneficial role of digital payment platforms in improving tax compliance.

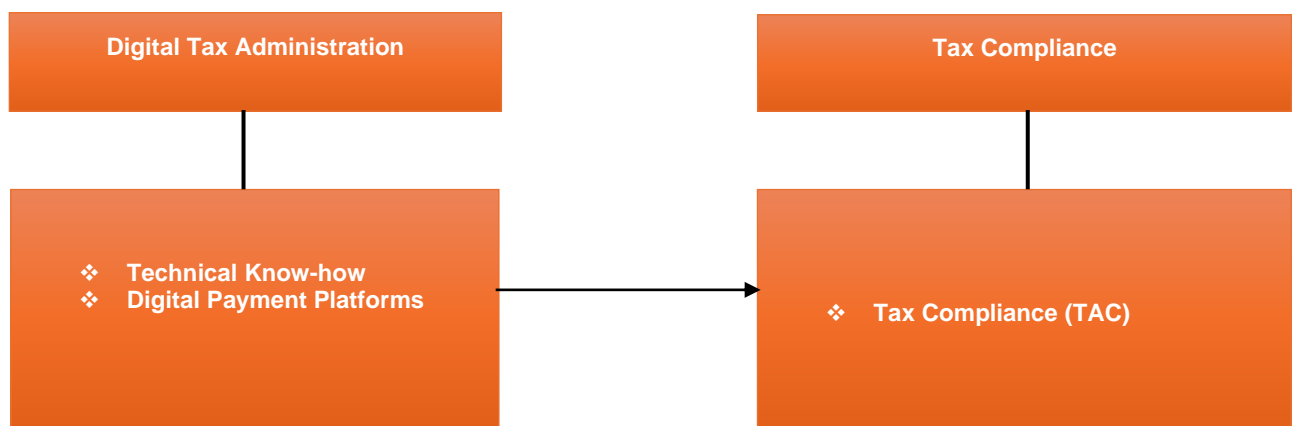
While previous studies have demonstrated the positive impact of digital payment platforms on tax compliance across various countries and business sectors, there is a noticeable lack of research specifically focusing on the informal sector in Nigeria. This sector is particularly significant in Nigeria's economy yet remains underexplored in terms of its adoption and utilization of digital payment platforms and their influence on tax compliance behaviors. Additionally, existing studies have predominantly focused on formal sectors, with limited attention paid to the unique challenges and dynamics present in the informal sector. Based on the above statements, this study hypothesizes:

H2: *Digital payment platforms have a positive effect on tax compliance in Nigerian informal sectors.*

Conceptual framework

Figure 1 below illustrates the relationship between the variables under study. Digital tax administration (independent variable) and tax compliance (dependent variable).

Figure 1: Conceptual Framework



Source: Authors' Concepts (2024)

Methodology

The study utilized a survey research design, gathering primary data through a structured questionnaire. This approach was chosen to obtain firsthand information directly from the targeted respondents. The sample included artisans, street vendors, small-scale traders, service providers, and other self-employed individuals in Southwest States, Nigeria, who typically do not register their businesses or pay taxes through formal channels. A total of 600 questionnaires were distributed by self-administered to this group, providing a substantial sample size for a representative overview. Of these, 547 completed questionnaires were returned. The study used purposive sampling to select individuals with specific characteristics pertinent to the research objectives and a Cronbach's Alpha test was conducted to ensure the reliability of the research instrument. Data analysis was performed using both descriptive

statistics (mean, variance, skewness, kurtosis) and inferential statistics (correlation and regression analysis) to summarize key features and draw broader conclusions about the population.

Model specification

This study adapted the econometric model created by Kusumawardhani et al. (2024), which investigated the effects of e-registration and Tax Service Quality on tax compliance among MSMEs in Surabaya. In this study, e-Registration and Tax Service Quality were substituted with technical know-how and digital payment platforms, respectively. The revised model is outlined as follows:

$$TAC = \alpha_0 + \beta_1 TKH + \beta_2 DPP + \varepsilon$$

Where:

TAC = Tax Compliance

TKH = Technical Know-how

DPP = Digital Payment Platforms

α_0 = Constant

Σ = Stochastic Error Term

β_0 = Intercept

β_1, β_2 = The Coefficients of the independent variable

The *a-priori* expectation = $\beta_1, \beta_2 > 0$.

Analysis of Results and Discussion of Findings

This section examines survey data and tests each variable against three hypotheses. The criteria define the investigation's goals and present the findings.

