Journal of Taxation and Economic Development ISSN 1118-6017 Vol. 21, Issue 2, September 2022

DIGITALIZATION OF TAX ADMINISTRATION AND PERFORMANCE OF KWARA STATE INTERNAL REVENUE SERVICE

Yusuf Alabi Olumoh
Department of Accounting and Finance, Kwara State University Malete, Nigeria
Email:olumoh.yusuf@gmail.com

Sanni Mubaraq
Department of Accounting and Finance, Kwara State University Malete, Nigeria
Email: mubaraq.sanni@kwasu.edu.ng

ABSTRACT

The growing investment in new information technologies has greatly promoted the digitalization of tax administration across the world. However, over the years, developing countries such as Nigeria have been confronted with the challenges of mobilization of tax revenue due to primitive manual tax administration systems resulting in tax evasion, corruption, leakages, and tax fraud. This study, therefore, investigated the impact of digitalization of tax administration on the performance of Kwara State Internal Revenue Service (KW-IRS). The specific objectives of this study were to: (i) examine the extent to which e-tax registration influences the performance of KW-IRS), and (ii) determine the impact e-tax payment on the performance of KW-IRS. This study employed a quantitative cross-sectional survey research design and used a random sampling technique to select 292 respondents from both the demand and supply sides. The study employed PLS-SEM technique for quantitative data analysis. Findings revealed that: (i) e-tax registration has significant positive influence on revenue performance (β= 0.198, = 0.660, p= < 0.05, (ii) e-tax payment has significant positive impact on revenue performance (β = 0.249, t = 2.655, p = < 0.05) implying that e-tax registration and e-tax payment have significantly improved revenue performance. Based on findings, this study, therefore, recommended that KW-IRS should further scale up the use of digital tools in all tax streams as well as a robust electronic tax audit to track the payment pattern of taxpayers.

Keywords: digitalization, e-tax payment, e-tax registration, performance, tax administration

JEL Classification: H20, H27, H29

1.0. INTRODUCTION

Performance measurement of government revenue agencies depends on their objectives, results, and goals vis-à-vis tax technological innovations employed, as they are saddled with the responsibilities of generating revenue for the provision of infrastructural facilities and other essential services to citizens. The revenue agencies are usually proclaimed to be efficient based on the amounts of revenue generated for the government but this raised serious concerns because aside amount of revenue generated, the performance of tax

revenue agencies can also be measured in terms of cost, tax compliance rate, quality of e-service delivery, elimination of tax evasion and tax fraudulent activities, number of taxpayers captured in the system (Deloitte, 2015; Cheboi & Bruce, 2021).

In developing countries, revenue generation has become a huge challenge considering the high level of corrupt practices resulting in reducing the volume of revenue collection. For example, Nigeria's tax to Gross Domestic Product (GDP) ratio was 6.3% as at 2018 being the lowest among 30 African countries. It is lower than the average of 16.5% (by 10.2%) compared to Seychelles which had the highest tax-to-GDP ratio of 32.1% compared to the Organization for Economic Co-operation and Development (OECD) 34.3% benchmark. This translates that revenue tax performance in Nigeria has not been encouraging compared to other African OECD countries in 2020 (Obafemi, Araoye & Ajayi, 2021).

Although, some State Internal Revenue Services in Nigeria including Lagos, Kwara among others, have been doing well in the area of revenue generation reported since 2017 till date as a report from the National Bureau of Statistics (NBS) (2020) showed that Kwara State Internal Revenue Service (KW-IRS) internally generated revenue (IGR) has grown from N23 billion as at 30th September 2018 to N30.7 billion as at the end of the year 2019, while a further huge sum of N57.2 billion between 2020 and first quarter of 2021, the revenue figure increased by 52% (NBS, 2021). This figure is the highest ever collected by the agency since its inception and it is a reflection of the relentless efforts of the service in bringing seamlessness to tax administration through digitalization.

Historically, the digitalization of the tax administration system was introduced about 30 years ago in the United States of America by the USA Internal Revenue Services (IRS) and was later extended to other developed countries like the United Kingdom, Germany, France, Netherlands, Denmark, China, (Olatunji & Ayodele, 2018) and also has been adopted by developing countries like Nigeria, Rwanda, Tanzania, Uganda, Kenya, South Africa, Bangladesh where electronic tax registration and electronic tax payment and other e-services have been embraced (Olaoye & Ekundayo, 2019, Awai & Oboh, 2020; Chiboi & Bruce, 2021). In 2015, the Federal Inland Revenue Service (FIRS) partnered with the Nigerian Interbank Settlement System (NIBBS) to provide for the electronic payment of taxes in Nigeria. This is an automation of all tax processes from tax registration, assessment, and filing of returns to payment of taxes. The objective was to adopt an electronic system to make it easier to pay taxes online in major cities across Nigeria (Mustapha & Obid, 2015). Empirically, Oseni (2015) deduced that tax evaders will no longer have loopholes to hide with the usage of modern automated tax technology and systems because all the taxpayers have to make use of the tax system to declare all their transactions. In June 2017, the FIRS restructured the electronic tax system to operate nationwide by introducing six new electronic tax services (e-services) (Ire-Esema & Akinmade, 2017; FIRS, 2020). However, in a bid to improve tax revenue, the KW-IRS in 2017 in line with the Federal Government adopted the digitalization of the tax system. This digitalization of the tax system was effectively implemented, purposely in curtailing the loopholes, weaknesses, and problems associated with the manual system of taxation in KW-IRS, thereby eliminating physical contact between the taxpayers and tax officials and increasing her revenue generation.

Over the years, the Kwara State government has been confronted with the challenges of mobilizing internally generated revenue among the agencies prior to the adoption of the

digitalization of the tax administration system (KW-IRS, 2021). Lots of efforts were put in place by revenue agencies in Nigeria in order to curb corrupt practices, tax evasions and avoidance, tax leakages, and so on in revenue generation but most of these efforts have proved less effective to generate enough funds to cover government's budget expectations which the digitalization led to the deployment of tax digital tools such e-registration, e-payment and other e-services to aid tax revenue collection and performance (Adegbite, et al., 2019; Cheboi & Bruce, 2021).

