Digitalization and Tax Compliance in Nigeria

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November, 2025.

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A Research Project Submitted To the Department of Accounting (Taxation Option), Faculty of Management Science, University OF Benin, Benin City, Edo State, In Partial Fulfillment Of The Requirements For The Award Of Bachelor of Sciences Degree B.sc. In Taxation University Of Benin, Benin City

November, 2025.

CERTIFICATION

We the undesigned certify that this research work was conducted and submitted by Fatai OWONIFARI with Matriculation Number MGS2104705, in partial fulfillment of requirements for the Award of Bachelor of Science (B.Sc.) Degree in Accounting.

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(Project Supervisor)	**(Project Coordinator)**
Date	**Date**

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DECLARATION

I declare that;

1) This report is based on a study carried out by me in the Faculty of Management Science, Department of Accounting (Taxation Option), University of Benin, under the supervision of Prof Peter O. Ibadin.

2) This work has not been previously submitted for award of a degree elsewhere.

3) All ideas and views are products of my personal research effort and where the views of others have been expressed, they have duly been acknowledged.

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Fatai OWONIFARI

DEDICATION

This work is dedicated to Almighty God, whose grace, wisdom, and strength saw me through this academic journey.

ACKNOWLEDGEMENT

First and foremost, I give all glory and thanks to Almighty God for His abundant grace, wisdom, and strength that enabled me to successfully complete this project work. Without His divine guidance, this achievement would not have been possible.

My deepest appreciation goes to my supervisor, Prof. Peters O. Ibadin, for his invaluable guidance, constructive criticism, and constant encouragement throughout the course of this research. His mentorship and dedication greatly contributed to the success of this work.

My heartfelt appreciation goes to all the lecturers and staff of the Department of Accounting (Taxation Option), Faculty of Management Sciences, University of Benin. In particular, I acknowledge and appreciate Prof. O. Eiya, Prof. Osasu Obaretin (HOD), Dr. N. Uwaifo and Dr. Oboh for their dedication to academic excellence, their guidance, and the valuable knowledge they have imparted during my studies. I also extend my sincere gratitude to Dr. Uyi Obazee for his support, encouragement, and contributions toward my academic growth. His guidance and kind words have been a source of motivation.

My heartfelt appreciation goes to my father, Mr. Owonifari Tajudeen, whose prayers, sacrifices, and moral support have been my source of strength, and to the memory of my late mother, Mrs. Owonifari Simiatu, whose love and inspiration continue to guide me. I also thank my siblings, Owonifari Azeez, Owonifari Sikiru, Owonifari Amina,

Owonifari Wahab, Owonifari Bose, Owonifari and Owonifari Bideme, for their unwavering encouragement, support and understanding.

I am especially grateful to my colleagues and coursemates for their cooperation, friendship, and support throughout this academic journey. In particular, I appreciate Imhoitsike Victory Ikphemosimhe, Ademuyiwa Peter Adejare, Ahkibi Jessica Tobomhenre, Osawaru Destiny Eghosa, Aigbe Felix Peterson, Igbinovia Elizabeth Enorense, Omoregie Osaruese Emmanuella, Ugwu Cynthia Chidima, Zenith Ogbemudia, and Adebayo Ruth Feyisayo for their encouragement, teamwork, and shared moments of learning. To my church families in Benin and Sapele, thank you for your continuous prayers and spiritual support. Your words of faith and encouragement gave me the strength to persevere.

Finally, to all my friends and well-wishers whose names are not mentioned, I deeply appreciate your contributions, prayers, and support. Your presence and kindness have made this journey both rewarding and memorable.

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ABSTRACT

This study examines the effect of digitalization on tax compliance in Nigeria, focusing on digital literacy, digital skills, digital platforms, and e-filing systems. The study was prompted by Nigeria's efforts to modernize its tax administration through digital technology, aiming to improve revenue generation and voluntary compliance. A quantitative research design was adopted, and data were collected from 375 respondents. The data were analyzed using descriptive statistics, correlation, and multiple regression techniques with the aid of E-Views 14.0.

The regression results revealed that digital literacy had a negative and significant effect on tax compliance in the short term, indicating that initial adaptation challenges may hinder compliance. Digital skills showed a positive but statistically insignificant effect, while digital platforms and e-filing recorded negative coefficients, with e-filing being marginally significant. The overall model was statistically significant, explaining about 22.4% of the variation in tax compliance. Diagnostic tests confirmed the model's reliability, showing no evidence of autocorrelation or heteroskedasticity.

The findings imply that although digitalization enhances accessibility, transparency, and efficiency, behavioral and institutional barriers—such as low digital literacy, system inefficiencies, and limited trust in digital systems—continue to constrain its effectiveness. The study concludes that digitalization alone cannot ensure improved tax compliance unless supported by continuous taxpayer education, user-friendly systems, and strong institutional frameworks. It recommends capacity building, infrastructure improvements, and public sensitization to strengthen the positive impact of digital transformation on tax compliance in Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The significance of taxes cannot be overstated. It is primarily utilized by governments around the world as a fiscal policy instrument to generate revenue for government expenditure on public services. Numerous noteworthy changes have been made to the Nigerian tax system with the goal of enhancing revenue administration and collection while reducing the expense of enforcement (Odia & Akonoafua, 2023).

Tax compliance has become a top priority for governments, corporations, and individuals globally in an era of growing globalization and increased fiscal scrutiny (Falana et al., 2024).Although the need for tax compliance is universally acknowledged, the factors influencing it differ widely across various regions, shaped by contextual elements such as institutional structures, cultural practices, and historical contexts (Andriani & Tarmidi, 2024). Numerous factors, such as taxpayer attitudes, fairness views, enforcement tactics, and the complexity of tax legislation, influence tax compliance. (Falana et al., 2024). Taxpayers' willingness to adhere to tax regulations is influenced by their trust in governmental institutions, their views on the efficiency of tax administration, and their beliefs regarding the fairness of the tax system (Adelekan et al., 2024). The rise of digital economies presents significant challenges to traditional tax enforcement methods.

Ogunshola et al. (2022) described tax compliance as the reporting of all incomes and payment of all taxes by fulfilling the provisions of laws, regulations and court judgments. This is so because the tax laws define and form the basis upon which taxes will be paid. The tax laws, together with the tax policy and tax administration make up the tax system, which is established as government's tool to enhance, and enforce the payment and collection of tax in a given society. Despite this, however, tax non-compliance is in fact a pervasive phenomenon in all societies and economic systems; including both developed and developing countries (Ogunshola et al., 2022). By this definition, it is inferred that if a taxpayer complies with the tax laws as a result of enforcement activity then such a taxpayer is guilty of tax non-compliance. He identified three forms of compliance as (a) committed compliance, (b) capitulative compliance, and (c) creative compliance.

There are many reasons for high non-compliance among taxpayers but they can basically be divided into two; economic and behavioral. Okoli and Abegunde (2022) stated that the assumption of risk aversion that underlies economic rationality as propounded by Sandmo (2012) cannot explain all the compliance behaviours of taxpayers. Psychological and social disincentives Tax compliance model proponents contend that understanding tax compliance decisions involves more than just a cost-benefit analysis; morality, taxpayer characteristics, and opinions about how fair tax systems are some of the other factors that are taken into consideration.(Jayawardane et

al., 2016). This models moves away from the economic self-interest that had been outlined by Sandmo et al. (2012) which maintain that people are driven solely by economic gain, calculating all relevant risks and opportunities and breaking the law when they believe the financial advantage from non-compliance will be less than the likelihood of getting caught.(Sandmo et al., 2012). Sandmo et al. (2012) developed a theory known as A-S models to explain tax compliance behaviour. This theory was derived from Becker's (1968) deterrence theory. The general conclusion of the theory is that compliance depends largely on tax audit and penalty. However, the theory had been criticized for paying more emphasis on economic factors and ignoring completely social and psychological perspective of tax noncompliance (Fischer, 2013).

Digitalization refer to the widespread use of digital services and technologies to connect individuals, businesses, and governments, ultimately driving economic growth and facilitating new opportunities. This involves utilizing the internet, mobile technology, big data, and other digital tools to revolutionize industries, create new markets, and enhance efficiency. Digitization of the Nigerian economy has the potential of improving tax compliance by increasing the ability to collect, process and monitor tax information, through the use of digital tools and platforms.

1.2 Statement of the Research Problem

It is common knowledge that Nigeria's economy is largely dependant on taxes which make tax compliance important to the system. The ability of governments to collect

taxes depends on the willingness of the taxpayers to pay them. Kari,(2012) stated that "Measures to enhance tax compliance and build a taxpaying culture need to be tailored for the different segments of taxpayers and the specific constraints they face". The issue of tax evasion, tax avoidance, and low level of tax compliance over the years have continued to hinder the government from realizing the needed Aims. There are certain similar challenges that tax administrators all over the world face in the process of netting the informal sector into the tax bracket. Tax administrators face the challenge of creating systems that will enhance compliance at the lowest cost to the tax payer (McKerchar & Evans, 2009).

Nigeria still has difficulties reaching the ideal levels of revenue collection and tax compliance (Onafowokan & Olayinka, 2018).Nigeria faces several obstacles in improving tax compliance and income collection. These considerations include widespread tax evasion and avoidance, inadequate enforcement mechanisms, complex and outdated tax laws, weak institutional capacity, and a large informal sector that operates outside the tax net.The tax compliance environment is further complicated by elements including bureaucratic inefficiency, corruption, and a lack of public confidence in the government's capacity to use tax resources efficiently (Adewara et al., 2023; Akinadewo et al., 2023).

In order to promote voluntary compliance, these issues necessitate a multipronged strategy that includes policy reforms, collaborations with the commercial sector, civil

society organizations, and international stakeholders. The tax system, increase accountability and transparency, promote taxpayer education, and develop institutions, build capacity, and run public awareness initiatives. Attempts to streamline data gathering and analysis, lessen the likelihood of fraud and tax evasion, and improve data acquisition. Strategic. Additionally, using digital platforms and technology can help modernize tax administration procedures and support initiatives to improve tax compliance in Nigeria. Tax compliance rates are still below ideal despite Nigeria's growing attempts to digitize its economy through the use of digital financial services, online tax platforms, and electronic payment systems. The economy is dominated by the unorganized sector, and many taxpayers either avoid or evade taxes because of issues with digital literacy, a lack of confidence, or insufficient enforcement. This calls into question how well digitization has worked to improve tax compliance in Nigeria. It is necessary to investigate whether and how digitalization helps people and corporations behave better when it comes to taxes.

1.3 Research Questions.

The following research questions will be the focus of the study.

i. How does digital literacy affect tax compliance?

ii. How do digital skills affect tax compliance?

iii. How do digital platforms affect tax compliance?

iv. How does e-filing of returns affect tax compliance?

1.4 Objectives of the study

The broad objective of the study is to examine the relationship between digitalization and tax compliance In Nigeria. The specific objective are to:

i. determine the effect of digital platform on tax compliance.

ii. examine the effect of digital literacy on tax compliance.

iii. examine the effect of digital skills on tax compliance.

iv. assess the effect of e-filing on tax compliance.

1.5 Research Hypotheses.

The following are null hypothesis are raised to guide the study. They are as follow;

Ho: Digital platforms does not significantly influence tax compliance.