Descriptive statistics

The dataset used for the investigation is described in this section. Descriptive statistics are used to display raw data. Table 1 displays the demographic information of respondents. This study investigated 547 people. Lagos State had 77 responses or 14.08% of the total population. Furthermore, 88 people (16.09% of the population) were interviewed in Oyo State. 98 (17.92%) respondents were interviewed in Ogun State, while 101 (18.46%) respondents were interviewed in Osun State. 97 (17.73%) of respondents were interviewed in Ondo State, while 86 respondents were interviewed in Ekiti State. Of these respondents, 115 (21.02%) respondents held Primary School Certificates, while 101 (18.46%) held O Level certificates. 97 respondents held an OND/NCE qualification, accounting for 17.73% of the population. 113 (20.66%) of the respondents had HND/B.SC, whereas 121 (22.12%) had M.SC.

Among the street vendors, there were 114 artisans and 116 hawkers. According to this, 20.84% of respondents are street vendors, whereas 21.21% of the population is an artisan. Comparatively, small-scale traders made up 114 respondents (20.84%) of the total. 98 respondents (17.92%) worked in various industries, whilst 105 respondents (19.20%) provided services. Of the total sample, 34.19% consisted of 187 respondents who were extremely skilled in digital tax. 187 (34.19%) respondents had only a limited awareness of the digital tax, compared to 173 (31.63%) who had an intermediate comprehension.

Table 1: Demographic Statistics

Variable	Freq.	Percent	Cum.
State of Origin			
1	77	14.08	14.08
2	88	16.09	30.16
3	98	17.92	48.08
4	101	18.46	66.54
5	97	17.73	84.28
6	86	15.72	100
Education Level			

	1	115	21.02	21.02
	2	101	18.46	39.49
	3	97	17.73	57.22
	4	113	20.66	77.88
	5	121	22.12	100
Employment Status				
	1	114	20.84	20.84
	2	116	21.21	42.05
	3	114	20.84	62.89
	4	98	17.92	80.8
	5	105	19.2	100
Digital Tax Proficiency				
	1	187	34.19	34.19
	2	173	31.63	65.81
	3	187	34.19	100

Source: Author's computation (2024)

As reported in Table 2, the study's variables are TKH, DPP, and TAC. With a standard deviation of 0.8767, the average TKH was 2.8653. The minimum and maximum values in this distribution ranged from 0 to 5. This suggests that, on average, respondents agreed on how TKH affected tax compliance. However, the distribution was negatively skewed (-1.5534) with a kurtosis of 6.4231, indicating that most of the data would be dispersed to the left of the mean. DPP has a standard deviation of 0.8525 and an average value of 2.8202. Despite the slight variance, the distribution was negatively skewed (-1.6366). The kurtosis was 6.7227. The average TAC was 2.8308, with a standard deviation of 0.8429. The distribution's minimum and maximum values were 0 and 5, respectively. The distribution was significantly skewed at the -1.7346 level, with a kurtosis of 7.1136, indicating a heavier-tailed distribution than the normal distribution.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
TKH	547	2.8653	0.8767	0	5	-1.5534	6.4231
DPP	547	2.8202	0.8525	0	5	-1.6366	6.7227
TAC	547	2.8308	0.8429	0	5	-1.7346	7.1136

Source: Author's computation (2024)

Model regression assumptions' verification and diagnostics

As reported in Table 3, the Ramsey reset test was employed in the study to check whether models had been incorrectly specified. The null hypothesis states that no variables in the models were removed. The other possibility is that some factors were excluded from the models. The null hypothesis is rejected if the test result has a p-value less than 0.05; otherwise, it is accepted. The test results show that the null hypothesis has been rejected (p-value = 0.0000, F-statistic = 73.54). As a result, the model was reviewed to incorporate all required variables.

The variance inflation factor test was performed to determine the degree of multicollinearity among independent variables. The TKH and DPP have a VIF value of 1.51, however, it remains much below the requirement of 10. This demonstrates that the model's independent variables are not significantly multicollinear. The Breusch-Pagan/Cook-Weisberg test was used to calculate heteroskedasticity in error terms. As a result, if the test statistics are not significant, the residual is homoscedastic, whereas otherwise, it is heteroskedastic. The Breusch-Pagan/Cook-Weisberg test for heteroskedasticity produced a p-value of 0.086 and a chi-value of 2.95. This indicates that there was homoskedasticity in the data.

The linear regression analysis assumes that residuals are independent of each other. Consequently, inefficiencies arise in estimators, leading to inaccurate statistical conclusions. Determining the presence of autocorrelation in the data distribution was conducted using the Durbin-Watson d-statistic. The test statistic results for the Durbin-Watson autocorrelation test ranged from 0 to 4. 2 denotes the absence of autocorrelation, less than 2 denotes positive autocorrelation, and more than 2 denotes negative autocorrelation. The model has autocorrelation as demonstrated by the 1.8114 Durbin-Watson d-statistic test findings.