As stressed by Azubike (2017) that there have been challenges faced by the tax administration agency which could not manage its taxpayers' information, identify their locations, and know whether they are active or inactive raised a series of the question about whether electronic tax registration adopted is effective and efficient in capturing a number of taxpayers in tax net so as to curb tax evasion. However, all efforts put in place by some revenue agencies proved less effective as evidence revealed in recent literatures that the electronic tax registration system (e-Registration) is ineffective in eliminating multiple taxation systems, curbing tax evasion, and cannot guarantee the prevention of taxpayers to declare under tax due (Kabaka, 2019). Eboibi and Richard (2019) also argued that the greatest threat to electronic tax administration in Nigeria is the activities of cyber criminals, who try to compromise the integrity of the tax revenue service portals. Electronic tax fraud (cyber tax crime) is a major challenge to the development and sustainability of electronic tax administration systems. This is done by stealing registered taxpayers' data from the agency's database (Victorova & Yevstigneev, 2018). This will have economic cost implications, as the economic and social impact of cybercrime is unquantifiable, and it is difficult to accurately assess its cost implications.

The electronic tax payment system like every other electronic tax system has its problems attributed to its adoption and implementation as identified by Awai and Oboh (2020) in their study, there is a lack of positive influence of electronic tax and tax-to-GDP ratio in Nigeria. In addition, it was identified that the fundamental problem of the uneasy nature of paying taxes in Nigeria through electronic means is due to many challenges which include: the lack of a fully automated system, poor access to the internet, and unawareness of the system, low computer literacy level most especially in the rural area, and perception to change since the system is new. This system implies that taxpayers may not be interested in using the application due to its shortcomings they may therefore be strict with the existing system.

Notwithstanding the above, few studies have been carried out on the digitalization of the tax administration system. Chiamaka, Obinna, Friday and Oraekwuotu (2021), Adeghi and Akinyemi (2020), Onuselogun and Onuora (2021) examined the relationship between the electronic tax system and internally generated revenue in Nigeria's emerging economy. John and Iyidiola (2019), Otekunrin, Nwanji, Eluyela, Inegbedion and Eleda (2021) conducted studies on the electronic tax system in Nigeria. However, no attention has been placed on the digitalization of tax administration and the performance of revenue agencies in Kwara State and a study on electronic registration was very rare. Hence, this study filled the gap by examining the digitalization of tax administration on the performance of KW-IRS. To achieve this, the following hypotheses are formulated.

$H0_1$: Electronic tax registration does not significantly influence the performance of Kwara State Internal Revenue Service;

$H0_2$: Electronic tax payment has no significant impact on the performance of Kwara State Internal Revenue Service.

2.0. LITERATURE REVIEW

This section discussed the conceptual review of key concepts related to this study based on the evidence available in the literature, the theoretical framework as well as empirical review bed rocking the study.

2.1. Conceptual Review

The section dug into numerous concepts and issues which are relevant to the subject matter. The concepts of digitalization of tax administration and performance of revenue agency are explicitly explored to variables of interest in clear terms.

2.1.1. Digitalization of Tax Administration

Digitalization of tax is a very important aspect of the tax administration system. According to PricewaterhouseCoopers (PwC) (2017), Digitalization of tax administration is the process of assessing, collecting, and administering the taxation process via electronic media or the internet. Che-Azmi and Kamarulzaman (2014) also see the digitalization of tax administration as the process of collection and administration of tax procedures through an electronic medium. According to Li, Bao, Hu and Zerbino (2020), the digitalization of tax administration means a change in the functioning of tax administration under the effect of the extensive use of modern technologies and intelligent devices, the Internet, and the development of e-Government.

According to Ruth and Jay (2020), the digitalization of tax administrations includes taxpayers' registration, filing, compliance and audit, payment, and disputes, as well as broader taxpayer services and user experience all these are to be done electronically. Tax digitalization generates more timely, accurate, and detailed data for more effective decision-making (Alm & Kasper, 2020). According to Federal Inland Revenue Service (FIRS) (2021), when analyzing taxation of the digital economy in 2021, there are various electronic services (e-services) to ease tax administration and tax compliance by taxpayers; electronic tax registration (e-registration), electronic tax identification number (e-TIN), electronic filing of tax returns (e-filing), electronic tax payment (e-payment), an electronic tax receipt (e-receipt), electronic stamp duty (e-stamping) and electronic tax clearance certificate (e-TCC), (also identified by Otekunrin et al., 2021; Akpubi & Igbekoyi, 2019).

According to Che-Azmi and Kamarulzaman (2014), an electronic tax payment system (e-payment) is one of the ways through which governments globally make use of information and communication technologies to enhance the provision of public services and the circulation of public administration information to the society. Electronic tax payments can be made by taxpayers with aid of the Nigeria Inter-Bank Settlement System (NIBSS) (FIRS, 2021). In Kwara State, electronic tax payment can be made by taxpayers or individuals using e-payment portal or quickteller or payarena or remital (KW-IRS, 2021), According to Okunowo (2015), electronic tax payment will increase revenue generation and for easy accessibility as tax payers can pay taxes from different locations and at various time.