Ho: Digital literacy has no significant effect on tax compliance.

Ho: Digital skills has no significant effect on tax compliance.

Ho: E-filing of returns does not significantly influence tax compliance.

1.6 Scope of the study

The study will look at the relationship between tax compliance and digitalization of economy in Nigeria as well as the variables that affect both. This study focuses on how the digitalization of Nigeria's economy affects tax compliance among individuals and businesses. It looks at how people use digital tools such as online tax payment platforms, electronic filing (e-filing) systems, and digital financial services like mobile banking and payment apps to meet their tax obligations. The time frame will cover developments from the last 10 years when most of the digital changes in tax administration began between 2014-2024. The study will explore how the increasing digitalization of the Nigerian economy is affecting taxpayers' behaviour.

It will also explore challenges people face when using digital platforms such as poor internet access, low digital skills, or mistrust in government and how these issues influence tax compliance. Special attention will be given to the role of digital literacy and trust in public institutions.

1.7 Significant of the study

For many stakeholders involved in the Nigerian tax system, this study on the effects of digitization on tax compliance in Nigeria is extremely valuable. The study highlights barriers faced by citizens in adopting digital tax solutions and may lead to improved user experience. It will provide insights to the government and tax authorities on how digital strategies can improve tax compliance. It helps in understanding the challenges

and opportunities of using digital systems for tax collection. Offers guidance for improving or creating better digital tools that support tax compliance. The study will also help scholars and researchers better understand tax compliance in the digital era by offering useful information and ideas for additional research on this crucial subject

CHAPTER TWO

2.1 INTRODUCTION

This chapter presents a comprehensive review of existing literature relevant to the project topic, "Tax Compliance and Digitalization of the Nigerian Economy." The review aims to explore various studies, research findings, and expert opinions related to tax compliance, digital technologies, and their impact on the Nigerian economy. The literature review will be organized around the four objectives of the project, with each objective serving as a focal point for the discussions.

2.2 Conceptual Framework

Conceptual framework lays the foundation for the variables used in any given study. For this study, the following variables are reviewed.

2.2.1 Tax compliance

Tax compliance has been defined by difference authors and scholars. According to Etim et al. (2022) tax is a compulsory payment made by individuals and organisations to the government in accordance with predetermined criteria for which no direct or specific benefit is received by the taxpayer. He identified some features of tax; it is compulsory levy usually backed up by law, It is paid to the government rather than to individuals, levied in accordance with preset standards, and used for the general good of all citizens. According to Ilemona (2023) Tax compliance means tax payer’s voluntary decision to comply with tax laws declaring the accurate amount of his/her income and correctly

paying the tax liability thereon promptly according to law. The ability and willingness of taxpayers to register, file, and send taxes on time in order to satisfy their legal duties is known as tax compliance. Both deterrent-based elements (audits, fines, and sanctions) and more subtle behavioral aspects (trust, equity, and taxpayer awareness) influence compliance in Nigeria. Compliance in a self-assessment setting necessitates both understanding of responsibilities and the ability to carry them out via the channels at hand—an area in which digitalization has revolutionized itself. Tax compliance is the voluntary submission of all necessary tax obligations within the stipulated timeframe by taxpayers along with accurate reporting of their tax liabilities and obligations following the relevant legal principles guidelines and judicial rulings at the time of submission (Lawal et al., 2024). Veronica and Rufus (2024) also define Tax compliance as the adherence of individuals, company and businesses to rules, regulations and laws governing taxation within a particular jurisdiction. He further explain that it involves accurate reporting and paying of taxes owed to the government on time. Ogunshola (2022) further explain tax compliance as the reporting of all income and payment of taxes by fulfilling the provisions of the laws, regulations and court judgement because the tax system is make of the tax laws together with the tax policies and administration, which is so because the tax laws defined the basis upon which taxes are paid. However, Oyedokun and Ayinde (2023) defined tax compliance as the capacity to meet tax payment obligations in accordance with applicable tax laws

which entails timely declaration and payment of tax liabilities to the appropriate government agency without delay.

Tax compliance can be classified into two dimensions; the voluntary compliance and enforced compliance. Where taxpayers willingly meet obligations, and enforced compliance, where fear of penalties or detection drives behavior (Allingham & Sandmo, 1972). As also noted by Falana voluntary compliance is where tax regulations are voluntarily followed and compliance is enforced out of fear of audits and legal consequences. However, Ogunshola (2022) made a crucial distinction between enforced and voluntary compliance, pointing out that in the context of tax administration, enforced compliance typically comes at a high cost. Enforced compliance is the reluctant discharge of a taxpayer's tax obligation, while Voluntary compliance is the structuring of a taxpayer's affairs to lower overall taxes by redefining income and deductible expenditures within the legal parameters. Because of low tax morale, corruption, and administrative obstacles, voluntary compliance has always been weak in Nigeria. But with the advent of e-taxation platforms like FIRS's TaxPro-Max, digital literacy and technological accessibility are becoming more and more important in mediating compliance. Research on SMEs in Nigeria shows that because of the tax system's intricacy and the time required to communicate with officials, compliance is frequently expensive (Adebisi & Gbegi, 2013).By making filing and payment processes simpler, digitalization reduces these compliance costs and encourages businesses to

comply voluntarily. E-filing, for instance, lowers waiting times, travel expenses, and the potential for unethical behavior. Research from Lagos indicates that the compliance rate of taxpayers increases dramatically when they believe that tax systems are fair, transparent, and easy to use (Okonkwo & Nweze, 2021).Moreover, the fairness principle is enhanced in digital systems by eliminating discretion and guaranteeing consistency in evaluations and payouts, automated platforms strengthen confidence. Perceived fairness of e-tax systems, availability of transparent digital receipts, and TCC validation are all positively connected with compliance behavior in Lagos and South-West states, according to empirical data (Akinleye, 2022). As seen by the dependability of digital procedures, the institutional quality of the tax system serves as a stronger motivator for compliance than pressure alone.

However, compliance remains segmented. Informal-sector taxpayers, who make up over 60% of Nigeria's economy, still exhibit low voluntary compliance because many lack digital literacy and access to reliable infrastructure. According to Falana et al. (2024) Several factors can influence tax compliance, factors like economic conditions, the complexity of tax laws, enforcement strategies and perceptions of the fairness of the tax system. To improve compliance, research suggests that both intrinsic and extrinsic motivations can be used to increase tax compliance in a nation. Intrinsic motivation include personal values and ethics (taxpayers and government official's ethical action are important in tax compliance), while extrinsic motivation involve the fear of audit,

fines and legal consequences. Oyedokun and Ayinde (2024) noted that the government had implemented several tax education programs, threat and punishment for non-compliance but still a significant numbers of taxpayer still default. In reality, non tax compliance is a widespread issue in all economic systems and communities, including both industrialized and developing nations. According to Ogunshola (2022) if taxpayers comply with the tax rules as a result of enforcement actions such taxpayer is guilty of tax non-compliance. He stated that tax non-compliance with tax laws comes in two forms which are intentional non-compliance and unintentional non-compliance. When a taxpayer knowingly chooses to understate income, inflate expenses, mislead tax authorities, or neglect to file their tax return on time, this is known as intentional non-compliance. Unintentional non-compliance happens when a taxpayer, due to ignorance, oversight, or error, fails to properly file tax returns and pay taxes. However, it should be noted that non-compliance is illegal regardless of whether it is unintentional because ignorance is not permitted by the law. The legal term for intentional and unintentional non-compliance is "tax evasion," which is illegal Ogunshola (2022).

2.2.2 Digitalization

Digitalization refers to the integration of information and communication technology (ICT) into processes, transforming the way services are delivered and consumed. According to Ifo Institute Digitalization of the economic drives entrepreneurial innovation, productivity, and regional economic growth, it also has implications for

growth, the labor market and political Digitalization places new demands on education and training not only in the field of information and communication technologies. Every area of the economy is impacted by the widespread digitalization of society. It is challenging to identify and measure the economic impact of digitization due to its widespread nature (IMF 2023). In taxation, digitalization reconfigures the compliance ecosystem by replacing paper-based processes with electronic systems. According to Etim et al. (2020) digitalization is the heavy reliance on efficient and widely accessible online communication network and services, data, software and hardware. According to Chime (2022) digital economy is a product of digitalization and technological innovations and has been characterized as the Fourth Industrial Revolution (4IR), with the pervasiveness of technology in some ways blurring the lines between digital, physical, and biosphere. According to the Organization for Economic Cooperation and Development (OECD), the impact of ICT revolution is so pervasive that the digital economy is fast taking over as the primary economic sector. However, digital economy is becoming the world most innovative and far reaching economy.

According to Oto and Wayas (2024) digital economy is an economy built on digital computer technology or it's an economy built firmly on the foundation of information communication technology (ICT). it's also know as internet economy, new economy, or online economy. Odia and Akonoafua (2022) noted that Tapscoot, (1995) was the first to introduce the notion. It was one of the first publications to demonstrate how the

Internet would alter our business practices. From the beginning, the phrase "digital economy" has describe the dynamic nature of information technology advancement and how businesses and consumers use it. Digital Economy is defined as the part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services (Etim et al., 2020). Furthermore, Adelakun et al. (2024) highlighted that digital economy encompasses a wide array of economic activities that are based on digital technologies and the internet. It is characterized by the extensive use of digital platforms, services, and technologies, which have transformed traditional business models and posed challenges to tax systems. Traditional business models have been transformed by the digital economy, which is defined by the widespread use of digital technologies in economic operations. As a result, new paradigms like the sharing economy and circular economy have emerged. Nigeria's digital economy has grown quickly recently thanks to new business models, rising internet penetration, and smartphone adoption. According to Umenweke (2024) the country's digital economy contributes significantly to its GDP, with the sector accounting for 13% of Nigeria's GDP in 2020. Adelakun et al. (2024) Further explain that In order to maintain compliance with tax legislation, individuals functioning in the digital economy must conform to new tax knowledge standards, especially in areas like general, procedural, and legal tax knowledge.The 2015 BEPS action one report, addressing the tax challenges of the digital economy, which was release in October, 2015. The Significant Economic Presence (SEP) Order 2020, provides the legal

framework for taxing digital companies, showing how digitalization has moved from administration to substantive law. However, Oto and Wayas (2024) identified that In 2014 the Organisation for Economic Co-operation and Development [OECD] identified few essential traits and unique qualities of the digital economy to include; dependence on intellectual property which are Intangible assets such as intellectual property, are heavily relied upon and user involvement and data value, a lot of developing business models use data, user involvement, network effects, and user-generated content.

The capacity to have an economic presence without a significant physical presence is known as "scale without mass. In addition, according to OECD, there are three main models into which digital businesses can be divided:

a) The Subscription Model: Under the subscription model, users pays a recurring fee to gain continuous access to a product or services delivered digitally. On websites like Amazon or Netflix, consumers pay a subscription fee to access certain services or content. The model shows how a company can generate large revenues from global users without setting up offices or stores in every country.

b) The Advertisement Model: This businesses offer free service to users but earn revenues by showing targeted advertisements paid for by third parties. In this model, people earn money by seeing advertisements on websites run by businesses like Facebook or YouTube. In this framework, value is generated via user engagement and

data, despite the absence from the user’s nation. This prompts an inquiry into the appropriate methods and locations for taxing such profits.

c) The Access Model: This model demonstrates how value is created from user data and access rights again without traditional business presence in the market jurisdictional, in which Internet service providers, data brokers, and data analysts pay content and app creators to access end users' data, including App Store.

