Assessment of Relationship between Information Technology Deployment and Tax Administration Efficiency in Oyo State, Nigeria

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ABSTRACT

Literature highlights that despite the transition to a digital era, tax avoidance and non-compliance remain substantial challenges among taxpayers in Nigeria. Consequently, this study aims to investigate the relationship between information technology deployment and tax administration efficiency in Oyo State. A survey research design was employed through primary data. The population of the study comprises all 285 members of staff of the State Board of Internal Revenue Services in Ibadan. Multi-stage sampling technique was employed to arrive at a sample size of 100 out of the 285 staff population. One hundred copies of the questionnaire were administered to respondents, and all were retrieved. The collected data were process and analyzed using descriptive analysis and inferential statistics like Ordinary Least Square Regression, Pearson Product Moment Correlation Coefficient. Analysis indicate that all the identified variables such as; Demand for Online Registration and Fillings (DORF), Perceive Ease of IT Usage PEITU), Technical Issue and cost of IT Deployment (TICITD) Legal Issue (LI) and Expected Benefits (EB) are major factors influencing information technology deployment in the Oyo State Board of Internal Revenue Service. Analysis further reveal a significant relationship between information technology deployment and tax administration efficiency (p-value < 0.0001). The study concluded that all identified information technology deployment variables like DORF, PEITU, TICITD, LI, and EB significantly influence tax administration practices. Moreover, a positive relationship was observed between information technology and tax administration efficiency in Oyo State.

Keyword: Information Technology, Tax Administration Efficiency, E-tax Assessment, Tax evasion, Tax avoidance

INTRODUCTION

The literature (Bolarinwa et al., 2020; Ater et al., 2023; Adeyemo, 2020; Ifeoma and Nwafor, 2021) reveals that information technology is crucial for the effective administration of taxation systems and has had a significant impact on tax administration in Nigeria. Information technologies are tools, devices, applications, and resources used to communicate, create, manage, and analyze information, as observed by Adewoye and Olaoye (2014). To enhance tax compliance and collection, the Nigerian government has embraced technology, significantly increasing the effectiveness, accountability, and transparency of tax administration. Taxation stands as one of the oldest and most vital sources of government revenue. Its history in Nigeria dates back to the pre-colonial era when various taxation systems existed, including compulsory services, contributions of goods, money, labor, and similar forms, among different kingdoms, ethnic groups, and tribes controlled by Obas, Emirs, etc., to sustain the monarch and foster community development (Hamad, 2018).

According to Ganyam, Ivungu, and Anongo (2019), "taxation" denotes the government's imposition of obligations on individuals and private organizations to pay taxes on income, property, transactions, and goods. This revenue is crucial for funding various government expenditures such as employment generation, economic growth, infrastructure development, and fostering economic and price stability. Tax revenue is collected by tax authorities, namely the State Board of Internal Revenue (SBIR) and the Federal Inland Revenue Service (FIRS) for state (SG) and federal government (FG) respectively, with the endorsement of their respective governments. Information technology is expected to enable tax authorities to adopt electronic tax systems, enhancing the delivery of essential public services and fiscal efficiency while minimizing overhead costs.

Moreover, Adegoroye et al. (2015) emphasized that governments and organizations worldwide are increasingly recognizing the necessity of facilitating access to community services through information exchange using Information Technology (IT). The role of IT has become increasingly significant in the social and economic spheres of the 21st century. It is now a demonstrated reality, with developments from numerous countries showing that IT contributes significantly to a country's GDP and enhances the market competitiveness of its products, output, and services (Uvaneswaran and Mellese, 2016). Evidence from literature, including the International Monetary Fund report (2023) and studies by Adegoroye et al. (2015), Oladele et al. (2020), and Oladejo and Yinus (2014), indicates that IT can positively influence governance and various aspects of the economy. It has the potential to improve living standards, facilitate global economic integration, bridge the digital divide, and enhance resource management and biodiversity utilization. According to Adamu (2001), IT has played significant roles in national growth and development.

Previous global studies have consistently demonstrated the positive impact of information technology-compliant tax systems on various aspects of tax administration. For instance, Gidisu (2012) found that automation system usage within the Ghana Revenue Authority, particularly in the customs division, positively influenced the cost of tax administration and revenue collection effectiveness. Additionally, research by Efunboade (2014) and Tyokoso, Onho, and Musa (2021) highlighted how technology infrastructures such as the Taxpayer Identification Number (TIN), Factual Accurate Complete Timely (Project FACT), and Integrated System of Tax Administration (ITAS) can enhance taxpayer compliance through simplified payment processes, consequently fostering economic development.