FIRS/SIRS has an Information Communication Technology (ICT) department that provides support and customer care services to taxpayers and also with the main aim of increasing revenue generation and enabling voluntary acceptance of the system by taxpayers (Joseph, 2018)

Electronic tax Registration (e-registration), according to Deloitte (2017), is the registration of new taxpayers with the Internal Revenue Service electronically. Registering online is the fastest, cheapest, and most efficient way of registering for tax. An effective tax system encourages taxpayer compliance with registration obligations. Thereto the tax community should be provided with clear and comprehensive descriptions of the requirements that lead to registration and tax administrations should facilitate taxpayers to make the procedural requirements as easy as possible. Umenweke and Ifediora (2016) opined that electronic tax registration involves the acquisition of tax identification numbers by taxpayers. To obtain an individual taxpayer's identification number, the taxpayer must complete the relevant form that requires documentation of substantiating status and true identity for each individual (Wadesango, Mutema, Mhaka & Wadesango, 2018); Tikhonova, 2018). This documentation is to be mailed with the form to the address on the form. In line with this, the individual taxpayer identification number is issued after the documents and the information furnished are validated by the relevant tax authority (Mascagni & Santoro, 2018).

Electronic tax registration adequately serves the needs of taxpayers thus promoting compliance, reducing the number of unintentional errors, and is cost-efficient (Dollery, Kitchen, McMillan & Shah, 2020). However, tax administrations should also take measures to assure the completeness of taxpayer registration. Thereto it is necessary to establish a system whereby the tax administration is notified of all external events with tax implications: setting-up of businesses and companies, transfer of registered offices, the start of gainful employment for natural persons, changes of residence, and changes of activity.
To avoid misuse of registrants and false registrants the revenue agency might have developed policies and practices to detect and actively deregister those registered taxpayers who have become inactive and even more falsely registered persons who register intending to misuse their registration with the tax authority (Leijtens, 2019).

2.1.2. Performance

Performance is the rate of attainment of set targets that are aligned with the desired outcome. These targets comprise both objective and subjective indicators (Linda, 2016). Performance in the revenue authority requires the existence of a relationship between objectives, means, and results. Therefore, performance is the result of simultaneous exertion of efficiency, and effectiveness and is also expected to be transparent and accountable in terms of process (PwC, 2017; Suleiman, Ayoib & Norzalina, 2018). In the tax administration context, outcome or effectiveness is the degree to which institutional objectives of the tax authority are being achieved in the forms of taxpayer satisfaction, quality of services to the taxpayers, and taxpayer compliance rate. The performance indicators used by tax administrations can be grouped into three main categories - compliance, cost, and quality and service (OECD, 2006). For this study, the performance of revenue agencies can be measured by considering these metrics: cost; revenue collection, tax compliance level; quality of e-service delivery, tax evasion and tax fraud, and the number of taxpayers captured into the tax net.

2.2. Theoretical Framework

A theoretical framework designed for this study is based on Technological Acceptance Model. Technology Acceptance Model (TAM) was propounded by Fred Davis 1989 and was later modified as Unified Theory of Technology Acceptance by Venkatesh and Bala in 2008. Accordingly, the Unified Theory of Technology Acceptance helps users of electronic tax services (electronic tax registration and electronic tax payment) to understand the perceived ease and usefulness of electronic tax services can be used in influencing the performance of revenue agencies. The theory also explained the effectiveness of digital tax tools in registering all potential and protecting registered taxpayers' data from agency data based, simplifying the payment of tax and by this, the performance of revenue agency has been enhanced as a result of the quality of e-service delivery to taxpayers. These were predicted by TAM with aim of achieving the research objectives in this study. Electronic tax services would have positive impacts on revenue performance.

TAM predicts the acceptability of a technological tool will influence the organizational restructure (Köck, 2017). As emphasized in the research objective of this study is to examine the extent to which electronic tax registration impact revenue performance and to investigate the impact of electronic tax payment on revenue agency performance. Therefore, this theory supports the independent variable (electronic tax registration and electronic tax payment) as it explains tax agents use technology in this case e-services with the expectation of increasing revenue collection. It is simply because they found it useful and easy to use. If someone perceives technology to be useful for what they want to do for example in calculating something they would want to use it. The theory argues that the attitude of an individual is not the only factor that determines his use of a system, but is also based on the impact it may have on his performance. Therefore, even if an employee does not welcome an information technology system, the probability that he will use it is high if he perceives that the system will improve his performance at work.

2.3. Empirical Review

Previous related studies have found different results on the digitalization of tax administration and revenue agency performance. Hence, this section reviewed prior research evidence on the digitalization of tax administration practices (electronic tax registration and electronic tax payment) and their effects on performance which form the basis of this study's hypothesis

Gashenko, Zima, Stroiteleva, and Shiryaeva (2017) explored the impact of the usage of new technology on tax administration efficiency. The study used an ex post facto research design and employed secondary data to collect data. The data collected for the study were analyzed using descriptive statistics. The findings from the study revealed electronic tax system has a positive significance on efficiency. Key findings by Madegwa, Makokha and Namusonge (2018) revealed that the online process of automation of tax revenue collection influences the performance of tax authority. Similarly, Lokarach and Rugami (2019) established the influence of the i-tax system on the performance of Kenya Revenue Authority and the findings also indicated that automated system modernization, systems integration, taxpayer education, staff training, and performance were positively and significantly related.

In relation to the electronic tax system, in their study on the contribution of i-tax system as a strategy for revenue collection at Kenya Revenue Authority. Bett and Yudah (2017) found that online taxpayer registration, online tax return processing, online compliance and monitoring activities; and electronic tax payment have a significant contribution to revenue collection at Kenya revenue authority. Also, Monica, Makokha and Namusonge (2017) identified that most taxpayers strongly agreed that they were able to fully access and operate the tax system. Further findings revealed that employees' competence was a significant predictor of tax collection efficiency while taxpayers seeking clarifications on tax issues online is minimal.