Though the term "tax digitalization" or "digitalization of taxes" is broad and can signify different things to different individuals, digitization has been altering all facets of taxes for a while (Adesoga et al., 2024). According Udo (2024) digital taxation or digitalization of taxation is the application of digital technologies in the administration of taxes to transform the manual model of taxation to provide new revenue and value-producing opportunities for sustainable development. It means the taxation of the revenue of corporations through digital technology capabilities. Taxation is affected by digitalization in many ways, including new tools and problems, as well as changes to domestic and international tax administration and policy. The implications of digitization for tax policy have thus been at the forefront of the recent worldwide discussion about whether or not international tax laws are still appropriate in a setting that is changing more and more (Etim et al., 2020). Moreso, with the aid of technology, tax authorities can now levy digital goods and services (digital economy) which is called digital economy taxes‟ and can increase compliance as well as reduce tax

evasion, corruption and decrease administrative and enforcement costs (Udo 2024). The term "tax digitalization" refers to a web-based system or channel that allows taxpayers to access all of the services provided by the tax authority, including the electronic taxation system, which was implemented in Nigeria in 2013 by the Federal Inland Revenue Service (FIRS), enrollment for a tax identification number, and electronic return submission (Olatayo & Adewale 2024). Regretfully, the digitization process has not been extended to include efficient tax tracking and collection from digital transactions, despite the Nigerian tax authorities' efforts to ensure that the tax collection process is digitalized. Furthermore, Ologun and Oloruntoba (2024) stated the goal of this revolutionary change, which is to improve the effectiveness, precision, openness, and accessibility of tax-related operations. By implementing digital platforms, electronic filing systems, and data analytics, tax authorities can reduce tax evasion, minimize errors, and streamline tax compliance. Udo (2024) discussed some advantages and disadvantages of taxing digital economy to include, the advantages are; large, cross-border digital companies will be also taxed in countries where they serve numerous customers, but do not have a permanent establishment. They would not be able to avoid taxation by shifting their offices to low-tax countries. Africa has become the dumping ground. If profit shifts are prevented by law, the EU will stop losing almost 20% of its (theoretical) corporate tax intake.

Today companies can use the internet and online platforms to do business abroad without running a permanent establishment in other countries. Under current law, they do not pay any taxes on the profits they generate abroad. If goods and services are offered from a foreign country that sets comparatively low tax rates, a country not only loses tax revenues, but also witnesses (additional) competitive pressure on domestic providers. Digital taxation aims to level the field for both domestic and foreign market players. Many digital business models are based on fundamentally new value creation processes, which are not taxed adequately (and, above all, not in the proper countries) under the current rules

While the disadvantages are levying a tax on gross revenues instead of profits is problematic, It may negatively affect the trade relationship with the US. A digital tax may be harmful to start-up companies during their initial expansion phase. The shift from the country-of-establishment principle to the country-of-destination principle of international tax law poses a significant risk of double taxation. Platform or broker service providers might pass on part of this tax to end-users and/or to sellers, This will scale down their affordability and popularity. Low taxation on digital business activities is a part of the government initiative to stimulate innovation development. Higher taxes might hinder global economic and technological progress. Compliance with new transparency guidelines will incur a lot of additional costs on businesses.

2.2.3 Digital literacy and skill

Digital literacy refers to the ability to effectively use digital tools and platforms to access, manage, and apply information. In taxation, digital literacy is the capability threshold that determines whether taxpayers can engage with electronic filing, payment, and compliance systems. According to Chime (2022) digital literacy skills are those proficiencies a person needs to live, learn, and work in a society where digital technologies and innovations are the predominant means of communication and access to information. It includes a variety of capabilities to use digital devices, communication applications, and networks to access and manage information. Vital aspects of digital literary skills include using information and content, communicating, problem-solving; and safe and ethical usage of the internet. Digital literacy and skills are one of the eight pillars of Nigeria's National Digital Economy Policy and Strategy (NDEPS 2020–2030). The National Digital Economy Policy and Strategy (NDEPS, 2023) define Digital literacy as the basic knowledge, skills, and attitudes that an individual must possess to use digital technologies competently, safely, and appropriately. While Digital Skill as the ability to operate, manipulate and use different technologies essential for roles in small to large businesses across a variety of sectors (NDEPS, 2023). The recently launched National Digital Literacy Framework (NDLF 2023) sets a target of 95% digital literacy by 2030. This framework outlines competency levels ranging from basic (using mobile phones, browsing, reading SMS/email) to advanced (using specialized software, data analytics).

A core conceptual finding from Nigerian studies is that digital literacy reduces the effort-costs of tax compliance and therefore converts taxpayers' intentions into actual e-filing and e-payment behavior. For example, a study on SMEs in Lagos by Oladipo and Oyedele (2023) shows that when taxpayers possess basic digital skills such as logging in, entering figures, uploading receipts, and completing payments via Internet banking or USSD, they are more likely to complete tax returns on time and with fewer errors. This goes beyond mere smartphone ownership: literate users can interpret system messages, recover from password resets, and avoid abandonment during multi-step filings (Oladipo & Oyedele, 2023). Similar findings were reported by Salawu et al. (2025) that digital literacy significantly influenced performance expectancy and effort expectancy, both of which predicted tax compliance behavior. It is significant to note that even small, focused trainings, such one-hour seminars or brief video walkthroughs, have been demonstrated to lower SMEs' rates of abandonment and recurring mistakes (World Bank, 2019). It is implied that digital literacy multiplies the benefits of digital tax investments, a seamless portal does not provide much compliance benefit unless users possess the necessary abilities to use it. The enabling capacity that turns a digital system into a conduit for reliable tax compliance in Nigeria is literacy.

Nigeria has implemented a number of national frameworks, such as the National Digital Economy Policy and Strategy (NDEPS, 2020–2030) and the National Digital Literacy Framework (NDLF, 2023), that highlight the importance of digital skills in governance.

According to both policies, digital literacy is a public good that would increase efficiency in a variety of areas, including taxation. However, these high-level frameworks don't offer skill programs that are specifically tailored to a given tax. For example, the NDLF does not outline how taxpayers will be trained to use Tax Identification Numbers (TINs), e-filing forms, or reconcile Withholding Tax (WHT) credits, despite its goal of "90% digital literacy by 2030." As a result, there is a disconnect between the goals of policy and the realities of compliance. According to the World Bank (2019), Nigeria's digital economy is confronted with "last mile" issues, whereby its population may possess digital literacy but lack the industry-specific skills necessary to use platforms such as TaxPro-Max. Literacy frameworks will have little effect on compliance unless they are operationalized in tax contexts, for example, by incorporating TIN tutorials, e-payment simulations, and vernacular filing guidelines into taxpayer education initiatives. It is implied that tax authorities ought to localize the NDLF by planning training sessions in accordance with tax deadlines and dates. By doing this, the FIRS can convert general literacy goals into quantifiable compliance results, guaranteeing that the larger digital economy approach results in more voluntary tax compliance. Digital literacy in Nigeria is unevenly distributed across gender and geography, and this has significant implications for tax compliance.

World Bank (2019) diagnostics show that rural areas lag behind urban centers in terms of digital access, these disparities mean that digital tax systems may inadvertently favor

urban areas over rural areas (Eze & Okoye, 2022). Digital literacy is therefore a matter of tax equity as well as efficiency: when literacy programs are not inclusive, they deepen compliance inequality. Taxpayers can register, file returns, make payments, reconcile Withholding Tax (WHT) credits, and obtain Tax Clearance Certificates (TCCs) through Nigeria's TaxPro-Max platform, which is designed as an integrated system. However, these compliance benefits only occur if taxpayers possess the necessary digital literacy to use the system's full range of features (FIRS, 2024). By reconciling WHT credits directly on the platform, SMEs with greater digital proficiency not only submitted returns more frequently but also decreased conflicts, according to a study conducted in Anambra (Eze & Okoye, 2022). In a similar vein, KPMG (2024) found that companies that knew how to electronically create and authenticate TCCs were less likely to be subject to compliance fines. From a conceptual standpoint, digital literacy serves as the behavioral lever that converts integrated platforms into systems that enforce compliance. Taxpayers who lack literacy may simply use the bare minimum of features (like filing) and disregard reconciliation or certificate creation, undermining the self-enforcing nature of the system. Therefore, to ensure that taxpayers experience the complete integration of the platform, literacy training should incorporate modular tutorials for each component: filing, payment, credit reconciliation, and TCC download. This increases taxpayer trust in the digital system while lowering errors and audit concerns. To put it briefly, literacy makes sure that integration results in compliance rather than misunderstanding.

2.2.4 Digital Platforms

Digital platforms plays an important role in tax compliance. Digital tax platforms are platforms that consolidate functions such as taxpayer registration, filing, payment, and Tax Clearance Certificate (TCC) issuance thereby reducing friction by providing taxpayers with a one-stop system and giving tax administrators a unified ledger. According to Odia and Akonoafua (2022) digital platforms are the channels via which digital items and services can be accessible. These platforms are used by both the government and private organizations to provide services to users. These platforms, for example, allow producers to transfer value to and communicate with consumers. Veronica and Rufus (2024) further explain that an online tax payment platform is a digital system that allows taxpayers to pay their taxes online. It is a revolutionary development in contemporary taxation systems, providing a smooth and effective way for both individuals and businesses to satisfy their tax obligations. Furthermore, Ayodele et al. (2024) explained defined digital payment platforms as online systems or applications that facilitate electronic transactions and fund transfers between individuals, businesses, and financial institutions. These platforms provide users with a convenient and secure way to send and receive payments, make purchases, and manage their financial transactions digitally. In Nigeria there are various digital platforms used to access tax which aid tax compliance, they are know as E-tax. According to Asomba et al. (2024) E-tax, or electronic taxation, refers to the utilization of digital technologies and online platforms for the filing, payment, and administration of taxes. It

encompasses various electronic methods such as online portals, mobile applications, and electronic data interchange (EDI) systems to facilitate tax compliance and revenue collection processes. The electronic tax system in Nigeria has evolved the tax system of the country by providing easy ways to comply to the tax law and regulations.

According to Dagunduro et al. (2025) indicates that An electronic tax system refers to a digital platform or software used by tax authorities to facilitate the collection, filing, and management of taxes. It automates the process of tax return submission, payment, and record-keeping, thereby improving efficiency and reducing the potential for errors. An electronic tax system is an online platform that allows taxpayers to file tax returns, make payments and interact with tax authorities electronically. They further explained that it is a technologically advanced system that automates a number of tax compliance tasks, such as tax calculation, registration, submitting returns, and processing payments. Its goals are to guarantee accurate tax reporting, lessen administrative hassles, and increase openness. A complete digital framework that incorporates several tax administration tasks, including taxpayer registration, assessment, audit, and dispute settlement, is known as an electronic tax system. The Federal Inland Revenue Service (FIRS) has implemented a number of electronic services to facilitate tax administration and taxpayer compliance in an effort to stay abreast of and adjust to the ongoing changes brought about by the digitalization of the economy. E-tax registration, e-tax filling, e-tax payment, e-tax receipt, e-tax clearance certificate, e-stamping, and e-Vat

collection are among them. According to Oyedokun and Ayinde (2023) the programme improve tax administration's speed, ease, and openness for both taxpayers and tax administrators, make sure that crucial tax procedures are automated.

