KWARA STATE UNIVERSITY, MALETE, NIGERIA

SCHOOL OF POSTGRADUATE STUDIES (SPGS)

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

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19/27MAC/00011

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

A M.Sc. THESIS SUBMITTED

BY

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JANUARY, 2022

DECLARATION

I hereby declare that this thesis titled 'Digitalization of Tax Administration and Performance of Kwara State Internal Revenue Service, Nigeria' is a record of my research. It has neither been presented nor accepted in any previous application for higher degree.

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Signature / Date

APPROVAL

This is to certify that this thesis by Olumoh Alabi YUSUF, has been read and approved as meeting the requirements of the Department of Accounting and Finance for the award of the degree of Masters of Science (M.Sc) Degree in Accounting

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DEDICATION

This study is dedicated to the Almighty God, who has given me the strength and wisdom for this achievement.

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TABLE OF CONTENTS **Pages**

CHAPTER ONE: INTRODUCTION

CHAPTER TWO: LITERATURE REVIEW

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

LIST OF TABLES **Pages**

ABSTRACT

Over the years, Kwara State government has been confronted with the challenges of mobilizing internally generated revenue among the agencies prior to adoption of digitalization of tax administration system. Lots of efforts were put in place by revenue agencies in Nigeria in order to curb the corrupt practices, tax evasions and avoidance, tax leakages and so on in the revenue generation but most of these efforts have proved less effective to generate enough funds to cover government's budget expectations led to deployment of tax digital tools to aid revenue collection performance. By implication, the above challenges have driven the need for this study. Therefore, this study investigated the impact of digitalization of tax administration on performance of Kwara State Internal Revenue Service. With cross-sectional research design, this study employed a quantitative research approach to obtain survey data from randomly selected 292 of both demand and supply side in Kwara State respectively. The usable questionnaire were received from 70 senior management staff of KW-IRS and 222 of active registered taxpayers, and the quantitative data obtained was subjected Partial Least Squares-Structural Equation Model (PLS-SEM) analysis. Findings revealed that variation in performance of Kwara State Internal Revenue Service (KW-IRS) was attributed to tax digital tools: electronic tax registration (β=0.198, t= 0.660, p <0.05), electronic tax identification number (β = 0.454, t = 3.258, p <0.05) significantly influence performance while electronic filing of tax returns (β = 0.403, t = 0.546, p < 0.05), electronic tax payment (β = 0.249, t = 2.655, p <0.05) also have significant effect on performance. It concluded that, all variables of study, electronic tax registration, and electronic tax identification number, electronic filing of tax return and electronic tax payment had statistical positive significant relationship with revenue performance. This implies that digitalization has a positive and a statistically significant influence on revenue performance. The study recommended the following; that KW-IRS should scale up the use of technology (e-registration) in all tax streams to enhance tax revenue collection and performance, the concerted effort from the KW-IRS management to ensure continuous intermittent checks of all the platforms related to electronic tax identification number so as to prevent abuse and other fraudulent activities, KW-IRS should also ensure full automation of electronic filing of tax return and creating more awareness about its simplification. Finally, KW-IRS should further scale up a robust electronic audit so as to track the electronic tax payment pattern of taxpayers that may further help to improve the level of revenue generation in the state.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Performance measurement of any agency depends on its objectives, results and goals vis-à-vis tax technological innovations employed. Indeed, government revenue agencies are saddled with responsibilities of generating revenue for provision of infrastructural facilities and other essential services to citizens. Expectedly, Revenue performance of agencies are to be enhanced through deployment of tax digital tools to ease collection of tax revenue and elimination of loopholes and other challenges but this seems not to be so. The revenue agencies can be proclaimed to be efficient on the basis of the amounts of revenue generated for government raised serious concerns. Hence, performance of tax revenue agencies can 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 actually captured in the system and revenue generated (Deloitte, 2012; Cheboi & Bruce, 2021).

The rapidly increasing pace of technological change will have a significant impact, positive and negative, direct and indirect, on revenue performance. Digital technology, which includes telecommunications and computerized systems, looks set to increase tax processes substantially, with savings in time as well as money, while at the same time affording customers a better service. On the other hand, the human element is affected by technological changes in different ways, by making jobs more important for some, while posing a threat to others (Le, Bui & Nguyen, 2021). All the tax technological tools and data bases should be integrated and have available the tools required to combat tax evasion, leakages and tax frauds; facilitate tax compliance and satisfy information requirements at the operational and internal control levels for the effective management of a modern Tax Administration (Organization for Economic Co-operation and Development (OECD), (2016))

Many developed and developing countries around the world have surveyed and proven that no nation can truly develop without strategically digitalizing it tax administration system; therefore, a good effective tax administration system must be efficient enough to generating enough tax revenue needed for provision of essential infrastructure for the country (Chiamaka et al., 2021).

Revenue agencies across globe are not left out in this regard. According to the Organization for Economic Co-operation and Development (OECD) (2020), Denmark government tax revenue authority had the highest tax-to-GDP ratio of 46.3% in 2019 over took United State government revenue with tax-to-GDP ratio of 20% in 2018. Demark government recorded this success as a result of more tax administration restructure and deployment of digital tools in raising more revenues and solving the challenges of tax evasions.

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. Nigeria's tax-to-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 that had the highest tax-to-GDP ratio of 32.1% compare to OECD 34.3% benchmark. This translates that revenue tax performance in Nigeria has not been encouraging compare to other African OECD countries in 2020 (Obafemi, Araoye & Ajayi, 2021). It is quite depressing to reveal that the tax revenues have not had a meaningful contribution towards economic growth of Nigeria (Oladele, Aribaba, Adediran and Babatunde, 2020).

Although, some State Internal Revenue Services in Nigeria including Lagos, Kwara among others, have been doing well in area of revenue generation reported since 2017 till date, report from National Bureau of Statistics (NBS) (2020) showed that Kwara State Internal Revenue Service (KW-IRS) generated N7.2 billion in 2015, internally generated revenue (IGR) has grown from N23 billion as at 30th September, 2018

to N30.07 billion as at the end of the year 2019 a 97% increase while a further huge sum of N19.604 billion was generated in 2020 and the KW-IRS also announced a revenue figure of N9.59 (35%) in the first quarter of 2021 (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. This moved KW-IRS from 19th position on IGR collection since year 2015 to 10th position in the year 2021 in IGR ranking out of 36 States of the federation. This gesture implies that KW-IRS is effective and efficient in tax administration processes and revenue generation in the state and it is also effective in deployment of digital tools (e-tax services) in seamless tax administration practices and has been improving in revenue collections performance (KW-IRS, 2021). The deployment of information communication technology in the registration of taxpayers, the use of a taxpayer identification number, filing of tax return and payment of taxes will increase the capacity of the State Internal Revenue Service to deliver on its mandate (Cheboi & Bruce, 2021). It will also reduce human intervention in the payment of taxes and, by extension, checks the possibility of connivance of tax officials with fraudulent taxpayers to evade tax (Cheboi & Bruce, 2021; Nchuchuwe & Ojo, 2017). Currently, the world has become a global village and the interconnection between Africa and the rest of the world is the use of tax information technology in almost, every sector of its economy (Pwc, 2019).

Digitalization of tax administration system was introduced about 30 years ago. Electronic filing of tax return was first introduced in the year 1986 in United States of America by the USA Internal Revenue Services (IRS) in three cities and these cities include: Cincinati, Raleigh-Durham and Phoenix, where only five taxpayers from these cities prepared and filed tax returns electronically). This has now grown currently to the level that approximately one out of every five individual taxpayers is now filing electronically. This however, has been as a result of numerous enhancements and features being added to the program over the years. Today, electronic tax services (e-services) which include electronic tax

registration, electronic filing of tax returns and electronic tax payment have been extended to other developed countries like Australia, Canada, Italy United Kingdom, Chile, Ireland, Germany, France, Netherlands, Finland, Denmark, Sweden, Switzerland, Norway, Singapore, Brazil, Mexico, India, China, Thailand, Malaysia and Turkey (Olatunji & Ayodele, 2018; Kinyua, 2019). A country like Malaysia implemented the new tax system in 2005 through the internet, where a multi-stage tax is imposed on goods and services at every delivery point to the end user (Ajape, Afara & Uthman, 2017). Other developing countries like Nigeria, Rwanda, Tanzania, and Uganda have also embraced the automated electronic filing of tax documents and tax returns and some other electronic tax services (Olaoye & Ekundayo, 2019). The objective of tax automation in South Africa, Zambia, Ghana, Uganda and Tanzania was mainly to increase effectiveness and efficiency, increase tax collection and tax equality in the country (Afuberoh & Okoye, 2014; Kinyua, 2019), minimize delays in filing of tax returns and reduce operational costs (Aliah, 2020).

In Nigeria, the Federal Inland Revenue Service (FIRS) was given approval by the Federal Executive Council in December 2010 to procure, install and implement the Integrated Tax Administration System (Irefe-Esema & Akinmade, 207). The Integrated Tax Administration System was aimed at re-engineering and automating the FIRS/SIRS tax administration processes as well as the procurement, installation and deployment of the Standard Integrated Government Tax Administration Solution (SIGTAS) and hardware infrastructure. In 2015, the 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 the 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 on tax revenue, the KW-IRS in 2017 in line with the Federal Government adopted digitalization of tax system. This digitalization of 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 contacts between the taxpayers and tax officials and increasing her revenue generation. Electronic tax registrations (e-registration), electronic tax identification number (e-TIN) electronic filing of tax returns (e-filing) and electronic tax payments (e-payment) will provides convenience to taxpayers for tax assessment and payment (Adeghi & Akinyemi, 2020), provide adequate tax records for easy communication of information and efficiently minimize cost of administration so as to boost her internal revenue generation (Chiamaka et al, 2021).

Despite all reforms and tax revenue improvement mechanisms deployed by various state tax administrations in Nigeria, the problems of tax evasions, corruptions and technological attacks and challenges are at alarming rate. This causes discouragement of tax payers' perceptions towards electronic tax services provided by revenue agencies, as the internally generated revenue by government has no meaning contributions to the standard of living of citizens (Oladele et al, 2020), no quality infrastructure, security, quality health care, education and economic growth as identified by Cheboi & Ogaga, 2021). As such, this study investigated the impact of digitalization of tax administration practices and performance of revenue agency in Kwara State, Nigeria.

1.2 Statement of problem

As argued in the preceding susb-section that performance of revenue administration agencies are expected to be effectively and efficiently reflective on the basis of amounts of revenue mobilized for the government to cater for its obligations and quality of e-service delivery to its taxpayers. The need for improved revenue administration agencies' performance in taxation systems has heightened the clamor for modernization of tax systems across the globe, hence the increased adoption of digitalization of tax administration practices. Electronic tax systems such as tax digital tools, are computer-based revenue collection platforms that do away with the need for manual registration, filling and processing of tax returns, payments and other tax related services (Kabaka, 2019). Their ultimate goal is to increase revenue collection through reducing costs associated with compliance, minimizing tax leakages and reduce tax evasion.

In all efforts put in place by some agencies in Nigeria proved abortive as empirical evidence revealed in recent literatures that electronic tax registration system (e-Registration) is ineffective in eliminating multiple taxation system, curbing tax evasion and cannot guarantee 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 agency's database (Odume, 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.

Hence, the electronic tax identification number (e-TIN) has not been efficient and effective, as argued by Eze (2019), that the introduction of the electronic system with prospect to detect and prevent abuse and other tax fraudulent activities and imperfections of the tax administration practices has no positive significant impact in preventing tax fraud and avoidance. Also, Olaoye and Awe (2018) noted that despite

the government effort towards adoption of tax information technology to checkmate the activities of tax evaders, a lot of them are still being recorded every year. This translates that e-TIN may not prevent tax fraud and guarantee elimination of multiple taxation as promised. This new system will have cost implication in maintaining the system to ensure increasing tax compliance rate and quality of service delivery to taxpayers (Eze, 2019).

However, Mekonmen (2021) stressed that there have been numerous teething problems with the electronic tax filing (e-filing) system posing big challenges to revenue agencies in Nigeria, as complaints from stakeholders that some users were not aware of functionality and benefits of the e-filing system while some taxpayers critised that the system has negative effect as the slow network, system failure, the electric power supply interrupted which will eventually lead to erroneously submission of incomplete information (Maclver, Bell & Nedd, 2021). A widely and commonly recognized barrier to the application of the electronic system is the lack of internet security, some taxpayers specifically expressed that they would only use the e-tax filing system if tax agency could provide assurance that transactions over the internet can be carried out securely (Hussein et al., 2018; Tan & Foo, 2015). There is a risk implication that confidential information transmitted over the internet could be intercepted and stolen through cybercrime (Rifat, Nisha & Igbal, 2019; Narwal et al., 2019).

The electronic tax payment system like every other electronic tax systems has its problems attributed to its adoption and implementation as identified by Awai and Oboh (2020) in their study, that 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 the electronic means is due to many challenges which include: lack of fully automated system, poor access to the Internet, and unawareness of the system, low computer literacy level, and perception to change since the system is new.

The implication of this system is that taxpayers may not be interested in using the application due to its shortcomings they may therefore strict to the existing system.

Different few studies have been carried out on digitalization of tax administration system. Chiamaka, Obinna, Friday and Oraekwuotu (2021) examined the relationship between electronic tax system and internally generated revenue in the Nigeria emerging economy. Oladele, Aribaba, Adediran and Babatunde (2020) studied electronic tax administration and tax compliance in Nigeria. Olaoye and Kehinde (2017) examined the impact of information technology on tax administration with interest on Southwest, Nigeria.

In view of the above, this study aimed to investigate the impact of digitalization of tax administration practices on performance of Kwara State Internal Revenue Service, Nigeria.

1.3 Research Questions

The study seeks to provide practical answers to the following questions raised. The questions are

i. To what extent does electronic tax registration influence performance of Kwara State Internal Revenue Service?
ii. What is the effect of electronic tax identification number on performance of Kwara State Internal Revenue Service?
iii. What is the effect of electronic tax return filing on performance of Kwara State Internal Revenue Service?
iv. What is the effect of electronic tax payment on performance of Kwara State Internal Revenue Service?

1.4 Research Objectives

The main objective of this study is to examine relationship between digitalization of tax administration practices and performance of Kwara State Internal Revenue Service (KWI-RS), Nigeria.

To achieve this objective, the following specific objectives are to:

i. Examine the extent to which electronic tax registration influence performance of Kwara State Internal Revenue Service;
ii. Investigate the effect of electronic tax identification number on performance of Kwara State Internal Revenue Service;
iii. Evaluate the effect of electronic filing of tax return on performance of Kwara State Internal Revenue Service;
iv. Determine the effect of electronic tax payment on performance of Kwara State Internal Revenue Service.

1.5 Research Hypotheses

To provide answers to the research questions as well as achieve the objective stated, the following hypotheses were tested in the course of the study;

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

$H0_2$: There is no significant effect of electronic tax identification number on performance of Kwara State Internal Revenue Service;

$H0_3$: There is no significant effect of electronic filing of tax return on performance of Kwara State Internal Revenue Service;

$H0_4$: Electronic tax payment does not significantly have effect on performance of Kwara State Internal Revenue Service.

1.6 Justification for the Study

The substantial number of taxpayers in the State sees payment of tax as serious burden without corresponding benefits. It is therefore imperative for all revenue agencies of tax administration to innovatively device strategy by identifying the relevant technology and skill so as to increase the tax revenue collection. The research efforts in this area, as far as extant literatures in digitalization of tax administration are concerned seem very rare. To the best of researcher's knowledge, the few related empirical studies are related to the relationship between electronic tax system in terms of electronic tax registration, electronic filing of tax returns, electronic tax payment and internally revenue generated in Nigeria emerging economy (Chiamaka et al., 2021; Alimi & Didi, 2021; Ridwan et., 2021; Ajayi & Yidiat, 2021; Olaoye & Atilola, 2018; Adeghi & Akinyemi, 2020; Onuselogu and Onuora, 2021) with little or no research interest on the extent to which electronic tax identification number influence the performance of revenue agency.

Therefore, provision of empirical information through this study will be of immense benefits and help to the researchers in the academic field of knowledge, Policy formulation and managerial practice. The insight of the study has contributed to the existing body of knowledge on the impact of digitalization of tax administration practices on performance of revenue agency. It helps the existing literature as it fills the gap about what is not known of the effect of technology on revenue performance. Conceptually, the study examined the four digitalization of tax administration practices. By this, the study has added value to tax administration system. In addition, the study would empirically serve as a body of reference for further research on research topics related to digitalization of tax administration practices and performance of revenue agency, for future researchers to use .

For policy makers, The findings of this study will resuscitate the consciousness of Nigerian government on digitalization of tax administration systems and performance of revenue agencies in area of tax revenue generation. The findings will also, reveal strengths or weaknesses associated with the implementation of new technology and its benefits to the government revenue agencies in Nigeria, most especially, Kwara State Internal Revenue Service (KW-IRS) in particular. Additionally, the outcomes of the study will avail recommendations to the Kwara State Internal Revenue Service and other government revenue agencies in Nigeria, on the areas of digitalization of tax administration systems adoption required improvement in tax administration processes and innovations in the future so as to ensure that the agency is able to achieve its set revenue collection target over the respective financial years.

The findings of this study will be of practical interest to the managements, tax consultants and other stakeholders. The managers and others stakeholders may gain knowledge on the importance of the use of tax digital tools or electronic tax services practices deployed by the KW-IRS on collection of revenue and thus are be able to take advantage of it for better performance and, also a breakdown of the tax reforms already undertaken for both educational purposes and improving awareness and service delivery to the individuals/taxpayers.

1.7 Scope of the Study

The study focused on digitalization aspect of tax administration system in Kwara State, Nigeria. On this note, the policy and legal aspect of tax system in Nigeria are exclusive of the research efforts. The study was limited to digitalization of tax administration practices and performance of Kwara State Internal Revenue Service (KW-IRS). The choice of KW-IRS was based on the fact that, it was the first agency in Nigeria to receive two International Organization for Standardization (ISO) certifications (Pulse, 2020), and also, it has been one of the leading revenue agency in Nigeria, currently at 10^{th} position in IGR ranking among 36 states revenue agencies of the federation (NBS, 2020) and its seamless electronic tax

administration efforts day-in-day-out contributing to improvement in internally generated revenue (IGR) for the State, availed research opportunity of having target respondents from both the supply and demand side. At supply side, all senior staff management at KW-IRS are the target respondents; while demand side constitute active registered taxpayers at selected Local Governments; Asa, Ilorin-East, Ilorin-South and Ilorin-West Local Government located within the Kwara Central districts in Kwara State, because majority of registered taxpayers are within these local governments. The study focused on KW-IRS that has been practicing electronic tax administration system for a period of 2017-2021 in order to collect enough primary data which is relevant for this study.

1.8. Plan of the study

The study will be structured into five chapters. Chapter one will deal with the aspect of the study which includes background to the study, statement of the problem, research question, research objective, research hypotheses, justification for the study, scope and plan of the study. Chapter two will focus on the literature review dividing into three domains namely; conceptual review, theoretical review, and empirical review, as well as summary and gap. Chapter three will present the research methodology which will cover research design, population of the study, method of data collection, sample size and sampling techniques and source of data, method of data analysis, reliability and test and model specification. Chapter four will contain the data presentation, empirical analysis and interpretation of results. Finally chapter five will consist of summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

This chapter presents the theories relating to the objective of the study and looks into the review of the literatures on digitalization of tax administration practices and performance of revenue agency. It is

systematically arranged and discussed in the following order. The conceptual review, theoretical review, empirical review, theoretical framework and summary of the gaps identified in the literature review and conceptual model.

2.1 Conceptual Review

The study reviewed the concepts and relevant constructs based on the evidence available in the literatures. These concepts include digitalization of tax administration practices and performance of revenue agency.

2.1.1 Digitalization of Tax Administration Practices

Digitalization can be described, according to Katua (2019), as the process of transforming analogy data into binary electronic (digital state) (Katua, 2019). The tax administrations are becoming digital and today, more than ever before, tax administrations are managing information. This digitalization is producing vertiginous changes not only in the tax administration structures (Inter-American Center of Tax Administration (CIAT), 2020) but also in their main functions of collection, control, information and assistance, in the information systems and in the cooperation/collaboration resulting, for example, from the exchange of internal and international information (OECD, 2019; Michel, 2019).

Tax digitalization, according to Institute of Chartered Accountants in England and Wales (ICAEW) (2019), is more than just converting paper forms into PDFs, and upload on a government website, but rather it involves checking how taxpayers complete their filings, what is taxed, and how the authority can leverage powerful data pipelines to complete and audit taxes without a filing being made (Decman et al.,. 2019). Tax digitalization can also be used to identify non-compliant taxpayers for targeted audits; it reduces the rate of false positives, so that compliant taxpayers are less frequently subjected to the cost and inconvenience of a tax audit (Price Water Coopers, 2017). Tax digitalization improves tax payers' service by making compliance process easier, helpful customized advice and greater real-time transparency over

tax affairs. Therefore, Chen, Grimshaw and Myles (2017) stressed that digitalization can aid in reducing tax avoidance and evasion, by providing additional tools for analyzing tax data and catching omissions (also identified by Otekunrin et al., 2021)

Digitalization of tax is a very important aspect of tax administration system. According to Price Water Coopers (2017), Digitalization of tax administration is the process of assessing, collecting and administering the taxation process via an electronic media or internet. Che-Azmi and Kamarulzaman, 2014 also see digitalization of tax administration as the process of collection and administration of tax procedure 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.