In the aspect of electronic tax payment, empirical evidence showed the impact of e-payment system on the performance of revenue agencies. Olaoye and Atilola (2018) conducted a study on the effect of e-tax payment on revenue generation in Nigeria. The study used secondary data for the study and the data analysis was carried out using trend analysis, descriptive statistics of mean and standard deviation, and paired sampled t-test. The study found that there was an insignificant positive difference between pre and post value added tax revenue with t-statistics and p-value of 0.520 and 0.612 respectively. This connotes that e-tax payment has an insignificant positive effect on value added tax revenue in Nigeria. Olurankinse (2018) evaluated self-assessment, electronic taxation payment systems, and revenue generation in Nigeria. The study used secondary data to elicit information. Pearson's product moment correlation coefficient statistical tool and regression analysis were used to test the hypotheses. The study's results of the analysis revealed that there was a significant relationship between self-assessment, e-taxation payments systems, and revenue generation.

Contrarily, Munyao (2020) examined the effectiveness of electronic payment systems on the revenue performance of the hotel industry in Kenya: the case of Sarova hotels. The findings revealed that there exists a significant relationship between e-payment benefits and revenue performance. Furthermore, Onuselogu and Onuora (2021) examined the effect of e-tax payments on revenue generation in Nigeria. The study applied secondary data obtained from the Federal Inland Revenue Service tax report and CBN Statistical release and Quarterly Economic Reports. The data used were secondary and covers the period from the first quarter of 2012 to the second quarter of 2018. The data collected were analyzed using the Ordinary Least Square Method. The results showed that e-company income tax payment has an insignificant positive effect on revenue generation in Nigeria at a 5% level of significance. The positive effect means that increase in e-company income tax payment will increase revenue generation in Nigeria. Whereas e-capital gain tax payment has a negative impact on revenue generation; the negative effect implied that a decrease in e-capital gain tax payment will decrease revenue generation in Nigeria.

In their case, Chiamaka, Obinna, Friday and Oraekwuotu, (2021) examined the effect of the electronic tax system on the internally generated revenue in the Nigerian emerging economy, using Ebonyi State board of internal revenue as the case in point. The study used primary data. A quantitative cross-sectional survey data was employed by the researchers for the study. Findings reveal that out of the major variables examined, electronic tax registration and electronic filing of tax returns affect internally generated revenue in Ebonyi State and by extension, the Nigerian emerging economy. Electronic tax payment does not statistically show a significant effect on the internally generated revenue of the state. In their own opinions, Gadenne, Nandi, Das and Warwick (2022) investigated the effect of electronic

payments technology on firms' tax compliance in India. The study used an ex post facto research design and secondary data was used to gather the data. Descriptive statistics and content analysis was used to analyze the data. The study found that electronic tax payment has a positive effect on tax compliance which implied that the greater use of electronic payments leads to firms reporting more sales to the tax authorities.

3.0. METHODOLOGY

Based on the nature of the study, the study employed a quantitative cross-sectional survey research design to collect data from target respondents to provide answers to the research questions raised in the study. The basis for using a cross-sectional survey research design was deemed to be appropriate for the study because it involves target sample respondents' perceptions and attitudes to be generated through copies of standardized questionnaires distributed to them. Given the above research design, the population of the study can be described to be bi-structure. On the demand side, a total number of 150 senior management staff and at the same time, 3,614 active registered taxpayers representing direct assessment for the state were also considered as relevant respondents.

From the sampling frame, the sample size of 108 was determined from 150 total populations of all senior management staff using Krejcie & Morgan's (1970) statistical table sampling method of determining sample size, and a random sampling technique was adopted to select the respondents who were administered with the questionnaires. While the sample size of 360 active registered taxpayers was obtained mathematically through the use of Taro Yamane (1967) formulae and the respondents were grouped into various strata on the basis of their respective Local Govt. These two sample sizes selections were in agreement with Hill, Brierly and McDougall (2003)' idea that a sample size of one hundred and above is sufficient enough to make acceptable research findings. The respondents were grouped into various strata on the basis of their respective Local Government areas. After stratification was done, the researcher employed simple random sampling to select only taxpayers that are computer literate as respondents to be engaged in the study. This way a representative from each Local Government within Kwara Central Districts (Asa, Ilorin East, Ilorin South, and Ilorin West) was able to be picked.

The inferential statistics employed in testing the research hypotheses of the study was Partial Least Square - Structural Equation Modeling (PLS-SEM) technique using Smart PLS-3. PLS-SEM allows the integration of both latent and manifest variables through the specification of the two models: The structural model and the inner (measurement) model. Reliability and validity constructs were assessed using a measurement model. The structural model reflected the path hypotheses in the research framework.

3.1. Model Specification

In order to test the hypotheses of the study and to achieve the objective of this study, the model of Chiamaka et al., (2021) adapted from their study on the effect of the electronic tax system on the internally generated revenue in the Nigerian emerging economy: evidence from Ebonyi State board of internal revenue. The model of Chiamaka *et al*., (2021) was stated as;

IGRi = *f*(ETS)……..……..…3.1
Where:
IGRi = Dependent Variable: Internal Generated Revenue
ETS= Independent Variable: Electronic Tax System
ε= Error term
And since this study mainly focused on digitalization practices that may have influence on the performance of revenue agencies, the model was adapted and modified by replacing Internal Generated Revenue with performance. The model of Chiamaka et al., (2021) shown above was re-restructured for this study. In order to test the hypotheses of the study, the model of this study was a modification of the Chiamaka et al., (2021) model by introducing e-registration and e-payment and it has resulted in a final model as:

The model of this study is indicated below:

$PERFi = \beta_0 + \beta_1 EREG_1 + \beta_2 EPAY_2 + \varepsilon$.....*3.2*

Where, PERF = Performance, EREG =Electronic Tax Registration (e-registration), EPAY = Electronic Tax Payment. (e-Payment), $\beta 0$ = Constant coefficient (Coefficient of Intercept), $\beta_1 - \beta_2$ = Parameters of the estimate (path coefficient of the two variables.), ε = Error term, the *a-priori* expectation of the objective is β_1 and $\beta_2 > 0$. Conversely, the *a-priori* expectation of the study is that electronic tax registration and electronic tax payment should increase the performance revenue agency.