Once more, the Shapiro-Wilk W test for normal data was employed in the study to ascertain whether the residuals were normal. The p-value must be more than 0.05 for the residuals to have a normal distribution. The test results show that the residual (p-value = 0.000, z-statistic= 11.100) is not normally distributed. The variables were transformed into regularly distributed ones. However, robust regression analysis was used because of normality and autocorrelation.

Table 3: Regression Assumptions' Verification and Diagnostics

Particulars	t-statistic	P-value
Ramsey reset test	73.54	0.000
Breusch-Pagan/Cook-Weisberg test	2.95	0.086
Durbin-Watson d-statistic test	1.8114	
Shapiro-Wilk W test	11.1	0.000
VIF		
TKH	1.51	
DPP	1.51	

Source: Author's computation (2024)

Reliability tests

To analyse the reliability of primary data, the study used the Cronbach's Alpha technique as displayed in Table 4. This approach assessed both the internal consistency of measuring scales and the dependability of the research equipment. Table 1 highlights the Cronbach's Alpha test results. The results indicated that TKH, DPP, and TAC have values of 0.7553, 0.7398 and 0.7355, respectively. This suggests that the survey was consistent and appropriate for high-stakes evaluation, as stated in the study's objectives.

Table 4: Cronbach's Alpha

Item	alpha
TKH	0.7553
DPP	0.7398
TAC	0.7355

Source: Author's computation (2024)

Model Estimation, prediction, and analysis

The anticipated parameters of the model and their statistical significance are displayed in Table 4. A positive coefficient means that the dependent variable's mean increases by the independent variable's coefficient when the dependent variable's value increases by one unit. A negative coefficient indicates that the dependent variable tends to decrease by the same amount when the independent variable increases by one unit. Based on the t-value, two-tailed p-values assess the hypothesis that every coefficient deviates from zero. The independent factors substantially impact the dependent variable if the p-value is less than 0.05 with 95% confidence.

The F-test checks whether all model coefficients are substantially different from zero. A model is acceptable and efficient if its F-test statistic has a p-value less than 0.05. As stated in Table 4, the f-statistic is 161.65 and the p-value is 0.0000. This indicates that the model is statistically efficient. The

R-squared is 0.4513. The R-squared value indicates that 45.13% of the variance in Tax Compliance (TAC) was explained by Technical Know-how (TKH) and Digital Payment Platforms (DPP). However, the TKH coefficient is 0.3407, with a p-value = 0.0000. This indicates that for every unit rise in TKH, the Tax Compliance (TAC) increases by 0.3407 units, while all other variables remain unchanged. The p-value is less than the conventional level of significance (0.05). This shows that the correlations between TAC and TKH are statistically significant. Additionally, the DPP coefficient is 0.3961, with a p-value of 0.0000. This means that for every unit increase in DPP, Tax Compliance (TAC) rises by 0.3961 units, providing all other variables remain constant. The p-value is less than the standard significance level of 0.05. This indicates that the connection between TAC and DPP is statistically significant. Overall, both technical know-how (TKH) and digital payment platforms (DPP) have positive and statistically significant impacts on tax compliance (TAC). DPP has a slightly stronger effect on tac compared to TKH, based on the size of the coefficients.

Table 5: Robust Regression Analysis

TAC	Coef.	P>t
TKH	0.3407	0.0000
DPP	0.3961	0.0000
_cons	0.7372	0.0000
F(2,544)	161.65	
Prob	0.0000	
R-squared	0.4513	
Root MSE	0.6255	

Source: Author's computation (2024)

Discussion of Findings

This study examined the impact of digital tax administration on tax compliance within the informal sector in the Southwest states of Nigeria. The regression analysis showed that both technical know-how and digital payment platforms have positive and statistically significant impacts on tax compliance within the informal sector in the Southwest states of Nigeria. The findings imply that individuals or businesses with better technical know-how might find it easier to navigate online tax filing systems, understand tax regulations, and utilize digital payment methods, leading to higher compliance. The statistical findings show that both technical know-how (TKH) and digital payment platforms (DPP) positively and significantly affect tax compliance (TAC) in the informal sector, as indicated by the t-values and p-values for each variable. Specifically, TKH has a t-value of 0.3407 and a p-value of 0.000, while DPP has a slightly higher t-value of 0.3961 and a p-value of 0.000. These values indicate that both factors have a statistically significant influence on tax compliance, with digital payment platforms showing a marginally stronger impact.