The transformative influence of technology on daily operations and interpersonal interactions has been underscored by Eric and Richard (2008). In the realm of taxation, technology-driven systems streamline processes such as tax return filing and remittance based on assessments mandated by relevant tax authorities. Qader et al. (2021) note that many tax authorities globally leverage technology in communication settings for tax collection, administration, and compliance, aiming to enhance the effectiveness and efficiency of tax administration and collection processes. Despite technological advancements in tax administration in Nigeria, Adegbie and Fakile (2011) highlight persistent challenges of tax avoidance, non-compliance, and collusion between tax officials and taxpayers. Addressing these issues through information technology is crucial in the Nigerian context. Adegbite et al. (2019) further emphasize the reliance on manual taxpayer databases in Oyo State, indicating limited adoption of information technology for record-keeping by tax authorities. Manual data storage presents significant challenges, including difficulties in record retrieval and susceptibility to manipulation, undermining data reliability. This study seeks to address these gaps by assessing the potential of information technology to overcome these challenges. With this background, the research aims to evaluate the relationship between information technology usage and tax administration efficiency in Nigeria, particularly from the perspective of taxpayers in Oyo State.

Research Hypotheses

HO^1: There is no significant difference in factors influencing Information Technology deployment in the Tax administration unit of Oyo State Revenue Service.

HO^2: Information Technology Deployment implementation has no significant effect on efficiency of Tax administration in Oyo State Revenue Services.

LITERATURE REVIEW AND CONCEPTUAL UNDERPINNING

Information Technology (IT)

Information and Communication Technology (IT) according to Mary and Cox (2007) are electronic and computerized devices associated with human interactive materials that enable the user to use them for wider range of service delivery and in addition to personal use. Dzidonu (2012) itemized the benefit of using information technology to manage the operations and delivery of public sector institutions to include: improvement in administrative efficiency, effectiveness and productivity, improvement in service delivery, reduction in administrative, operational and transactional costs of public and provision of access to information at a reduced cost. In relation to taxation, significance of the use of IT is infinite, some of which are; facilitates a reducing in the overhead cost of managing the agencies of government responsible for tax administration, instant computation of tax liability from the use of online tax calculator, reduced cost of registering tax payers and instant generation of tax identification number, reducing in staff-taxpayers collusion as regards tax liability, reduction in fraudulent activities of tax collectors in the aspect of non-remittance of tax received from tax payers and boost the revenue of government in terms of reduction in expenses (administrative, overhead and transactional) and corrupt practices.

Adewoye et al (2013) opines that the anticipated benefits of implementing an information technology system include improvements in productivity, better profit performance, and a higher degree of accuracy of information and Productivity, typically improves in organizations which implement information technology, although there can be some loss of productivity during the "learning curve." (Adewoye and Olaoye, 2014). Oseni (2015) opined that the adoption of IT-facilities in administering taxation can leads to indifference attitude on the payment of taxes, garbage-in-garbage-out, that is wrong computations of figures that will lead to wrong calculation of tax liability by online tax calculator, poor internet facility, poor electricity to power host server, high cost of maintenance of IT facilities, lack of technical Know-how by tax administering agencies, high level of illiteracy among lower income earners that characterized the population, incidence of internet hackers. So also, the use of ICT can be catastrophic if carelessly employed by both the taxpayers and the tax administrators as scammers and hackers of the internet facilities can utilize the ignorance or the lax security of the system

Taxation

According to Akubo et al. (2016), taxation serves as a vital instrument for fostering economic growth and development, regardless of a nation's developmental stage. It is perceived as a shared responsibility wherein individuals contribute to government objectives by financing basic infrastructure and social programs. Taxation plays a pivotal role in income redistribution and revenue generation, crucial for a country's economic progress and the provision of essential public goods and services for the welfare of citizens. Moreover, according to Egwaikhide and Udoh (2012), taxation functions as a mechanism for transferring resources from the private sector to the government sector, facilitating the provision of public goods and services while upholding law and order within the nation. In contemporary Nigeria, tax administration is under the purview of various tax authorities, contingent upon the type of tax in question. These include the Federal Inland Revenue Service Board, State Internal Revenue Service Board, and The Local Government Authorities.