4.0 RESULTS AND DISCUSSION OF FINDINGS

4.1. Demographic Characteristics of the Respondents

This section showed the analysis of the response rate and demographic characteristics of the respondents. Out of the 468 questionnaires (Hardcopy and Online Questionnaires) distributed, the researcher was able to collect 296 questionnaires which represent 63% response rate as shown in table 4.1, based on the sample size as discussed under methodology.

Table 4.1: Analysis of the Response Rate

Target for Questionnaire	Distributed	Returned	Invalid	Valid & Useful
Senior Management Staff	108	70		70
Active Registered Tax Payers	360	226	4	222
Total	468	296	4	292
Percentage	100%	63%		62%

Source: Author's Computation, (2022)

The result in table 4.1 showed the response rate of the questionnaire administered. However, out of the three hundred and sixty questionnaires filled and returned, four of the questionnaires were wrongly filled and were thrashed out. This implies that two hundred and nighty two (292), 62% response rate, questionnaires were valid, hence constitute the basis of analysis for this study.

4.2. Descriptive Statistics Analysis

Items	Valid	Missing	Mean	Median	Minimum Value	Maximum Value	Standard Deviation	Excess Kurtosis	Skewness
EREG1	70	0	4.329	4	1	5	0.731	5.718	-1.731
EREG2	70	0	4.086	4	1	5	0.906	1.946	-1.350
EREG3	70	0	3.914	4	1	5	0.824	1.261	-0.777
EREG4	70	0	3.971	4	1	5	0.828	1.446	-0.873
EREG5	70	0	3.839	4	1	5	0.810	1.684	-0.989
EREG6	70	0	3.629	4	1	5	0.865	1.143	-0.815
EREG7	70	0	3.786	4	1	5	0.826	1.396	-0.973
PERF1	70	0	3.886	4	1	5	0.766	4.575	-1.552
PERF2	70	0	3.843	4	1	5	0.768	1.614	-0.686
PERF3	70	0	3.829	4	1	5	0.697	2.711	-0.787
PERF4	70	0	3.786	4	1	5	0.860	1.540	-0.804
PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188
PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188
PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188
PERF5	70	0	886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188
PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188
PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188

Table 4.2 Descriptive Statistics Results for Supply Side

Source: Author's Computation, (2022)

Table 4.2, showed the summary of descriptive statistics results for the demand and supply side were conducted separately in order to clearly show how the electronic tax registration and electronic tax payment practices affect performance on the attitude and opinion of the demand and supply side.

PERF5	70	0	3.886	4	1	5	0.803	1.510	-0.803
PERF6	70	0	3.900	4	1	5	0.796	1.716	-0.860
PERF7	70	0	4.143	4	1	5	0.833	2.190	-1.188

Where EREG1 to EREG7 indicates all the measurement indicators used for electronic tax registration (EREG) and PERF1 to PERF7 indicates all the measurement variables used for the performance of the revenue agency.

The mean and standard deviation for electronic tax registration and electronic tax identification number is depicted in Table 4.2 as a result of responses from the supply side (the senior management staff of KW-IRS) as respondents of this study. The result of the mean from Table 4.2, which is the average score of responses from respondents ranged from 3.629 to 4.329. This represents an acceptable value for the data obtained for the variable as the value of 3.629 is within the recommended value 3 and above based on Nik, Jantan and Taib (2010) interpretation of level of the score from likert scale questionnaire. They recommended that scores of less than 2.33 are low level, 2.33 to 3.67 are moderate level, and 3.67 and above are regarded as high level. Electronic tax registration has the highest mean score of 4.329 with a standard deviation of 0.731. The maximum value of 5 and minimum value of 1 for all the variables represented strongly agree and strongly disagree. This implied that some respondents were strong opposition to some instruments employed for the variables while some were strongly in support of the statements raised in the questionnaire.
The Kurtosis and Skewness of a normal distribution presented in table 4.2 showed that those data distributed were normally distributed as the numerical values were within the range of -1 to + 1, and the data distribution was considered to be normal (Hair, Anderson, Tatham & Black, 1998) or within the cut of point of -3 and 3 (Covic, Pallant, Tennant, Cox, Emery & Conaghan, 2009).

Table 4.3: Descriptive Statistics Result for Demand Side

Items	Valid	Missing	Mean	Median	Minimum	Maximum	Std. Deviation	Excess Kurtosis	Skewness
EPAY1	**222**	**0**	**4.088**	**4**	**1**	**5**	**0.728**	**2.713**	**-0.931**
EPAY2	**222**	**0**	**3.950**	**4**	**1**	**5**	**0.740**	**1.817**	**-0.674**
EPAY3	**222**	**0**	**3.938**	**4**	**1**	**5**	**0.796**	**2.952**	**-1.098**
EPAY4	**222**	**0**	**4.325**	**5**	**1**	**5**	**0.848**	**1.375**	**-1.187**
EPAY5	**222**	**0**	**4.112**	**4**	**1**	**5**	**0.806**	**1.163**	**-0.794**
EPAY6	**222**	**0**	**3.763**	**4**	**1**	**5**	**0.711**	**1.594**	**-0.463**
EPAY7	**222**	**0**	**3.800**	**4**	**1**	**5**	**0.748**	**1.093**	**-1.379**
EPAY8	**222**	**0**	**4.325**	**5**	**1**	**5**	**0.818**	**1.877**	**-1.232**
EPAY9	**222**	**0**	**3.763**	**4**	**1**	**5**	**0.657**	**2.801**	**-0.781**
$PERF_c$	**222**	**0**	**4.900**	**5**	**4**	**5**	**0.300**	**5.524**	**-2.718**

Source: Authors computation, 2022

Where EPAY1 to EPAY8 indicate all the measurement indicators used for electronic tax payment (EPAY) and $PERF_C$ indicates the tax compliance used for the proxy performance of the revenue agency.