Digitization of tax administration is a difficult task that requires radical changes in the way it is organized (katua, 2019). According to Chen, Grimshaw and Myles, (2017), digital technology implies a powerful tool of management, but tax administration's encounter with this mode of work has often proved to be complex, sometimes unsuccessful. Digitalization of this segment of tax administration is possible in several ways: through educating tax officials, recruitment, determination of their regular or special status (tax technologist) and, ultimately, performance measurement and the compensation and reward system (Katua, 2019). Increased digitalisation and the development of new analytical tools has significantly increased the efficiency and effectiveness of tax administration and has helped to reduce burdens to a greater or lesser extent for different taxpayer segments (Mehboob, 2020; Chen et al., 2017).

According to Ruth and Jay, 2020, the digitalization of tax administrations include 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 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), electronic tax receipt (e-receipt), electronic stamp duty (e-stamp duty) and electronic tax clearance certificate (e-TCC), (also identified by Otekunrin et al., 2021; Akpubi & Igbekoyi, 2019).

This component of modern tax information technology systems, dubbed the 'e-tax system', may include support for electronic registration, filing, payment, information dissemination, and other functions. With respect to compliance monitoring and enforcement, the 'compliance performance system' of modern information technology systems provides support to the tax administration's audit and collections function in collecting and managing information to target areas, where non-compliance poses greatest risks to revenues. In addition, as with any organization, the 'management information system' (MIS) component of the modern information technology solutions facilitates decision making by getting the right information to managers and staff (Jimenez & Kamenov, 2013).

E-registration is created to register new taxpayers with the Inland or Internal Revenue Service for the various taxes. E-filing enables taxpayers to file their tax returns through the FIRS' Integrated Tax Administration System (ITAS). E-payment now allows for payment of all Federal/State government taxes and levies through any of the following platforms; Nigeria Inter-Bank Settlement System (NIBSS), Remita and Interswitch. E-stamp duty is created if stamp duties need to be paid on qualifying documents. E-receipt now facilitates receiving and verifying e-receipts generated for taxes paid through the new e-payment. According to Delloitte (2017) e-TCC is the platform that enables taxpayers to apply for, receive

and verify the authenticity of their electronic tax clearance certificate. Electronic tax payment system is an Information Communication Technology (ICT) based architecture that assists governments globally to mop income from tax to provide public services needed for improving the standard of living of the citizenry.

Furthermore, according to Ruth and Jay (2020) a lot of benefit could be derived from digitalization of tax administration as Tax digitalization offers distinct value propositions for governments, businesses, and individuals. For government, digitalization of tax administration will Increased revenue at lower administrative cost, Increased transparency there by leading to reduced corruption and greater legitimacy, data led policy making and greater business; For business purpose, it will increase tax compliance, reduced time and resources dedicated to taxes, lead to greater transparency during tax cycle and increased use of technology after compliance; and for individual, it will reduced time and resources dedicated to taxes (e.g. advisor), increased institutional trust.

2.1.1.1 Electronic Tax Registration

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 acquisition of tax identification number by the 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. 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.

Electronic tax registration adequately serves the needs of taxpayers thus promotes compliance, reduces the number of unintentional errors and is cost efficient (Misra, 2014). However, tax administrations should also take measures to assure the completeness of taxpayer's 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, start of gainful employment for natural persons, changes of residence, 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 with the intention to misuse their registration with the tax authority (Leijtens, 2019)

The record-compilation function usually involves the task of allocating registration numbers to firms and natural persons liable to tax, allowing more accurate identification and better monitoring of their transactions (the number may thus be indicated not only on tax returns but also on invoices, letterheads, business letters). If possible, and especially if allowed by law, this number must be unique (social security number, national identification number) and be used by all administrations likely to administer some or all of the taxes (Moore, 2019; Annex, 2019).

2.1.1.2 Electronic Tax Identification Number

Electronic tax identification number (e-TIN), according to Olaoye and Awe (2018), is an electronic system for taxpayers' registration and it permits easy identification of taxpayers and is available for everybody.

Tax identification number is really a sequence of numbers which the Internal Revenue Service makes use of to identify taxpayers. Akinleye and Olaoye (2019) supported that the TIN number is actually a wide term that includes a number of types of identification numbers or submitting tax for individuals and entities. Tax identification number (TIN) is a unique number given to an individual, registered business or incorporated companies for the purpose of tax payment. TIN as fondly called is generated by the Tax authority for proper identification, order and ensuring that more people are brought to the tax net.

As cited in Olaoye and Awe (2018), Regulations to be noted for coming into possession of TIN by a company or business registered with the Corporate Affairs Commission (CAC), a properly completed application form of TIN and certificate of incorporation clearly indicating the registered number in each situation. The document includes the following essential details: the address of the company or business; the principal location of the business; the date of commencement of the business. Regulations for obtaining for obtaining TIN by an individual or business that is not registered with the CAC: a properly completed application form of TIN; any of the following legitimate identification documents include international passport, national identity card, staff identity card or national driver's license. TIN certificate will be sent automatically to registered email or hard copy can be picked at FIRS Office (Osemeke, Nzekwu & Okere, 2020).

According to Ebifuro, Mienye and Odubo (2016), tax identification number helps to accelerate the processing of information of taxpayers and also fosters enforcement, awareness and increase revenue generation. This is supported by Jocet (2014), who deduced that tax identification promotes agreement and coordination of taxpayers' identification system that is based on a mechanized system. The tax identification number connects the space between the information of taxpayers and the history of their payments thereby increasing their obedience level.

2.1.1.3 Electronic Filing of Tax return

Electronic Filing of tax returns (e-filing) refers to the process of filing of income tax return electronically via internet (FIRS, 2021). According to Tambun & Kopong (2017), e-Filing system is a way of delivering the notification letter through the online system and real time. Hence, taxpayers no longer have to stand in long queues to file income tax returns, as identified by (Alimi & Didi, 2021; FIRS, 2021).

Electronic Filing of tax return requires taxpayers to have an email address, log on to the website of the tax office and download the relevant form. Pertinent information must be filled such as taxpayer's name, address, identification number, exemption, income, tax credit/deduction, other taxes and payments, amount owed and so on. After filling the tax return form, the taxpayer signs the tax return forms using a self-selected identification number and files it using the tax office. Upon submission of the filled return form, the returned and entire electronic record is transmitted to the tax office for processing where free file is being utilized. An email is sent to the taxpayer as soon as the tax return is received. Subsequently, the tax return is assessed, with the taxpayer's tax calculated within 48hours. Where errors are detected, an error message is sent to the transmitter to correct and re-transmit the return to the tax office (Kwara Internal Revenue Service, 2021). Customized return forms have been devised by the revenue agencies which is available on the site of the departments. These forms have been devised with such details that tax payers need not file any supporting document along with. Electronic tax filing (e-filing) is a process where documents or tax returns are submitted through the internet, usually without the need to submit any paper return (as identified by Mururi & Kiarie, 2015). The e-filing system encompasses the use of internet technology, the Worldwide Web and Software for a wide range of tax administration and compliance purposes. Filing of tax return is submitted electronically at the site. (Zaidi, Henderson & Gupta, 2017). According to Ragupathi and Prabu (2015), there are two benefits of filing taxes; electronically over mailing in your return so that you will receive a tax refund sooner and your tax data goes directly to

internal revenue service (IRS) computers with a greatly reduced chance of human keying or document scanning errors. E-filed returns cost 20 times lesser than process which compared to a paper return that saves tax payers a lot of money. Electronic tax filing practice has increased the taxpayers' compliance level (Fu, Farn & Chao, 2006).

2.1.1.4 Electronic Tax Payment

According to Guttman (2003), e-payment is credit card information, or any other electronic means, as opposed to cash and cheque payments. Humphrey, Kim and Vale (2001) described e-payment as cash and related transactions carried out using electronic tools. This usually includes the use of computer networks such as the internet and the distributed digital value system. This method makes payment of bills directly from the online, without the use of cheques for writing and mailing. Delali (2010) described electronic payment as a mode of financial exchange between the buyer and the seller which is facilitated by electronic communication. Furthermore, Okifo and Igbunu (2015) stressed that electronic payment is an easy, safe and efficient way to pay bills and other transactions by electronic means such as card, telephone and internet.

In the view of Okifo and Igbunu (2015), Nigeria has two types of e-payment namely: an end to end processing and manual e-payment or use of mandate. The end-to-end processing is where all transactions are performed electronically, from approvals to the beneficiary's receipt of the benefit. Manual e-payment or requirement use, on the other hand, is a mixture of manual and electronic processes where the available infrastructures cannot accommodate end-to-end processing. Therefore, the electronic tax scheme in Nigeria remains a manual e-payment. Perhaps Nigeria's electronic tax system lacks the infrastructure and expertise to enforce these programs, or maybe taxpayers were hesitant to make full use of online capabilities (PwC & World Bank Group, 2018).

According to Che-Azmi and Kamarulzaman (2014) 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 payment can be made by taxpayers with aid of 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 are able to 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)

In summary, Umenweke and Ifediora (2016) maintained that the use of e- taxation in Nigeria is focused on six procedures including electronic registration (e-Registration), tax identification number (e-TIN) verification and issuance of electronic filing of tax returns (e-Filing), electronic tax payment (e-Payment), electronic confirmation issuance, and electronic tax refund. The guidelines for using e-taxation online were outlined by Umenweke and Ifediora (2016).

Electronic tax registration is the first stage where a taxpayer logs into the tax authority website for registration by filling the taxpayer identification form. This form makes available certain information about the taxpayer's name, business or employment details, age, marital status, place of origin, and other relevant details to be submitted electronically. The second stage is the issuance of tax identification number and verification. This stage is where the relevant tax authority verifies information supplied by the taxpayer. Upon verification and validation, a tax identification number is issued to the taxpayer. The tax identification number is unique to a person or business.

Electronic filing of tax return is the third stage where the taxpayer logs into the tax authority website with his/her unique tax identification number to file its tax return form properly and submit it electronically. Upon receipt of the tax return, the tax authority sends an acknowledged receipt by email to the taxpayer. The tax program analyses the tax return the taxpayer has filed and calculates the amount of money to be paid as tax. The fourth stage is the payment of tax: at this point, when the amount to be charged as tax is calculated, the taxpayer either goes to the income authority's designated bank to pay manually or to pay electronically by uploading the amount owing to the designated bank via its mobile banking app, internet or master/credit card. When the bank confirms payment, and warning is sent to the tax authority which then produces an electronic invoice.

Electronic receipt is the fifth stage in which the tax authority produces and issues an electronic receipt to the taxpayer as proof of payment informed by the collecting approved bank of the taxpayer's payment of the tax. The sixth stage is tax refund. The tax authority tests at this final point, when a taxpayer reports, whether the taxpayer has paid more than the amount due as tax. The taxpayer collects an electronic refund through his bank or the sum charged in excess is held by the approved collecting agency, on the tax authority's order to deduct for the next due tax payable. Digitalization has a wide range of implications for taxation, impacting tax policy and tax administration at both the domestic and international level, offering new tools and introducing new challenges (Kronberger, Dabrowski, Chacon & Bangert, 2020).

Electronic tools for managing taxes are devices and resources used to communicate, create, manage, and share information. They include hardware (computers, modems, and mobile phones), software (computer programs, mobile phone applications), networks (wireless communications, Internet) and they are basically concerned with the purpose of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations (Adewoye and Olaoye, 2014). It is a system that provides historical information on current status and projected information, all

appropriately summarized for those having an institutions or firms (Olatunji & Adigbole, 2013). Iwegbue, Obi, Emoyan, Odali, Egobueze, Tesi and Martincigh (2018) conceptualized that electronic system is useful in the area of decision making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in control. Adewoye and Olaoye (2014) stated that the future planning of electronic system is built using the following: people, data processing, data communication, information system and retrieval and system planning.

2.1.2 Tax administration

Tax is a compulsory payment made by individuals and organizations to the government in accordance with predetermined criteria for which no direct or specific benefit is received by the taxpayers, as cited by Etim, Jeremiah and Dan (2020). According to Afuberoh and Okoye (2014), the following are the features of tax: it is compulsory payment usually backed up by law, it is levied according to predetermined criteria, paid to government and not individual and it is for the common benefit of the citizens. It is obvious that countries, including Nigeria, impose taxes for a number of reasons. Government uses tax revenue as a means of financing government activities, reducing consumption of goods considered non- essential, reducing inequality in income distribution, ensuring price stability and helping to stimulate economic growth (Bassey, 2016). In his book, the wealth of Nations, Adam Smith laid down the basic cannons that should be observed by nations in fashioning out tax policies; these include equity, certainty, convenience and economy.

According to Kiser and Sacks (2011), the tax administration is therefore saddled with the responsibility of management of tax obligations specified by the tax law, identification of taxpayers, registration of taxpayers, tax assessment obligation, filing of tax returns, ensuring the completeness and correctness of tax returns and provision of other relevant services to taxpayers (also stressed by Wenzel & Taylor, 2003). Tax administration's primary task is to ensure that the right amount of tax is paid by the right taxpayer at

the right time, providing the government with the needed revenue to deliver goods and services as planned. An administration that achieves this task is effective. An administration that does so at a reasonable, minimal cost to the government is efficient. In addition, tax administrations are expected to impose minimal costs on taxpayers and maintain a business friendly and even-handed environment (Jimenez, Mac an tSionnaigh & Kamenov, 2013).

Tax administration in Nigeria is the responsibilities of the tax authorities depending on the type of tax under consideration. However, there are three tax authorities, namely: Federal Inland Revenue Service (FIRS); State Internal Revenue Service (SIRS); The Local Government Authorities (LGA). However, the organs of the Nigerian Tax Administration are: Federal Inland Revenue Service Board; State Internal Revenue Service Board; Joint Tax Board; Local Government Revenue Committee; Joint State Revenue Committee (ICAN, 2019). The enabling laws in respect of each type of tax will normally contain a provision as to the body charged with the administration of the tax. For this purpose, the various enabling tax laws are as follows; "Company Income Tax Act, Cap C21, LFN 2004, as amended, which imposes tax on the incomes of companies other than corporation soles and companies engaged in petroleum operations Upstream operations); Petroleum Profits Tax Act, Cap P13 LFN 2004, which imposes tax on the profits of companies, engaged in petroleum operations; Education Tax Act, Cap E4 LFN 2004, which imposes Education tax on the assessable profits of companies registered in Nigeria (Umaru & Masud, 2020)

Kwara State Internal Revenue Service (KW-IRS) is saddled with responsibility of collection of tax and all other forms of internally generated revenue on behalf of the Government. Type of taxes which are collecting by KW-IRS include, Personal income tax (such as Pay as You Earn (PAYE), Direct (self and government assessment), withholding tax (individuals only); Capital Gain Tax; Stamp Duties (Instrument Executed by Individuals); Pools betting, Lotteries, Gaming and Casino Taxes; Road Taxes; Business

Premises Registration and Renewal levy; Development levy (individuals only); Naming of street registration fee in state capitals; Right of Occupancy fees in State Capitals and; Rates in Markets where State Finance are involved (Kwara State Internal Revenue Service, 2021;Yusuf, 2020).

Although, all revenue payments are to be made into the Kwara State Government IGR Accounts through online payment platforms provided by the state: Remita, Quickteller, Payarena and other e-payment platforms (KW-IRS, 2021). KW-IRS's headquarters is in Ilorin, Kwara State, and area offices in all 16 local governments in Kwara State, Nigeria. It was established on June 22, 2015, when the Kwara State Government Law, 2015 (Law No.6 of 2015) was passed. The Kwara State Internal Revenue Service (KW-IRS) took over the responsibility of tax administration from old Kwara State Board of Internal Revenue which immediately became defunct (Abdulquadir, 2019; Aluku, 2021).

2.1.3 Performance and Performance Measurement

Performance is the rate of attainment of set targets that are aligned to the desired outcome. These targets comprise of 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, effectiveness and also expected to transparency and accountability in term of process (Pwc, 2017; Suleiman, Ayoib & Norzalina, 2018).

Performance measurement is an ongoing process of ascertaining how well, or how poorly, an organization is achieving its goals and objectives. In many tax administrations, performance is measured at all three levels, strategic; operational and individual level. Personal performance is measured against predetermined standards and objectives at the individual level; at operational level, consideration is given to output production and; at strategic level the health of organization at large is evaluated (William, 2010)

and there are clear linkages among them. For example, performance indicators for managers need to be consistent with and tied to performance targets at the operational level, and operational outputs should support the overall strategic direction for the organization. Some tax administrations will articulate only a few high level strategic goals (from 3 to 6), most often clustered around themes such as: improved compliance; a customer centered focus; organizational renewal; staff engagement; increased productivity; cost effectiveness; and return on investment (William, 2010).

Performance measurement systems can provide several types of information, including information about inputs, activities, outputs and outcomes (William, 2010). The IRS has three types of performance measures; outcome measures describe the intended result of carrying out a program or activity; output or quantity measures describe the level of activity that will be provided over a period of time; efficiency or quality measures capture skillfulness in executing programs, implementing activities and achieving results while avoiding wasted resources, effort, time and/ or money (Teresa, 2021)

Performance measurement encompasses achievements in the form of outcomes/effectiveness (Paul & Martin, 2003). Outputs are not usually valued in themselves but more for the outcomes they provide, for example what the customer values as the result of the activity (Anthony et.al, 2001).

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, qualities of services to the taxpayers, and taxpayer compliance rate. Tax authorities in the developed countries, such as the Australian Taxation Office (ATO) and the US Internal Revenue Service (IRS), have been measuring taxpayer satisfaction and quality of services to the taxpayers as their performance indicators for the outcome/effectiveness of the tax administration. Outcome/effectiveness can also be in the form of

employee attitudes towards the tax administration. The IRS, for example, includes tax employee satisfaction as one of the measures in its performance assessment framework (Muzainah, 2010).

Most performance indicators used by government organisations cover economy, effectiveness and efficiency. Economy is about keeping the cost low, efficiency is about getting the most or best output from available resources and effectiveness is about achieving the stipulated aims or objectives (Najwyższa & ksrevisionen, 2018).

The performance indicators used by tax administrations can be grouped into three main categories - compliance, cost and quality and service (OECD, 2006). For the purpose of this study, performance of revenue agency can be measured by considering these metrics: cost; tax compliance level; quality of e-service delivery, efficiency and tax productivity.

2.1.3.1 Cost as a Measurement of Performance

Performance of revenue agency can be measured through the cost of the tax administration and the efficiency of its operations. The costs and efforts associated with tax agency staff processing tax information (e.g., converting tax returns into electronic formats and processing requests to change an address) are likely to eventually be reduced as a number of these activities can be directly performed by individual taxpayers through interactive service delivery channels (ADB, 2014). The cost to the taxpayer could also be used as an objective and clear indicator of quality and service as it can be actually and measurably perceived by taxpayers (OECD, 2014).

Electronic system for tax filing returns and paying the due taxes, if accepted and implemented by most businesses and individual taxpayers, result in tangible advantages to both the taxpayers' and the government. The government achieve in the form of reduced operation costs such as costs

associated with submission, storage and handling of returns in addition to saving time which in turn boosts compliance. The taxpayer benefit from the system in the form of reduced calculation error a preparation and filing time (Odongo, 2016). As part of tax policy, a government may choose to encourage the use of electronic methods for many aspects of the economy. This may not only benefit the tax system, but also provide an incentive to move to more efficient methods for private enterprises. One particular area is e-invoicing. A standard electronic invoice format, for example, can reduce administrative costs for all companies using it. But without government involvement, it is hard to get momentum behind a particular format (Abdul & Idris, 2016). E-Government can also result in huge cost savings to governments and citizens alike, increase transparency and reduce corrupt activities in public service delivery.

Previous studies have categorized public service delivery in three groups: publishing, interacting, and transacting (Kumar et al. 2007). According to (Goolsbee, 2002) discussed the benefits of e-tax filing to service providers, which are the tax authorities. To the service provider, e-tax filing minimizes their workload and operational cost due to the submission of tax returns in a paperless environment. It also reduces the cost of processing, storing and handling of the returns (Mekonnen, 2021).

2.1.3.2 Taxpayer compliance rate as Measurement of Performance

Tax compliance is the degree of responsiveness of taxpayers to tax obligations (Oladele et.al, 2020). Tax compliance is perceived to be behavioural induced toward government actions on provision of basic infrastructural amenities. However, the determinants of tax compliance are: social psychological issues, political, industry, business and economic among others (Batrancea et.al, 2012; Oladele et.al, 2020).

Efunboade (2014) stated that introduction of tax week, filing tax returns, tax counseling, establishing tax electronic management system, regular auditing and examination, penalty provisions, tax education are capable of improving the taxpayer satisfactory level of revenue in developing countries through self-assessment.

Voluntary compliance can be enhanced when there is regular auditing and transparency on the part of government and tax authority, which is capable of improving revenue collection performance while, education, provision of services-oriented attitude, enacting stringent deterrents to non-compliance (Okello, 2014). The plan of action to achieve compliance with tax laws without cohesion and enforcement is vital in improving the revenue of tax authority (Appah & Ogbonna, 2014; Raphael et.al, 2020)

Strategically meeting taxpayers' needs through the provision of essential amenities, transparency and accountability and among others can induce voluntary compliance. According to Akintoye and Tashie (2013) the provision of infrastructural amenities, moral ethics, tax rate, tax accountability and confidence in government, the level of service delivery and the efficient system of tax payment in Nigeria motivated the voluntary compliance to pay tax by taxpayers.