Tax Administration

Tax administration encompasses the management, direction, and regulation of the execution and application of tax revenue statutes, laws, and conventions (Ganyam, Ivungu, and Anongo, 2019). It serves as a critical component of any country's tax revenue generation efforts, aiming to ensure the government collects sufficient revenue for providing essential infrastructure and social programs. Azende and Ganyam (2020) elaborate that tax administration involves the planning, collection, accounting, control, and coordination of tax collection, with the overarching objective of achieving efficient revenue generation and effective implementation of tax policies. Furthermore, Agbetunde (2010) emphasizes that tax administration involves interpreting tax laws and implementing them practically to achieve specific goals, making it an integral aspect of the overall taxation process. In Nigeria, tax administration falls under the purview of the three tiers of government (Federal, State, and Local Government), each responsible for creating an enabling environment for effective tax assessment and collection (Ishola, 2016; Somorin, 2015). Ali and Anwar (2021) highlight the benefits of leveraging information technology for public sector operations, including increased administrative efficiency, effectiveness, and productivity, leading to improved service delivery quality. Consequently, tax administration involves utilizing technology to plan, collect, account for, control, and coordinate tax-related activities, ensuring optimal utilization of tax revenue for providing necessary social amenities and facilities for taxpayers (Ogbonna, 2010).

Tax administration also entails the interpretation and implementation of tax laws by designated tax authorities, such as the Federal Inland Revenue Service, state boards of internal revenue, or local government revenue boards, as defined in Nigerian tax legislation (Azubuike, 2009). It aims to ensure compliance with tax laws, a dimension of taxation long recognized by tax administrators, particularly in developing countries (Alm, 1999). However, challenges such as inequity, uncertainty, inadequate planning, ineffective monitoring, weak control, fraudulent practices, and inadequate manpower hinder effective tax administration in Nigeria (Ogbonna, 2010). Efforts to achieve desired tax policy objectives involve making policies, rules, and regulations, with the administrative organs responsible for implementing these policies being crucial. Kiabel and Nwokah (2009) highlight the roles of tax authorities such as the Federal Inland Revenue Service, State Boards of Internal Revenue, Local Government Revenue Committees, Joint Tax Board, and Joint State Revenue Committees, guided by constitutional provisions. For instance, the federal government has exclusive powers to collect various taxes, while states and local governments also have specific tax collection responsibilities (Adeleke, 2011).

Tax Administration Efficiency.

Olaoye (2008), envisaged a good tax system must be based on the following principles: efficacy: a viable tax system should advocates that ethics of professionalism, transparency, accountability, probity and efficiency in tax collection; simplicity, the tax system and the tax law should be simple, flexible and adjustable, so as to compliance by tax payers and efficiency in operation by tax administrators; neutrality which implies that a good tax system should be free from any form of partiality; economy, tax system should make the economic situation better off and not worse off. It must not affect adversely the economic contribution of the taxpayer. More so, the compliance costs to the tax payers and the administrative costs to the government must not negatively affect national output of taxes collected; equity, a viable tax system must not be arbitrary nor should the amount payable be influenced by prejudice or personal feelings; certainty, this stipulates that the time of payment, the manner of payment and the amount to be paid should be clear to the tax payer as well as the taxing authorities, convenience which relates to mode of payment and the timing. This principle stipulates that the time and manner of payments should not inconvenience the taxpayer; productivity which stipulates that a good tax system should be able to produce large amount of revenue.

Theoretical Framework

The framework of this study draws upon the Benefit Received theory of Taxation and the Unified Theory of Technology Acceptance (UTAT), selected for their direct relevance to the study's objectives. The Benefit Received theory underscores the principle that taxation should reflect the benefits individuals derive from government expenditures. In essence, taxpayers should contribute to the government in proportion to the benefits they receive. This theory aligns with the concept that taxpayers are more inclined to fulfill their tax obligations when they perceive tangible benefits from government services. Additionally, the Unified Theory of Acceptance and Use of Technology (UTAT) is employed to analyze users' acceptance of information technology within tax administration systems. UTAT elucidates users' intentions, attitudes toward technology usage, and subsequent usage behavior in the context of tax administration. By employing UTAT, the study aims to standardize technology acceptance and usage for enhancing tax administration efficiency in the county. UTAT's focus on user acceptance is anticipated to optimize tax administration performance by minimizing human errors and facilitating data accessibility for tax stakeholders. Moreover, UTAT's emphasis on identifying mechanisms for facilitating smooth tax administration practices in Oyo State further justifies its adoption in this study.