The result of the mean from Table 4.3 which is the average score of responses from respondents ranged from 3.763 to 4.900. This represents an acceptable value for the data obtained for the variable as the value of 3.725 is within the recommended value of 3 and

above based on Nik, Jantan and Taib (2010) interpretation of the level of the score from likert scale questionnaire. The highest mean score of 4.9 with a standard deviation of 0.3. The mean and standard deviation for electronic tax payment and tax compliance were depicted in Table 4.3 as a result of responses from the demand side (active registered taxpayers) as respondents of this study.

The Correlation Analysis Results

Each result from table 4.4 and 4.5 presented Pearson correlation matrix for all independent variables based on the sampled 70 supply side (senior management staff of KW-IRS) and 222 sampled demand side (registered taxpayers).

Table 4.4 Pearson Correlation Matrix of Demand Side

	EPAY1	EPAY2	EPAY3	EPAY4	EPAY5	EPAY6	EPAY7	EPAY8	EPAY9	PERFc
EPAY1	**1**									
EPAY2	**0.101**	**1**								
EPAY3	**0.074**	**0.207**	**1**							
EPAY4	**0.136**	**0.026**	**-0.062**	**1**						
EPAY5	**0.409**	**0.093**	**-0.067**	**-0.2**	**1**					
EPAY6	**0.137**	**0.12**	**0.04**	**0.211**	**-0.128**	**1**				
EPAY7	**0.216**	**0.275**	**-0.063**	**0.181**	**0.141**	**0.028**	**1**			
EPAY8	**0.246**	**0.213**	**0.05**	**0.118**	**0.134**	**0.047**	**0.045**	**1**		
EPAY9	**0.017**	**0.31**	**0.259**	**0.094**	**0.003**	**0.013**	**0.412**	**-0.042**	**1**	
Perfc	**0.326**	**0.259**	**0.079**	**0.422**	**0.305**	**0.182**	**0.301**	**0.489**	**0.197**	**1**

Source: Authors' computation (2022) using SmartPLS-3

From Table 4.4 showed that all independent variables were positively and negatively related to one another. Generally, results from the correlation analysis revealed that there were no multicollinearity problems as all the independent variables showed a value of less than the proposed cut-off point of 0.7 (Kennedy, 2008) neither exceed 0.5 (Gujarati & Porter,2010).

Table 4.5 Pearson Correlation Matrix of supply side

	EREG1	EREG2	EREG3	EREG4	EREG5	EREG6	EREG7	PERF1	PERF2	PERF3	PERF4	PERF5	PERG6	PERF7
EREG1	1													
EREG2	0.475	1												
EREG3	0.592	0.354	1											
EREG4	0.346	0.308	0.416	1										
EREG5	0.143	0.176	-0.108	0.184	1									
EREG6	0.261	0.132	0.176	0.404	0.031	1								
EREG7	0.14	0.044	-0.048	0.054	0.052	0.209	1							
PERF1	0.227	0.158	0.415	0.265	0.107	0.044	-0.061	1						
PERF2	-0.162	-0.145	-0.089	-0.164	0.278	-0.195	0.037	0.139	1					
PERF3	-0.226	-0.158	-0.3	-0.182	0.125	-0.224	0.16	-0.01	0.484	1				
PERF4	-0.183	-0.031	-0.086	0.152	-0.032	0.181	0.076	0.071	0.144	0.177	1			
PERF5	-0.082	0.19	0.309	0.124	-0.096	0.083	0.006	0.002	0.064	0.093	0.254	1		
PERF6	0.13	-0.008	0.161	0.039	0.151	-0.199	-0.076	0.356	0.325	0.124	0.198	0.228	1	
PERF7	0.111	0.003	0.143	0.234	0.206	0.252	0.169	0.361	0.057	0.018	0.362	0.089	0.108	1

Source: Authors' computation, (2022) using SmartPLS-3

From Table 4.5 indicated that all independent variables were positively and negatively related to one another. All correlation coefficients are significant at $p<0.01$. Generally, results from the correlation analysis revealed that none there were no multicollinearity problems as all the independent variables showed a value of less than the proposed cut-off point of 0.7 (Kennedy, 2008), as none of the variables were perfectly correlated; the highest correlation coefficient of 0.592 lies between EREG3 and ERER1

Inferential Statistical analysis
The inferential statistics were measured using the partial least square structural equation model (PLS-SEM) through the specification of the two models which are the measurement model and Structural model.

The Measurement Model Assessment
The measurement model was assessed for construct reliability and validity. The reliability of variables was assessed using Cronbach's Alpha, rho_A, and Composite Reliability (CR). The two types of reliability were important to a reflective model: internal consistency reliability and construct reliability. Cronbach alpha coefficient was used to measure internal consistency reliability while construct reliability was tested using composite reliability. Composite reliability is the assessment of the extent to which items in the construct measure the latent concept (Fornell & Larcker, 1981).

Table 4.6: Construct Reliability and Validity Analysis

	Cronbach's Alpha	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
EREG	**0.746**	**0.743**	**0.843**	**0.834**
EPAY	**0.719**	**0.896**	**0.8**	**0.84**
PERF	**0.795**	**0.789**	**0.819**	**0.766**

In Table 4.6, the minimum Cronbatch's Alpha and Composite Reliability (CR) recommended for PLS is 0.8 while 0.7 is the acceptable minimum value for Alpha (Oni et al., 2017). The analyses showed results of CR, Cronbach's alpha, Rho_A, and AVE for all the constructs in the research model have acceptable values for both the Cronbatch's Alpha and Composite Reliability assessments. The rho_A value returned was between the Cronbach's alpha and composite reliability (Sarstedt et al., 2017), The rho_A was found to be exceeded the threshold of 0.70, therefore, indicating good reliability (Henseler, Hubona, & Ray, 2016).

In relation to the validity of the measurement model, two tests of validity (accuracy) were conducted on the research instrument: convergent validity and discriminant validity assessment.