Voluntary non-compliance has necessitated the compliance gaps in tax revenue of most states in Nigeria. Economic, demographic, social, institutional, individual factors as the determinant of voluntary tax compliance behaviour in self-assessment system in a country. Hence, that revenue generation in Nigeria is significantly affected by self-assessment compliance. Thus, an efficient compliance strategy increases revenue generation positively (Raphael, Mfon & Patrick, 2020**;** Appah & Ogbonna, 2014). According to (OECD, 2010), the extent to which compliance (e.g. filing, reporting and payment) as been improved as a result of revenue body activities would clearly be an indication of a revenue body's effectiveness. There are four basic tax compliance obligations of citizens and businesses that generally speaking must be administered by all revenue bodies in accordance with their respective tax laws: to register for tax

purposes; to file tax returns on time (i.e. by the date stipulated in the law); to correctly report tax liabilities and to pay taxes on time (Daniel, Faustin, Jonas & Uwamahoro, 2019)

2.1.3.3 Quality of e-services delivery as a Measurement of Performance

Revenue authorities should perhaps spend more time on improving the services it renders to the taxpayers and tax practitioners. It is conceptualized that better service quality management of the services rendered to taxpayers and tax practitioners might impact the trust in the tax authority and also influence tax compliance (Feld & Frey, 2002; Gangl et al., 2013; Meuhlbacher & Kirchler, 2010; Murphy, 2004).

Services rendered by revenue authorities could either be rendered through expensive labour intensive off-line channels or via less expensive electronic platforms (e-services). Improving the service quality of the e-services would increase the usage and reuse thereof. The Treasury Department of the United States reports annual savings of $78 million from the move from paper based to electronic tax services (United States Treasury, 2008). Electronic tax services, however, hold many more advantages for a government than just cost and human resource savings. Fewer error rates, increased compliance and freed resources that the government can use for more complicated tax cases and evasion, are just a few of these advantages(Connolly & Bannister, 2008). It is, therefore, evident that the adoption of the electronic tax service would be beneficial to the government. One of the major factors, which influence a person's decision to adopt e-services, is the quality of that service (Rotchanakitumnuai, 2008). Asubonteng and McClearly (1996), Hu, Brown, Thong, Chan, and Tam (2009) and Pinho,De Lurdis Martins and Macedo (2011) found that increased service quality also increases the intention to reuse the specific service.

E-service usage at tax authorities would not only reduce the costs for the tax authority, but effective e-services would also decrease the costs for the taxpayers to comply with their tax obligations. Many

taxpayers today resort to using tax practitioners to find some relief from their tax obligations. It is estimated that tax practitioners represent approximately4 million of the 6.3 million South African tax-paying taxpayers (SARS, 2007; Snyckers, 2006). However, tax practitioners charge for their services. The more onerous it is for a tax practitioner to deal with a taxpayer's tax obligations, the higher the charge for the service; therefore the higher the direct costs involved in collecting the tax (Madeleine, 2014)**.** Service delivery channels provide citizens and users with an option to access and avail of different services offered through a variety of communications delivery channels and delivery methods such as telephone, front office, web portal, SMS, and kiosks should be designed. Tax agencies should focus on creating multiple delivery channels so that citizens can have "channels of choice," depending on specific needs at specific times (ADB, 2014).

2.1.3.4 Revenue Collection as a Measurement of Performance

Revenue collection is very important for every government globally as it enables the government to acquire assets which are not liable to debt and which the government uses to develop its economy. So, revenue is collected by the government upon its citizens for support or for the purpose of facilitating the service delivery in a country (Aamir et al., 2011). The governments of any nations therefore collect revenue for investment, socio-economic development and growth at the grassroots (Olatunji, 2009) and service delivery. Thus collection of adequate revenue government is essential for economic development, growth, and improved service delivery at the state level (Clegg & Greg, 2010). So, sound revenue system for county governments is a vital pre-condition for the success in promoting efficiency in the service delivery and economic development at the counties (Ngotho & Kerongo, 2014).

For most developing countries, revenue collection goes hand-in-hand with economic growth and the revenue is the lifeblood for governments to deliver essential services and to make long-term investments

in public goods (Organization for Economic Co-Operation and Development [OECD], 2008). However, revenue collection in the developing countries like Nigeria, Kenya and other African countries has not always been as effective as it should be. They face various challenges in their revenue collection performance (Owuor et al., 2013), where counties are not able to collect sufficient funds to cover their budget expectations and thereby causing huge local revenue collection gaps (Onyango, 2013). Ismail (2013) indicates that the main challenges in revenue collection rotate around revenue collection system. The performance of revenue collection in County governments is deteriorated by corrupt practices issues which result into tax evasion through corruption by corrupt revenue collection officers (Balunywa, 2014). Completely avoiding tax evasion, ensure total revenue collection performance (high revenue collection compliance). Elimination of corruption would ensure that the county collects all the projected revenue and thereby increasing the revenue collection performance.

Though the major aim of revenue collection for most governments is to stimulate and guide the economic and social development of the country, there are several determinants for an effective realization of the exercise. As such governments of today are successfully implementing electronic tax services (i.e e-payment and e-registration) to overcome the challenges of the corruption earlier experienced by the former governments and therefore enhance optimal revenue collection. According to Balunywa et al. (2014), the use of information technology, such as e-payment, e-filing, e-registration etc., would considerably increase the revenue collection as it helps tracking noncompliant revenue payers. Thus, the implementation of tax digital tool is paramount in ensuring optimal revenue collection. Various ICT based revenue collection applications are available for use in the modern world today. These are simply referred to as tax digitalization (Ndunda, Ngahu & Wanyoike, 2015), integrated into revenue collection. The electronic tax system is intended to help the tax authority using it to eliminating or reducing and

minimizing corruption, and tax avoidance, by allowing taxpayers to pay their bills without having to actually move to the organization premises (Okiro, 2015)

2.1.3.5 Number of Taxpayers in the System as a Measurement of Performance

Taxpayers are important players in a country's tax system. Tax authorities world over have classified taxpayers as small, medium or large (Bett & Yudah, 2017). The categorization generally depends on the turnover, level of complexity and other specific categorization as per each tax authority. Small and medium taxpayers are grouped with the traditionally hard-to-tax group, which may also include large entities such as commercial farmers and retail outlets. Since, recent trends in tax administration reforms in developing countries often place large entities in a large taxpayer unit and roughly equate medium entities with TIN registered taxpayers, small taxpayers are automatically deemed to fall within registration thresholds. In general, Medium taxpayers are in the formal sector, are structured and have the capacity to keep records that conform to the accounting standards and corporate or tax laws. In contrast, Small Taxpayers mostly fall in the informal entities. They are not well structured and they may have genuine difficulty in keeping adequate records, more so using electronic filing of tax returns (Lokarach & Rugami, 2019).

According to Olaoye and Awe (2018), asserted that any person who has registered for and obtains a Tax Identification Number (TIN), technically qualifies as a small or individual registered taxpayer. One way of meeting its objective is to improve tax compliance by enhancing tax collection, compliance with filing of tax returns and bringing more taxpayers into the tax bracket through recruitment and registration of taxpayers. In order to enhance tax compliance, KW-IRS has heavily invested in technology since 2017. To achieve this KW-IRS has categorized its small, medium and large registered taxpayers (KW-IRS, 2021)

Revenue authority has introduced e-filing system known as electronic tax system. Through this system, a taxpayer is able to register as a taxpayer, file tax returns, make payments (through payarena), view ones ledger record, apply for and receive tax refunds, apply for and obtain through e-mail Tax Compliance Certificate (TCC), and even make follow-up on revenue agency audit queries (Alibraheem & AbdulJabbar, 2016).

2.1.3.6 Tax evasion and Tax Fraud as Measurement of Performance

Tax evasion refers to an intentional effort by people, corporate bodies, trust and other institutions to illicitly refuse to pay their tax and reporting true and fair value of their earnings by a means of evading (Edwin, 2007). Tax evasion is characterized as an intentional wrongful attitude, or as a behaviour involving a direct violation of tax laws, norms and ethics regarding citizenry obligation to escape the payment of tax. The intentional underreporting of income, as well as over-claiming of a tax deduction, is an obvious example of tax evasion (Adebisi & Gbegi, 2013). Soyode and Kojola (2006) define tax evasion as an intentional and conscious practice of not revealing full taxable income. It is a violation of tax laws in which the tax rate due by a taxable person is unpaid after the minimum required period (Temitope, Olayinka & Abdurafiu, 2010).

Tax evasion is clear evidence in a situation where taxpayers are reducing, making or proclaiming false statement about their liabilities on the revenue tax through exploiting ineffectiveness in the tax laws and regulations. However, tax evasion can be classified as fully evasion or partial evasion (Fakile & Adegbie, 2011). Partial evasion occur when individual or corporate entity under stated its earnings for the purpose of tax and declare low income. While fully evasion occur when the person or corporate entity qualified to pay tax but fail to register with tax authorities to enroll in the tax system. This act comprises, in specific, fraudulent tax reporting like declaring less earnings and overstressing deductions. In the face of law, tax

evasion is a crime and subject to execution by way of fine, imprisonment or even both in many countries of the world. Therefore, in a nutshell, tax evasion is representing illegal practices by taxpayer to escape his civic responsibility enforce by the law and generally accepted by the society or nation.

Olatunde (2007) identified that tax evasion is among the main social evils obstructing progress in developing nations and eroding the prevailing welfare of the public in developed markets in the world. This phenomenon has focused to an increasing thoughtfulness among scholars, international agencies, western countries and policy makers globally

The impact of e-government on the tax evasion level of any country can be investigated via two approaches: first, by analyzing the role that digitalization plays in increasing the transparency and accountability of public organizations. Within this context, Aggelidis and Chatzoglou (2009) supported that e-government is an essential component in the modernization of any government, functioning as a means to enhance and support good governance, accountability, and transparency and thus making the government more efficient and effective, which enables citizens to use government services much more easily. Therefore, digitalization implementation within public services has a positive effect on a country's corruption level (i.e., corruption decreases).

Implementing an e-tax system as part of e-government practices requires regulatory reforms that can make e-tax system more flexible, simple, and efficient. Another OECD (2007) report recommended some "best practice" tools for better regulation, with one of the recommendations stating that information technology is an important tool for diminishing manual burdens via simplification of procedures and data sharing. Therefore, using an e-tax system that includes e-filing and e-payment systems increases tax compliance and revenue performance (Night & Bananuka, 2019).

Tax fraud is defined, among other criminal acts, as when a taxpayer misappropriates tax deducted from other payments made to a creditor, such as a non-resident withholding tax or Pay-As-You-Earn (PAYE), or where a person knowingly provides false or incomplete returns intending thereby to evade both the assessment and payment of tax (Lekgau et al., 2019). In other words, tax fraud occurs when taxpayers do not pay their taxes or find illegal ways to avoid paying outstanding taxes. Tax fraud, therefore, being one of the factors impeding tax revenue in South Africa, Nigeria and other developing countries (Lekgau et al., 2019). The exploration of tax fraud is relevant for many reasons. Tax fraud reduces tax collection and tax performance within a country. It may lead to externalities such as an increase of alternative taxes, which leads to an increase in the tax burden of compliant taxpayers. Tax fraud can create misallocations in resource use whenever individuals make an effort to cheat on their taxes. It also leads to behavioral changes (for example, choices of hours to work) (Torgler, 2008). According to the association of Certified Fraud Examiners (ACFE, 2014), fraud implies to any unlawful actions characterized by dishonesty, disguise or abuse of trust. These actions are nor reliant on the use of intimidation or violence. Normally frauds are committed by persons and firms to acquire cash, assets or services through tax evasion thereby gaining some business advantage. Tax evasion can be committed by individuals working in firms or outside the organization. Tax evasion among the corporate firms causes a significant effect on the country's total revenue collection thereby negatively impacting on economy. According to Kanu and Okorafor (2013), to observe the strategies for mitigating tax fraud among large tax payers, the tax authority need to introduced integrated tax management systems to seal the loopholes that affect revenue collection.

2.2 Theoretical Review

Relevant theories relating to digitalization of tax administration practices and performance of revenue agencies were explained in order to give a clear picture on the relationship between the two variables. These theories were reviewed, and a theoretical framework was designed for the study. The theories include Technological Acceptance Theory; Theory of Planned Behaviour; Ability To Pay Theory; and Unified Theory of Technology Acceptance. The researcher discussed the originators of these theories, the philosophy behind the theories and their relevance to this study.

2.2.1 Technology Acceptance Model

This theory was propounded by Fred Davis 1989 and was later modified by Venkatesh and Bala in 2008. The technology acceptance model is an information system theory that models how users come to accept and used a technology. It focuses on modeling computer users and showing them on how they can accept and adopt a new technology. Technology Acceptance Model was designed to predict the technology adoption decisions of users. The assumption of this theory is based on users' acceptance of a computer system which is determined by only two components. The two components or factors that determine computer acceptance are the perceived usefulness and the perceived ease of use of the system.

The perceived usefulness is the degree to which a computer system user believes that using a particular computer system will enhance his or her performance (Davies, 1986; Opoku, 2020). In this case, For this reason, the effectiveness and efficiency of the usage of electronic tax payment (e-Payment) will reduce the stress of tax administrators and costs of collection, because the revenue agents do not need to visits the taxpayers before the taxpayers can make the payments via internets using his or her devices. And if this perceived by the taxpayers there would be an enhancement to performance of revenue agency. This theory is relevant to this study in the sense that the Technology Acceptance Model provides the bases for the adoption and implementation of the electronic tax payment system by the state internal revenue service, based on the assumption of its perceived usefulness on both the tax payers and tax agents.

The primary objective of the e-payment system is to solve the challenges of the traditional tax system which makes the State Internal Revenue Service the forerunner in the acceptance of the digitalization of tax administration practice mainly because it has a direct positive effect on their job performance in terms of efficiency, timeliness, accuracy and reliability. As for the tax payers, the perceived usefulness of the e-payment system will be the general ease of paying taxes in terms of accuracy, simplicity, convenience and trust in the tax system which will in turn bring about voluntary compliance, hence solving one of the major problems of taxation in the state.

The assumption of perceived ease of use on the other hand is however, a hindrance to both tax payers and tax officials who may feel they do not have what it takes to actually use the technology without much effort. This is mainly due to lack of technological exposure which poses a major threat to the use of e-payment system in emerging economy. On the other hand, the perceived ease of use of the system is how a user accepts and agrees that using an existing model is not costly. Therefore, it is not hard or difficult to understand the perceived innovation. In this model, consumers perceive a new service better than its substitutes. This is because they can easily experiment with the latest innovation and evaluate its benefits. In the tax administration system, the tax administrators believe that after electronic tax payment made by taxpayers, their performance will increase in term of revenue generation, reduction in cost, reduce corruption or eliminate tax avoidance and tax evasion through the digitalization. Therefore, perceived ease of use is a practical aspect that has an impact on performance of revenue agencies. And will also bring convenience to taxpayers without physically appear at revenue office before they can make payment. Hence, They digitalization of tax administration practice will ease the payment of tax via online which will be more convenient for taxpayers and eliminate long queuing at tax office.

Technology Acceptance Model has been widely criticised, despite its frequent use, leading the original proposers to attempt to redefine it several times. Criticisms of this theory include: its questionable heuristic

value; limited explanatory and; predictive power, triviality, and lack of any practical value (Chuttur 2009). Benbasat and Barki argued that the theory has diverted researchers' attention away from other important research issues and has created an illusion of progress in knowledge accumulation.

Furthermore, the independent attempts by several researchers to expand Technology Acceptance Model in order to adapt it to the constantly changing IT environments has led to a state of theoretical chaos and confusion (Benbasat & Barki 2007).

In general, TAM focuses on the individual 'user' of a computer, with the concept of 'perceived usefulness', with extension to bring in more and more factors to explain how a user 'perceives' 'usefulness', and ignores the essentially social processes of IS development and implementation, without question where more technology is actually better, and the social consequences of IS use. Lunceford argues that the framework of perceived usefulness and ease of use overlooks other issues, such as cost and structural imperatives that force users into adopting the technology (Lunceford & Brett, 2009).

2.2.3 Theory of Planned Behaviour

The theory of planned behaviour was developed by Icek Ajzen in 1985, for the purpose of improving the predictive power of the theory of reasoned action. The theory of planned behaviour is a psychological theory that links beliefs to behaviour. The theory maintains that three core components to be considered: attitude, subjective norms and perceived behavioural control, together shape an individual's behavioural intentions. The capacity of personal attitude and social norms to influence the behavioural intention of an individual is hinged on personal behavioural control that judges whether the action will be beneficial or harmful. If benefits are expected, there is a likelihood that the individual will act otherwise, the person will not take the action.

Based on the technology acceptance model (TAM) and the theory of planned behaviour, one can understand why e-filing can be an effective means of generating revenue for the government in Nigeria. The theory is relevant to the study because it is used to understand whether e-filing can be used to generate revenue for the government (Ajayi and Oyeniyi, 2021). A personal attitude such as ease of use and usefulness of the e-filing system serves as an important factor in determining whether the e-filing system will be used. Also, societal norms in the form of a legislative framework, organisational practice and general best business practices are important in influencing people to engage the e-filing service system. Where this framework does not exist, individuals are left to their free will without any persuasion to adopt the e-filing system. However, the final decision to use the e-filing system would thereby be determined by personal behavioural control of whether there are positive experience and judgment in using the technology. If the individual has poor experience in using the technology, there is a likelihood that the e-filing system will not serve as a means of generating revenue for the Nigerian government. In such a case, the existence of a strong legal framework has the possibility of engendering the culture and thereby influencing the attitude of taxpayer to further embrace the e-filing system.

Theory of Planned Behavior has been critized by the theory of efficiency. Although, the theory of Planned Behavior suggested the following considerations: attitudes, subjective norms, and perceptions of behavioral control are sufficient to predict intentions and behavior. Investigators have suggested a number of variables that might be added to the theory to improve its predictive validity. Among the proposed additions are desire and need, affect and anticipated regret, personal and moral norms, past behavior, and self-identity (i.e., the extent to which people view themselves as the kind of person who would perform the behavior in question).

2.2.4 Ability to Pay Theory

Ability to pay theory was propounded by Adam Smith in 1776. This theory was developed due to inadequacies in benefit and sacrifice theories of taxation. This is the most common established principle of equity or justice in taxation. It connotes that people should pay taxes to the government in line with their capacity to pay. The rich have greater ability to pay, therefore they should pay more tax to the government than the poor. It seems fair and reasonable that taxes should be imposed on an individual, based on his/her taxable ability. The establishment of TIN to promote the registration of taxpayers and tax administration without a functioning principle of equity and justice in taxation will minimize the efficiency of the reform. This is because citizens earning meager income will find the tax burden uneasy. Therefore, tax avoidance and evasion will be inevitable (Aguolu, 2001).

The assumption of this theory is to predict whether the introduction of e-TIN will bring about principle of equity and justice in new tax system introduced to ensure effectiveness and efficiency and reduce the non-compliance rate level, thereby improve the quality of service provided by Internal Revenue Service in the area of digitalization of tax administration system.

Some economists have critised the Ability-to-Pay-Theory, that such a system discourages economic success as it penalises those who earn the most. The ability-to-pay-principle is viewed by ctitics as a socialist ideal that hampers initiative and innovation in a free market economy. Some socialists also argued that, the threat of significantly larger taxes disincentivizes hard work- if making more money becomes unappealing. Instead, many would prefer a 'flat tax rate' or proportional tax system where everyone pays the same percentage in taxes.

2.2.5 Unified Theory of Technology Acceptance (UTTA)

The unified theory of acceptance and use of technology is a technology acceptance model formulated by Venkatesh and others in 2013. It is a user acceptance of information technology. The theory assumes user

intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs: performance expectancy; effort expectancy; social influence; and facilitating conditions. It aimed to elucidate the intents of the user on the usage of a system, consequent usage attitude and revenue collection system via technology. This theory is employed to classicalize acceptance and technology usage for revenue generation in the country. According to the theory, the direct determinants of usage behavior, attitude and intention are the first three while the fourth is the direct determinant of adopted behavior. This theory was postulated and established through a review and alliance of the constructed eight models that previous research had used to elucidate information on usage behavior (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory).

Considering the theory effectiveness on this research, taxation provides government with the funding compulsory needed to construct the infrastructure on which economic development and growth are depended; creates an enabling environment in which business is profitable and wealth is created; sharpen the procedure in which government activities are conducted, and plays a central and crucial tasks in mobilization of domestic resource as detailed in performance expectancy theory (Venkatesh, Morris, Davis & Davis, 2013). Agreeing to this theory, taxation shapes the region environment and thus promotes the nation economy, enhance investment and international trade through digitalization. Double taxation avoidance, efficient tax administration, and consistency and certainty of tax treatment are all important consideration for business which are easily accessed through Information technology (Tajudeen et al 2019)

Bagozzi critiqued the model and its subsequent extensions, stating "UTTA is a well-meaning and thoughtful presentation," but that it presents a model with 41 independent variables for predicting

intentions and at least 8 independent variables for predicting behavior," and that it contributed to the study of technology adoption "reaching a stage of chaos." He proposed instead a unified theory that coheres the "many splinters of knowledge" to explain decision making (Bagozzi, 2007). Van Raaij and Schepers criticized the Unified Theory of Technological Acceptance as being less parsimonious than the previous Technology Acceptance Model and TAM2 because its high R2 is only achieved when moderating key relationships with up to four variables. They also called the grouping and labeling of items and constructs problematic because a variety of disparate items were combined to reflect a single psychometric construct. (Van & Schepers, 2008).