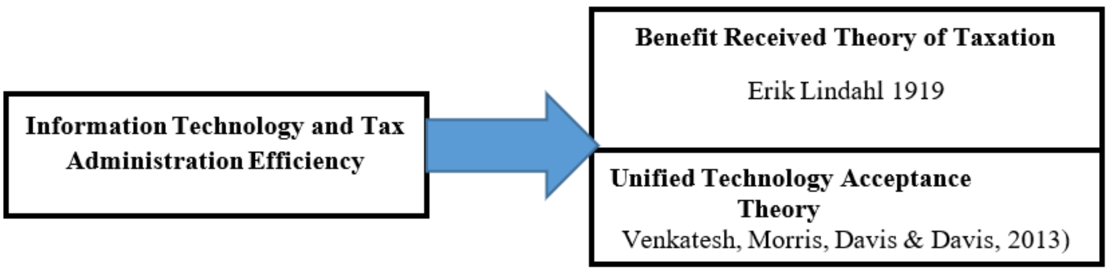

Figure 2.1: Theoretical Framework
Source: Researcher’s Compilation, 2023.

Empirical Review

Chijioke, Bosscoand and Amaefule. (2018), Findings from the study revealed that the implementation of electronic taxation has not improved tax revenue, federally collected revenue and tax-to-GDP ratio in Nigeria. The conclusion might be as a result of short duration of assessment of e-taxation that has long period of benefits. It is expected that technology- based tax system would yield for many years after adoption. Hamza *et al* (2021) investigated the factors influencing information technology on tax administration in the Kurdistan. The impact of information technology on tax productivity as well as the link between information technology on tax implementation and tax planning were especially studied in this study. In this study, a descriptive research approach was adopted, with a questionnaire being used to collect data, which was then analyzed using multiple regression and Pearson product moment correlation. The findings of the study revealed that information technology (online tax filing, online tax registration and online tax remittance) has a positive impact on efficient tax management. Aliyu, Kumai and Mustapha (2022) appraises the Nigerian tax administration in the context of globalization effect and the incidence of profit shifting through the use of systematic conceptualization and the use of relevant connected theories to bring out the key elements of the study. It went ahead to discuss the weaknesses and challenges faced by the Nigerian tax administration in the wake of globalization, linking globalization to digitalization and how it facilitates the profit shifting phenomenon. It further recommends that the Nigerian tax administration should engage in a critical assessment of information technology infrastructure and policy infrastructure to find areas of weaknesses and improve on those weaknesses.

Chikwendu (2022) investigated an empirical analysis of the effect of the online system of taxation on economic growth in Nigeria covering the period of 2005–2020. Data for the research was extracted from the Central Bank of Nigeria (CBN) Statistical Bulletin (2020). The multiple regression with the application of Ordinary Least Square (OLS) technique was employed in obtaining the numerical estimates of the coefficient in different equations (Pre-Online and Post-Online Tax Regimes). The One-Sample Test was employed to estimate the difference between pre-online and post-online taxation systems on economic growth in Nigeria. The major findings of the study revealed that pre-online tax revenue has a negative and non-significant effect on economic growth in Nigeria, post-online tax revenue has a positive and significant effect on economic growth in Nigeria, and there is significant difference between pre- and post-online tax revenue in Nigeria. It is the recommendation of the study that there should be stringent penalties imposed on any individual or corporate body who indulges in any form of tax malpractices, irrespective of states. If the positive impact of tax revenue on economic growth should be maintained, then the online tax system should be constantly reviewed so as to address emerging problems and to evolve with the changing economic landscape and increased complexity of today’s business environment.

Sritharan and Salawati, (2019), examined the moderating effect of tax knowledge on the relationship between individual factors and income tax compliance in Malaysia using correlation analysis, multiple regression analysis and hierarchical regression analysis and the study found that individual financial position, referral group, political influence, religiosity and cultural influence have a positive effect on tax compliance behaviour. Besides, tax knowledge has moderated the relationship between individual factor and compliance.