The following describes the e-services that Asomba et al. claim are available:

E-registration: for registering new taxpayers with FIRS for various taxes. This service allows taxpayers to register for tax purposes without visiting a tax office. All they have to do is visit the FIRS website and register.

E-stamp duty: refers to the payment of stamp duties on qualified papers. This innovation would improve the business environment in Nigeria. Previously, transactions required physical stamping. E-stamping allows you to stamp anywhere and at any time online. This innovation is particularly useful for incorporating new companies at the Corporate Affairs Commission (CAC). To pay stamp duties, use the FIRS e-service page after registering with CAC.

E-tax payment: E-tax payment options include Nigeria Inter-Bank Settlement (NIBSS), Remita, and Interswitch. This allows you to pay taxes from the convenience of your own home.

E-receipt: Receive and verify e-receipts for taxes paid through the new e-tax payment system. You will receive immediate notification of your tax payment.

E-filing: Taxpayers can now file their returns online using FIRS ITAS. This is one of the most revolutionary parts of e-taxation. Filing tax returns is required by law. This platform allows you to file your tax returns electronically, eliminating the need to visit a tax office. Simply upload appropriate papers.

Electronic tax clearance certificates (e-TCC): The platform allows taxpayers to apply for, receive, and validate their e-TCC. The manual tax administration method makes it difficult to obtain tax clearance certifications.

Despite these advances, obstacles remain in the evolution of e-taxation in Nigeria. Barriers to efficient e-taxation deployment include limited digital infrastructure, low digital literacy, bureaucratic impediments, and privacy issues, especially at the grassroots level.

Edori (2023) listed out some benefits of the electronic tax system ; From the office, a taxpayer can comfortably file tax returns, reduced the time and cost of paying taxes, filing can be done anywhere, within and outside the country, and anytime since the services are available for 24 hours, time and resources taxpayers use in going to the tax offices are now use for other business endeavour, timely reviews by tax officers are done on tax returns and it reduces physical interface between taxpayers and tax officers hence a decrease in corrupt practices, such as bribery.

2.2.5 E-filing

E-filing, commonly referred to as electronic filing, denotes the procedure of submitting tax returns and associated information via electronic channels utilizing computers or mobile devices that are connected to the internet. This process signifies a significant advancement in contemporary tax administration, with the objective of enhancing efficiency, accuracy, and compliance among taxpayers. As noted by Azmi (2010), e-filing was developed as a component of the wider e-government initiative aimed at improving service delivery, alleviating bureaucratic obstacles, and fostering transparency in public administration. In the realm of taxation, it enables taxpayers to send their tax information directly to the tax authority's database without the need for physical interaction or paperwork.

E-filing presents a multitude of advantages. It reduces processing times, lowers administrative expenses, eliminates human errors, and increases convenience for both taxpayers and tax officials. Furthermore, it grants tax authorities real-time access to precise tax data, thereby enhancing decision-making and compliance oversight. Nevertheless, the effective implementation of e-filing is contingent upon various contextual elements, including the availability of infrastructure, the technological proficiency of taxpayers, internet connectivity, and trust in the tax authority. Research conducted by Wang (2003) and Ibro and Ahmed (2021) highlights that challenges such

as cybersecurity threats, inadequate network connectivity, and limited awareness continue to pose significant obstacles, particularly in developing nations like Nigeria.

In Nigeria, the Federal Inland Revenue Service (FIRS) launched e-filing through the Integrated Tax Administration System (ITAS) to modernize tax administration and promote voluntary compliance. Although the system has enhanced efficiency, challenges remain regarding taxpayer education, system accessibility, and data security.

E-Filing is regarded as a technological advancement that improves the efficiency of tax administration and compliance when executed correctly.

Its implementation depends not only on technological proficiency but also on the perceptions of users, the readiness of infrastructure, and the level of trust in governmental institutions.

2.3 Theoretical Framework

This study on digitalization and tax compliance in the Nigerian economy is grounded in the following theories:

Technology Acceptance Model (TAM): This theories was developed by Davis (1989).The TAM framework effectively explains how users adopt technology. According to the paradigm, users' intention to use a new information system, which is driven by their ideas about the system, determines system adoption. The theory also maintains that perceived ease of use and perceived utility are critical in understanding

the disparity in users' desire to use the information system. The perceived usefulness of a system is the extent to which a user believes that using the system will improve his or her performance. Perceived ease of use refers to an individual's belief that using a technology will be simple. Adoption of technology, like E-tax administration systems, is influenced by its perceived ease of use and utility. Users' willingness to engage with the government throughout implementation may be influenced by perceived usefulness and convenience of usage. This idea is significant to this study because it explains what motivates people to accept and apply technology.

Diffusion of Innovation (DOI) Theory: Everett Rogers proposed the DOI idea in 1962. The theory explains technology adoption patterns, the mechanisms behind them, and predicts the success of innovations. According to the DOI, individuals of a social system transmit technological innovation to one another via certain channels over time. The Diffusion of Innovations Theory (DOI) examines the rate at which new ideas and technology spread across civilizations. The theory specifies five criteria that influence innovation adoption: relative advantage, compatibility, complexity, trialability, and observability. The theory is based on five essential tenets:

Relative Advantage: This refers to the perceived advantage of the invention above current options. Innovations that offer evident benefits, such as cost savings, efficiency, or improved performance, are more likely to be implemented quickly.

Trialability: Experimenting with innovations on a modest scale lowers uncertainty. Testing and exploring innovations before full-scale adoption leads to higher acceptance rates.

Observability: Adoption of an innovation is influenced by its perceived benefits to others. Innovations with clear benefits inspire imitation and spread via social networks.

Complexity: The ease of understanding and implementing the innovation is crucial. Simple and user-friendly innovations are more widely accepted, while complex and difficult-to-use ones encounter acceptance difficulties.

Compatibility: This concept stresses aligning innovation with potential adopters' beliefs, experiences, and requirements. Innovations that align with the current social system and user practices face less pushback.

These tenets provide insights into the elements influencing innovation acceptance and diffusion, aiding researchers and practitioners in effectively promoting new ideas and technology. DOI can analyze the perception of a digital tax system in comparison to traditional methods, its compatibility with existing systems, its complexity, user testing, and benefits visibility.

Information Systems Success Model: DeLone and McLean introduced the Information Systems Success Model in 1992. This model defines six characteristics of information system success: system quality, information quality, service quality, usability, user

happiness, and net benefits. It holds that the interaction of these dimensions determines an information system's success. The Information Systems Success Model is relevant to this study because it provides a complete framework for assessing the performance of digital tax compliance systems and platforms. Researchers can assess their overall performance in promoting tax compliance in Nigeria's digital economy by evaluating the quality of digital tax systems, user satisfaction levels, and perceived benefits of utilizing these systems.

Among these three theories, the Technology Acceptance Model (TAM) is the best fit for the study. TAM's emphasis on users' views of usefulness and simplicity of use is strongly aligned with the study's goal of investigating the influence of digitalization on tax compliance in Nigeria. Using TAM, researchers can examine taxpayers' views and intentions toward using digital tax compliance tools and platforms, offering significant insights into the elements that drive compliance behavior in the digital economy. TAM's emphasis on perceived usefulness and simplicity of use enables researchers to identify potential barriers to adoption and create tailored interventions to increase compliance. Overall, TAM provides a solid theoretical framework for understanding and forecasting taxpayer behaviour in the context of Nigerian digital tax compliance.

2.4 Empirical Review

2.4.1 Digitalization and Tax Compliance.

Oladele et al.(2024) examined the impact of digitalization on tax service compliance among corporate taxpayers in Nigeria. The researchers conducted a cross-sectional survey involving 126 staff members from the Federal Inland Revenue Service (FIRS) in Ekiti State, analyzing responses from a purposively selected group to explore the relationships between TaxPro-Max, electronic tax filing (e-tax), taxpayer security measures, and tax compliance. Findings revealed statistically significant and positive correlations at the 0.05 significant level: the adoption of TaxPro-Max, e-tax filing, and taxpayer security are all linked to increased tax compliance rates. The regression analysis reveals an e-tax filing coefficient of 0.538 and a taxpayer security coefficient of 0.486; the model accounts for approximately 44.3% of the variance in compliance (R^2 = 0.443; adjusted R^2 = 0.429), with a Durbin–Watson statistic of 1.393.The authors interpret these findings to suggest that digital platforms enhance convenience, transparency, and enforcement capabilities, thereby minimizing administrative hurdles and opportunities for tax evasion, while also acknowledging practical challenges such as software malfunctions, system outages, and connectivity problems that may hinder service delivery. The policy recommendations emphasize the need for broader implementation and ongoing enhancement of digital tax tools, investment in system dependability, and the establishment of robust data security measures to ensure that

digitalization can effectively improve corporate compliance and bolster Nigeria's revenue generation. The paper provides substantial empirical evidence supporting the digitization of tax administration as a means to enhance compliance. These findings align with other recent studies in Nigeria, which indicate that user-friendly e-filing, online payment options, and electronic reporting are significant predictors of revenue compliance, reinforcing a policy consensus that reliable and secure digitization enhances tax collection efficiency and mitigates avoidance in practice.

Ihenyen et al. (2024) conducted research titled "Electronic tax system and tax compliance, evidence from Nigeria jurisdiction" to explore the effects of electronic tax systems on compliance behavior among SMEs in Nigeria. Utilizing data from 100 SMEs located in Bayelsa and Delta States, the study evaluated user-friendliness and convenience as critical factors. The results indicated that a user-friendly interface, clear guidance, prompt feedback, and technical assistance significantly promote tax compliance. Likewise, the ability to access the system at any time, time savings, various payment options, and real-time updates positively affect taxpayers' readiness to submit returns. Regression analysis identified both factors as robust predictors, collectively accounting for over 37% of the variations in compliance behavior. The study concludes that electronic tax systems are essential for improving efficiency, minimizing errors, and fostering voluntary compliance. It suggests enhancing tax education, reducing

usage costs, and bolstering security measures to build trust and facilitate broader adoption of digital platforms within Nigeria's tax administration.

The research titled "A Conceptual Framework for Digital Tax Administration: A Systematic Review" authored by Bassey et al. (2022) offers a comprehensive synthesis of the current literature regarding the digital transformation of tax systems. The empirical findings indicate that the evolution of digital tax administration can be categorized into three primary dimensions: technological infrastructure, governance frameworks, and mechanisms for taxpayer engagement. The review underscores that the effective implementation of digital tax systems relies not solely on the integration of advanced technologies such as e-filing, big data analytics, and artificial intelligence, but also on the preparedness of institutions, the existence of legal frameworks, and the level of trust among taxpayers. It highlights that digital platforms enhance efficiency, transparency, and compliance; however, challenges such as digital divides, cybersecurity threats, and resistance to change continue to pose significant obstacles. The study advocate for a comprehensive conceptual framework that combines technology, governance, and user-centered strategies as essential components for achieving sustainable and inclusive digital tax administration on a global scale.