2.3 Empirical Review

This sub-section concentrates on the review of previous empirical studies on the digitalization of tax administration practices and performance of revenue agency in Kwara State. These studies were divided into studies from developed countries, developing countries and studies conducted on Nigerian economy in order to bring out the gap clearly.

2.3.1 Studies on Developed Countries

In the developed countries different studies were carried out on digitalization of tax administration, for instance, In the United States (US), Carter, Shaupp, Hobbs & Campbell (2011) investigated the role of security and trust in the adoption of online tax filing. The study adopted research survey method to collect data for the study. The data were analysed using multiple linear regression analysis. The results of the study indicated that three factors from the UTTA model (performance expectancy, effort expectancy, and social influence) played a significant role in predicting taxpayers' e-filing intentions. In the same vein,

Pippin & Tosun (2014) examined electronic tax filing in the United State of America. The study used secondary data to source for the data from the IRS Statistics of Income (SOI) Division and additional demographic and geographic information from the Bureau of Economic Analysis (BEA), the Bureau of Labor Statistics (BLS) and the census bureau. The analyses were carried out using regression model. The result from findings revealed that the demographic, socio-economic, and geographic factors affecting electronic tax filing (e-filing) in the United States for the years 1999, and 2004–2007 and the growth in e-filing between 1999 and 2007. The further result of the study revealed that the diffusion of e-return has a significant impact on perceived attributes of e-return system, interpersonal communication channels, performance of related services, and extent of tax administration's promotion efforts

In their study, Zaidi, Gupta and Bagchi (2015) investigated the adoption electronic tax filing services in the United State of America. The study used a survey-based methodology to collect data from taxpayers. A structural equation modeling scheme was used to analyze the model. The results revealed that perceived ease of use is positively and significantly ($P<0.05$) associated with taxpayers' computer and web skills (H10) and taxpayers' satisfaction (H11). Subsequently, H10 and H11 are supported.

In Russian, Gashenko, Zima and Shiryaeva (2017) explored the impacts of usage of new technology on tax administration efficiency. The study used secondary data to collect data for the study. The study employed correlation analysis for data analysis. The findings from the study revealed that implementation of the new information and communication analysis as a tool for optimization of tax administration system reduces the level of tax evasion by the shadow economy.

In Romania, Fanea (2019), presented the impact of digitalization on fighting corruption and tax compliance in Romania. The study employed time series research design and descriptive statistical method

of data analysis was employed to analyse the data collected to achieve its objectives. The empirical result obtained revealed a positive relationship between digitalization and tax compliance in Romania.

Marcio (2020) conducted a study on information communication technology as a strategic tool to leapfrog the efficiency of tax administrations in United State of America. The study made use of secondary data and employed descriptive statistical method of data analysis to analyse the data. The results of the study revealed that tax compliance of taxpayers will reduce administrative and transaction costs and also improve the quality of the information included in the declarations and thus increasing revenue. Similarly, in France, Ihnatisinova (2021) evaluated the digitalization of tax administration communication under the effect of global megatrends of the digital age in Slovakia, France. The study used a mix of methods combining quantitative and qualitative analysis. The findings of this study revealed the global trends in terms of automation as well as new practical directions of using digital interaction in real time has no significant relationship with the quality of services delivery to taxpayers; and that some reports revealed that digitalization of tax administration does not increase tax revenue. The growing investments in new information technologies are mainly due to the simplification of tax registration and payment; there is improvement of communication between tax subjects and tax administration.

In Russia, Mikhaleva and Vochozka (2021) in their study of application of information technologies tax administration. Their findings revealed the developed and implemented advanced digital technologies have allowed raising tax administration to a quite high level; also argued that there is significant influence between technologies and tax administration; that the use of technologies has conceptually changed the approach of tax authorities to control and analytical work. Moshkova (2021) documented that the process of tax administration is distinguished by a high level of application of digital technologies for calculating and paying taxes. Further results revealed that there was a significant relationship between quality and efficiency of tax administration and digital technologies in Russia.

Also, In Czech Republic, Kolbenhayerova and Krizova (2021) investigated the effects of digitalization of tax administration on revenue generation. The study employed ex post facto research design and data were gathered through secondary source of data. Descriptive statistics adopted by the study to analyse the data. The results from the findings showed that there was no significant relationship between tax digitalization and revenue generation; that the digitalization has no effect on revenue generation in the country due to lately adopted mainly as a result of the problematic of situation of Covid-19 pandemic that people were not ready to comply with the system; lack of awareness; taxpayers were not really sensitized and fear over security internet issues. Further result also revealed that current status of digitalization of tax administration in Czech Republic in term of e-filing system is currently insufficient and ineffective in raising more revenue. Findings by Sobotovicova and Blechova (2021) suggested that majority of respondents perceive electronic filings in a positive way; saving of time was identified as the most significant benefit; followed by the availability of information and error checks; saving of costs was the last. The respondents evaluate electronic communication as more flexible, practical and easier.

Krieger (2021) examined the impact of digitalization of the tax administration on fair taxation through model theory in Czech Republic. The study adopted survey research design. The model was intended to mathematically derive the influence of various digitalization measures on the taxpayer's decision to behave fairly. The results from the findings revealed that the effect of the category of digital services and tax administration seems to be higher, the more complicated and confusing the tax laws appear to the citizen.

In Asian, Le, Bui and Nguyen (2021) explored factors influencing electronic tax compliance of SMEs in Vietman. The study employed survey method and primary data was used to obtain data from 402 SMEs, who are business taxpayers, was selected through a researcher-designed questionnaire distributed to the target respondents. The factor analysis was adopted to analyse the data using Cronbach’s alpha coefficients were calculated, exploratory factor analysis was used. The results from the findings revealed

that electronic tax compliance is significantly affected by the perception and psychology of SMEs. Furthermore, The analysis of the results showed that the perception of electronic tax helps to quickly declare tax and save time on tax declaration compare to the previous study.

2.3.2 Studies on Developing Countries

Magutu, Lumumba and Onsongo (2010) examined the effectiveness of electronic tax registers in processing of value added tax returns in Kenya. The study used primary data to collect data through the questionnaires while secondary data was obtained from the KRA regional office. Analysis of data was mainly done using descriptive statistics. The results from the study revealed that Kenya has witnessed significant changes in many aspect of economy over the last decades. Further findings also revealed that electronic tax registers (ETRs) have enhanced the revenue collection resulting from sound sales and stock audits; finally, it was found that the use of ETRs was not a waste of funds and has assisted the business in many ways. Similarly, Mugo (2013) assessed the effect of electronic tax registers in value added tax administration in Kenya. The study used primary and secondary data. The primary data was employed using stratified random sampling. The main instruments used in collecting primary data were questionnaires. Secondary data was also used to augment primary data. The data collected was analyzed using descriptive statistics like percentages, standard deviations, frequency. From the research findings of the study it was identified that introduction of ETRs has greatly enhanced collection and filing of VAT as well as it has reduced tax audit time and cost and staff involved.

In aspect of performance, Wandugo (2014) examined the effects of electronic taxation on financial performance of audit firms in Kenya. The study used descriptive design method with the intention of employing data to justify the current situation in practices to make more intellectual strategies to improve them. The analysis was carried out using the social science statistical package via representation of data was inform of tables, pie- charts and graphs and analysis of variance (ANOVA) was used to test the

significance of the model. The study revealed that there is strong positive relationship between financial performance and tax compliance, tax evasion, tax refunds claims. The study further revealed that the I-tax system was reliable and that the I-tax system was not user friendly.

Sagas and Nelimalyani (2015) assessed the impact of electronic tax register on revenue collection in western region, Kenya. A survey research design was employed for this study and study employed the use of questionnaires and interview guide to collect data. The collected data was analyzed using qualitative techniques. The findings indicated that 75% of the respondents were of the opinion that electronic tax register (ETR) machines have helped to curb cases of tax evasion 86% of the respondents were of the opinion that ETRs have helped increase revenue collection due to their efficient nature. Also, Mustapha and Obid (2015) established that perceived ease of use has a significant mediating effect on the relationship between tax service quality and online tax system, and tax service quality has a positive significant relationship with an online tax system.

Weru, Kamaara and Weru (2015) examined impact of strategic change on the introduction of electronic tax register for enhancement of tax collection at Kenya revenue authority. The study adopted secondary data and the data was pilot study. The research study used quantitative and qualitative approaches. The study revealed that the stakeholders were yet to be trained effectively on the use of ETR machines. The system had also assisted in improvement on tax compliance.

In aspect of electronic tax payment, Okiro (2015) determined the effect of e-payment system on revenue collection by the City County Government, Nairobi. The study used a descriptive research in soliciting information in the area of research and its target population was selected 18 Nairobi government departments, which were operational between 2013 and 2015. Data was collected from secondary sources and analyzed, with respect to the study objectives using both descriptive and inferential statistics. The

study that revealed that the revenue collection performance in Nairobi City County increased considerably after introduction of e-payment system in revenue collection. The key findings by (Maisiba & Atambo, 2016) were that most respondents agreed that KRA has good electronic tax payment System and that for the KRA officials most of them are conversant with its use and are trained

In aspect of electronic tax identification number, Rahman and Rajib (2016) investigated the institutional mechanisms of Electronic Tax Identification Number (e-TIN) in Bangladesh. The primary data was used as the source of data for this study Furthermore, the adoption of e-TIN will accelerate revenue collection for the government from the tax sector can be suggested to tax authorities to continuously by providing training on that particular sector with improve quality of service to encourage tax compliance. Nasir (2015) examined implementing electronic tax fillings and payments in Malaysia. The study adopted secondary data to obtain data from Malaysian Inland Revenue report from 2004 to 2011 using trend analysis to highlight the increase in tax returns since the adoption of an e-tax system in 2004. From the findings, results showed that the first two years, the number of taxpayers using the e –filling system remained far below expectation at about 5% and the tax authorities were still tackling the challenges posed by the new system such as timely and costly adaptation of the system, uncertainty and security problems, lack of technological exposure in the country etc. all of which had little or no impact on tax returns.

Ragupathi and Prabu (2015) carried out an empirical study of awareness of e-filing services, tax laws and procedure assessment in India. Descriptive research method was used for the study. The sources of data were primary as well as secondary. The primary data were collected through questionnaire. The information gathered from books, journals, magazines, reports, and dailies was the secondary data. Convenience sampling method was used by the researcher to collect the data. The statistical tools are used; T-Test, F-Test. Similrly, Gayathri and Jayakumar (2016) carried out a study on tax payer's perception towards e-filing of income tax returns with reference to teachers in Bengaluru East, Karnataka in India.

Study used primary data which was collected by distributing questionnaires to the respondents Sample. Statistical Analysis used are Chi-square test and ANOVA. Also, Mas'ud and Umar (2016) examined structural effects of trust in e-filing software on e-filing acceptance in services sector Kedah, Malaysia. A quantitative research design was adopted for this study. From the analyses, it was found that performance expectancy, effort expectancy, and social influence significantly influence both trust in e-filing software and e-filing acceptance intention. Furthermore, in their results, Gwaro, Maina and Kwasira (2016); Maisiba and Atambo, (2016) suggest that there is a strong relationship between attitude towards electronic tax system and tax compliance.

In Tajikistan, Okunogbe and Pouliquen (2016) examined technology, taxation, and corruption: evidence from the introduction of electronic tax filing in Tajikistan firms, in Central Asian. The study employed Panel survey design with aid of distribution of questionnaire to obtain data. The study adopt OLS Regression to analyse the data. The study found that there was tax compliance regarding electronic tax filing of returns. There were no significant average effects of e-filing on tax or bribe payments, but significant heterogeneity exists across firms by their baseline likelihood of tax evasion. The findings by Atika (2016) showed that the online services will significantly reduce queues experienced at the time of submitting tax returns and to determine the relevance of electronic recordkeeping in enhancing revenue collection. Results from Maisiba and Atambo (2016) found that taxpayers in Kenya felt uncomfortable using an electronic tax system as compared to the old manual system. Taxpayers who evaluate electronic filing system as not easy to use do not adopt it which affects tax compliance.

Still in Kenya, Gekonge and Wallace (2016) investigated the effect of the electronic tax system on revenue collection efficiency of Kenya Revenue Authority at Uasin Gishu County. The main data collection tools were questionnaires that were administered to the respondents. The study found that most respondents agreed that KRA has good electronic tax payment System and that for the KRA officials; most of them

are conversant with its use and are trained. The findings of study revealed that most response from tax payers indicated difficulty in using the system and blamed lack of computer knowledge, poor internet and unstable power supply as major reasons. Furthermore, Owino, Otieno and Odoyo (2017), empirically examined the influence of information and communication technology (ICT) on revenue collection in county government in Kenya. Primary data were collected with aid of questionnaires and data collected were analysed using descriptive and regression techniques. The findings from the study revealed that there was a strong significant relationship between ICT systems adopted and revenue collection. Further findings revealed that the application of those systems improve revenue collection efficiency in the county government. 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 on revenue collection at Kenya revenue authority. Monica, Makokha and Namusonge (2017) identified that most tax payers strongly agreed that they were able to fully access and operate the tax system. Further findings revealed that employees competence was a significant predicator of the tax collection efficiency while taxpayers seeking clarifications on tax issues online is minimal.

Allahverdi, Algoz and Ortakarpuz (2017) examined the effect of electronic taxation system on tax revenues generation in Turkey. The study used secondary data to gather data and the data were examined in two groups, that is pre-electronic tax period of 1993-2004 and post-electronic tax period 2005-2016. The study employed Mann-Whitney U-test to analyse the data. The result from the study revealed that organization of the electronic tax system positively affected that tax revenues and reduced the cost per tax. Musimental, Nkundabanyanga, Muhwezi, Akankunda and Nalukenge (2017) castigated that, in the presence of tax collection mechnanisms, countries such as Ungada would still face cases of non-tax compliance. Furthermore, their findings also revealed that cases of non-tax compliance attributed to lack

of accountability, government ineffectiveness, tax revenue collected was not used for what was meant for and non-transparent tax systems.

Jain and Jain (2017) carried out a study on e-filing of income tax returns evidenced from satisfaction level of individual tax payers in Udaipur District, Rajasthan in India. The study employed primary data as source of method. a structured 5 point likert based questionnaire (ranging from highly dissatisfied to highly satisfied) was prepared to collect data from the individual tax payer of the Udaipur district of Rajasthan. The results revealed that the individual tax payers are satisfied with almost all the features of the e-filing system. Despite the individuals' satisfaction on easiness and accuracy of e-filing, Mohammad and Kumar (2017) documented their results based on findings through analysis somehow disclosed that most of the individuals facing problem regarding lack of experience and knowledge in filing their returns electronically. Further findings revealed that overall experience of individual regarding e-filing the still wants some improvement in the present e-filing system.

Still on e-filing, Arora & Gupta (2018) examined the awareness of taxpayers about e-filing in India. Survey research design was used to gather the data for this study. Ranking technique, ANOVA-test and Factor Analysis were used to analyse the data. The findings of the study revealed that certain differences exist in the awareness level of the taxpayers regarding basic knowledge about provisions of the Income Tax Act as well as for the advanced knowledge of e-filing. In the aspect of e-filing, In Indonesia, Aliffiani and Fuadah (2018) explored the perception of online tax filing in Indonesia. This paper used primary data generated by distributing online questionnaire. The data were analyzed by the Structured Equation Model (SEM). The results suggested that trust in government and trust in technology positively affect the trust in e-Filing website, which subsequently influence all three IS quality dimensions. Information quality, system quality and service quality was found to be consistently and significantly influence the perceived usefulness and user satisfaction.

Obert, Rodgers, Tendai and Desderio (2018) investigated the effect of e-tax filing on tax compliance in Zimbabwe. Data were collected through the aid of structured questionnaires. Data collected were analyzed using descriptive statistics and multiple regressions. The results of the analysis showed that: electronic filing actually influenced tax compliance; that there was a positive attitude by clients towards electronic filing and finally, that electronic filing has also significantly increased the case of doing business.

Also, Solichah and Soewarno (2018) investigated the effect of e-tax filing on tax compliance in Harare, Zimbabwe. The study employed primary data as a source of data collection with a aid of questionnaire distributed. Analysis of data was done through descriptive and inferential statistics. The study revealed that electronic filing system actually influences tax compliance. The study also revealed that there was a positive attitude by clients towards electronic filing; electronic tax filing has also influence the ease of doing business. Yagnesh (2018) also maintained that there was significant relationship between electronic tax filing and tax compliance. The electronic tax system is one of the mechanism tax revenue agencies can be proud of since it allows taxpayers to file returns and pay on time. The electronic tax system is one of the mechanism tax revenue agencies can be proud of since it allows taxpayers to file returns and pay on time.

Lemma (2018) assessed effect of information communication technology (ICT) on corporate tax collection system in Addis Ababa City. The researcher used descriptive research design to solve the study problem. Data gather through secondary data were analysed using descriptive statistical method and data were analysed in concurrent manner. This study found that the use of ICT in tax collection has improved transparency; taxpayers pay into the designated banks online and obtained e-receipt immediately. Key findings by Madegwa, Makokha and Namusonge (2018) revealed that online process of automation of tax revenue collection influence performance of tax authority.

Night and Bananuka (2019) examined the mediating effect of adoption of electronic tax system in the relationship between attitude towards electronic tax system and tax compliance using evidence from small business enterprises (SBEs) of an African developing economy. The study used a quantitative research approach where questionnaires with close-ended questions were used. This study's research design was cross-sectional and correlational. Usable questionnaires were received from 214 managers of SBEs, and data were analysed with the help of SPSS v22 and MedGraph program (Excel version) Findings from the study revealed that there is no significant relationship between attitude towards electronic tax system and tax compliance. Results further indicated that adoption of electronic tax system and attitude towards electronic tax system are significantly associated with tax compliance. According to Khaddafi, Aspan and Heikal (2019), the adoption of an electronic tax system and tax compliance in Africa, was presented. The researchers used a quantitative research approach where questionnaires with closed-ended questions were used. The study's research design was cross-sectional and correlational. The data were analysed with aid of MedGraph program. The results indicated that adoption of electronic tax system are significantly associated with tax compliance.

In Uganda, Ejiku (2019) examined the effect of electronic tax system on the revenue collection performance of Uganda revenue authority. A descriptive survey design, was adopted. The respondents were chosen from Uganda Revenue Authority Domestic Tax Department. Simple random sampling was used to select the respondents and data was collected using well designed structured questionnaires. Findings revealed that internet payment/filing system facilitates registration of taxpayers, this is shown by the mean value of 4.26. It was found that clients pay tax easily from anywhere by use of their mobile phone as reflected by mean value of 4.09. It was also found that the use of electronic billing machines accelerates the processing of accounting and financial documentation as reflected by the mean of 4.23. also, Kinyua (2019) investigated the effect of

information technology on tax administration and performance by Kenya Revenue Authority (KRA). The study adopted an explanatory research design. The study collected primary data using questionnaires which comprised of closed-ended questions. Cronbach's Alpha test was used to examine the reliability of the questionnaires. The data collected was analysed using Statistical Package for Social Science (SPSS). Descriptive statistics of frequencies, means and standard deviations were used during analysis to provide figures and tables. Inferential statistics including Correlation and regression analysis were also employed in the study. The study showed that information technology has increased productivity in the organization, as well as help staff from different departments in the organization to communicate without necessarily having to meet in person, enabled the employees to meet deadlines for daily operations as well as prioritize their work in terms of need.

In their own case, Lokarach and Rugami (2019) established the influence of i-tax system on performance of Kenya Revenue Authority. The study adopted both descriptive statistics and a case study design. Stratified random sampling was used to pick a sample of 90 managers. The primary data was collected using the structured questionnaires. The data was analyzed using statistical package of social sciences (SPSS). Descriptive statistics such as mean and standard deviation were adopted. The relationship between the dependent variable and the independent variables was tested using linear regression model and correlation analysis. The results were then presented in form of figures, tables and chats. The findings of the study revealed that, Automated System Modernization, Systems integration, Taxpayer education and Staff training were satisfactory variables in explaining Performance of KRA. The findings also indicated that, Automated System Modernization, Systems integration, Taxpayer education, Staff training and Performance were positively and significant related.

In Zambia, Soneka and Phiri (2019) assessed the factors that influence the level of e-tax systems adoption in Zambia. The study was conducted in rural Zambia. The researcher used Technology Acceptance Model (TAM). The data collected was analyzed using descriptive statistics. The results showed that, E-tax system in Zambia is useful, easy to use and also secure. The findings, majority of the taxpayers are filing their returns and paying taxes online. However, there are few taxpayers who still feel e-tax is not useful, easy to use and secure.

In their own case, Twesige, Gasheja, Baryandama and Alexis (2019) evaluated the effect of information communication technology tax reforms on tax compliance in Rwanda. The study used descriptive and explanatory research design. Data was collected from both primary and secondary sources using questionnaire and documentation. The findings from the survey of this study revealed that ICT tax reforms have contributed significantly on the tax compliance in Rwanda. The results further revealed that there is a strong relationship between ICT tax reforms and tax compliance in Rwanda. Previous scholars document a relationship between attitude towards electronic tax system and tax compliance. Findings by Kiring, Kiio, Jagongo and Qiao (2019) indicated that there is a significant relationship between the perception towards online tax filing in terms of ease and simple to file and also the system being secure, and this improves tax compliance levels.

Munyao (2020) examined the effectiveness of electronic payment system on revenue performance of hotel industry in Kenya: a case of Sarova hotels .This study adopted descriptive research design to integrate various elements used in carrying out this study. A questionnaire was used for data collection and both descriptive and inferential statistics were deployed. The findings revealed that there exists a significant relationship between e-payment benefits and revenue performance, r (0.427); p-value < 0.01. The findings also revealed that e-payment benefits accounts for (16.7%) variability in revenue performance.

