IMPACT OF DIGITAL INNOVATION ON TAX COMPLIANCE IN NIGERIA'S INFORMAL ECONOMY

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BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc. HONS.), DEGREEIN ACCOUNTING.

MARCH 2025

DECLARATION

I declare that:

i. This report is based on a study undertaken by me in Department of Accounting, University of Benin, under the supervision of **Dr. J. Aruomuoaghe**

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

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

iv. Any litigation arising from this research work is that of the student and not the supervisor.

Augustine Ohangbon **Date**
Researcher

CERTIFICATION

We, the undersigned, hereby certify that this research project was carried out by **Augustine Ohangbon** with matriculation number MGS2007572 in the Department of Accounting, University of Benin, Benin City, and approve this research project as adequate in scope and quality for the partial fulfillment of B.Sc, (Accounting) degree.

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DEDICATION

This work is dedicated to God Almighty the Giver of knowledge, He has brought me thus far. It has not been by my power but for His grace and mercies that have kept me.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The informal economy is a good percentage of economic activates in Nigeria including activities that are not within the ambit of formal regulatory mechanism. An informal economy that are small-scale enterprises, street hawkers, and other self-employed activities come together to provide a large chunk of employment and energizes the economy (Osemeke, Nzekwu & Okere, 2020). The national Bureau of Statistics estimated that the informal sector takes about 65 percent of total employment (NBS, 2022), with about 50 percent of the nation's gross domestic product (GDP). With this much relevance, challenges in regard to compliance with tax remain rampant at the level of the informal sector mainly because many of the operators stay out of the formal tax framework. Lately, innovations in the digital world, especially mobile payment platforms, have cropped up as potential mechanisms for raising the level of tax compliance among operators of the informal sector (Iredele, Ogunleye & Obe, 2018).

The informal economy in Nigeria constitutes a significant portion of the nation's economic activity, contributing to employment and economic growth. However, it remains largely untaxed, posing a challenge to government revenue mobilization (Kelikume, 2021). Digital innovation has the potential to bridge this gap and improve tax

compliance in the informal sector through various mechanisms. Digital tools such as mobile applications, online tax portals, and digital wallets simplify tax registration and filing processes for informal sector participants (Asomba, Agbo, Amuh, Bello & Ezemah, 2024). By offering user-friendly platforms, digital innovations reduce bureaucratic hurdles, making compliance less daunting for small businesses and sole proprietors. For instance, the Federal Inland Revenue Service (FIRS) in Nigeria has implemented e-filing systems and payment platforms to ease tax compliance. Integration with mobile money services expands tax payment options to include those without formal bank accounts (Akinola & Adeleke, 2021).

Technological platforms allow for the dissemination of information on tax obligations, benefits, and penalties through social media, SMS campaigns, and online workshops. This can improve awareness and encourage voluntary compliance in the informal sector. Increased understanding of tax laws can reduce fear and mistrust of the tax system (Odu, 2021). Accessibility to information in local languages can cater to diverse demographics in Nigeria. Nigeria's adoption of digital identity initiatives, such as the National Identification Number (NIN), helps track individuals and businesses operating informally. Linking digital IDs to tax systems enables authorities to identify potential taxpayers (Nigeria Digital Economy Diagnostic Report, 2024). Digital tools

enable real-time tracking of financial transactions through electronic payment systems and Point of Sale (POS) machines.

Automating revenue collection minimizes human interference, reducing corruption and leakages in the tax system, for instance, collaboration with fintech companies to integrate tax collection into routine transactions (e.g., VAT on digital payments). Data analytics and AI tools can analyze transaction patterns, estimate income levels, and detect tax evasion (World Bank Group, 2023). This allows authorities to focus on high-risk areas in the informal economy while minimizing unnecessary audits. Digital innovation has a transformative role in improving tax compliance within Nigeria's informal economy (Adegbie, Enerson & Olaoye, 2022). By reducing barriers, increasing efficiency, and expanding reach, it can help formalize the sector and boost government revenue. However, addressing underlying challenges is crucial for realizing its full potential. Through targeted policies and investments, Nigeria can harness the power of technology to create a more inclusive and effective tax system.

1.2 Statement of the Research Problem

Taxation of informal sector has been almost universally unsuccessful (Obara & Nangih 2017). Tax evasion is very rampant as income is unmeasured and unrecorded. Their income on daily, weekly or monthly basis are not known because such are not declared by them. The informal sector has larger proportion of the population, but their

actual number is not known and the amount they earn is undisclosed, a situation that makes it difficult for the government to value the taxes for them to pay, based on their incomes (Ogbuabor & Malaolu 2013). Therefore, their impact in contributing to government revenue through taxation is not felt.