In Tanzania, Kimathi *et al* (2019) researched on the E-tax Filing and payment system using variables such as system quality and perceived security, as well as decomposing important variables like social influence and perceived behaviour control. This study integrates Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) to explain the factors motivating the acceptance of ETFPS in Tanzania. A quantitative method of data analysis was employed. Empirical outcomes of the variables signified the influence of perceived usefulness and perceived ease of use of ETFPS. Perceived usefulness and perceived ease of use significantly influence the users’ attitude towards accepting ETFPS, which further affects their behavioural intention. In the study perceived security, mass media influence, and external facilitating condition have a significant impact on the users’ behavioral intention.

Gap in Literature

Hamza et al. (2021) conducted a study on the impact of information technology on tax administration in Kurdistan, highlighting the importance of thoroughly investigating this issue due to potential regional disparities within a country, which may lead to diverse research outcomes. Building on this premise, the current study addresses gaps in the literature by examining the extent to which information technology can influence tax administration. Additionally, this study fills another gap by exploring the significance of various factors, including Demand for Online Registration and Filling (DORF), Perceived Ease of IT Usage (PEITU), Technical Issues, Cost of Information Technology Deployment (TICITD), Legal Issues in IT-Based Tax Administration (LI), Expected Benefits of IT to Tax Compliance (EB), and others, as determinants of technology deployment in the Tax Administration Unit of Oyo State. Furthermore, Aliyu et al. (2022) assessed Nigerian tax administration in the context of globalization and profit shifting using systematic technology. This study contributes to the literature by adopting a survey design to explore the effects of technology on tax administration in the digital era, thereby creating further gaps for investigation. In addition, Chijioke et al. (2018) emphasized that electronic taxation has not significantly improved tax revenue. Thus, this present study aims to fill gaps in the literature by conducting an empirical investigation into the effect of information technology on the efficiency of tax administration.

METHODOLOGY

A survey research design was employed through primary data. The population of the study comprises all 285 staff of the state board of internal revenue services in Ibadan, oyo state Nigeria as at 2023. Multi-stage sampling technique was employed, involving the use of stratified and simple random sampling as well as purposeful sampling techniques to arrive at a sample size of 100 out of 285 staff population. One hundred copies of the questionnaire were administered to respondents, and all were retrieved. The collected data were analyzed using descriptive analysis and inferential statistics. The formulated hypotheses were tested using ordinary least square regression (OLS), Pearson Product Moment Correlation Coefficient (PPMCC), and multiple regression analyses. All tests were conducted at 95% confidence level.

RESULTS AND DISCUSSION

Descriptive Statistics of the Factor Influencing Technology Deployment in the tax Administration Practice of Oyo State

The descriptive statistics revealed insights into the factors influencing technology deployment in the tax administration practice in Oyo State. Across all factors, respondents demonstrate a moderate to high level of agreement, indicating a nuanced perspective on the various aspects of technology adoption. Analysis in Table 1 showed the descriptive statistics of ‘Demand for Online Registration and Filing (DORF)’ as one of the factors influencing technology deployment in the tax administration practice in Oyo State. Respondents showed a moderate level of agreement with statements related to the demand for online registration and filing, as reflected in the mean values ranging from 3.27 to 3.61. The distribution is somewhat symmetric, with modes around 3 and 4. The descriptive statistics for 'Demand for Online Registration and Filing (DORF)' imply a moderately positive perception among respondents, with a balanced and consistent consideration of the importance of this factor in influencing technology deployment in the tax administration practice in Oyo State.

The descriptive statistics of ‘Perceived Ease of IT Usage (PEITU)’ as one of the factors influencing technology deployment in the tax administration practice in Oyo State was presented in table 2. The perceived ease of IT usage receives moderate agreement, with mean values ranging from 3.05 to 3.55. The distribution leans towards moderate to high agreement, as indicated by median values ranging from 3.00 to 4.00. The descriptive statistics for 'Perceived Ease of IT Usage (PEITU)' imply a moderately positive perception among respondents, with a consistent and balanced consideration of the importance of user-friendly IT systems in influencing technology deployment in the tax administration practice in Oyo State. Further, analysis in Table 3 demonstrated descriptive statistics of ‘Technical Issue and Cost of Information Technology (TICITD)’ as one of the factors influencing technology deployment in the tax administration practice in Oyo State. Respondents express a moderate to high level of agreement with technical issues and costs of information technology, reflected in mean values ranging from 3.75 to 4.22. The distribution tends towards high agreement, with modes around 5. The descriptive statistics for 'Technical Issue and Cost of Information Technology (TICITD)' imply a consensus among respondents regarding the paramount importance of technical considerations and costs in influencing technology deployment in the tax administration practice in Oyo State.