Purba, Nugroho and Sarpingah (2020) carried out a study on the effect of implementing e-filing systems on personal tax compliance with internet knowledge as moderated variables**,** on personal taxpayers at KPP Pratama Jakarta Kramatjati in Indonesia. The study adopted mixed method and primary secondary data were gathered. The analysis of the data in the study was carried out using descriptive statistics The study showed that the implementation of the e-filing system holds a positive and substantial effect on taxpayer compliance. The evidences that the better the implementation of the e-filing system, the Taxpayer Compliance will also be useful; Knowledge the Internet has been tried to control the relationship between the implementation of e-Filing systems and the level of taxpayer compliance.

Roy and Khan (2021) evaluated digitizing taxation and premature formalization in developing countries. The study used secondary data. The study was quantitative in nature. Based on the results the study concluded that the developing countries have yet to go through the phase of productive, broad-based capitalism that helped push up income levels in advanced countries. In the political settlements of the typical developing country, large-scale enforced formalization at low per capita incomes, even along very specific dimensions of activity, can result in enhanced exclusion.

Cheboi and Bruce (2021) investigated the effect of technological uptake on Pay As You Earn tax performance from medium taxpayers in Kenya. The study adopted the descriptive research design. The study used secondary data collected from KRA records and reports. Both descriptive statistics and inferential statistics were carried out with the help of the SPSS software. Data was analysed using regression analysis by the use of a linear regression model. The study found that the e-registration technology enhanced PAYE tax performance significantly, although the effect was weak. On the other hand, the study found that E-filing technology affects PAYE tax performance significantly and the effect was strong, while in the last research objective it was established that e-payment influences PAYE tax performance significantly. Technological uptake has caused a variation of 93.4% (R2=0.934).

2.3.3 Studies in Nigeria

Performance of tax administration in Nigeria has become matters of great concern necessitating for researches on the relationship between digitalization of tax administration practices and performance of revenue agencies. For instance, Ada (2014) determined the effect of information technology on the efficiency of tax administration in Enugu State, Nigeria. The study adopted the method of survey Research Design. Data used in this research were gotten from both primary and secondary sources including questionnaires and textbooks respectively. The data collected were analyzed and presented in tables. Three hypotheses were formulated and tested using the Analysis of variance (ANOVA) method. The findings of this research showed that effective tax administration resulting from the application of Information Technology leads to an increase in tax base as more potential taxpayers are drawn into the tax net when there is a conducive environment.

In his own study, Ayodeji (2014) examined the Impact of electronic tax systems on tax administration in Nigeria. The study used secondary data to source information for the study using ex post facto method. The finding from the study revealed that dwindling global fortune occasioned by the fall in the price of crude oil, the major source of wealth for Nigeria shifted the attention of the government and major stakeholders in the country to the revenue generated locally.

Okoye and Ezejiofor (2014) evaluated the impact of electronic taxation on revenue generation in Enugu, Nigeria. The study collected primary and secondary data using frequency counts, mean score. The ordinary least square method was adopted to analyzed the data using the multiple regression analysis and panel data regression method to test the fixed and random effects and test for level of significant at 1%.

The finding from the study was that electronic taxation can enhance internally generated revenue and reduce the issue of tax evasion in Enugu state. Further finding is that electronic taxation can prevent corrupt practices of tax officials. It also recommended that the Government should support the establishment of electronic tax administration so as to start ripping the benefit of high rate of compliance among taxpayers and electronic tax system should be implemented to reduce the diversion of government funds to private pockets.

Thomas (2015) examined the Impact of Information and Communication Technology on Company Income Tax Collection in Nigeria. The research adopted a mixed method approach and collected data through questionnaires and in-depth semi-structured interviews. The data primary and secondary were gathered and analysed using non-linear regression and multinomial regression . The study found that the level of effectiveness of revenue collection realized increased as a result of use of ICT in company income tax collection.

Nkanor and Udu (2015) evaluated the effects of electronic internally generated revenue (e-IGR) on infrastructural development of Ebonyi State. Ex-post facto research design was used in this work which involved the use of existing data. Data components were collected and analyzed using regression and Pearson correlation method with the help of SPSS version 17.0. Results showed that the extent of relationship between each independent variable (IGR and e-IGR) were very low on the dependent variable which is Infrastructure development using capital expenditure, but cannot ignore the rate at which their degree changed, signifying an increase in associations.

Ajape, Afara and Uthman (2017) investigated the influence of e-tax system on tax administration and tax revenue generation in Lagos state Internal Revenue Service. The study adopted survey research design was using a well-structured questionnaire to obtain data. The primary data gathered were analyzed using

descriptive statistics, while hypotheses were tested using the multivariate analysis of variance (MANOVA). The key findings of the study indicated that e-tax system has enhanced revenue generating potentials of Lagos state. Similarly, Kayode, Anuoluwapo and Bukola (2017) investigated the influence of an electronic system of taxation on tax administration efficiency and tax revenue generation in Lagos state, Nigeria. The study adopted primary data. Survey research design was adopted this study, using a well-structured questionnaire The data gathered for this study were analyzed using descriptive statistics, while hypotheses were tested using the Multivariate Analysis of Variance. The findings of the study showed that electronic tax system has enhanced revenue generating potentials of Lagos State and further result also revealed that e-tax system has positive impact on the efficiency of tax administration.

Olatunji and Ayodele (2017) investigated the impact of information technology on tax administration in South West, Nigeria. Primary data was collected through the means of structured questionnaires, while multiple regression and Pearson product moment correlation were used to analyze the data. Findings from the analysis revealed that information technology enhance the level of tax productivity and administration. Olaoye, Akinleye, and Adekanmbi (2018) examined the effects of electronic taxation on tax productivity in Nigeria. The study made quantitative method and data from the filed were analysed using simple percentage and analysis of variance as statistical tools. The result from findings revealed that Nigeria tax authorities had good electronic payment system; there were challenges of computer illiteracy, inadequate computer system and poor power supply challenges. Further result from the analysis of variance revealed that electronic taxation has significant impact on tax productivity in Nigeria.

Olaoye and Awe (2018) investigated the impact of taxpayer identification number on revenue generation in Ekiti state, Nigeria. The study employed a mixed method for data collection. Ordinary least square regression estimation technique was used for data analysis. The result revealed that full adoption of

taxpayer identification number exerts a significant positive impact on internally generated revenue of the state, given a coefficient estimate and probability values of 5031.843 and 0.0182 respectively.

Olaoye and Atilola (2018) examined the effect of e-tax payment on revenue generation in Nigeria. The study used secondary data for the study. The analysis was carried out using Trend analysis, descriptive statistics of mean and standard deviation, paired sampled t-test. The study found that there was 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 hypothesis and used to analyzed the data. The study's results of the analysis revealed that there was significant relationship between self-assessment and e-taxation payments systems and revenue generation.

Ofurum, Amaefule, Okonya and Amaefule (2018) examined the impact of E-taxation on Nigeria's revenue and economic growth: A pre-post analysis. Data were gathered through secondary source of data from Federal Inland Revenue service and CBN statistical and economic reports on quarterly basis from the second quarter of 2013 to fourth quarter 2016. Analysis of data was done through the use of paired sample t-test and simple regression. The findings from the study of the analysis revealed that the implementation of electronic taxation has not improved tax revenue, federally collected revenue and tax-to-GDP ratio in Nigeria. In the same vein, Leonard, Bossco, and Henry (2019) investigated the impact of e-Taxation on Nigeria's revenue and economic growth. The study made use of secondary data sourced from Federal Inland Revenue Service, and Central Bank of Nigeria Statistical and Economic Reports on quarterly basis. 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. However, findings revealed that

Federally Collected Revenue and Tax-to-GDP ratio significantly decreased after e-taxation was implemented.

Akinleye, Olaoye and Ogunmakin (2019) examined the effect of tax identification number on revenue generation in south-west, Nigeria. The ex-post facto research design was adopted for the study. Quantitative secondary data were sourced from the State Board of Internal Revenue of the sampled states spanning from 2008-2017 for a period of 10 years segregated into Pre-TIN (2008-2012) and post-TIN (2013-2017). Descriptive statistical method and sample t-test were employed for data analysis The study revealed that there was a positive and significant difference between internally generated revenue of the sampled states before and after the introduction of TIN. The study concluded that TIN has improved revenue generation in Southwest, Nigeria.

John and Iyidiobi (2019) assessed the effect of e-taxation on revenue generation in Anambra State, Nigeria. Survey design was employed for the study. Data collected were analyzed and one sample t-test was used to test the formulated hypotheses and descriptive statistics are used to describe the basic features of the data in a study while survey design involves the use of sample to obtain the opinion of large number of people. The study found that e-taxation has effect on tax revenue generation in Anambra state and adoption of e-taxation has reduced tax malpractice in Anambra state. Another finding was that tax revenue has improved based on the adoption of e-taxation in Anambra state. In their studies, Akpubi and Igbekoyi (2019) examined the influence of the method of electronic taxation on tax compliance among a selected number of fast-food restaurants in Lagos State, Nigeria. The study employed a survey research design, and primary data were collected and analysed using descriptive statistics and inferential statistics. The study found that the level of awareness depicted a level of significant positive relationship with tax compliance but not statistically significant. It was further revealed that the level e-taxtaion has a non-significant negative effect on tax compliance.

Adegbite, Bojuwon and Adegbite (2019) investigated the impact of ICT on revenue generated from tax in Oyo State. The study adopted primary data which were collected through administered questionnaire from staff of Oyo State board of internal revenue service and other taxpayers. The questionnaires were distributed and administered among the staff of state board of internal revenue service and. Data were analyzed using descriptive statistics, chi- square, ANOVA and Multivariate Analysis of Variance and Covariance (MANOVA) to test the hypothesis formulated. The study revealed that good governance practices on ICT with a comprehensive accounting platform which would improve the productivity of assigned tax authorities in more accurate, effective, and accountable manner.

Adeyeye (2019) investigated the impact of technology innovation on tax administration in Nigeria. Primary data were collected through the use of structured questionnaire administered on staffers of Federal Inland Revenue Service to elicit their responses. Descriptive statistics, Analysis of Variance (ANOVA) and Regression Model were used for the data analysis. The R value depicts that the use of information technology accounted for (76.3%) improvement in tax administration in Nigeria. The results strongly support the TPB in predicting the intention of users to adopt electronic tax-filing systems. The results also demonstrate the significant effect that computer self-efficacy has on behavioural intention through perceived ease of use, perceived usefulness, and perceived risk of use. Based on the findings of this study, implications for electronic tax filing are discussed. Also, Oo and Adegbie (2020) investigated the effect of information technology on effective tax assessment in Nigeria. The study adopted survey research design. Descriptive statistics and inferential statistics used for data analysis. The study revealed that information technology had a positive significant effect on effective tax assessment.

Alhasan (2020) explored the impact of tax digitalization, tax laws, tax administration, and public goods provisions on property tax compliance in Kaduna state, Nigeria. The study used the primary source of data. The empirical result obtained revealed that tax payers satisfaction with the level of property tax

digitalization, taxpayers satisfaction on the adequacy of property tax law, taxpayer's satisfaction with the administration of property tax and taxpayers satisfaction with the government provision of public good has a positive impact on property tax compliance rate in Kaduna State.

Nwauzor (2020) investigated automated taxation on revenue and economic development growth in Nigeria. The study used secondary data obtained from Federal Inland Revenue Service, and Central Bank of Nigeria Statistical and Economic Reports on annual from 2010 to 2019. Data extracted were grouped into two: pre electronics taxation period and post electronics taxation time. The descriptive statistical and paired sample t-test were used for the data analysis. The results displayed in Figures, that the mean variance is not statistically significant. Finally, execution of electronic tax .

Irefe-Esema and Akinmade (2020) examined the impact of tax automation on tax compliance in Nigeria. The qualitative instrument is used for data collection to understand the perception of participants and make an inference by comparing the findings obtained via diverse instruments. The thematic and descriptive method is used to analyse the qualitative data obtained. The findings in this study emphasized the prospect of attaining optimum compliance level in the Nigerian tax system, and a prompt to policymakers and tax authorities (FIRS) to consider implementing full tax automation.

Furthermore, Oladele, Aribaba, Adediran and Babatunde (2020) affirmed the impact of electronic tax administration on tax compliance in Nigeria and the study employed secondary data. The quantitative research design was employed using existing data sourced from the Federal Inland Revenue Service (FIRS). Data so sourced were analyzed using descriptive statistics and pairwise t-test to ascertain if a difference exists and or relationship between pre-and post-e-tax revenue. The study found a strong connection between the electronic tax system and tax compliance (tax revenue) as shown by the pairwise test (p-value of $0.012<0.05$). Etim, Jeremiah and Dan (2020) examined the effect of digitalization of

economy on tax compliance in Nigeria. The researchers adopted a survey research design with questionnaire used to collect the necessary data. The data were analyzed using SPSS version 25. The simple percentage, descriptive statistics, and simple linear regression were used to analyze the data and to test the hypotheses. The results suggested that tax compliance was negatively influenced when economy was digitalized.

Umar and Masud (2020) investigated the reasons for the information technology's constrained in tackling tax noncompliance in Nigerian. The methodology adopted for this study was based on in-depth interviews with 18 senior tax administration officials. Findings from this study, firstly, it is not immune to the systemic corruption prevalent in many developing countries; hence, it is quickly compromised. Secondly, it can be efficient in dealing with the overwhelming large numbers of operators in the informal sector. Thirdly, E-tax administration, which is a hallmark of IT-led tax administrations in advanced countries, is very slow to catch up in developing countries.

Malik (2020) examined the impact digital businesses has on tax revenue generation in Nigeria. The study adopted survey research method. Primary data were collected using structured questionnaire. The questionnaire was administered on the staffs of Federal Inland Revenue Service in Nigeria, the state board of Inland Revenue and the joint tax board. The data were analyzed using ordinary least square (OLS). The result from the study showed that there was little or no effect of digital businesses on the tax revenue generation in Nigeria.

In aspect of e-payment, Adeghi and Akinyemi (2020) evaluated the effect of electronic payment on revenue generation in Lagos State. The study adopted a survey research design. A structured questionnaire was used to collect data with reliability coefficient range from 0.71 to 0.93. In order to reach a reasonable conclusion, the percentage frequency table, analysis of variance (ANOVA) and the multiple linear regression technique methodologies were adopted to test the hypotheses. The study found out those

electronic payment variables (ATM and ETC) have significant and positive effect on personal income tax; e-payment has significant and positive effect on rate; and lastly, e-payment has significant and positive effect on penalty. It was also discovered that β1ATM = 1.224 and that of β2ETC= -0.075 and it implied that ATM has positive and significant effect on revenue from penalty but ETC has a negative effect.

Furthermore, Onuselogu and Onuora (2021) examined the effect of e-tax payment on revenue generation in Nigeria. The study applied secondary data obtained from Federal Inland Revenue Service tax report and CBN Statistical release and Quarterly Economic Reports. The data used were secondary data and covers the period from first quarter of 2012 to second quarter of 2018. The data collected were analysed using Ordinary Least Square Method. The results show that e-company income tax payment has an insignificant positive effect on revenue generation in Nigeria at 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 have negative impact on revenue generation; the negative effect implied that decrease in e-capital gain tax payment will decrease revenue generation in Nigeria

In their own case, Chiamaka, Obinna, Friday and Oraekwuotu, (2021) examined the effect of 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 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 significant effect on the internally generated revenue of state.

Otekunrin, Nwanji, Eluyela, Inegbedion and Eleda (2021) examined electronic tax system (E- tax system) effectiveness in reducing tax evasion in Nigeria. The conclusive research design was used and the study adopted primary and secondary data. The survey sample was drawn from Federal Inland Revenue Service

(FIRS) staff and small and medium-scale enterprise taxpayers registered in F.C.T., Abuja, Nigeria. Primary data was derived from a questionnaire administered to a population of 60 officials and employees of the FIRS and taxpayers at a small and medium-scale enterprise registered in F.C.T., Abuja, Nigeria. The secondary data used was extracted from the tax revenue collection report on the FIRS platform for 2000–2019 (20 years). General linear model and linear regression were used to analyze the data collected. The results established that an effective electronic tax system will significantly reduce tax evasion. Therefore, the proper implementation of the electronic tax system helps mitigate the problem of tax evasion that causes economic and social detriments in the tax administration system.

In their study, Alimi and Didi (2021) investigated the e-filing intentions of income tax return and compliance behavior in Nigeria. The study adopted a systematic Literature review method. The results revealed that outcome of the study will be beneficial to the government, tax authorities and other relevant stakeholders in understanding the knowledge of taxpayer's decision making which could lead to better strategic planning and improved revenue performance. Similarly, Mustapha, Rildwan, Sadiq, Moronke, Ahmad and Rahmon (2021) examined the effect of integrated tax filing management system on tax compliance behavior in Nigeria. Primary data were employed and the data were collected using self-administered questionnaire and these were discussed through descriptive methods. The data were analyzed using descriptive statistics, followed by the interpretation of results. The results showed that most of the respondents are aware that the integrated system was effective for the increment in the level of revenue generation and tax compliance level in Nigeria.

Also, Ajayi and Yidiat (2021) investigated the impact of e-tax filing on tax revenue generation in Nigeria. The study used secondary data which were sourced from Central Bank Quarterly data from the Federal Inland Revenue Service (FIRS). The study adopted correlation research to determine the relationship among variables in a research study. The study made use of quarterly data, which was sourced from the

Federal Inland Revenue Service. The one-way Analysis of Variance (ANOVA) was adopted by the study as analytical technique. Based on the results obtained from the study, it was found that e-tax filing only had significant influence on oil tax revenue in Nigeria, but did not significantly impact on total government tax revenue and non-oil tax revenue in the country.

Audu and Ishola (2021) examined the effect of a digitalized economy on tax administration in Nigeria. The study employed a quantitative research method and an expost factor research design. The study covered a time frame ranging from 2010 to 2017 which sums up to eight years. Linear regression was used to analyze the secondary data gotten on the independent variable (ICT) on the dependent variables (tax revenue and tax evasion). The result of the analysis indicated that ICT has non-significant low adverse effect on tax revenue in Nigeria. It also reveals the adjusted R square of 0.38 and the computed p-value of 0.061 in respect of the second hypothesis which indicates that ICT has a non-significant low positive effect on the level of tax evasion in Nigeria. It is therefore concluded that the digital economy does not have a significant effect on tax administration in Nigeria.

2.4. Summary and Gap identified in the Literature

The review of literatures in this study focus on the issues related to objectives of the study. The review was done on the conceptual, empirical and theoretical issues. In line with the scope of this study, extensive review of previous empirical research efforts have been carried out on the area of digitalization of tax administration ranging from compliance, efficiency, revenue generation, growth, change management, ICT to digitalization of tax administration practices (e-services) which is the main focus of this research

effort. However, the summary of the literatures reviewed indicated that there some knowledge gaps still left unfilled.

Conceptual Gap

Based on the reviewed literature, there seems no single study has holistically captured the impact of digitalization of tax administration practices on performance of revenue agency in Nigeria. In specific term, this study has conceptually approached its objective by looking at the digitalization of tax administration practices in term of electronic tax registration system, electronic tax identification number system, electronic filing of tax return system, and electronic tax payment system practice on performance of revenue agency. Although few studies were conducted on the effect of electronic filing of tax returns, electronic tax payment system on tax compliance and revenue generation in developing countries (Jain & Jain, 2017; Obert et al, 2018; Solichah & Soewarno, 2018; Purba et al., 2020; Cheboi & Ogaga, 2021; Adeghi & Akinyemi 2021; Ajayi & Yidiat, 2021) with little or no research interest on the extent to which electronic tax registration or electronic tax identification number influence the revenue performance, which brings in conceptual gaps.

Apart from above, the researcher of this study also deeply observed in the extant literatures that most of the studies did not consider the demand and supply side of tax technology management in generating research problem that can address the issue of digital tax administration challenges with regard to tax payers' perception on revenue agency performance in Nigeria (Cheboi & Ogaga, 2021; Ajayi & Yidiat, 2021; Adeghi & Akinyemi, 2021; Chiamaka et at., 2021; etc.)

This current study is so unique to the extent that it will provide robust relevant information on tax administration digitalization practices both for academic teaching and research guide to aid tax revenue agencies as well as other administrators, tax consultants and active taxpayers.

Methodological and Geographical gap

Although few related studies on electronic tax system used ex post facto research design in Ngeria (Onuselogu & Onuora, 2021; Ajayi & Yidiat, 2021; Oladele et al., 2020; Nwauzor (2020); Ofurum et al., 2018; Leonard et al., 2019 Olaoye & Atilola, 2018), whereas this current study employed cross-sectional survey research design. n the study by Cheboi and Ogaga (2021) on the effect of technological uptake on pay as you earn tax performance from medium taxpayers in Nairobi, Kenya, descriptive research design was used which is a different research design from the quantitative cross-sectional survey research design used in the current study hence there is a methodological gap. Thus, the problem of data integrity and bias that usually characterize single-method study will be addressed and in effect holistic findings from this study become more relevant and reliable.

More so, to the best of researcher's knowledge and to the extent of literature searched, a study on the digitalization of tax administration practices in Kwara State and many parts of the States in Nigeria is close to non-existence.