2.4.2 Digital literacy and Skills and Tax Compliance

Lusala et al. (2025) investigated the "Effect of Tax Literacy on Digital Income Tax Compliance among E-Commerce Traders in Nairobi, Kenya". The study provided an

empirical analysis of the impact of tax knowledge on compliance behavior within the digital economy. The results indicated that a majority of e-commerce traders had a limited grasp of digital tax procedures, filing obligations, and associated penalties. This lack of tax literacy emerged as a significant obstacle to voluntary compliance, resulting in issues such as underreporting, delayed filings, and failure to remit taxes. In contrast, traders who possessed sufficient knowledge of tax regulations, digital filing systems, and government incentives exhibited higher compliance rates. Additionally, the study highlighted that focused taxpayer education and the implementation of simplified digital tax systems had a positive effect on compliance outcomes. Notably, the research underscored the importance of improving tax literacy through awareness initiatives, user-friendly platforms, and ongoing sensitization efforts to mitigate non-compliance risks. In summary, the study concluded that tax literacy serves as a vital factor influencing digital income tax compliance among e-commerce traders in Nairobi.

Sholihah and Nugroho (2025) study on "Beyond Tax Knowledge: Exploring the Impact of Digital Literacy and Tax Stereotypes on MSME Tax Compliance" conducted among MSME taxpayers in Kesambi District, Cirebon, West Java, examines the factors that affect compliance beyond just tax knowledge. The empirical results indicate that although tax knowledge serves as a vital foundation, it is not adequate by itself to guarantee compliance. Digital literacy significantly influences taxpayer behavior, as MSMEs with advanced digital skills exhibit improved use of e-filing systems, precise

recordkeeping, and punctual submissions. Additionally, the study highlights tax stereotypes—perceptions and biases regarding taxation and tax authorities—as a key factor in determining compliance. Negative stereotypes, such as skepticism about tax fairness or the perception of taxation as a burden, diminish compliance levels even when knowledge and literacy are present. In contrast, positive perceptions encourage voluntary compliance. In summary, the findings imply that enhancing digital literacy and transforming tax stereotypes are essential for boosting MSME tax compliance in Indonesia.

The study conducted by Haggai and Odunga (2025) investigated the role of tax literacy in moderating the connection between the digitalization of tax services and turnover tax compliance within textile companies located in Nairobi County, Kenya. The empirical results indicate that the digitalization of services, including online filing, mobile payment systems, and automated platforms, significantly enhances compliance by minimizing administrative costs, errors, and delays. Nevertheless, the efficacy of these digital systems is largely contingent upon the tax literacy levels of the taxpayers. Companies with elevated tax literacy are more proficient in comprehending, navigating, and utilizing digital platforms, which results in improved compliance behavior. In contrast, inadequate tax literacy diminishes the advantages of digitalization, as firms encounter difficulties in using the systems, misinterpret procedures, and experience compliance obstacles. The study concludes that tax literacy amplifies the beneficial

impact of digitalization on compliance, underscoring the necessity for capacity-building initiatives and taxpayer education programs to support digital reforms in tax administration.

Alkhanifani and Ramadhanti (2023) examines the impact of e-system modernization, self-efficacy, and digital literacy on taxpayer compliance, specifically targeting individual taxpayers at the Kalideres Primary Tax Office in Indonesia. Employing quantitative methodologies and gathering responses from 100 taxpayers, the study utilized multiple regression analysis to evaluate the relationships among the variables. The results reveal that e-registration, a component of the e-system, significantly enhances taxpayer compliance. This finding suggests that the modernization of tax registration via online platforms streamlines processes, enhances accessibility, and fosters compliance, particularly during the COVID-19 pandemic when face-to-face interactions were restricted. Conversely, e-filing did not exhibit a significant effect on compliance. Although e-filing was intended to facilitate tax reporting, many taxpayers either failed to use it effectively or encountered obstacles such as limited awareness, technical difficulties, and last-minute system overloads, which diminished its efficacy. Self-efficacy was found to have a notable impact on compliance, indicating that taxpayers who possess greater confidence in their ability to comprehend and meet tax obligations are more inclined to comply. However, the capabilities associated with digital literacy did not demonstrate a significant influence. Despite the prevalent use of

the internet, inadequate government education, a lack of taxpayer awareness, and inconsistent system reliability undermined the potential of digital literacy to enhance compliance. In summary, the study underscores that while e-registration and self-efficacy contribute positively to compliance, e-filing and digital literacy necessitate more robust support systems, educational initiatives, and technological advancements to improve taxpayer engagement.

2.4.2 Digital Platforms and Tax Compliance

Chukwuma et al. (2023) research examined the implementation of e-governance within the Federal Inland Revenue Service (FIRS) of Nigeria, with a particular emphasis on its effects on tax administration and service delivery. The results indicate that e-governance has markedly revolutionized revenue collection by enhancing efficiency, transparency, and accountability. By facilitating online tax filing, electronic registration, automation of assessments, and taxpayer portals, FIRS has alleviated bureaucratic obstacles, improved compliance, and reduced corruption. Additionally, the study observes that data analytics and digital communication tools have further optimized operations, increased taxpayer convenience, and strengthened trust between the government and its citizens. Nevertheless, the research identifies significant challenges that impede comprehensive implementation. These challenges encompass inadequate internet infrastructure, insufficient technology, low levels of digital literacy among both taxpayers and staff, cybersecurity threats, and organizational resistance to change. The

ongoing digital divide in Nigeria also restricts equitable access to these digital tax services. In summary, although e-governance has favorably transformed FIRS operations and augmented revenue generation, maintaining its advantages necessitates addressing these challenges. The study advocates for investments in digital infrastructure, the promotion of digital literacy, enhanced cybersecurity measures, and ongoing stakeholder engagement to encourage adaptability. Overall, the e-governance initiative within FIRS exemplifies the transformative potential of technology in improving tax administration and governance efficiency.

Furthermore, the investigation carried out by Ifeyinwa et al. (2023) assessed the extent to which e-taxation has enhanced tax compliance in Nigeria. The empirical results indicated that the implementation of electronic tax systems, including e-filing, e-payment, and online registration, has considerably improved compliance rates among taxpayers. By alleviating bureaucratic hurdles and reducing unnecessary human interaction, e-taxation has curtailed opportunities for corruption and tax evasion. The system was determined to enhance transparency, efficiency, and accountability within tax administration, while also rendering the tax process more convenient, cost-effective, and less time-intensive for both businesses and individuals. These advancements fostered voluntary compliance and expanded the tax base. However, the study pointed out various challenges that impede the full efficacy of e-taxation. Problems such as inadequate internet infrastructure, inconsistent power supply, low digital literacy levels,

technical malfunctions, and taxpayer skepticism or resistance to change posed significant barriers to optimal utilization. Notwithstanding these challenges, the findings confirmed that e-taxation has positively and significantly influenced tax compliance in Nigeria. Consequently, the study advocated for ongoing investment in digital infrastructure, continuous education for taxpayers, effective oversight, and sufficient training for tax officials to ensure enhanced efficiency and the long-term success of the e-taxation system.

The study conducted by Ibifunmilola and Ogbaisi (2025) "Digitalization of Tax Systems and Tax Reforms in Nigeria: A Conceptual Discourse" indicate that the integration of digital technologies has profoundly transformed Nigeria's tax administration and reform initiatives. The study demonstrates that digitalization improves efficiency by minimizing manual tasks, reducing tax leakages, and fostering increased transparency in revenue collection. It emphasizes that electronic tax platforms, including e-filing, e-payment, and integrated tax administration systems, have elevated compliance rates by streamlining processes and decreasing human interaction, which in turn mitigates opportunities for corruption and tax evasion. The findings further confirm that digitalization plays a vital role in expanding the tax base by capturing informal sector activities that were previously challenging to oversee. This is evidenced by enhanced taxpayer registration, improved record-keeping, and advanced data analytics, which enable tax authorities to identify and monitor potential taxpayers

more efficiently. Additionally, tax reforms propelled by digitalization have cultivated accountability and trust between taxpayers and the government, despite ongoing challenges such as insufficient infrastructure, low levels of digital literacy, and resistance to change. In summary, the study asserts that digitalization is an essential catalyst for effective tax reforms in Nigeria, as it boosts compliance, enhances revenue mobilization, and aligns the tax system with international best practices.

Furthermore, the study of Dagunduro et al. examines the impact of digital tax platforms on revenue generation and the facilitation of capital project funding in emerging markets. The empirical results indicate that these digital platforms significantly enhance tax administration by increasing efficiency, decreasing leakages, and reducing corrupt practices typically linked to manual tax processes. The findings demonstrate that e-tax systems promote transparency and accountability, as they enable real-time monitoring of tax collections and enhance compliance among both individuals and businesses. Additionally, the adoption of digital solutions lowers administrative costs for tax authorities and provides greater convenience for taxpayers, thus fostering voluntary compliance. The research underscores that digital platforms establish a more dependable revenue base, allowing governments in emerging markets to allocate additional resources towards essential infrastructure and capital projects. By addressing revenue shortfalls and bolstering fiscal capacity, digital taxation fortifies public finance and encourages sustainable economic growth. The study concludes that despite the

presence of challenges such as digital illiteracy, infrastructural shortcomings, and resistance to change, the advantages of digital tax platforms surpass the disadvantages. Consequently, the implementation of digital tax systems is crucial for modernizing revenue mobilization and ensuring the effective financing of public capital projects in emerging economies.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodological framework adopted for the study on digitalization and tax compliance in Nigeria. It outlines the research design, population, sample size, sampling technique, sources and method of data collection, and techniques for data analysis. The methodology provides a clear roadmap that ensures the study's objectives are achieved systematically and reliably.

3.2 Research Design

The study adopts a descriptive and explanatory research design. The descriptive design helps to describe the current state of tax compliance and the extent of digital adoption among taxpayers in Nigeria, while the explanatory design enables the researcher to establish causal relationships between digitalization variables (digital literacy, digital skills, digital platforms, and e-filing) and tax compliance.

This design is suitable because it allows for both quantitative and analytical examination of how digitalization influences tax compliance among individuals and organizations. The study utilizes a survey research approach based on primary data collected through structured questionnaires.

3.3 Population of the Study

The population of this study comprises registered taxpayers in Benin City, including both individuals and corporate taxpayers who are engaged in tax payment and filing activities through the Edo State Internal Revenue Service (EIRS) and the Federal Inland Revenue Service (FIRS) offices within the state. This population includes self-employed individuals, small and medium-sized enterprises (SMEs), and corporate organizations operating within Benin City.

The population for this study is based on number of registered taxpayers in Edo State. According to the Federal Inland Revenue Service (FIRS, 2024), Edo State has a large and growing taxpayer base, consisting of individual and corporate taxpayers who utilize digital platforms for tax filing and payment. Based on recent taxpayer registration reports, the number of registered taxpayers in the state is estimated to be approximately 1,200,000.

3.4 Sample Size and Sampling Technique

In determining an appropriate sample size for a large population, the Yamane 1967 formula is widely used in survey research to ensure adequate representation. Yamane explained that the formula provides a simplified method for calculating a sample size when the population is known and a specific precision level is desired (Yamane, 1967). Using the estimated population of approximately 1,200,000 taxpayers at a 5 percent margin of error, the sample size is calculated as:

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

$n = 1,200,000 / (1 + 1,200,000(0.05)^2) \approx 400$

Therefore, a sample size of 400 respondents is considered sufficient and representative for this study.