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More so, the descriptive statistics of the 'Legal Issue on IT-Based Taxation Administration (LI)' as one of the factors influencing technology deployment in the tax administration practice in Oyo State was shown in Table 4. Legal issues surrounding IT-based taxation administration garner a moderate to high level of agreement, as seen in mean values ranging from 3.63 to 4.00. The distribution is somewhat symmetric, with modes around 4 and 5. The descriptive statistics for 'Legal Issue on IT-Based Taxation Administration (LI)' imply a consensus among respondents regarding the crucial role of legal considerations in influencing technology deployment in the tax administration practice of Oyo State. Finally, Analysis in Table 5 showed the descriptive statistics of 'Expected Benefits of IT to Tax Compliance (EB)' as one of the factors influencing technology deployment in the tax administration practice in Oyo State. Respondents generally agree with statements on the expected benefits of IT to tax compliance, with mean values ranging from 3.70 to 3.95. The distribution tends towards high agreement, as indicated by modes around 3 and 4. The descriptive statistics for 'Expected Benefits of IT to Tax Compliance (EB)' imply a consensus among respondents regarding the positive and significant role that information technology can play in enhancing tax compliance in the tax administration practice of Oyo State.

Collectively, the descriptive statistics analysis of the five factors influencing technology deployment in the tax administration practice in Oyo State provides valuable insights into the perspectives of respondents. Across the factors of 'Demand for Online Registration and Filing (DORF),' 'Perceived Ease of IT Usage (PEITU),' 'Technical Issue and Cost of Information Technology (TICITD),' 'Legal Issue on IT-Based Taxation Administration (LI),' and 'Expected Benefits of IT to Tax Compliance (EB) are major factors Influencing Technology Deployment in the tax Administration Practice.

More so, Following the result of the analysis (Table 6), Given the coefficient of determination **(**R^2) of **0.7661** (approximately 76%) and also supported by high value of Adjusted (R^2) at **0.7443** (approximately 74%), the result indicates that Independent variables incorporated into this model have been able to revealed that there are differences in factors influencing information technology deployment in the tax administration unit of Oyo state, due to this result, the null hypothesis is rejected while the alternative hypothesis is accepted. That is there is a significant difference in factors influencing information technology deployment in the tax administration unit of Oyo state.

Table 1: Descriptive Statistics of Demand for Online Registration and Filling (DORF) as One of the Factors Influencing Technology Deployment in The Tax Administration Practice in Oyo State

		Taxpayers demand encourage online tax by tax authority	Taxpayers' preference for online filling could encourage IT deployment	Taxpayers' willingness to pay online allows IT deployment	Convenience of taxpayer to relate online enables IT deployment
N	Valid	100	100	100	100
	Missing	0	0	0	0
Mean		3.27	3.61	3.44	3.49
Median		3.00	4.00	3.50	4.00
Mode		3	4	3	5
Range		4	4	4	4
Minimum		1	1	1	1
Maximum		5	5	5	5

Source: Author's Computation (2023)

Table 2: Descriptive Statistics of Perceived Ease of IT Usage (PEITU) as One of The Factors Influencing Technology Deployment in The Tax Administration Practice in Oyo State

		IT deployment reduces human error	IT deployment gives adequate and proper tax records	IT deployment ease process of tax administration	IT deployment reduces cost
N	Valid	100	100	100	100
	Missing	0	0	0	0
Mean		3.38	3.48	3.55	3.05
Median		3.00	4.00	4.00	3.00
Mode		3	3	5	3
Range		4	4	4	4
Minimum		1	1	1	1
Maximum		5	5	5	5

Source: Author's Computation (2023)

Table 3: Descriptive Statistics of Technical Issue and Coat of Information Technology (TICITD) as One of The Factors Influencing Technology Deployment in The Tax Administration Practice in Oyo State

		Internet infrastructure should be available	There should be no network failure	Regular uninterrupted power supply	Maintenance cost should be affordable	Acquisition cost of online technology should be considered
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		3.78	3.97	4.22	3.83	3.75
Median		4.00	4.00	4.00	4.00	4.00
Mode		5	5	5	4	5
Range		4	3	2	4	4
Minimum		1	2	3	1	1
Maximum		5	5	5	5	5

Source: Author's Computation (2023)