Theoretical Gap

Various theories such as Ability to pay, planned behaviour theories and so on are common in research on tax administration system automation and to the extent of literatures reviewed for this study, there seems to be no study that used Unified Theory of Technology Acceptance. Unified Theory of Technology Acceptance is the theory that predicts the degree to which computer system users perceived ease or usefulness of the new technology or technological tools will enhance performance of any organization.

2.5 Theoretical Framework

This study will employ eclectic approach to develop the theoretical basis underpinning the relationship between the variables of interest of this research effort. As a starting point, the general objective of this work is to empirically show the impact of digitalization of tax administration practices on performance of Kwara State Internal Revenue Service. On this general objective, Unified Theory of Technology Acceptance assumption and prediction bear relevance to the expected relationship between independent variables and dependent variable.

Accordingly, Unified Theory of Technology Acceptance helps users electronic tax registration (e-registration) to understand its perceived ease and usefulness of electronic tax services can be used in influencing performance of revenue agency. Theory also explained the effectiveness of the e-registration in registering all potential and protecting registered taxapyers' data from agency data based and by this the performance of revenue agency has been enhanced as a result of the quality of e-service delivery to taxpayers.

As emphasized in chapter one in the research objective, the deployment of electronic tax identification number (e-TIN) may have positive effect on revenue performance as the predicted by theory of ability to pay. This theory explained the relationship between e-TIN and revenue performance as the electronic tax identification number may bring the about principle of equity and justice in taxation which explained how the system minimize tax avoidance, tax evasion and thereby eliminating multiple tax payment. This is because citizens earning meager income may find the tax burden easy, no more over charged or payment. This theoretical postulation is based on the prediction of Ability to Pay Theory of taxation. The principle of equity or justice in taxation connotes that people should pay taxes to the government in line with their capacity to pay using their electronic tax identification number may either affect the performance of

revenue organization either negatively or positively. This goes in line with research question two (2) as to: how does electronic tax identification number influence performance of revenue agency?

The theory of planned behaviour is a psychological theory that links beliefs of users' behaviour towards the application of digital tools in carrying out certain activity may enhance the achievement of the specific objective. In line with research objective and question three, to evaluate as to whether the electronic filing of tax return has positive effect on revenue performance of Kwara Stata Internal Revenue Service. The capacity of personal attitude and social norms to influence the behavioural intention of an individual is hinged on personal behavioural control that judges whether the action will be beneficial or harmful. Given the assumption that if benefits are expected, there is a likelihood that the individual will act otherwise, the person will not take the action. Based on the theory of planned behaviour, one can understand why electronic filing of tax return (e-filing) can be an effective means of generating revenue for the government in Nigeria. If the individual has poor experience in using the technology, there is a likelihood that the e-filing system will not serve as a means of generating revenue for the Nigerian government. Thus, this prediction is specifically relating to the expected positive relationship between electronic filing of tax return and performance of revenue organization.

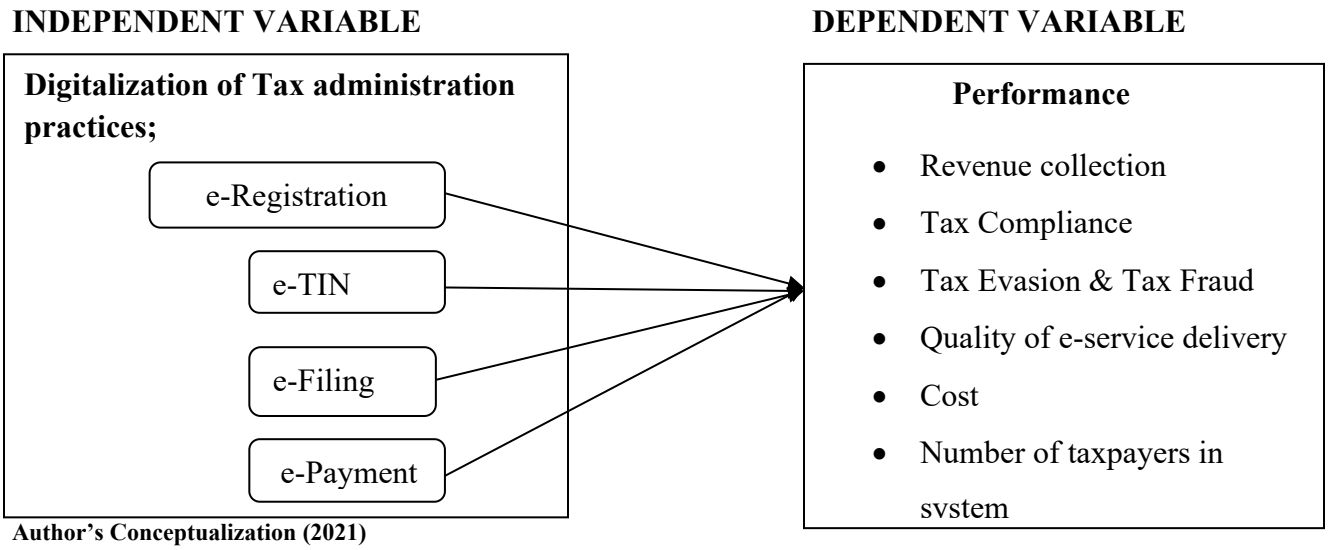
Technological acceptance theory predicts the acceptability of a technological tool will influence the organizational restructure (Köck, 2017). As emphasized in research objective four as to determine the extent to which electronic tax payment has effect on revenue performance. Therefore, this theory supports the independent variable (electronic tax payment) as it explains tax agents use technology in this case electronic tax payment with 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 which

it may have on his performance. Therefore, even if an employee does not welcome an information technological system, the probability that he will use it is high if he perceives that the system will improve his performance at work.

2.6 Conceptual Framework

This sub-section shows the diagrammatic representation of the relationship between the independent variables and dependent variable used in the study

Table 2.1: Conceptual Framework.



Author's Conceptualization (2021)

The dependent variable is the performance of Kwara State Internal Revenue Service measured through Revenue collection, tax compliance, Cost, quality of e-service delivery, tax evasion, Number of taxpayers in system. The independent variable is the digitalization of tax administration practices proxied with e-Registration, e-TIN, e-Filing and e-Payment which are factors that can influence performance of Internal Revenue Service in Kwara State, Nigeria.

CHAPTER THREE

METHODOLOGY

This chapter discusses the methods and procedures used in collecting data for the study and the technique used in analyzing the data collected to test the study's hypotheses. The chapter will cover research design, population of the study, the sample size and the sampling technique, source and method of data collection, method of data analysis, research instrument, reliability and validity of research instrument, model specification and measurement of variables.

3.1 Research Design

This study will adopts a quantitative cross-sectional survey research design to collect data from target respondents so as to provide answers to research questions raised in this study. The researcher adopts this method because the focus of this study is to address the problem of revenue agencies' performance in the state in a manner that main stakeholders are the target respondents, both from demand and supply side are those to provide information on the object of the study. The basis for using cross-sectional survey research design is deemed to be appropriate for the study because it involves target sample respondents' perceptions and attitudes to be generated through copies of standardized questionnaire distributed to them. Within this design, quantitative data are expected to be generated to address each research questions accordingly.

3.2 Population of the Study

Empirical information will be gathered from the main stakeholders that consist of all the senior management staff of Kwara State Internal Revenue Service (KW-IRS) and active registered taxpayers. Given the above research design, the population of the study can be described to be bi-structure. On the first side, all senior management staff of KW-IRS constitutes the general population of the study, while on second side, the total numbers of active registered taxpayers are deemed to be relevant as population on demand side of this study. In specific term, a total number of 150 senior management staff in five Directorates (Admin and operation, Income tax, Account and finance, legal and compliance, and MDAs) in 24 departments at the corporate headquarters of KW-IRS. Meanwhile, the choice of all senior staff were based on the researcher's belief that these categories of staff have acquired reasonable experiences in tax administration system and in-depth knowledge on digitalization of tax administration practices, and they have the abilities to provide valid responses to the questionnaires administered. At the same time, 3,614 active registered taxpayers with their e-TINs representing direct assessment for the state, within Asa, Ilorin-East, Ilorin-South and Ilorin-West Local Governments at Kwara Central Districts in Kwara State

were also considered because they were the category of taxpayers as relevant respondents who told us their perceptions about the impact of electronic tax services (e-services) introduced. The choice of selected active registered taxpayers at Kwara Central was justified on the fact that they constituted the large numbers of active registered taxpayers with their e-TIN numbers as at 1st January, 2020 to 31st December, 2020.

3.3 Sample Size and Sampling Technique

A sample size will be determined from the sampling frame for the two sides given above for the quantitative research strategy. The sample size of all senior management staff of KW-IRS and active registered taxpayers are in the range of 108 and 360 respectively. These selected samples were determined through the use of Krejcie & Morgan (1970) statistical table sampling method of determining sample size and Taro Yamane formulae. The sample size of 108 was determined using Krejcie & Morgan (1970) statistical table while the sample size of 360 was obtained through the use of Taro Yamane formulae (Yamane, 1964) shown in figure 3.1. These sample size selections were in agreement with Hill, Brierley and McDougall (2003)' idea that a sample size of one hundred and above is sufficient enough to make acceptable research findings. Questionnaire were distributed to the selected samples of both the supply and demand side within the state randomly.

Population and sample size of active registered taxpayers with Kwara Internal Revenue Service (KW-IRS) within Kwara Central Districts is as represented in the table 3.1 shown below.

Table 3.1: Population of Active Registered Taxpayers and Sample Size

	Local Governments	Population size of active registered taxpayers	Proportion of sample size in relation to sampling frame	Sample size
1	ASA	94	(94x360)/3,614	9
2	ILORIN EAST	741	(741x360)/3,614	74

3	ILORIN SOUTH	1,440	(1,440x360)/3,614	143
4	ILORIN WEST	1,339	(1,339x360)/3,614	134
	Total	**3,614**		**360**

Source: Author's compilation, 2021 from database of Joint Tax Board of KW-IRS.

Table 3.1 shown above depicts the total population of the demand side of the study which is the active registered taxpayers with Kwara Internal Revenue Service within Kwara Cental, in Kwara State, Nigeria. The total population of active registered taxpayers with the KW-IRS totaled 3,614 out of which a sample size of 360 was selected. The respondents were grouped into various strata on the basis of their respective Local Government areas as seen in Table 3.1. After stratification was done, the researcher employed simple random sampling to select respective respondents to be engaged in the study. This way the researcher was able to pick a representative from each Local Government within Kwara Central Districts. The computation of the overall sample size from the sampling frame of 3,614 active registered taxpayers is shown in Figure 3.1. The sample size of 360 was mathematically obtained through the use of Taro Yamane formulae (1973) as shown below.

Figure 3.1

$n = N/(1+(Ne^2))$

Where n = the required sample size

N = Study Population or Sampling frame

e = error limit (0.05 on the basis of 95% confidence level)

Therefore, based on 95% confidence level, the sample size is computed below:

$n = 3,614/ (1 + 3,614(0.05)^2)$

$n = 3,614/10.035$

$n = 360$

However, not all the distributed instruments were returned. As shown in table 3.2 below, 296 questionnaires were returned out of which 292 are valid for the final analysis. This represents 63% response rate and are valid for final analysis. However, out of the two hundred and ninety six questionnaires filled and returned, four of the questionnaires were wrongly filled and were thrashed out. This implies that two hundred and nighty two questionnaires were valid, hence constitute the basis of analysis for this study.

Table 3.2: Analysis of the Response Rate

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

Source: Authors' Computation, 2021

The result in table 3.2 shows the response rate of the questionnaire administered. The results shows that out of four hundred and eighty eight (468) questionnaires administered to the selected respondents based on the sample size as discussed under methodology, the researcher was able to collect two hundred and ninety six (296) questionnaires which represent 63% response rate and are valid for final analysis. 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 questionnaires were valid, hence constitute the basis of analysis for this study.

3.4 Source and Method of Data Collection

The source of data collection for this study was primary data. The data were collected in quantitative form through the research instrument of questionnaire administered to the target respondents.

3.4.1 Research Instrument

A structured questionnaire was administered to elicit relevant data from the target respondents. The design of questions for the questionnaire was based on deductive approach. The deductive approach involves an extensive literature review of pre-existing scale using statistical procedures. It aims at testing an existing theory. The data for the study were resources collected from the supply and demand side (all senior management staff & active registered taxpayers) through using questionnaire administered. Therefore, responses of the respondents emanated from the questions and the instrument will be scored a 5-point Likert scale, ranging from strongly disagree (5) to strongly agree (1). The justification for using structured questionnaire was because it enabled the researchers to reach large number of respondents in a short period of time. The questionnaire used in this study will be divided into two (2): the first questionnaire administered to the supply side (all senior management staff) of which their demographic profiles and opinions were gathered on the statement on electronic tax registration practice, electronic tax identification number practice and revenue performance, while the second questionnaire administered to the demand side (active registered taxpayers) of which their demographic profile and opinions were collected on the statement on electronic filing of tax return and statement on electronic tax payment.

The rationale for scaling is to assist in the conceptualization and operation of a construct and also to produce quantitative measures which will be used to test hypotheses (Neuman, 2006; Lawrence, 2014). The scaling system is in line with literature that standard estimations performed well with indicators measured on 5 or more categories. Indicators measured with fewer categories may result in non-trivially attenuated covariance and inflated fit statistics (Muthen, 1984; Hoyle, 2000).

Responses to each item in the questionnaire were constructed in such a way that higher scores would indicate a strongly agreement. The instrument was divided into two sections. Section one comprised information about the demographic characteristics of the respondents to validate the suitability of the

respondents; Section two sourced information about the digitalization of tax administration practices and performance of KW-IRS, Nigeria

3.5 Data Analysis Techniques

The data collected from questionnaire for this study were analyzed using descriptive and inferential statistics in order to achieve the stated objectives. The descriptive statistics include mean, median and maximum, minimum, standard deviation to evaluate the data collected on both dependent and the independent variables, as well as Skewness and Kurtosis for checking normal distribution of data.

The inferential statistics employed in testing the four research hypotheses of this study is Partial Least Square – Structural Equation Modeling (PLS-SEM) technique using Smart PLS-3. PLS-SEM is a statistical tool that is capable of running the relationship between two or more variables simultaneously (Hair, Hult, Ringle & Sarstedt, 2016). Since this study has four variables the application of PLS-SEM is justifiable because it can run the relationship between the four variables concurrently. It has been adjudged to be useful for the analysis of unobservable, hard-to-measure, latent variables that characterized most of the variables of the interest in social and management sciences research (Gudergan et al, 2008).

PLS-SEM allows integration of both latent and manifest variable through the specification of the two models: Structural model and inner (measurement) model. It is a robust tool that can test the validity and reliability of indicators of each variable and determine their fit in the measurement model. Also, PLS-SEM can effectively deal with multicollinearity problem among the latent variables, deal with small sample size and conduct sample of the sampling. Findings will be illustrated in tables and figures.

3.5.1 Reliability and Validity Test of the Instrument

Quantitatively, this is to ensure the research instrument substantially and adequately reflect the meaning

of the construct to be used, the following forms of validity: content, discriminant and convergent validity were measured using expert evaluation, correlation analysis and Fornell-Larcker analysis respectively. To ensure stable and similar results under consistent, perspective of reliability in term of stability and internal consistency will be measured using construct reliability validity using Cronbach's alpha and Composite Reliability respectively.

3.6 Model Specification and Measurement of Variable

To the extent of literature searched and reviewed, substantial numbers of studies in the area of digitalization of tax administration were on tax compliance and revenue generation. Therefore, in order to test the hypotheses of the study, the model of Chiamaka, Obinna, Friday and Oraekwuotu (2021) will be adapted and modified as the model will be utilized to determine the association between the dependent variable (performance of revenue agency) and independent variables which are e-Registration, e-TIN, e-Filing and e-Payment of taxes.

The regression model is specifically depicted as:

$Y = \beta_0 + \beta_1 X_1 + \varepsilon$

$Y = f(X)$

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$……..3.1

$\beta 0$ = Constant (coefficient of intercept)

The model of Chiamaka *et al*., (2021) was stated as;

$Yi = \beta_0 + \beta_1 ETR_1 + \beta_2 ETF_2 + \beta_3 ETP_3 + \varepsilon$.....

Where

Y = Dependent Variable: Internal Generated Revenue

X = Independent Variable: Electronic Tax System

X_1: Electronic Tax Registration, X_2: Electronic Filing of Tax Returns, X2: Electronic Tax Payment.

ε= error term

And since this study mainly focuses on digitalization practices that may have influence on performance of revenue agency, the model will be adapted and modified by replacing Internal Generated Revenue with performance.

The model shown above is re-restructured for this study as follows.

$PERF_i = \beta_0 + \beta_{1E1} + \varepsilon$……..... 3.2

where:

PERF= Performance

DOTA = Digitalization of tax administration practices.

PERF = *f*(e-registration; e-TIN; e-filing; e-payment)

In order to test the hypotheses of the study, the model of this study is a modification and extension of Chiamaka et al., (2021) model by adding electronic tax identification number (e-TIN).

This will result in a final model as follows.

$PERFi = \beta_0 + \beta_1 EREG_1 + \beta_2 ETIN_2 + \beta_3 EFIL_3 + \beta_4 EPAY_4 + \varepsilon$.....3.3

Where

PERR = Performance

EREG = Electronic Tax Registration (e-Registration)

ETIN = Electronic Tax Identification Number (e-TIN)

EFIL = Electronic Filing of Tax Returns (e-Filing)

EPAY = Electronic Tax Payment. (e-Payment)

$\beta 0$ = Constant coefficient (Coefficient of Intercept)

$\beta_1 - \beta_4$ = Parameters of the estimate (regression coefficient of the four variables.)

ε = Error term

a-priori expectation: The a-prior expectation of the objective is β_1, β_2, β_3, and $\beta_4 > 0$. Conversely, a prior expectation of the study is that electronic tax registration, electronic tax identification number electronic filing of tax return and electronic tax payment should increase the performance revenue agency.

The re-structure model in equation 3 reflect relationship between performance of revenue agency and digitalization of tax administration practices as indicated in main research objective and the inclusion of objective one to four with all its components (e-services) with expected positive relationship with performance, being the a-prior expectation is justified by the prediction of unified theory of technological acceptance and regression model. Specifically, the prediction of unified theory of technological acceptance is a user's perception acceptance of usefulness of information technology and subsequent usage attitude toward new revenue collection system via technology will effectively and efficiently enhance performance expectancy.

3.7 Measurement of Variables

Definition of variables is conceived as a statement of a particular dimension or elements through which certain variable is measured. Operationalization gives room for specificity and to decisively defining variables into quantifiable factors. In other words, the procedure explains ambiguous concepts and permits them to be assessed quantitatively and empirically. Therefore, all variables employed in this research are defined in line with the intent of the study (Sekaran & Bougie, 2014). The variables (electronic tax registration, electronic tax identification number, electronic tax filing and electronic tax payment) are adopted from the previous studies as stated in the previous chapter of the study.

Table 3.3 Measurement of Variables

Variables	Construct		Measurement Parameters	Sources/References
Dependent variable			Using 5-point Likert scale with the following;	
Performance	PER	1	Revenue collection, Tax evasion	Lokarach & Rugami, 2019;

		2	Tax Compliance	Oladele et al., (2020); Lokarach & Rugami, 2019; Katua (2019)
		3	The number of taxpayers captured into tax net, Tax Fraud	Lokarach & Rugami, 2019
		4	Tax fraud	Lokarach & Rugami, 2019;
		5	Quality of e-service delivery	Rotchanakitumnuai (2018); Eze & Agbeyi (2019)
		6	Cost of tax revenue collection	Lokarach & Rugami, 2019; Charity (2019
Independent Variables				
Electronic tax registration (e-registration)	EREG	1	Effective in Protecting registered taxpayers' data	Chiamaka et al, (2021)
		2	effective in eliminating multiple taxation	Chiamaka et al, (2021)
		3	Effective in curbing tax evasions	Richard (2019)
		4	Fast, reliable and cost efficient	Chiamaka et al, (2021)
		5	Capable of eliminating tax avoidance	Chiamaka et al, (2021)
		6	Prevent taxpayers to declare under tax due	Odume (2018)
		7	Effective in registering all potential taxpayers.	Deloitte (2018)
Electronic tax identification number (e-TIN)	ETIN			
	ETIN	1	Effectiveness in capturing basic information of taxpayers	Olaoye & Awe (2018)
		2	Reduce cost of tax administration	Ebifuro (2016)
		3	Efficient and effective in preventing tax fraud and avoidance	Eze (2019)
		4	Capable of eliminating tax evasion	Eze (2019)
		5	Eliminate multiple tax payment	Eze (2019)
		6	Efficient in enhancing revenue collection	Olaoye & Awe (2018)
Electronic filing of tax returns (e-filing)	EFIL	1	Accurate, fast and more convenient than manual	Mekonmen (2021)

		2	Protect taxpayers' confidential information against cybercrime	Mekonmen (2021)
		3	Awareness of its functionality and benefits	Cheboi &Ogaga (2021)
		4	Not affected by network failure	Hussein et al, (2018)
		5	Efficient in submitting complete information even when power interrupted.	Mekonmen (2021)
		6	Leave less room for manipulation of data records	Alimi & Didi (2021)
		7	Taxpayers still gone to office for record completion	Narwa et a, (2019)
		8	There is adequate training to use e-filing	Cheboi &Ogaga (2021)
Electronic tax payment (e-payment)	EFIL	1	Simple and convenient when use	Awai & Obo (2020)
		2	Application is interesting	Awai & Obo (2020)
		3	Computer literacy level is high to embrace e-payment	Festus &Olabosipo (2020)
		4	All taxpayers have access to internet	Festus & Olabosipo (2020)
		5	e-payment has been full automated	Festus & Olabosipo (2020)
		6	Level of awareness of e-payment system	Okifo & Igbunu (2015)
		7	Enable proper assessment to avoid over-payment of tax	Cheboi &Ogaga (2021)
		8	Effective and efficient in refunding over-payment made	Cheboi &Ogaga (2021)
		9	Efficient in improving revenue generation	Cheboi &Ogaga (2021)

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter focused on providing a detailed analysis of the study based on the data gathered using the questionnaires. The data obtained were subjected to statistical analyses which include descriptive statistics frequency distribution of demographic information profile of respondents presented in a table, mean, median, minimum and maximum and standard deviation and inferential statistics: partial least square structural equation model (PLS-SEM)

The chapter further provides findings on all the four research objectives on how digitalization of tax administration practices impact on tax revenue performance. This was attained through the specific objectives highlighted in Chapter one.