The results of the discriminant validity of the research model and all the constructs have a square of AVE value with asterisks greater than 0.70. Therefore, discriminant validity was established. The assessment of the correlations' heterotrait-monotrait ratio (HTMT) was used to examine the discriminant validity and the result showed the HTMT ratio of correlations with values lower than the (conservative) threshold of 0.85 or 0.9. Therefore, discriminant validity was established. Based on the results from the analysis, it could be concluded that the data collected for this study did not suffer from a collinearity problem as

the value of each indicator's Variance Inflation Factor (VIF) was less than 5. The collinearity test's result was good (Hair et al., 2014).

Table 4.7: Analysis of Significance of Path Coefficient

	Fornell-Larcker Criterion				**Heterotrait-Monotrait Ratio (HTMT)**				**Inner VIF**
	AVE	EREG	EPAY	PERF		EREG	EPAY	PERF	
EREG	0.834	0.913*			EREG				1.127
EPAY	0.840	0.664	0.917*		EPAY	0.464			1.396
PERF	0.766	0.550	0.783	0.875*	PERF	0.758	0.713		

Source: Authors' Computation, (2022)

Assessment of the Structural Model

The structural model reflects the paths hypothesized in the research framework. Bootstrapping with 500 resamples was performed for the structural model of PLS-SEM estimation with aid of SmartPLS-3 (version 3.3.5). The path coefficient was presented in table 4.7 below:

Table 4.7 showed the path coefficients of the model and their respective level of significance. Accordingly, electronic tax registration numbers (EREG) and electronic tax payments (EPAY) showed a significant positive effect on revenue performance. The evidence implied that the practices of the two electronic tax services provided explained to a great extent variation in the revenue performance of KW-IRS. Following the structural model, the hypotheses of the study were conducted. Thus, the first null hypothesis is:
"

H_{01}: Electronic tax registration does not significantly influence the performance of the Kwara State Internal Revenue Service. The result in table 4.8 revealed that electronic tax registration (EREG) has a positive and significant influence on the performance of Kwara State Internal Revenue Service as shown by (β=0.198, t= 0.660, p <0.05). This result leads to the rejection of the null hypothesis which state that electronic tax registration does not significantly influence the performance of Kwara State Internal Revenue Service and consequently acceptance of the alternative hypothesis.

H_{02}: Electronic tax payment has no significant impact on the performance of the Kwara State Internal Revenue Service. The result in table 4.8 showed that electronic tax payment (EPAY) has a positive and significant impact on the performance (PERF) of Kwara State Internal Revenue Service as shown by (β = 0.249, t = 2.655, p <0.05). This result leads to the rejection of the null hypothesis which states that electronic tax payment has no significant impact on the performance of Kwara State Internal Revenue Service and hence, acceptance of the alternative hypothesis was considered. This implied that the electronic tax payment system is efficient in improving revenue generation in the state and taxpayers are already aware of electronic tax payment it has proven that it ensured simplicity and convenience in making tax payments which have been complied with by taxpayers.

4.3. Discussion of Findings

This study examined the extent to which the variation in firm performance can be explained by the impact of digitalization of tax administration practices. From the empirical analysis and the hypothesis tested, the result showed that digitalization of tax administration practices (proxy with electronic tax registration and electronic tax payment) has a significant positive effect on the performance of Kwara State Internal Revenue Service.

Based on the results of hypothesis testing that has been carried out in line with the research objective, it proved there was a significant relationship between electronic tax registration and revenue performance. In a specific term, the assessment of the significance of path coefficient results indicated that electronic tax registration has a positive significant influence on performance (β=0.198, t= 0.660, p <0.05). This implies that the practice of electronic registration of taxpayers seems to have potency in enhancing the revenue performance of KW-IRS. Thus it could prove that e-registration is efficient to capture large numbers of taxpayers in the agency database so as to project the amount of revenue to be generated and reduce the cost of tax administration. The result of this study is in conformity with the findings of Bett and Yudah (2017), Cheboi and Bruce (2021), Chiamaka et al. (2021) but it was contrary to the empirical quantitative result of Kabaka (2019). In line with the technology acceptance model, this finding shows the effectiveness and efficiency of electronic tax registration in enhancing revenue performance and curbing tax evasion.

From the path coefficient table 4.7, the quantitative evidence revealed that electronic tax payment has a positive and significant effect on performance (β = 0.249, t = 2.655, p <0.05). This implies that there has been a level of awareness of electronic tax payment and efficiency in improving revenue generation in the state. Its quality of service delivery also enhances the revenue performance of KW-IRS positively. The finding is consistent with shreds of evidence provided by Adeghi and Akinyemi (2021); Onuselogu and Onuora (2021) but it disagreed with evidence from the study of Mekonmen (2021). The findings of this study could be explained by the technology acceptance theory that electronic tax payment has a direct positive effect on revenue agency performance in bringing about voluntary compliance in solving the problems of taxation in the state.

5.0. CONCLUSION AND RECOMMENDATIONS

Based on the empirical findings of the study, it is concluded that digitalization of tax administration practices has positive impacts on revenue agency performance in terms of cost minimization, increased tax compliance rate, quality of e-service delivery, elimination of tax evasion and tax fraudulent activities, increased in a number of taxpayers captured in the system and revenue generation with aid of digital tax tools: electronic tax registration and electronic tax payment system respectively.

Given that electronic tax registration has a positive influence on revenue performance as evidenced from the findings and conclusions. In view of this, that KW-IRS should further continue to educate business people on the usage and benefits of electronic tax registration systems to avoid overpayment of taxes and also, to ensure more taxpayers are captured into the tax net to generate more revenue. More so, the agencies should further ensure that more system deployed is effective enough to continue eliminating multiple taxation system in the state. Also, given that electronic tax payment has a positive effect on revenue performance as early concluded, KW-IRS should continue to ensure the use of electronic tax payment

systems in generating more revenues for the state and scale up a robust electronic audit so as to track the payment pattern of taxpayers. This will further help improve the levels of revenue generation in the state.