3.9 Operationalization of Variables

The table below presents the operational definitions, measurement indicators, and scales used for the study variables**.**

Variable	Type	Definition	Measurement Indicators	Scale of Measurement
Tax Compliance (TC)	Dependent	The degree to which taxpayers comply with tax laws and regulations, including filing returns and paying taxes accurately and on time.	• Timely filing of tax returns • Accuracy in reporting income • Full payment of assessed tax • Willingness to comply voluntarily	5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)
Digital Literacy (DLIT)	Independent	The ability of taxpayers to effectively use digital tools and technologies to access, understand, and utilize online tax services.	• Ability to navigate online tax portals • Understanding digital tax instructions • Confidence in using digital tools for tax purposes	5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)
Digital Skills (DSK)	Independent	The technical proficiency of taxpayers in using digital technologies to perform	• Skill in using online payment systems • Ability to use digital tax filing tools	5-point Likert scale (1 = Strongly Disagree to 5 = Strongly

		tax-related activities.	• Handling and storage of digital tax records	Agree)
Digital Platforms (DPL)	Independent	Online systems, applications, or websites provided by tax authorities to facilitate tax registration, filing, and payment.	• Frequency of use of tax platforms • Accessibility and reliability • User-friendliness of the platform	5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)
E-Filing (EFL)	Independent	The process of electronically submitting tax returns through designated online platforms.	• Awareness of e-filing systems • Frequency of e-filing • Ease of use • Satisfaction with e-filing process	5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)

All variables will be measured using structured questionnaire

3.5 Sources of Data

The study utilizes primary data as its main source. Primary data will be obtained directly from respondents through the administration of structured questionnaires. In addition, secondary data from reports, journals, FIRS publications, and prior studies will support the analysis and provide background context for interpretation.

3.6 Method of Data Collection

The study will employ a structured questionnaire as the primary tool for data collection. The questionnaire is carefully designed to obtain relevant information from respondents in a clear and organized manner. It is divided into two main sections. The first section focuses on demographic information such as age, gender, level of education,

occupation, and type of taxpayer. This section provides background details that help in understanding the characteristics of the respondents.

The second section of the questionnaire contains questions related to the study variables. These include the independent variables digital literacy, digital skills, digital platforms, and e-filing and the dependent variable, which is tax compliance. Responses will be measured using a five-point Likert scale, where 1 represents “Strongly Disagree” and 5 represents “Strongly Agree.” This scale enables the researcher to assess respondents’ perceptions and attitudes toward the influence of digitalization on tax compliance.

To ensure broader coverage and ease of participation, the questionnaires will be administered through both physical distribution and electronic means such as Google Forms and email. This hybrid approach enhances efficiency, facilitates timely responses, and accommodates respondents with varying levels of digital accessibility.

3.7 Validity and Reliability of Instrument

To ensure validity, the questionnaire will be reviewed by experts in taxation, accounting, and digital finance to confirm that all items measure what they are intended to measure. A pilot test will be conducted among 30 respondents who are not part of the main sample to refine ambiguous questions.

For reliability, the Cronbach's Alpha coefficient will be computed to assess internal consistency. A reliability coefficient of 0.70 or above will be considered acceptable for all constructs, confirming the instrument's reliability (Nunnally, 1978).

3.8 Method of Data Analysis

The data collected will be analyzed using both descriptive and inferential statistical methods with the aid of the Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics such as mean, frequency, and standard deviation will be used to summarize the demographic characteristics of respondents and their responses to various research variables. Inferential statistics, particularly multiple regression analysis, will be applied to test the research hypotheses and determine the effect of digitalization variables on tax compliance.

The regression model will be specified as:

$$TC = \beta_0 + \beta_1 DLIT + \beta_2 DSK + \beta_3 DPL + \beta_4 EFL + \mu$$

Where:

TC = Tax Compliance (dependent variable)

DLIT = Digital Literacy

DSK = Digital Skills

DPL = Digital Platforms

EFL = E-filing

β_0 = Constant

$\beta_1 - \beta_4$ = Coefficients of the independent variables

μ = Error term

The level of significance (α) will be set at 0.05. Hypotheses will be accepted or rejected based on the p-values obtained from the regression output.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter presents the analysis and interpretation of data collected for the study on digitalization and tax compliance in Nigeria. The main objective of this chapter is to examine the relationship between the independent variables digital literacy, digital skills, digital platforms, and e-filing and the dependent variable, tax compliance. It provides a detailed discussion of the descriptive statistics, correlation analysis, and regression results, as well as diagnostic tests used to assess the validity and reliability of the econometric model.

The chapter begins with the presentation of the descriptive statistics, which summarize the central tendencies, dispersion, and distribution characteristics of the study variables. This is followed by a correlation analysis, which highlights the strength and direction of relationships among variables. The regression analysis is then presented to determine the effect of digitalization on tax compliance, while the accompanying diagnostic tests including autocorrelation and heteroskedasticity tests ensure that the model meets the classical assumptions of Ordinary Least Squares (OLS) regression.

Finally, this chapter interprets the findings in the context of existing literature and the Nigerian tax environment, providing insights into the effectiveness of digitalization initiatives in enhancing tax compliance. The analysis in this chapter serves as the empirical foundation for the subsequent discussion, conclusions, and recommendations presented in Chapter Five.

4.1 Descriptive Statistics

	TC	DLIT	DSK	DPL	EFL
Mean	3.013333	3.357333	3.434667	3.464000	3.437333
Median	3.000000	4.000000	4.000000	4.000000	4.000000
Maximum	5.000000	5.000000	5.000000	5.000000	5.000000
Minimum	1.000000	1.000000	1.000000	1.000000	1.000000
Std. Dev.	1.415096	1.251862	1.217244	1.238060	1.163479
Skewness	0.016101	-0.493242	-0.555801	-0.619995	-0.556904
Kurtosis	1.695013	2.239355	2.386655	2.386828	2.534535
Jarque-Bera	26.62545	24.24584	25.18519	29.89929	22.76914
Probability	0.000002	0.000005	0.000003	0.000000	0.000011

Source: Researchers Compilation,2025

Where:
TC = Tax Compliance (dependent variable)
DLIT = Digital Literacy
DSK = Digital Skills
DPL = Digital Platforms
EFL = E-filing

The descriptive statistics presented in Table above provide an overview of the distributional characteristics of the key variables in the study, namely Tax Compliance (TC), Digital Literacy (DLIT), Digital Skills (DSK), Digital Platforms (DPL), and E-filing (EFL). The mean value for Tax Compliance (3.01) suggests that, on average, respondents moderately comply with tax obligations. This indicates that while some individuals adhere to tax regulations, others may still encounter challenges or show reluctance in full compliance. The standard deviation of 1.42 further shows a relatively high level of variation in responses, implying differences in taxpayers' attitudes and behaviors toward compliance. The skewness value of 0.02 indicates that the distribution of responses for tax compliance is nearly symmetrical, while the kurtosis of 1.70, which is less than 3, suggests a flatter distribution (platykurtic), meaning responses are spread widely around the mean. The Jarque-Bera probability of 0.0000 indicates that the data for tax compliance are normally distributed.

For Digital Literacy, the mean score of 3.36 implies that respondents generally possess a moderate to high level of digital literacy. This shows that most taxpayers are fairly knowledgeable about using digital tools for accessing and understanding electronic tax systems. The standard deviation of 1.25 reveals moderate variability among respondents, indicating some differences in literacy levels. The negative skewness (-0.49) suggests that the majority of the responses lean toward higher values on the scale, meaning that many respondents rated themselves as digitally literate. Similarly, the

kurtosis value of 2.24 shows a relatively flat distribution, and the Jarque-Bera statistic confirms normality in the data.

The variable Digital Skills has a mean of 3.43, signifying that respondents possess a relatively good level of skills necessary to use digital technologies effectively. The standard deviation (1.22) points to moderate dispersion in responses. The skewness value of -0.56 shows a negatively skewed distribution, implying that most respondents have higher digital skill ratings. The kurtosis of 2.39 also indicates a flat-topped distribution, suggesting that the responses are fairly spread out around the mean. The Jarque-Bera probability value (0.0000) again reveals that the variable is normally distributed.

Similarly, the mean value for Digital Platforms (3.46) reveals that the use and adoption of digital platforms for tax-related activities are moderately high among respondents. The standard deviation of 1.24 signifies a reasonable variation in responses. The negative skewness value (-0.62) demonstrates that most respondents rated digital platform usage positively, while the kurtosis value (2.39) indicates a flatter-than-normal distribution. The Jarque-Bera statistic confirms that the distribution is normal.

Lastly, the mean score of 3.44 for E-filing suggests that respondents generally agree that e-filing systems are being used and accepted for tax processes. The relatively low standard deviation (1.16) indicates that responses are less dispersed compared to other

variables, implying a higher level of consensus among respondents regarding e-filing usage. The skewness value (-0.56) reflects a concentration of higher scores, suggesting that many respondents find e-filing convenient and effective. The kurtosis value (2.53) remains below 3, showing that responses are somewhat evenly distributed around the mean. As with the other variables, the Jarque-Bera test indicates normality.

Overall, the descriptive results show that all the digitalization-related variables digital literacy, digital skills, digital platforms, and e-filing have mean values above 3.0, indicating positive perceptions among respondents. In contrast, tax compliance, though moderate, lags slightly behind. The consistent negative skewness values across most variables suggest that a large proportion of respondents hold favorable views about digitalization and its potential to improve tax compliance.

4.2 Correlation Result

Covariance Analysis: Ordinary
Date: 11/09/25 Time: 17:18
Sample: 1 375
Included observations: 375

Correlation Probability Observations	TC	DLIT	DSK	DPL	EFL
TC	1.000000				

	375				
DLIT	0.041074	1.000000			
	0.4277	-----			
	375	375			
DSK	0.071135	0.882166	1.000000		
	0.1692	0.0000	-----		
	375	375	375		
DPL	0.045297	0.066978	0.018395	1.000000	
	0.3817	0.1956	0.7225	-----	
	375	375	375	375	
EFL	0.046793	0.235705	0.237344	0.064789	1.000000
	0.3662	0.0000	0.0000	0.2107	-----
	375	375	375	375	375

Source: Eviews,14.0

The correlation matrix presented above provides insights into the strength and direction of the linear relationships among the variables used in this study Tax Compliance (TC), Digital Literacy (DLIT), Digital Skills (DSK), Digital Platforms (DPL), and E-filing (EFL). The results show that Tax Compliance has weak and statistically insignificant positive correlations with all the digitalization variables. Specifically, TC is weakly correlated with DLIT ($r = 0.041$, $p = 0.4277$), DSK ($r = 0.071$, $p = 0.1692$), DPL ($r = 0.045$, $p = 0.3817$), and EFL ($r = 0.047$, $p = 0.3662$). These low coefficients indicate

that, although the relationships are positive, they are not strong enough to suggest a meaningful linear association between tax compliance and the digital factors in isolation. The lack of statistical significance ($p > 0.05$) for each of these correlations further implies that improvements in digital literacy, skills, platforms, or e-filing may not directly translate into higher tax compliance levels without the influence of other moderating factors such as taxpayer attitudes, trust in tax authorities, or policy enforcement.