According to the Federal Inland Revenue Service FIRS (2021), despite the huge contributions, the informal sector forms less than 5% of the total revenue collected. This leaves the door wide open for an urgent priority in using innovative approaches to develop better compliance rates. Various studies have indicated that informal sector operators are mostly prone to the belief that the imposition and compliance with taxation are costly and cumbersome. For example, Ademola and Nwankwo (2022), discovered that most operators in the informal sector showed inadequate understanding of the laws on taxation and the accruable benefits from compliance, which formed part of the reasons for general non-compliance.

Consequently, the management of taxes in Nigeria has numerous, intricate issues. According to Ola (2001), low tax literacy, a bad rapport between taxpayers and tax authorities, and a shortage of experienced and capable accountants among tax authority employees are the main reasons why revenue collected from individual and entity income taxes is typically too low, using tax workers who are uneducated, untrained, and lack the necessary abilities to use the data provided for the assessment and determine taxes in the

most appropriate way (Ayodeji, 2014). The inefficiency of the tax administration and collecting system, the complexity of the law, and the indifference of taxpayers due to the lack of utilities received in exchange for taxes paid (Adegbie, et al., 2022).

Since most taxpayers think that the country's rich and wealthy people do not pay taxes, the problem has gotten worse. Since financial and tax troubles are typically categorised under a single, consistent caption, it is typically very difficult to distinguish between the two. Determining the appropriate posture is likewise considered to be a difficult and time-consuming task (Ola, 2001). According to Ajayi and Yidiat (2021), electronic tax filing has a significant impact on revenue generation. This technology has a lot of potential and should be used to increase tax revenue. Ajayi and Yidiat (2021) argued that in order for taxes to be generated to finance some of the economic activities in the country that will bring about growth and development, one potential way to do this is by investigating the electronic tax filing system, which had not received much attention in the past. It is against this backdrop that this study fill gap in literature by examining the impact of innovation on tax compliance in Nigeria's informal economy.

1.3 Research Questions

This study attempts to evaluate the following questions:

1. What is the present state of tax compliance by operators of the informal sector in Nigeria?

2. What impact have mobile payment platforms had on the tax compliance of the informal economy?

3. How does digital innovation enhances accessibility and simplification of tax processes in the informal sector in Nigeria?

4. What are the adoption challenges of mobile payment solutions for tax compliance by operators in the informal sector?

The questions will, therefore, tease out details on compliance by the informal sector and thus give full insight into how gaps in compliance could be bridged through digital innovations.

1.4 Objectives of the Study

The main objective of the study is to examine impact of digital innovation on tax compliance in Nigeria's informal economy. The specific objectives are to:

1. Establish the current level of tax compliance by operators in the informal sector in Nigeria.

2. Assess the effect of mobile payment platforms on the tax compliance of the informal economy.

3. evaluate how digital innovation enhances accessibility of tax processes in the informal sector in Nigeria.

4. Enumerate challenges faced by operators of the informal sector in embracing mobile payment solutions in facilitating tax compliance.

1.5 Research Hypotheses

Based on the objectives of the study, the research will state the hypotheses in the null form as follows:

H01: There is no relationship between the current level of tax compliance and operations of the informal sector in Nigeria.

H02: There is no significant relationship between the use of Mobile payment platforms and tax compliance in Nigeria's informal sector operators.

H03: There is no significant relationship between digital innovation and accessibility of tax processes in the informal sector in Nigeria.

H04: operator of informal economy does not face any challenges in embracing mobile payment solutions in facilitating tax compliance.

1.6 Scope of the Study

This study, therefore, investigates the effect of digital innovation, which is mobile phone-based payment platforms, on tax compliance in the informal economy in Nigeria. Ugbowo, Mission Road, Sapele Road and Sakponba Road all in Benin City in Edo State will be selected for this survey because these urban areas have the most vibrant informal economies. Small business owners and street hawkers are good examples of individuals

who fall under the informal sector; they could provide information about their personal experiences with the use of mobile payment solutions, including their capability for compliance with taxes. Emphasis will also be made to understand how the adoption of technology correlates with fiscal responsibility in this relatively unregulated sector. It also considers some socio-economic factors likely to influence tax compliance, such as education levels, income levels, and access to technology.