The study has contributed to knowledge and existing literature on the impact of digitalization of tax administration practices and the performance of Kwara State Internal Revenue Service through the following areas;

The study has contributed to knowledge through its concept and it has also added to existing concepts through its meaning, benefits to the taxpayers and tax revenue agencies as well as how its importance can be evident in a typical agency. A conceptual framework was also constructed by the author of the current study to show the relationship between the digitalization of tax administration practices and the performance of revenue agency.
This study has contributed to the existing literature through empirical findings and the findings revealed that the study was in accordance with other existing findings which are of the views that effectiveness and efficiency in electronic tax registration and electronic tax payment system are indeed the key e-tax services to eliminate the manual tax system and improve tax revenue performance as proved in the existing literature.

Theoretically, through theoretical contributions as the study conformed to the theory that has been reviewed. For instance, the theoretical framework is the unified theory of technological acceptance (UTAT). Based on the theoretical findings through theoretical reviewed in this study, it was discovered that the taxpayers from whom government revenue are derived, tend to register online as taxpayers and pay their taxes while tax agents were able to make use of electronic tax registration to capture more taxpayers' information and electronic tax payment to pay appropriate and correct tax dues as the tax digital tools become better than it used to be.
The study has contributed to existing policies in literature through recommendations made that the government should ensure the installation and operation of adequate high level digital tax tools will help to monitor the inflow of revenue collection so as to prevent leakages, diversions, tax evasion, and tax fraud.

The study has contributed to the existing literature by the findings that have evaluated; the implications of the findings, recommendations that have been made and future research should focus extensively on ways that can improve revenue performance by the government revenue agencies in Nigeria.

REFERENCES

Adegbite, T. A., Bojuwon, M., & Adegbite, A. F. (2019). The Impact of ICT on taxation: evidence from Oyo State. *Copernican Journal of Finance & Accounting, 8(4), 7-25.*

Adeghi, F. F., & Akinyemi, O. O. (2020). Electronic payment system and revenue generation in Lagos State. *Journal of Accounting and Financial Management, 6(1), 59-85.*

Akpubi M. D., & Igbekoyi O.E. (2019). Electronic taxation and tax compliance among some selected fast-food restaurants in Lagos state, Nigeria (taxpayers' perspective*). European Journal of Accounting, Auditing and Finance Research, 7(7), 52-80.*

Awai, E. S., & Oboh, T. (2020). Ease of Paying Taxes: The Electronic Tax System in Nigeria.

Azubike, J.U.B. (2017). Challenges of tax authorities, and taxpayers in the management of

the tax reform process. *The Nigerian Accountants, 1(2), 323 – 338. doi/10.1108/QRAM-022013-0003/full/html*

Bett, B. K., & Yudah, O. A. (2017). Contribution of i-tax System as a strategy for revenue collection at Kenya revenue authority, rift valley region, Kenya. *International Journal of Scientific and Research Publications*, *7(9), 389-396.*

Che-Azmi, A. A., & Kamarulzaman, Y. (2014). Adoption of Tax E-filing: A Conceptual Paper. *African Journal of Business Management, 10, 599-603.*

Cheboi, C., & Bruce, O. (2021). Effect of Technological Uptake On Pay as You Earn Tax Performance from Medium Taxpayers in Kenya. *African Tax and Customs Review*, 4(1), 21-21.

Chiamaka, E. O., Obinna, P. N., Friday, N. E., & Oraekwuotu, C. N. (2021). Electronic Tax System and Internally Generated Revenue in the Nigerian Emerging Economy: The Study of Ebonyi State Board of Internal Revenue. *International Journal of Academic Research in Accounting Finance and Management Sciences, 11(2), 123-149.*

Eboibi, F. E., & Richards, N. U. (2019). Electronic taxation and cybercrimes in Nigeria, Kenya and South Africa: Lessons from Europe and the United States of America. *Commonwealth Law Bulletin, 45(4), 716-741.*

FIRS (2021). Digitization of Tax Administration and Tax revenue statistics. Annual summary of collection from year 2000. FIRS. Retrieved from www.Firs-gov.ng.

Gadenne, L., Nandi, T., Das, S., & Warwick, R. (2022). "Does going cashless make you tax-rich? Evidence from India's demonetization experiment.

Kwara State Inland Revenue Service (2021) irs.kw.gov.ng retrieved on 12/15/21

Leijtens, V. (2019). The underlying dynamics of the institutional crisis of the Dutch Tax and Customs Administration: An unsupervised machine learning approach (No. 1152). EasyChair.

Mascagni, G., & Santoro, F. (2018). What is the role of taxpayer education in Africa? ICTD African Tax Administration Paper, 1.

Mekonmen, Y. (2021). Challenges and Opportunities Of E-Tax System In Ministry Of Revenue: The Case Of Medium Tax Payers'branch Office (Doctoral Dissertation, St. Mary's University).

Monica, F., Makokha E. & Namusonge, G. (2017). Effects of electronic tax system on tax collection efficiency in domestic taxes department of Kenya Revenue Authority (KRA), Rift Valley Region. European. Journal of Business and Management. 9(17), 51-59

Munyao, Y. K. (2020). The Effectiveness of Electronic Payment System on Revenue Performance in Kenya's Hotel Industry: A Case of Sarova Hotels *(Doctoral dissertation, United States International University-Africa).*

National Bureau of Statistics. (2020). Internally generated revenue. Available at: https://nigerianstat.gov.ng/elibrary?queries [search]=internally%20generated %20revenue

Obafemi, T. O., Araoye, F. E., & Ajayi, E. O. (2021). Impact of tax incentives on the growth of small and medium scale enterprises in Kwara state. *International Journal of Multidisciplinary Research and Growth Evaluation, 2(3), 11-19.*