However, the intercorrelations among the independent variables reveal some noteworthy patterns. Digital Literacy and Digital Skills exhibit a very strong positive and statistically significant relationship ($r = 0.882$, $p = 0.000$), suggesting that individuals who are digitally literate also tend to possess higher digital skills. This high correlation indicates that these two constructs are closely related and may overlap conceptually, which should be taken into consideration when interpreting regression results to avoid multicollinearity issues. Furthermore, Digital Literacy is moderately and significantly correlated with E-filing ($r = 0.236$, $p = 0.000$), implying that individuals with higher digital literacy levels are more likely to use or appreciate e-filing systems. Similarly, Digital Skills also show a significant positive relationship with E-filing ($r = 0.237$, $p = 0.000$), confirming that digital competence enhances taxpayers' ability and willingness to adopt electronic filing platforms.

On the other hand, the correlations between Digital Platforms and the other variables are weak and statistically insignificant (ranging between 0.018 and 0.067, $p > 0.05$), suggesting that the availability or usage of digital platforms alone may not have a strong direct influence on tax compliance or other digitalization measures. Overall, the correlation analysis indicates that while the digitalization components are interrelated, their direct associations with tax compliance are weak and statistically insignificant. This suggests that the influence of digitalization on tax compliance may be indirect or mediated by other behavioral or institutional factors.

4.3 Regression Result

Dependent Variable: TC
Method: Least Squares
Date: 11/09/25 Time: 17:04
Sample: 2 375
Included observations: 374
Convergence achieved after 9 iterations
Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014330	0.332671	0.043075	0.9657
DLIT	-0.483027	0.050025	-9.655756	0.0000
DSK	0.093957	0.071869	1.307335	0.1919
DPL	-0.017085	0.063566	-0.268776	0.7883
EFL	-0.111978	0.065920	-1.698677	0.0502

R-squared	0.236378	Mean dependent var	0.002674
Adjusted R-squared	0.223894	S.D. dependent var	1.965519
S.E. of regression	1.731561	Akaike info criterion	3.955173
Sum squared resid	1100.377	Schwarz criterion	4.028622
Log likelihood	-732.6174	Hannan-Quinn criter.	3.984336
F-statistic	18.93404	Durbin-Watson stat	2.305723
Prob(F-statistic)	0.000000		

Source: Eviews 14.0

The regression analysis examines the influence of digitalization factors digital literacy (DLIT), digital skills (DSK), digital platforms (DPL), and e-filing (EFL) on changes in tax compliance (D(TC)). The model was estimated using the Ordinary Least Squares (OLS) method, with 374 valid observations included in the analysis. The results show an R-squared value of 0.236**,** indicating that approximately 23.6% of the variation in tax compliance is explained by the combined effects of the independent variables. The adjusted R-squared (0.224) further confirms a modest explanatory power, suggesting that while the model captures some of the determinants of tax compliance, other factors not included in the model also play substantial roles. The overall model is statistically significant, as evidenced by the F-statistic of 18.93 with a probability value of 0.0000, indicating that the digitalization variables collectively exert a significant influence on tax compliance. The Durbin-Watson statistic (2.31) is close to 2, suggesting the absence of autocorrelation among the residuals and confirming the reliability of the regression estimates.

Examining the individual coefficients, the lagged value of digital literacy [DLIT(-1)] has a negative and highly significant coefficient (-0.4830, p = 0.000)**.** This implies that previous levels of digital literacy exert a significant inverse effect on current tax compliance. In other words, while digital literacy is crucial for understanding online systems, its lagged effect may reflect transitional challenges such as adaptation to new

tax technologies or trust issues that temporarily reduce compliance. This finding may also suggest that gains in digital literacy take time to translate into compliant behavior.

Digital skills (DSK) show a positive but statistically insignificant relationship with tax compliance ($\beta = 0.0940$, $p = 0.1919$). This suggests that although higher digital competence tends to promote compliance, the effect is not strong enough to be statistically meaningful in this model. Similarly, digital platforms (DPL) have a negative and insignificant coefficient (-0.0171, p = 0.7883), indicating that the mere availability or use of digital platforms does not automatically enhance compliance. This could be due to limited user engagement, inadequate platform efficiency, or low trust in the digital systems employed by tax authorities.

The coefficient for e-filing (EFL) is negative and marginally significant (-0.1120, p = 0.0502). This result implies that while e-filing systems are designed to facilitate convenience and transparency, their short-term effect might be counterintuitive, potentially due to usability issues, perceived complexity, or low adoption rates among certain taxpayer groups. Over time, however, as taxpayers become more accustomed to e-filing systems, this effect might turn positive.

The constant term ($C = 0.0143$, $p = 0.9657$) is statistically insignificant, indicating that in the absence of changes in the explanatory variables, there is no significant change in tax compliance. Overall, the regression results reveal that digital literacy, particularly in

its lagged form, is the most influential variable affecting tax compliance, though the effect is negative in the short run. The other digitalization components digital skills, digital platforms, and e-filing show weak or insignificant impacts, suggesting that digital transformation in tax administration may not yet have reached its full potential in driving compliance behavior.

4.4 Test for Autocorrelation

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.128351	Prob. F(2,368)	0.8796
Obs*R-squared	0.261403	Prob. Chi-Square(2)	0.8775

Source: Eviews,14.0

The Breusch–Godfrey Serial Correlation LM test was conducted to verify whether serial correlation exists in the residuals of the regression model. The null hypothesis of the test states that there is no serial correlation up to two lags. The results show that the F-statistic is 0.1284 with an associated probability value of 0.8796, and the Obs*R-squared statistic is 0.2614 with a corresponding probability value of 0.8775. Since both probability values are greater than the 0.05 significance level, the null hypothesis cannot be rejected. This indicates that the residuals of the estimated model are not serially correlated. In other words, the errors are independent over time, implying that the model's estimates are efficient and unbiased. Therefore, the regression results can be considered reliable, as the absence of serial correlation suggests that the model is well-specified and that the dynamic structure of the data has been appropriately captured.

4.5 Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.922420	Prob. F(4,370)	0.1061
Obs*R-squared	7.634920	Prob. Chi-Square(4)	0.1059
Scaled explained SS	2.728646	Prob. Chi-Square(4)	0.6042

Source: Eviews,14.0

The Breusch–Pagan–Godfrey test was carried out to examine whether heteroskedasticity is present in the residuals of the regression model. The null hypothesis of the test assumes homoskedasticity**,** meaning that the variance of the error terms is constant across observations. The results show an F-statistic of 1.9224 with a corresponding probability value of 0.1061**,** while the Obs*R-squared statistic is 7.6349 with a p-value of 0.1059. Both probability values are greater than the 0.05 significance level, indicating that the null hypothesis cannot be rejected. This suggests that the error variances are constant and that the model does not suffer from heteroskedasticity. The result is further supported by the scaled explained sum of squares statistic (Prob. Chi-Square = 0.6042), which also exceeds the 0.05 threshold. Consequently, the model satisfies the assumption of homoskedasticity, implying that the estimated coefficients are efficient and that the standard errors and test statistics reported for the regression are valid and reliable.

4.6 Discussion of Findings

The findings of this study provide important insights into the influence of digitalization factors digital literacy, digital skills, digital platforms, and e-filing on tax compliance among respondents. The descriptive statistics revealed that all the digitalization-related variables recorded mean values above 3.0, indicating generally positive perceptions of taxpayers toward the adoption of digital technologies in tax administration. Specifically, the mean values of digital literacy (3.36), digital skills (3.43), digital platforms (3.46), and e-filing (3.44) suggest that most respondents possess a moderate to high level of digital competence and engagement with electronic tax systems. However, the mean score for tax compliance (3.01) indicates that while digitalization has made some impact, overall compliance remains moderate. This implies that although digital transformation has improved taxpayer awareness and accessibility, certain behavioral or institutional factors may still hinder full compliance.

The correlation analysis further revealed that tax compliance has weak and statistically insignificant positive correlations with all digitalization variables. This suggests that increases in digital literacy, digital skills, the use of digital platforms, or e-filing adoption do not necessarily correspond to immediate or strong improvements in compliance behavior. The strongest association was observed between digital literacy and digital skills ($r = 0.882$, $p < 0.01$), indicating a strong interdependence between taxpayers' ability to understand digital technologies and their ability to apply them

effectively. Similarly, both digital literacy and digital skills showed moderate, significant relationships with e-filing, confirming that taxpayers with higher digital competence are more likely to adopt electronic filing systems. However, the weak relationship between tax compliance and the other variables implies that digitalization alone may not fully explain compliance behavior unless accompanied by complementary factors such as taxpayer trust, enforcement efficiency, and simplified tax policies.

The regression analysis provided further empirical evidence on the relationship between digitalization and tax compliance. The model's R-squared value of 0.236 indicates that approximately 23.6% of the variation in tax compliance is explained by the digitalization variables, suggesting a moderate explanatory power. The overall F-statistic was significant ($p < 0.01$), confirming that digitalization collectively exerts a significant influence on tax compliance. Among the explanatory variables, the lagged value of digital literacy was found to have a negative and highly significant effect on tax compliance ($\beta = -0.483$, $p = 0.000$), suggesting that prior levels of digital literacy might initially reduce compliance levels, possibly due to adjustment challenges or taxpayers' initial resistance to technological change. This finding aligns partially with previous studies such as Okoye and Eze (2020), who noted that while digital literacy enhances taxpayers' ability to access online tax services, an adjustment period is often required before positive compliance behavior is observed. The result indicates that

Nigerian taxpayers may initially face challenges in adapting to digital systems, resulting in temporary reluctance or errors in compliance. However, this negative effect could diminish over time as individuals become more familiar with digital tax systems. Digital skills showed a positive but insignificant effect ($\beta = 0.094$, $p = 0.1919$), indicating that while skill development is essential, it may not directly lead to increased compliance without supportive infrastructure and trust in digital systems.The finding resonates with the work of Ofoegbu and Okoro (2019), who highlighted that skills alone may not guarantee compliance unless combined with supportive systems, training, and trust in digital platforms.Digital platforms and e-filing both recorded negative coefficients, with e-filing being marginally significant ($\beta = -0.112$, $p = 0.0502$). This finding implies that, despite the intended ease of filing taxes electronically, issues such as system inefficiencies, technical difficulties, or users' lack of confidence might temporarily discourage compliance. Similar observations were made by Ezeani and Nwosu (2020), who reported that taxpayers in Nigeria may be hesitant to adopt e-filing without sufficient support, training, or assurance of data security

The diagnostic tests confirm that the model is statistically reliable. The Breusch–Godfrey serial correlation LM test showed no evidence of autocorrelation ($p > 0.05$), indicating that the residuals are independent and the model's estimates are efficient. Similarly, the Breusch–Pagan–Godfrey test confirmed the absence of heteroskedasticity ($p > 0.05$), implying that the variance of the error terms is constant and the standard

errors are valid. These diagnostic results validate the robustness of the regression estimates and confirm that the model is well-specified.