4.1.1: Preliminary Assessment of Demographic Profile of the Respondents

The result in the table 3.2 in Chapter three shows the response rate of the questionnaire administered. Out of the 468 questionnaires (Hardcopy and Online Questionnaires) distributed, the researcher was able to collect 296 questionnaires which represent 63% response rate. However, out of the 296 questionnaires filled and returned, four (4) of the questionnaires were wrongly filled and were thrashed out. This implied that 292 (62% response rate) questionnaires were valid, hence constitute the basis of analysis for this study. Descriptive statistics on both supply and demand side's characteristics and respondent's profile in terms of description, frequency and percentage were presented in the table 4.1 below.

Table 4.1: Demographic Profile of the Respondents

S/N	Description	Frequency	Percentage (%)
1	**Gender**		
	Male	109	37.3
	Female	183	62.7
2	**Age**		
	18 - 30yrs	32	11.0
	31 - 40yrs	176	60.0
	41 - 50yrs	56	19.0
	51 – 60yrs	28	10.0
	60yrs and Above	0	0.0
3	**Marital Status**		
	Single	62	21.2
	Married	223	76.4
	Divorce	7	2.4
4	**Educational Qualification**		
	Diploma/NCE	89	30.5
	B.Sc/HND	168	57.5
	Master's Degree/ Post Graduate	35	12.0

5	**Professional Qualification** ICAN ANAN CITN Others	 10 5 40 237	 3.4 1.7 13.7 42.8
6	**Working Experience** 1-2yrs 3-5yrs 6-11yrs Above 11	 76 115 81 20	 26.0 39.4 27.7 6.8
7	**Position** Chairman/CEO/Director Managing Partner Others	 10 12 270	 3.4 4.2 92.4

Source: Authors Survey (2021)

Table 4.1 showed the general demographic profile of the respondents of questionnaire. The profile of the respondents was presented using their demographic characteristics such gender, age, marital status, educational qualification, working experience and position. The general demographic profile of the respondents to questionnaire depicts that 32 (11%) of the respondents are between age 18-30 years, 31-40 years are 176 (60%), 41-50 years were 56 of the respondents representing 19% while 28 (10%) are in the age bracket of 51-60 years. Astonishingly, none of the respondent is above the age of 60 years. This implies that all respondents are in active period of their life. By gender, 183 (62.7%) are females while the remaining 109 (37.3%) are males, a reflection of more females constitute large number of registered taxpayers in the state. Regarding the marital status, 62 (21.2%) is still single and may part of people within the age brackets 18-30 years and 31-40 years. The number of married respondents are 223 representing 76.4% while only 7 (2.4%) accounted for divorce. However, the study reveals that majority of the respondents are responsible and matured.

Table 4.1 also revealed that 89 (30.5%) of respondents possessed Diploma/NCE certificates, 168 (57.5%) of respondents are B.Sc/HND holder, 35 (12%) are Master's Degree/ Post Graduates. Numbers of

respondents with professional qualifications, 10(3.4%), 5(1.7%), 40(13.7%) of respondents with ICAN, ANAN and CITN certificates while others possessed other certificates or not at all. It explicitly shows that the services of people with CITN and ICAN certificates are more required in the State Internal Revenue Services. The working experience shown that the highest number of the respondents 115 (39.4%) have a work experience between the age bracket of 31-40 years, 76 (26%) had 18-30 years, 81 (27.7%) had 41-50 years, 20 (6.5%) had 51-60 years. This implies that 40% of youths are very active in the services and having a great impact in providing services and new innovations in the public sectors, private and society.

Regarding to top position, 10(3.4%) respondents are those holding position of Chairman/CEO/Director, 12(4.2%) represent Managing partners and others are 270 (92.4%). This translates that all those directors or CEOs are always busy in the offices while only little people with experience in required skills are employed in the position of Managing Partner. Others senior management staff are fallen in this category and more of them are with CITN AND ICAN certificates while other experience expert in electronic services are among those with Post Graduate certificates. Generally, the aforementioned information indicates that all the respondents are versatile and possessed the pre-requisites to provide the required answers to the questions in the questionnaires.

4.2. Descriptive Statistics Analysis

The summary of descriptive statistics results of data collected for each of the variables employed in this study were presented in Table 4.2 and 4.3. The two tables entail a statistical summary of mean, median, minimum value, maximum value and standard deviation. Assessment of data normal distribution was also conducted using kurtosis and skewness. The summary of descriptive statistics results for the demand and supply side were conducted separately in orderly to clearly show how the electronic tax registration and electronic tax identification number practices affect performance on the attitude and opinion of the supply

side. And how taxpayers have been complying with electronic tax payment and their attitudes towards electronic filing of tax return practices so as to measure the performance of revenue agency in Kwara State

Table 4.2. Descriptive Statistics Results for Supply Side

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	-1.35
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	0.81	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
ETIN1	70	0	4.157	4	1	5	0.804	1.787	-0.972
ETIN2	70	0	3.9	4	1	5	0.759	2.53	-1.031
ETIN3	70	0	3.757	4	1	5	0.764	1.305	-0.531
ETIN4	70	0	3.886	4	1	5	0.766	2.267	-0.968
ETIN5	70	0	3.514	4	1	5	0.751	2.158	-1.394
ETIN6	70	0	3.929	4	1	5	0.743	2.102	-0.737
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	0.86	1.54	-0.804
PERF5	70	0	3.886	4	1	5	0.803	1.51	-0.803
PERF6	70	0	3.9	4	1	5	0.796	1.716	-0.86
PERF7	70	0	4.143	4	1	5	0.833	2.19	-1.188

Source: Author's computation (2022) using SmartPLS-3

In the Table 4.2, the Mean and standard deviations were generated to summarise the observed data, as according to Field (2009), means represent a summary of the data, and standard deviations show how well the means represent that data. The mean and standard deviation for electronic tax registration and

electronic tax identification number are depicted in the Table 4.2 as a result of responses from 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 3.514 to 4.329. This represents an acceptable value for the data obtained for the variable as the value of 3.514 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. The electronic tax registration has the highest mean score of 4.329 with standard deviation of 0.731.

The descriptive statistics in Table 4.2 also showed the maximum value of 5 and minimum value of 1 for all the variables. In addition, descriptive statistics such as skewness and excess kurtosis were used to determine if data were normally distributed. Sknewness is a numerical value used to give information about the distribution of data obtained from simples whether it is normal, positively skewed (skewed to the right) or negatively skewed (skewed to the left). The skewness of a normal distribution is zero. It clearly appeared in the table that those data distributed were normally distributed as the numerical values were within the range of -1 to + 1, the data distribution was considered to be normal (Hair, Anderson, Tatham & Black, 1998). At the same time, Kurtosis is a numerical value used to give information about the dispersion or variability of data obtained from samples. According to Hair, Anderson, Tatham and Black (1998), the kurtosis of data distribution within the range of – 1 to + 1 are considered to be normal as the most of data above were normally distributed, or within the cut of point of -3 and 3 according to Julie Pallant (2009).

Items	Valid	Missing	Mean	Median	Minimum	Maximum	Std. Deviation	Excess Kurtosis	Skewness
EFIL1	222	0	4.037	4	1	5	0.749	1.981	-0.79
EFIL2	222	0	4.075	4	1	5	0.803	1.532	-0.878

EFIL3	222	0	3.85	4	1	5	0.76	1.066	-0.434
EFIL4	222	0	3.725	4	1	5	0.741	1.212	-0.44
EFIL5	222	0	4.138	4	1	5	0.802	1.322	-850
EFIL6	222	0	3.987	4	1	5	0.783	1.553	-0.775
EFIL7	222	0	4.075	4	1	5	0.721	2.847	-0.932
EFIL8	222	0	4.1	4	1	5	0.831	1.138	-0.859
EPAY1	222	0	4.088	4	1	5	0.728	2.713	-0.931
EPAY2	222	0	3.95	4	1	5	0.74	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	3.8	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	4.9	5	4	5	0.3	5.524	-2.718

Table 4.3: Descriptive Statistics Result for Demand Side
Source: Authors' computation (2021) using SmartPLS-3

The descriptive statistics in Table 4.3 showed the maximum value of 5 and minimum value of 1 the scale for the variables used, represent strongly agree and strongly disagree. This implied that some respondents were strong oppositions to some instruments employed for the variables while some were strongly in support of the statements raised in the questionnaire. In the Table 4.3, the Mean and standard deviations were obtained to summarise the observed data, as according to Field (2009). The result of the mean from Table 4.3 which is the average score of responses from respondents ranged from 3.725 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 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. The highest mean score of 4.9 with standard deviation of 0.3. The mean and standard deviation for electronic tax registration and electronic tax identification number were depicted in the Table 4.3 as a result of responses from supply side (the senior management staff of KW-IRS) as respondents of this study.

In addition, Skewness and Kurtosis were also assessed to indicate whether data were normally distributed. Sknewness is a numerical value used to give information about the distribution of data obtained from simples whether it is normal, positively skewed (skewed to the right) or negatively skewed (skewed to the left). The skewness of a normal distribution is zero. It clearly appeared in the table that those data distributed were normally distributed as the numerical values are within the range of -1 to + 1, the data distribution is considered to be normal (Hair, Anderson, Tatham & Black, 1998). The kurtosis of a normal distribution is zero. According to Hair, Anderson, Tatham and Black (1998), the kurtosis of data distribution within the range of – 1 to + 1 are considered to be normal as the most of data above were normally distributed. In the Table 4.3, the coefficients for skewness and Kurtosis were also computed and the results indicated that data were normally distributed as the numerical values were within the cut of point of -3 and 3 according to Julie Pallant (2009).

4.2.1. The correlation analysis results.

In examining the strength of linear associations among the variables, the Pearson correlation matrix (coefficient) was employed and the threat of multicollineariy among the variables was also tested using indicator correlation approach. Table 4.4 and 4.5 presented an indicator correlation matrix for all the 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 Supply Side

	EREG1	EREG2	EREG3	EREG4	EREG5	EREG6	EREG7	ETIN1	ETIN2	ETIN3	ETIN4	ETIN5	ETIN6	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														
ETIN1	0.155	0.256	0.193	0.05	-0.003	-0.286	0.115	1													
ETIN2	0.188	-0.029	0.329	0.109	-0.028	0.182	0.194	-0.02	1												
ETIN3	0.143	0.133	0.08	0.034	0.233	0.015	0.008	0.202	0.402	1											
ETIN4	0.016	-0.068	0.324	0.288	0.199	-0.043	-0.016	0.168	0.447	0.172	1										
ETIN5	-0.022	-0.107	0.279	-0.022	0.121	-0.102	-0.053	0.103	0.291	0.068	0.45	1									
ETIN6	0.227	0.136	0.13	0.322	0.051	0.137	0.068	0.162	0.19	0.02	0.312	0.091	1								
PERF1	0.296	0.158	0.415	0.265	0.107	0.044	-0.061	0.122	0.029	0.197	0.124	0.077	-0.014	1							
PERF2	-0.162	-0.145	-0.089	-0.164	0.278	-0.195	0.037	0.41	0.145	0.325	0.164	0.19	-0.12	0.139	1						
PERF3	-0.226	-0.158	-0.3	-0.182	0.125	-0.224	0.16	0.252	-0.01	0.19	-0.144	0.087	0.059	-0.01	0.484	1					
PERF4	-0.183	-0.031	-0.086	0.152	-0.032	0.181	0.076	0.049	-0.01	-0.014	0.223	0.104	0.289	0.071	0.144	0.177	1				
PERF5	-0.082	0.19	0.309	0.124	-0.096	0.083	0.006	0.271	0.263	0.281	0.327	0.287	0.082	0.002	0.064	0.093	0.254	1			
PERF6	0.13	-0.008	0.161	0.039	0.151	-0.199	-0.076	0.27	-0.04	0.172	0.075	0.014	-0.181	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	0.116	0.045	-0.08	0.205	0.294	0.293	0.361	0.057	0.018	0.362	0.089	0.108	1	

Source: Author's computation (2022) using SmartPLS-3

From Table 4.4 indicated that all independent variables were positively and negatively related to one and other. All correlation coefficients are significant at $p<0.01$. Generally, results from the correlation analysis revealed that there was no muticollinearity problems as all the independent variables show a value of less than the proposed cut-off point of 0.7 (Kennedy, 2008).

Table 4.5 Pearson Correlation Matrix of Demand Side

EFIL1	1																	
EFIL2	0.078	1																
EFIL3	0.01	-0.043	1															
EFIL4	0.221	0.098	-0.206	1														
EFIL5	-0.05	-0.035	0.136	0.022	1													
EFIL6	0.129	0.191	0.144	0.231	0.082	1												
EFIL7	0.111	0.163	0.021	0.109	0.22	0.024	1											
EFIL8	0.054	-0.011	0.083	0.288	0.111	0.175	0.092	1										
EPAY1	0.109	0.117	0.137	0.068	0.172	0.156	-0.013	-0.097	1									
EPAY2	0.251	-0.036	0.076	0.18	0.285	-0.001	0.335	0.191	0.101	1								
EPAY3	-0.101	0.007	0.088	-0.029	0.19	0.139	0.03	0.142	0.074	0.207	1							
EPAY4	0.355	0.093	0.114	-0.017	0.173	0.176	0.124	0.025	0.136	0.026	-0.062	1						
EPAY5	0.034	-0.013	0.13	-0.032	0.053	-0.077	0.05	0.039	0.409	0.093	-0.067	-0.2	1					
EPAY6	0.134	-0.056	-0.066	0.208	0.013	-0.073	0.181	0.061	0.137	0.12	0.04	0.211	-0.128	1				
EPAY7	0.281	0.046	-0.053	-0.054	0.129	0.081	0.352	0.012	0.216	0.275	-0.063	0.181	0.141	0.028	1			
EPAY8	0.123	0.286	0.179	0.127	0.16	0.045	0.234	0.191	0.246	0.213	0.05	0.118	0.134	0.047	0.045	1		
EPAY9	-0.196	0.176	-0.046	0.123	0.228	0.092	0.249	0.135	0.017	0.31	0.259	0.094	0.003	0.013	0.412	-0.042	1	
Perfc	0.406	0.239	0.208	0.045	0.213	0.154	0.15	0.241	0.326	0.259	0.079	0.422	0.305	0.182	0.301	0.489	0.197	1

Source: Author's computation (2022) using SmartPLS-3

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

4.3 Inferential Statistical analysis

The inferential statistics was measured using partial least square structural equation model (PLS-SEM) to examine the relationship among variables under consideration: both latent variable and manifest variable were measured through the specification of the two models which are measurement model (inner model) and Structural model (outer model). The basic requirement requirements for the use of PLS-SEM for data analysis were to assess the measurement quality criteria of the reflective constructs used in a study prior to formal hypothesis testing through structural model of the PLS-SEM. This test was conducted through

Smart PLS3. The quality criteria for measurement model in terms of R square, F square, Construct reliability and validity, discriminant validity, collinearity statistics (VIF).

4.3.1: 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); statistics for the three were within and greater than the recommended value of 0.700 (Wasko & Faraj, 2005) and threshod of 0.50 recommended by Chin (1998). In relation to the validity of measurement model, two tests of validity (accuracy) were conducted on the research instrument: convergent validity and discriminant validity assessment. Discriminant validity was assessed using two criteria including of Forner-Larcker Criterion and Heterotrait-Monotrait Method Ratio (HTMT) as suggested by Hair et al.,(2017). Moreover, the convergent validity of the constructs was assessed by assessing the Average variance extracted (AVE)

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
ETIN	0.706	0.707	0.843	0.834
EFIL	0.76	0.792	0.747	0.788
EPAY	0.719	0.896	0.8	0.84
PERF	0.795	0.789	0.819	0.766

Source: Authors' computation (2021) using SmartPLS-3

In Table 4.6, the two type 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 the composite reliability. The composite reliability is the assessment of the extent to which items in the construct measures the latent concept (Fornell & Larcker, 1981). The minimum Cronbatch's Alpha and Composite Reliability recommended for PLS is 0.8 while

0.7 is the acceptable minimum value for Alpha (Oni et al., 2017). Table 4.6 showed results of CR, Cronbach's alpha, Rho_A and AVE for all the construct. As shown in Table 4.6, all 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).

4.3.1.1: Assessment of Discriminant Validity

The discriminant validity approach was evaluated using the Fornell-Larcker criterion where the square root of Average Variance Extraction (AVE) of each of the latent variables should be greater its correlation with other latent variables (Fornell & Larcker,1981). Using this approach, it was found that square root of AVE of each of the latent variables was greater than its correlation with all other latent variables and for every row and column, the value in the diagonal asterisked [*] was the highest and will be considered with all other latent variables and for every row and column shown in Table 4.7.

4.7: Analysis of Discriminant Validity

Source: Author's Computation (2022)

	Fornell-Larcker Criterion						Heterotrait-Monotrait Ratio (HTMT)					
	AVE	**EREG**	**ETIN**	**EFIL**	**EPAY**	**PERF**		**EREG**	**ETIN**	**EFIL**	**EPAY**	**PERF**
EREG	0.834	0.913*					EREG					
ETIN	0.834	0.536	0.913*				ETIN	0.611				
EFIL	0.788	0.735	0.783	0.888*			EFIL	0.651	0.536			
EPAY	0.840	0.664	0.554	0.532	0.917*		EPAY	0.464	0.554	0.532		
PERF	0.766	0.550	0.721	0.782	0.783	0.875*	PERF	0.758	0.833	0.501	0.713	

Table 4.7 displayed the results of the discriminant validity of the research model and all the constructs have square of AVE value with asterisks greater than 0.70. Therefore, the discriminant validity was established. The assessment of the correlations' heterotrait-monotrait ration (HTMT) was used to

examined the discriminant validity and the result was presented in Table 4.7. This approach showed the estimation of the true correlation between two latent varaibles. A threshold value of 0.90 has been suggested for HTMT (Henseler et al, 2015). Above 0.90 shows a lack of discriminant validity. According to Henseler, Ringle and Sarstedt (2015), heterotrait–monotrait ratio of correlations with values lower than the (conservative) threshold of 0.85. Therefore, discriminant validity is established. Furthermore, the confidence interval of the HTMT should not involve the value of 1. Table 4.7 showed that HTMT criterion has been fulfilled for our PLS model.

4.3.1.2 Evaluation of Indicator's Collinearity

The high correlations are usually not expected between the indicators of formative measurement models. Moreover, the high correlation between formative items indicates collinearity that is considered problematic (Hair et al., 2014). Examination of the collinearity between the formative items of the constructs with their values of Variance Inflation Factor (VIF). Both the inner and outer VIF values were examined to check the issue of collinearity. VIF values should not exceed 5 otherwise the problem collinearity might come up (Hair et al., 2014). The results of evaluation of indicator's collinearity was presented in Table 4.8.

4.8 Collinearity Statistics (VIF)

Formative items	Outer VIF Values	Formative items	Outer VIG Values	Formative items	Inner VIF Values
EREG1	1.943	EFIL1	1.505	EREG	1.127
EREG2	1.359	EFIL2	1.315	ETIN	1.127
EREG3	1.909	EFIL3	1.630	EFIL	1.396
EREG4	1.521	EFIL4	1.637	EPAY	1.396
EREG5	1.169	EFIL5	2.372		
EREG6	1.279	EFIL6	1.483		

EREG7	1.087	EFIL7	1.352		
ETIN1	1.132	EFIL8	1.579		
ETIN2	1.549	EPAY1	1.220		
ETIN3	1.282	EPAY2	2.000		
ETIN4	1.589	EPAY3	2.797		
ETIN5	1.286	EPAY4	2.098		
ETIN6	1.147	EPAY5	1.510		
PERF1	1.345	EPAY6	1.723		
PERF2	1.449	EPAY7	2.312		
PERF3	1.345	EPAY8	1.572		
PERF4	1.287	EPAY9	2.161		
PERF5	1.121				
PERF6	1.359				

Source: Author's computation (2022)

The result in Table 4.8 above displayed the level of collinearity among the formative items. This is to ensure that two formative items are not measuring the same thing at the same time. The rule of thumb is that if the variable inflation factor (VIF) is greater than 5, it implies that multicollinearity problem exists and such VIF should be dropped (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). Based on the results shown in the table 4.8, it could be concluded that the data collected for this study did not suffer from multi-collinearity problem as the value of each indicator's Variance Inflation Factor (VIF) less than 5. Collinearity test's result was good. As the higest VIF is 2.792. Hence, there was absence of multicollinearity threat in this study. therefore discriminant validity was established.