This slight difference in impact could be due to the direct, immediate benefits that digital payment platforms offer to taxpayers. Digital payment systems simplify the tax payment process, making it more accessible and reducing the effort required for compliance. When individuals or businesses can pay taxes seamlessly through online systems, they are more likely to follow through with their tax obligations. On the other hand, while technical know-how also promotes compliance by enabling individuals to understand tax regulations and navigate online systems, it may require more active effort from the taxpayer, such as learning specific steps for filing taxes online or comprehending complex tax codes. Factors such as digital literacy, internet accessibility, and financial inclusion may affect how strongly TKH and DPP influence tax compliance. For instance, high digital literacy might amplify the effect of technical know-how on tax compliance, as individuals are better equipped to understand and use online tax tools effectively. Similarly, internet accessibility could enhance the impact of digital payment platforms by making them readily available to a broader segment of the informal sector. Understanding these factors would allow for a deeper analysis of how and why these variables affect compliance levels and could help identify targeted strategies to improve tax compliance further within the informal sector.

The findings of this study align with the tax benefit theory, which posits that taxpayers are more likely to comply with tax obligations when they perceive direct benefits from the taxes they pay. In the context of digital tax administration, the positive impact of technical know-how and digital payment platforms on tax compliance in the informal sector can be seen as aligning with this theory. When individuals or businesses have the technical know-how to efficiently use digital platforms for tax-related activities, they may perceive the process as more convenient and beneficial, thus increasing their willingness to comply. Similarly, digital payment platforms that streamline tax payments can be viewed as providing a clear benefit, making the process less burdensome and enhancing the perceived value of compliance. Therefore, the positive correlation between these factors and tax compliance in the study supports the idea that when taxpayers are equipped with the necessary tools and knowledge, they are more likely to recognize and appreciate the benefits of compliance, consistent with the principles of the tax benefit theory.

The findings of this study corroborate with the results of previous studies such as Smith and Johnson (2023) that highlighted the positive impact of technical training programs on tax compliance among small businesses in the United States. Similarly, Chen and Wang (2022) found in China that technical assistance programs provided by the government significantly enhance tax compliance behaviour among small and medium enterprises (SMEs). Nevertheless, studies in India (Kumar & Gupta, 2021), Vietnam (Nguyen & Tran, 2022), Nigeria (Bello & Ibrahim, 2021), and Korea (Park & Lee, 2023) collectively underscored the significance of capacity-building initiatives and government support in fostering tax compliance among businesses. Similarly, Chen and Li (2022) in China found a significant positive effect of digital payment platforms on tax compliance behaviours among SMEs. Kumar and Gupta (2021) revealed that digital payment platforms positively and significantly influence tax compliance rates over time. In Nigeria, Oladipo and Adekunle (2021) found a significant positive impact of digital payment platforms on tax compliance in a dynamic economic landscape. Contrastingly, Garcia and Rodriguez's (2022) study on SMEs in Mexico revealed a nuanced perspective, showing that access to technical expertise had a negative and insignificant effect on tax compliance, indicating potential complexities in the relationship between technical support services and compliance behaviour.

Conclusion and Recommendations

This study investigates the influence of digital tax administration on tax compliance in the informal sector within the Southwest states of Nigeria. Through regression analysis, the study identifies that both technical know-how and the use of digital payment platforms have a positive and statistically significant impact on tax compliance. This implies that individuals and businesses with higher levels of technical expertise are better equipped to navigate online tax systems, understand relevant regulations, and make use of digital payment methods, all of which contribute to improved compliance with tax obligations. The study concludes that enhancing technical skills and expanding access to digital payment platforms can significantly improve tax compliance within the informal sector in the Southwest states of Nigeria. The positive and statistically significant relationship between these factors and tax compliance indicates that digital tax administration plays a crucial role in simplifying tax processes and making compliance more accessible for individuals and businesses in the informal sector.

Therefore, this study suggested that the Government and relevant agencies should invest in training programs aimed at improving the technical know-how of individuals and businesses in the informal sector. These programs should focus on digital literacy, particularly in navigating online tax filing systems and understanding tax regulations. Secondly, efforts should be made to increase the availability and usability of digital payment platforms across the Southwest states. This includes improving infrastructure, reducing transaction costs, and ensuring that these platforms are user-friendly and accessible to people in the informal sector. Thirdly, there should be targeted awareness campaigns to educate individuals and businesses in the informal sector about the benefits of digital tax administration and how to utilize available digital tools effectively. Lastly, policymakers should consider providing incentives for the adoption of digital payment systems, such as tax discounts or easier access to government services, to encourage more individuals and businesses in the informal sector to comply with tax regulations.

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