In summary, the findings reveal that while digitalization plays a role in shaping tax compliance behavior, its immediate effect may not be strongly positive. The weak and sometimes negative relationships observed suggest that the transition toward a fully digital tax environment may involve a learning curve for taxpayers. Therefore, policymakers should focus not only on implementing digital systems but also on enhancing taxpayer education, simplifying digital processes, and building trust in electronic tax administration. Over time, as taxpayers adapt and digital infrastructures become more efficient, the positive impact of digitalization on compliance is likely to strengthen.

Furthermore, the findings from this study carry significant professional and policy implications for tax authorities, government agencies, and practitioners involved in tax administration and digital transformation initiatives. The moderate level of tax compliance observed, despite generally positive perceptions of digital tools, indicates that digitalization alone is not sufficient to drive voluntary compliance. This underscores the need for a more integrated approach that combines technological advancement with taxpayer education, system usability, and institutional trust-building.

From a professional standpoint, the negative and significant impact of lagged digital literacy on tax compliance suggests that the transition from manual to digital systems may initially pose challenges for both taxpayers and tax administrators. Professionals in the field must therefore recognize that digital transformation is not merely a technological change but also a behavioral and cultural shift. Continuous capacity building, user-friendly system design, and tailored training programs are necessary to help taxpayers adapt to new technologies and reduce initial resistance or errors associated with digital filing.

The weak and insignificant influence of digital skills, digital platforms, and e-filing on tax compliance further highlights the importance of system reliability and user experience in digital tax administration. Tax professionals and IT system developers must ensure that digital platforms are stable, accessible, and intuitive for users of varying literacy levels. The marginally negative effect of e-filing, in particular, implies that technical inefficiencies, connectivity issues, or system downtimes may discourage compliance. Therefore, tax authorities should invest in infrastructure improvements, routine system audits, and responsive technical support to enhance user confidence and ensure a seamless filing experience.

For policymakers, these findings emphasize the need for strategic policy alignment between digitalization initiatives and compliance enforcement mechanisms. Efforts should go beyond implementing digital platforms to include measures that enhance

taxpayers' understanding of the benefits of compliance, reinforce data security, and promote transparency in the use of technology. This alignment will help build trust in digital systems and improve compliance outcomes over time.

Furthermore, the study's results have implications for professional accountants, tax consultants, and financial advisors, who play a crucial role in guiding clients through digital tax processes. Professionals must keep pace with evolving technologies and regulatory frameworks to provide accurate advice, assist clients in e-filing, and mitigate errors that could discourage compliance. The moderate explanatory power of the model ($R^2 = 0.236$) also suggests that other behavioral and institutional factors such as perceived fairness of the tax system, enforcement intensity, and economic conditions remain important. Tax professionals should therefore adopt a holistic view that integrates digital competence with ethical awareness and compliance motivation strategies.

In conclusion, the results highlight the importance of strengthening both the technological and human dimensions of digital tax administration. Effective digitalization requires not only the deployment of technology but also professional adaptation, continuous taxpayer engagement, and supportive policies. By addressing these factors, tax authorities and professionals can maximize the long-term benefits of digital transformation in enhancing compliance and promoting sustainable revenue generation.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION RECOMMENDATION

5.0 Introduction

This chapter presents the summary, discussion, conclusion, and recommendations derived from the study on Digitalization and Tax Compliance in Nigeria. The chapter serves as the culminating section of the research, integrating the key empirical findings from the previous chapters and highlighting their theoretical and practical implications. The study examined how various dimensions of digitalization such as digital literacy, digital skills, digital platforms, and e-filing systems affect taxpayers' compliance behavior in the Nigerian context.

The introduction of digital technologies into tax administration in Nigeria represents a significant shift from traditional manual processes to more automated and transparent systems. Despite these technological innovations, issues of low compliance, tax evasion, and inefficiency in revenue collection persist. Hence, this study was designed to empirically assess whether digitalization has translated into improved voluntary tax compliance among taxpayers.

This chapter begins with a summary of the key findings obtained from the analysis in Chapter Four. It then provides a detailed discussion of the implications of these findings in relation to existing literature and the Nigerian tax environment. The chapter further

draws conclusions based on the results and offers recommendations for policymakers, tax authorities, and stakeholders on how to enhance the effectiveness of digital tax systems. Finally, it suggests directions for future research and outlines the study's contribution to knowledge.

5.1 Summary of Findings

1. The study found that digital literacy had a negative and significant effect on tax compliance in its lagged form ($\beta = -0.483$, $p = 0.000$). This suggests that prior levels of digital literacy, while essential for understanding digital tax systems, may initially hinder compliance.
2. Digital skills were found to have a positive but statistically insignificant effect on tax compliance ($\beta = 0.094$, $p = 0.192$). This indicates that while taxpayers with higher technical competence are slightly more likely to comply, the effect is not strong enough to be statistically meaningful.
3. The availability and use of digital platforms showed a negative and insignificant effect on tax compliance ($\beta = -0.017$, $p = 0.788$). This suggests that simply providing digital platforms does not automatically improve compliance, particularly if taxpayers are not adequately guided on their use or if the platforms are perceived as complex or unreliable. This is consistent with the conclusions of Adegbite et al. (2021), who emphasized that system usability and user experience are critical for the effective adoption of digital tax services.

4. E-filing recorded a negative and marginally significant effect on tax compliance ($\beta = -0.112$, $p = 0.050$). Although e-filing is intended to make tax submission more convenient, the result suggests that technical challenges, low adoption rates, or perceived complexity may initially discourage compliance..

5.2 Conclusion

The findings of this study demonstrate that digitalization, though crucial for modern tax administration, does not automatically translate into improved tax compliance in the short term. While taxpayers generally possess a fair level of digital literacy and skill, the transition from traditional to digital systems appears to create initial challenges that may temporarily hinder compliance behavior. The negative effect of lagged digital literacy on tax compliance suggests that adaptation to digital platforms requires time, training, and trust in the system.

Overall, the results highlight that the mere existence of digital platforms and e-filing systems is not enough to guarantee improved compliance. Instead, the effectiveness of digital tax systems depends on the usability, accessibility, and reliability of these platforms, as well as taxpayers' confidence in their operation. Therefore, digitalization should be pursued alongside continuous taxpayer education, user support, and institutional transparency. When effectively implemented, digital transformation has the potential to enhance voluntary compliance and strengthen government revenue mobilization in the long run.

5.3 Recommendations

Based on the empirical findings, the following recommendations are made:

1. Tax authorities should organize regular digital literacy and taxpayer education programs to help individuals and businesses understand how to navigate e-tax platforms effectively. This will reduce the initial negative impact of digital literacy on compliance.
2. The government should invest in user-friendly, secure, and reliable e-filing infrastructure. System downtime, poor connectivity, and data security concerns should be addressed to build trust and encourage wider adoption.
3. Even with automation, professional guidance and help desks should be maintained to assist taxpayers, particularly those with limited digital experience. This hybrid approach will make the digital transition smoother and more inclusive.
4. Digital transformation should be supported by clear policies, enforcement mechanisms, and incentives that encourage compliance. Policies must also ensure transparency, protect user data, and simplify digital tax procedures.
5. Accountants, tax consultants, and financial advisors should be engaged in digital tax sensitization efforts. Their expertise can help taxpayers correctly interpret tax obligations and utilize digital tools efficiently.

5.4 Recommendations for Further Studies

1. Future research could investigate the mediating role of taxpayer trust or perceived ease of use in the relationship between digitalization and tax compliance.
2. Scholars may also examine sectoral variations to determine whether digitalization influences compliance differently across industries or income groups.
3. A longitudinal study could be conducted to capture the long-term effects of digitalization on compliance, given that its benefits may manifest gradually.
4. Further studies could integrate qualitative methods such as interviews to explore the behavioral and psychological factors influencing taxpayers' digital adoption.

5.5 Contribution to Knowledge

This study contributes to the growing body of knowledge on tax administration and digital transformation by empirically demonstrating that digitalization while essential does not instantaneously enhance compliance levels. The findings highlight the transitional challenges associated with digital literacy and the importance of behavioral and institutional readiness in achieving successful digital tax reforms. It also provides evidence from the Nigerian context, enriching the literature on how developing economies can harness digital technologies to improve voluntary tax compliance.

Moreover, the study's diagnostic rigor ensures that its conclusions are both statistically reliable and practically relevant for policymakers and tax practitioners.

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APPENDICES

	TC	DLIT	DSK	DPL	EFL
Mean	3.013333	3.357333	3.434667	3.464000	3.437333
Median	3.000000	4.000000	4.000000	4.000000	4.000000
Maximum	5.000000	5.000000	5.000000	5.000000	5.000000
Minimum	1.000000	1.000000	1.000000	1.000000	1.000000
Std. Dev.	1.415096	1.251862	1.217244	1.238060	1.163479
Skewness	0.016101	-0.493242	-0.555801	-0.619995	-0.556904
Kurtosis	1.695013	2.239355	2.386655	2.386828	2.534535
Jarque-Bera	26.62545	24.24584	25.18519	29.89929	22.76914
Probability	0.000002	0.000005	0.000003	0.000000	0.000011
Sum	1130.000	1259.000	1288.000	1299.000	1289.000
Sum Sq. Dev.	748.9333	586.1173	554.1493	573.2640	506.2773
Observations	375	375	375	375	375

Covariance Analysis: Ordinary
Date: 11/09/25 Time: 17:18
Sample: 1 375
Included observations: 375

Correlation Probability Observations	TC	DLIT	DSK	DPL	EFL
TC	1.000000				

	375				
DLIT	0.041074	1.000000			
	0.4277	-----			
	375	375			
DSK	0.071135	0.882166	1.000000		
	0.1692	0.0000	-----		
	375	375	375		
DPL	0.045297	0.066978	0.018395	1.000000	
	0.3817	0.1956	0.7225	-----	
	375	375	375	375	
EFL	0.046793	0.235705	0.237344	0.064789	1.000000
	0.3662	0.0000	0.0000	0.2107	-----
	375	375	375	375	375

Dependent Variable: TC
Method: Least Squares
Date: 11/09/25 Time: 17:04
Sample: 2 375
Included observations: 374
Convergence achieved after 9 iterations
Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014330	0.332671	0.043075	0.9657
DLIT	-0.483027	0.050025	-9.655756	0.0000
DSK	0.093957	0.071869	1.307335	0.1919
DPL	-0.017085	0.063566	-0.268776	0.7883
EFL	-0.111978	0.065920	-1.698677	0.0502

R-squared	0.236378	Mean dependent var	0.002674
Adjusted R-squared	0.223894	S.D. dependent var	1.965519
S.E. of regression	1.731561	Akaike info criterion	3.955173
Sum squared resid	1100.377	Schwarz criterion	4.028622
Log likelihood	-732.6174	Hannan-Quinn criter.	3.984336
F-statistic	18.93404	Durbin-Watson stat	2.305723
Prob(F-statistic)	0.000000		

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.128351	Prob. F(2,368)	0.8796
Obs*R-squared	0.261403	Prob. Chi-Square(2)	0.8775

Source: Eviews,14.0

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.922420	Prob. F(4,370)	0.1061
Obs*R-squared	7.634920	Prob. Chi-Square(4)	0.1059
Scaled explained SS	2.728646	Prob. Chi-Square(4)	0.6042