Table 4: Descriptive Statistics of Legal Issue on IT Based Taxation Administration (LI) as One of The Factors Influencing Technology Deployment in The Tax Administration Practice in Oyo State

		Government policies should support IT deployment in tax admin.	IT deployment in tax admin. should be regulated	Online issues should be addressed
N	Valid	100	100	100

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	Missing	0	0	0
Mean		3.63	3.66	4.00
Median		4.00	4.00	4.00
Mode		4	5	5
Range		4	4	4
Minimum		1	1	1
Maximum		5	5	5

Source: Author's Computation (2023)

Table 5: Descriptive Statistics of Expected Benefits of IT to Tax Compliance (EB) as One of the Factors Influencing Technology Deployment in the Tax Administration Practice in Oyo State

		IT should ensure increased revenue	It should be easy to monitor taxpayers ID. numbers	There should be reduced tax leakages	Tax compliance cost should be reduced
N	Valid	100	100	100	100
	Missing	0	0	0	0
Mean		3.82	3.70	3.95	3.84
Median		4.00	4.00	4.00	4.00
Mode		4[a]	3	3	3
Range		4	4	2	2
Minimum		1	1	3	3
Maximum		5	5	5	5

Source: Author's Computation (2023)

Table 6: Estimate of OLS Regression Parameters on Significant Differences in factors influencing information technology deployment in the tax administration

Variables	**Coefficient**	**Std Error**	**t-value**	**P>/t/**
DORF	2.410233	0.6931743	2.94	0.003
PEITU	2.213135	0.7392618	2.64	0.004
TICITD	0.4848503	0.5493408	3.65	0.002
LI	0.7399468	0.8337279	1.39	0.168
EB	0.9279311	0.5187859	2.79	0.001
Constant	41.54363	3.046533	3.64	0.000

Prob>F= 0.0001	**R-squared= 0.7661**	**Adj R-squared =0.7443**

Source: Author's Computation (2023)

Correlation Analysis of Relationship between Information Technology Deployment and Tax Administration Efficiency in Oyo State

The correlation analysis conducted to explore the relationship between Information Technology (IT) deployment and Tax Administration Efficiency (TAXAE) in Oyo State yielded compelling findings. The correlation coefficients between TAXAE and key IT components, including Online Tax Payment System (ONTPS), E-tax Filling (ETF), Tax Identification Number (TIN), and Mobile Payment System (MPS), were consistently high, approaching unity. Importantly, the results of Pearson Product-Moment Correlation Coefficient (PPMCC) presented in Table 7 revealed that Information technology variables such as E-tax Filling (ETF), Tax Identification Number (TIN) were positively and significantly corrected to Tax Administration Efficiency. Collectively the results $r = 0.978; 0.947; 0.973, P < 0.05$) indicate that there a significant relationship between Information technology deployment and Tax Administration Efficiency. Thus the null hypothesis was rejected while alternative hypothesis accepted showing that there is significant relationship between Information Technology (IT) deployment and Tax Administration Efficiency.

Table 7: Correlations Analysis Between Information Technology Deployment and Tax Administration Efficiency

			TAXAE	ONTPS	ETF	TIN	MPS
Spearman's rho	TAXAE	Correlation Coefficient	1.000	.978**	.947**	.964**	.973**
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	100	100	100	100	100
	ONTPS	Correlation Coefficient	.978**	1.000	.920**	.946**	.971**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	100	100	100	100	100
	ETF	Correlation Coefficient	.947**	.920**	1.000	.902**	.927**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	100	100	100	100	100
	TIN	Correlation Coefficient	.964**	.946**	.902**	1.000	.952**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	100	100	100	100	100
	MPS	Correlation Coefficient	.973**	.971**	.927**	.952**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	100	100	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: Author's Computation (2023)

CONCLUSION AND RECOMMENDATION

The study concluded that all identified information technology deployment variables, including Demand for Online Registration and Fillings (DORF), Perceived Ease of IT Usage (PEITU), Technical Issues and Cost of IT Deployment (TICITD), Legal Issues (LI), and Expected Benefits (EB), significantly influence tax administration practices. Moreover, a positive relationship was observed between information technology and tax administration in Oyo State. Based on these conclusions, policymakers are advised to strategically invest in enhancing the functionalities and accessibility of key technological platforms such as ONTPS, ETF, TIN, and MPS. This recommendation entails continuous updates on taxpayers' education programs and streamlining the application processes to maximize their positive impact on tax administration efficiency.

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