4.3.2 Assessment of the structural model

The structural model reflects the paths hypothesized in the research framework. In evaluating the structural model of the PLS-SEM, three quality criteria were involved: The significance of the path coefficient, the coefficient of determination (R^2) and coefficient of prognostic relevance (Q^2). The goodness of the model

is determined by the strength of each structural path determined by R^2 value for the dependent variable (Briones Peñalver, Bernal Conesa, & de Nieves Nieto, 2018), the value for R^2 should be equal to or over 0.1 (Falk & Miller, 1992). Bootstrapping with 5000 resample was performed for structural model of PLS-SEM estimation with aid of SmartPLS3 (version 3.3.5). The path coefficient was presented in the table 4.9 below

Table 4.9: Analysis of Significance of Path Coefficient

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	TStatistics (|0/STDEV|)	P Values
EREG->PERF	0.198	0.238	0.299	0.660	0.509
ETIN->PERF	0.454	0.463	0.139	3.258	0.001
EFIL->PERF	0.403	0.417	0.089	0.546	0.000
EPAY->PERF	0.249	0.279	0.094	2.655	0.008

Source: Author's Computation (2021)

Table 4.9 showed the path coefficients of the model and their respective level of significance. Accordingly, electronic tax registration (EREG), electronic tax identification number (ETIN), electronic filing of tax return (EFIL) and electronic tax payment (EPAY) showed a significant positive impact on the revenue performance. The hypotheses one, two, three, and four were failed to be rejected. The evidence implied that the practices of four electronic tax services provided explained to a great extent variation in revenue performance of KW-IRS. The path coefficient's significances were generated from resampling techniques (bootstrapping). To assess the significance weights of the formative indicators, Lohmoller (1989) recommended >0.1 weight for an indicator. The result revealed that the indicators' weights were above recommended value of 0.1. Therefore, Table 4.9 revealed that all weights of formative indicators were having significant t-values that have provided an empirical support to retain all the indicators (Hair et al.,

2011). In further assessment of the goodness of fit, hypotheses were tested to ascertain the significance of the relationship.

4.4 Restatement and Testing of Hypothesis

In this section, the four null hypotheses were raised in the introduction Chapter one were tested using path coefficient as appeared in table 4.9 through bootstrapping in PLS algorithm. The study used t-value, β value with p-value at 0.05 level of significance in the acceptance or rejection of the hypotheses. This was used to determine the extent to which the independent variables used in the study affect the dependent variable in order to give scientific affirmation of the tentative statement earlier made regarding hypotheses.

$H0_1$: Electronic tax registration does not significantly influence performance of Kwara State Internal Revenue Service. The result in table 4.9 revealed that electronic tax registration (EREG) has a positive and significant influence on performance of Kwara State Internal Revenue Service as shown by (β=0.198, t= 0.660, p = 0.509). This result leads to rejection of the null hypothesis which state that electronic tax registration does not significantly influence performance of Kwara State Internal Revenue Service and consequently acceptance of the alternative hypothesis.

$H0_2$: There is no significant effect of electronic tax identification number on performance of Kwara State Internal Revenue Service. Based on empirical results in table 4.9, it was deduced that electronic tax identification number (ETIN) has a positive and significance effect on performance of Kwara State Internal Revenue Service by (β = 0.454, t = 3.258, p =0.00) at 5% level of significance. The result leads to the acceptance of the alternative hypothesis which state that, electronic tax identification number has significant effect on performance of Kwara State Internal Revenue Service, thereby lead to rejection of the null hypothesis. This implies that electronic tax identification number is efficient in enhancing revenue

performance, effective in minimizing tax evasion and tax avoidance and reducing cost of tax administration system.

$H0_3$: There is no significant effect of electronic filing of tax return on performance of Kwara State Internal Revenue Service. The result in table 4.9 showed that electronic filing of tax returns (EFIL) has a positive and significant effect on performance (PERF) of Kwara State Internal Revenue Service as shown by (β = 0.403, t = 0.546, $p < 0.05$). This result leads to the rejection of null hypothesis which states that there is no significant effect of electronic filing of tax return on performance of Kwara State Internal Revenue Service and consequently, acceptance of the alternative hypothesis was considered. This implied that electronic filing of tax return has a strong security system in protecting taxpayers' confidential information transmitted over the internet against cybercrime and there is level of compliance level among the taxpayers in filing their returns electronically in enhancing revenue performance.

$H0_4$: Electronic tax payment does not significantly have effect on performance of Kwara State Internal Revenue Service. The result in table 4.9 showed that electronic tax payment (EPAY) has a positive and significant effect on performance (PERF) of Kwara State Internal Revenue Service as shown by($\beta = 0.249$, t = 2.655, $p < 0.05$). This result leads to the rejection of null hypothesis which states that electronic tax payment does not significantly have effect on performance of Kwara State Internal Revenue Service and hence, acceptance of the alternative hypothesis was considered. This implied that electronic tax payment system is efficient in improving revenue generation in the state and tax payers are already aware of electronic tax payment which it has proven that it ensured simplicity, and convenient in making tax payment which has been complied by taxpayers.

4.10: Assessment of R square, F square and Predictive Relevance (Q^2)

	R^2	F^2		Q^2			
					SSO	SSE	Q^2(=1-SSE/SS0)
EREG		0.01		EREG	693.000	693.000	
ETIN		0.342		ETIN	594.000	594.000	
EFIL		0.174		EFIL	792.000	792.000	
EPAY		0.1		EPAY	891.000	891.000	
PERF	0.331			PERF	693.000	518.292	0.25

Source: Author's Computation (2021)

From empirical result in table 4.10, it could be deduced that the coefficient of determination (R^2) is 0.331 which indicated how much of variation in the performance was accounted for by the independent variables (electronic tax registration, electronic tax identification number, electronic filing of tax returns and electronic tax payment) used in this study. This translated that 33.1% variation in performance was explained by independent variables aforementioned while the remaining 66.9% was explained by other variables not included in the model of this study. The results in Table 4.10 showed that all F^2 values of ETIN and EFIL are over 0.1 and only EPAY equal to 0.1. The relative effect of each exogenous latent variable on endogenous latent variable was further assessed through the effect of size f^2. Based on the Cohen's (1988) guideline for interpretation of effect of size, hence, effect of size for electronic tax registration (0.01) was immaterial, while for electronic tax identification number (ETIN) (0.342),

electronic tax filing of returns (EFIL) (0.174), and electronic tax payment (EPAY) (0.1) can be considered to be moderate and material, indicating that the three explain the variation process in performance of Kwara State Internal Revenue Service. For the coefficient of determination, the main model yielded R^2 of 0.331 or 33.1%. Therefore, 33.1% of the revenue agency performance (PERF) variance can be explained by the means of digitalization of tax administration. Since the minimum R^2 of 0.10 is acceptable level suggested by Falk and Miller (1992). For the quality of the overall model, prognostic relevance of 11.2% is suggestive sufficient predictive relevance

For predictive relevance, the predictive sample reuse technique (Q2) can be used as a criterion (Chin et al., 2008). The Q2 assesses the predictive validity through the blindfolding procedure in which data is omitted for a given block of indicators and then the omitted part is predicted based on the calculated parameters. Therefore, Q2 shows how well the empirically collected data can be reconstructed with the help of model and the parameters of PLS-SEM (Hair et al., 2017; Akter et al., 2011). Q2 was obtained through cross-validated redundancy procedure as proposed by Chin (2010). As per Hair et al. (2017), the model has predictive relevance when Q2 is greater than 0 whereas the model lacks predictive relevance when Q2 less than 0. Moreover, the guidelines for evaluating the Q2 value indicate that values of 0.02, 0.15, 0.35 represent small, medium, and large relevance for a specific endogenous latent variable (Hair et al., 2014). Table 4.10 showed that 0.25 was the Q2 value for performance that represents medium relevance for the endogenous construct (i.e, performance).

4.5 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,

electronic tax identification number, electronic filing of tax returns and electronic tax payment) has significant positive effect on performance of Kwara State Internal Revenue Service.

4.3.1 Effect of Electronic Tax Registration (E-Registration) on Revenue Performance

Based on the results of hypothesis testing that has been carried out in line with research objective one, it proved the relationship significant relationship between electronic tax registration and revenue performance. In a specific term, the assessment of significance of path coefficient results indicated that, electronic tax registration has positive significant influence on performance (β=0.198, t= 0.66, p <0.05). This implies that the practice of electronic registration of taxpayers seems to have potency in enhancing 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 amount of revenue to be generated and reducing the cost of tax administration. The result of this study is in conformity with the findings of Bett and Yudah (2017), Cheboi and Ogaga (2021), Chiamaka et at., (2021. In line with technological acceptance theory, this findings shows the effectiveness and efficiency of electronic tax registration in enhancing revenue performance and curbing tax evasions.

4.3.2 Effect of electronic tax identification number (e-TIN) on revenue performance.

Based on the results of the hypothesis testing done in with the second research objective of this study sought to investigate the effect of electronic tax identification number on performance of KW-IRS. In the coefficient table 4.9, it was appeared that electronic tax identification number has significant effect on performance based on empirical quantitative result (β = 0.454, t = 3.258, p <0.05). This change was also statistically significant, interpreting that e-TIN practice influences revenue performance positively. By implication, this electronic tax service in practice its effectiveness and efficiency would prevent tax fraud, tax evasion and probability eliminate tax avoidance thereby enhance revenue performance. This was in

agreement with a study conducted by Khondoker and Salah (2016) on institutional mechanisms of electronic tax identification number. The result revealed that e-TIN will accelerate revenue collection for the government provided there appropriate training on the use of the system to both tax agents and tax payers and will improve the quality of services to encourage tax compliance and protect taxpayers confidential information. it was also predicted by the theory of ability to pay that the introduction of e-TIN would bring about the principle of equity and justice in ensuring effectiveness and efficiency in reducing non-compliance rate level and tax avoidance.

4.3.4 Effect of electronic filing of tax returns (E-filing) on revenue performance

The third objective of this study sought to evaluate the effect of electronic filing of tax return on revenue performance of KW-IRS. In the coefficient table 4.9, it was deduced that electronic filing of tax return has a positive and significant effect on revenue performance ($\beta = 0.403$, $t = 0.546$, $p < 0.05$). In essence, the practicality of e-filing system seems to have potency in enhancing revenue performance. By implication it has a strong security system to protect taxpayers confidential information transmitted over the internet against cybercrime. The result of this study is in line with the findings of Alimi and Didi (2021), Ruchika and Jain (2017). But the finding was contrary to the findings of Ajayi and Oyeniyi (2021) and Obara and Nangig (2017) that electronic filing of tax return has negative effect on revenue generation and there were the problems of lack of reliable tax database and the prevalence of cash transactions impeded government revenue generation in Nigeria. The theory of planned behavior explained why e-filing can be a means of generating revenue for the government based on personal attitude of users.

4.3.5 Effect of Electronic Tax Payment (e-payment) on Performance

Based on the results of the hypothesis testing conducted in line with **t**he fourth objective of the study sought to establish the effect of e-payment on performance of KW-IRS. From the path coefficient table

4.9, the quantitative evidence revealed that electronic tax payment has a positive and significant effect on performance ($\beta = 0.249$, $t = 2.655$, $p < 0.05$). This implies that there has been level of awareness of electronic tax payment and efficient in improving revenue generation in the state. Its quality of service delivery also enhance revenue performance of KW-IRS positively. The finding is consistent with evidences provided by Yula (2020), Olaoye & Atilola (2018), Festus & Oabosipo (2020), Onuselogu & Onuora (2021). This could be explained by the technological acceptance theory that electronic tax payment has a direct positive effect on revenue agency performance in bring about voluntary compliance in solving the problems of taxation in the state.

4.6 Implication of the Study

The implication of the study is relevant in this section of the study as it explains what this study inferred to policy, the government, tax payers, and to researchers.

The model suggests that digitalization of tax administration practices (electronic tax registration, electronic tax identification number, electronic filing of tax return and electronic tax payment) have positive impacts on revenue performance. The implication of this study to policy is that the tax revenue and policies that are put to use especially to the collection of revenue in Kwara State has been effectively implemented to a large extent though not as much as when it is compared to the rest of the advanced world. This thus implies that it is further required to make more decisions and implementations that relates to revenue policies in the state that can be followed by the rest of the states in Nigeria who are doing badly.

To Researchers in literature, the implication of the study was the awareness which it has brought them in respect to the performance of Kwara State as regards collection of revenue in the state. This is therefore expected to provide a substantial background to them in their further studies especially the ones that are related to digitalization of tax administration practices and performance of revenue agency

CHAPTER FIVE

SUMMARY, CONLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusion and recommendations, contributions to knowledge, suggestion to further studies, as well as the limitations and delimitations of the studies.

5.1 Summary of work done

This study investigated the impact of digitalization of tax administration practices on performance of Kwara State Internal Revenue Service, Nigeria. The study was structured into five chapters. Chapter one looked into the background of the study identified the problems of the study, research questions, research objectives were defined and research hypotheses to guide the investigation were formulated. The chapter also highlighted the justification for the study, described its scope as well as the plan of the study. In summary the chapter serves as the introduction to the study.

The chapter two dealt with three basic components of the study. These are the conceptual frameworks which are: digitalization of tax administration practices and performance; Theoretical framework emphasizing on the unified theory of technology acceptance, technology acceptance model, theory of plan behavior and ability to pay theory; empirical review for in-depth knowledge of previous efforts in investigating the impact of digitalization of tax administration practices in developed countries, developing countries as well as in Nigeria. The review broadened the researcher's knowledge of the scope of the subject matter of the study interest and pointed out the existing gaps now filled by the current

research effort. Further, the chapter presented the theoretical framework with emphasis on the unified theory of technology acceptance.

Chapter three presented the methodology for the study. Essentially, the chapter discussed the research design and population of the study. An appropriate sample size was determined and selected using random and stratified sampling method. Methods of data collection and analysis were also discussed. Furthermore, the functional relationships associated models and a-priori expectations were described.

In chapter four, the data were analyzed into two parts, descriptive statistical analysis and inferential statistical analysis with aid of SmartPLS-3. The descriptive statistical analysis examined the frequency distribution, mean, median, minimum, maximum, standard deviation as well as excess kurtosis and skewness. The data was also analysed using Pearson correlation matrix for variables to establish the strength of the relationship between the study variables as conceptualized in the conceptual framework.

Inferential statistical analysis was evaluated using partial least square structural equation model (PLS-SEM). PLS-SEM integrated two models: assessment model (outer model) and structural model (inner model). Analysis of assessment model using PLS algorithm to assess construct reliability and validity using cronbach's alapha and composite reliability. Validity of construct was also tested by conducting assessment of discriminant validity using Square root of AVE, Furnell-Larcker Criterion and HTMT. Analysis of structural model using bootstrapping to evaluate three quality criteria: the significant path coefficient to show the significant effect of digitalization of tax practices on revenue performance, the coefficient of determination (R^2) and coefficient of prognostic relevance (Q^2).

This chapter gives the summary of the study as well as the conclusions and recommendations. Finally, the chapter highlighted the limitations of the study, the study's contribution to knowledge and suggestion for further research.

5.2 Conclusions

This study concluded from the empirical analysis and the hypothesis tested, the result showed that digitalization of tax administration practices (proxy with electronic tax registration, electronic tax identification number, electronic filing of tax returns and electronic tax payment) had significant positive effect on performance of Kwara State Internal Revenue Service, evidenced from the significance of path coefficient table.

The first objective of the study sought to examine the extent to which electronic tax registration influence performance of Kwara State Internal Revenue Service. The quantitative results indicated that, in the path coefficient table, a unit change in electronic tax registration (β=0.198, t= 0.66, p <0.05) postive changes on revenue performance. However, this change was statistically significant, meaning that electronic tax registration influences performance significantly.

The second objective of the study sought to investigate the effect of electronic tax identification number on performance of Kwara State Internal Revenue Service. The quantitative results indicated that, in the path coefficient table, a unit change in electronic tax identification number (β=0.454, t= 3.258, p = 0.00) The output of this analysis portrayed that electronic tax identification number practice has a positive significant effect on revenue performance.

The third objective of this study sought to evaluate the effect of electronic filing of tax return on performance of Kwara State Internal Revenue Service. In the significance path coefficient table, which shows variation in electronic filing of tax return (β=0.403, t= 0.546, p < 0.05) positive changes in

performance. This change was also statistically significant, meaning that electronic filing of tax return has significant effect on revenue performance positively.

The fourth objective of the study sought to determine the extent to which electronic tax payment has effect on performance of Kwara State Internal Revenue Service. In the path coefficient, a unit change in electronic tax payment ($\beta = 0.249$, $t = 2.655$, $p < 0.05$). The quantitative result shows a positive change on revenue performance. This change is statistically significant, meaning that electronic tax has significant effect on performance of Kwara State Internal Revenue Service positively.

The results showed that all null hypotheses were rejected due to the respective evidences stated above. So, revenue agency need to focus on electronic tax registration, electronic tax identification number, electronic filing of tax return and electronic tax payment practice effectively and efficiently so as to enhance revenue performance.

5.3 Recommendations.

It was found that use of the digitalization has a statistically significant relationship with revenue tax performance of Kwara State Internal Revenue Service (KW-IRS). The study therefore recommended that KW-IRS should scale up the use of digital tools in all tax streams to enhance tax revenue collection and performance. In addition to this, based on above findings and conclusions, this study proffers the following recommendations:

i. The respective agencies responsible for tax collection should sensitize eligible and potential tax payers on the process and suitability of electronic tax registration by tax payers in order to enhance its impact on revenue performance in the country. Kwara State Internal Revenue Service (KW-IRS) should scale up the use of technology and deploy more tax digital tools in all tax streams to enhance tax revenue collection and optimal performance. KW-IRS should educate business people

and customers on the usage and benefits of electronic tax registration system. The agencies should also ensure that the system deployed is effective enough to continue eliminating multiple taxation system in the state.

ii. As far as electronic tax identification number (e-TIN) is concerned, based on the discoveries of this study, it was established that e-TIN stimulates increase in revenue generation in Kwara State, Nigeria. It was therefore recommended that intermittent checks of all the platform related to e-TIN so as to prevent abuse and other fraudulent activities; regulatory agencies of the government should enlighten taxpayers on the benefit of the e-TIN, that the government of Kwara State should develop a means of bringing more people to the tax net through e-TIN and should also ensure that system is effective and efficient in preventing tax fraud and eliminating tax avoidance and tax evasion in Kwara State, Nigeria.

iii. In order to enhance behavioural intention and adoption of the system in order to realize its objectives, since electronic filing of tax return is a new technology, its rollout must go in tandem with awareness and education to the taxpayers. There is need to enhance provision of technical supports and backstopping services to the users. Such support may include but not limited to physical visit, online support or special call centre for e-tax fillers. Technical support may also focus on solving connectivity challenges to make sure that the system is available at all times. High connectivity reduces problems of non-delivery of returns and enhances overall efficiency. Also, there should be a strong and robust security system put in place by Kwara State Internal Revenue Service to protect taxpayers' confidential information transmitted over the internet against cybercrime.

iv. The government organizations that seek to achieve revenue optimization should stick to the improvement in the electronic tax payment system since it has been proved to be one of the major

contributors to the increase in revenue generated in Kwars State. The revenue generating agency, Kwars State Internal Revenue Service should ensure the use of electronic or system audit so as to track the payment pattern of tax payers. This will further help improve the levels of revenue generation within the state. More so, the tax payers and potential tax payers should be further and consistently orientated by the Kwara State government on the adoption of technical efficient electronic payment system and its usage.

5.4 Contribution to Knowledge

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

i. This study has contributed to the existing literature through empirical findings and the output revealed that the study was also in accordance with other existing findings which are of the notion that improvement in electronic tax registration, electronic tax identification number, electronic filing of tax returns and electronic tax payment system are indeed the keys to the attainment of maximum revenue as proved in existing literature.

ii. This study has thrown more light to the government and other agencies involved in the automation tax administration system in the country on more efficient strategies of tax collection and ways of reducing tax evasion. The tax agency need to develop policies that clearly and purposefully engages taxpayers to eliminate impediments to rendering their obligations and arouse a consciousness and directs them towards a sense of duty and commitment to pay their taxes through online platforms.

iii. Conceptually, through its concept, it has added to existing concepts through its meaning, importance as well as how its importance can be evident in a typical entity. A conceptual framework was also constructed by the author of the current study.

iv. In term of policy making, this study has through its recommendations contributed to existing policies in literature. Such recommendations are; the government should ensure the installation or operation of adequate high level technological package which will help to monitor the inflow of revenue to prevent diversion and so on.

v. 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 tax payers from whom government revenue are derived, tend to file their returns and pay more while tax agents were able to make use of electronic tax registration and electronic tax identification number to capture more taxpayers information as the tax digital tools become better than it used to be.

vi. The study has contributed to the existing literature by the findings that have investigated; 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 revenue agencies in Nigeria

5.5 Suggestions for Further Studies

This study was carried out in Kwara State and employed only four variables to explore the impact of digitalization of tax administration practices on performance of revenue agency. The study therefore recommends that future researchers should further investigate the impact of digitalization of tax

administration practices in other states and consider the effects of other variables which were not included in this study.

5.6 Limitations and Delimitations of the study

The results of this study are limited to the Demand and Supply Side. At demand side four local governments (Ilorin East, Ilorin South, Ilorin West and Asa) in Kwara Central districts were focused while at supply side, Kwara State Internal Revenue Service at corporate headquarter in Ilorin, Kwara State was focused. Other states or local governments were not covered in this study. The results were proclaimed good enough to give a reasonable insight on the impact of digitalization of tax administration practices in Kwara State, Nigeria.

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