1.7 Significance of the Study

The importance of this research is for a number of reasons: it contributes to adding to the literature within the studies of tax compliance in informal economies and, in particular, that of Nigeria. How mobile payment platforms can facilitate compliance may finally provide a framework through which tax revenue can be improved without placing undue burdens on informal operators. Results from this study will also provide policymakers and tax agencies with the opportunity to recognize how such digital innovations can contribute to enhancing compliance. In the words of the International Labour Organization, "an inclusive tax system is one that takes into consideration the features of the informal economy and will be needed to increase the rate of compliance ". ILO, (2022) with that in mind, practical recommendations will be furthered through the possibilities presented by mobile phone-based platforms for payment to encourage compliance. The benefits that come to the informal sector operators themselves as a result

of using mobile payment technologies are an added advantage to meeting due taxes. It is true that such vast amounts of taxes owed being paid improve services provided by the government and further public infrastructure on which an operator can further their own business.

1.8 Definition of Terms

Tax Compliance: The basic concept of individuals and companies adhering to all of the relevant features of the law and rules concerning taxation.

Digital innovation: The process of making a new or significantly improved product, service, or process from digital technologies.

Mobile Payment Platforms: Such digital applications which can enable the users to make certain transactions through mobile devices promoting less cash transactions.

1.9 Limitations of the Study

Following are some of the limitations that can be faced in this study:

Sample Size: The study may further reduce the number of informal sector operators who wiiill respond, hence making it hard to widen the results of the study.

Data Reliability: Data on tax compliance behavior can be biased, given the fact that many respondents to surveys underreport their true levels of income or tax liabilities.

Technological Hurdles: The differences in technological access and technological literacy of operators in these informal sectors may give biased results on how the usage

of mobile payment platform adoption is done, proposes (Nwankwo, Nwankwo & Adigwe, 2022).

This study also considers urban areas alone; thus, generalization that includes rural areas might not be possible as other socio-economic dynamics may take precedence in those areas. This is basically the foundational aspect, stating the basis on which a full exploration would be done concerning the impact of digital innovation on tax compliance in the informal economy of Nigeria. Discussion of the literature, methodology, data analysis, and findings are given on the subsequent chapters.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter consist of the literature review the conceptual framework, taxation, e-tax, digital economy and benefits, electronic tools for managing taxes in digitalized economy, evolution of e-taxation, mobile payment platforms and tax compliance of the informal economy, digital innovation and tax processes in the informal sector in Nigeria, challenges of mobile payment and tax compliance in the informal sector, review of empirical literature and theoretical review/framework.

2.1 Conceptual Framework

The adoption of digital innovation raises the percentage of taxes paid on time, lowers compliance expenses, and raises the reported net tax liability of taxpayers who are more likely to engage in tax evasion. However, based on data from Tajikistan, the overall effect on reported net tax payment is unknown because, following the implementation of e-filing, previously compliant enterprises tend to underreport their tax liability (Okunogbe & Pouliquen 2022). On the other hand, Santoro, Amine, and Magongo (2022) demonstrated that e-filing can result in a notable rise in reported taxable income up to 4% of GDP using data from Eswatini. Additionally, they showed that e-filing has a greater effect on CIT than PIT; however, they also showed that, because of a lack of enforcement

capacity, an increase in reported taxable income does not result in an increase in tax collection.

Digitising the tax environment has grown in importance as nations, especially in Africa, search for digital solutions to enhance revenue collection and speed up tax administration. Inefficiencies, revenue leaks, compliance problems, and a huge untaxed informal sector are all anticipated to be addressed by the incorporation of artificial intelligence (AI) and other cutting-edge technology into tax systems. In Nigeria, where the tax-to-GDP ratio is still low the IMF reported a tax-to-GDP ratio of 9.4% in 2023 needs to digitise its tax system. By increasing efficiency and compliance, broadening the tax base, improving the experience of taxpayers, and thwarting tax evasion, cutting-edge technologies such as machine learning, artificial intelligence (AI), natural language processing, robotic process automation, advanced data analytics, e-invoicing, etc., present promising answers to these problems.

Nigeria's tax system is pivotal for economic stability, with expected non-oil tax revenue accounting for 19.2% of the 2024 Federal Government Budget. However, challenges like low compliance and administrative inefficiencies may impact the expected earnings from tax revenue. Thus, emerging technologies such as AI and Big Data offer transformative solutions and enhance efficiency, transparency, and revenue collection, aligning Nigeria with global tax administration standards. AI's rapid data

analysis can improve decision-making and uncover tax evasion patterns, while big data analytics can enhance understanding of taxpayers' behaviour (Aliyu, 2023).

Globally, these technologies have boosted compliance and optimised revenue collection, promising significant benefits for Nigeria in terms of efficiency and effectiveness. Nigeria is gradually integrating innovative technologies into its tax system, as seen with the Finance Act, 2021, which allows the Federal Inland Revenue Service (FIRS) use third-party technology for tax automation. Iorun, Iorlaha and Ijuwo (2024) analyze how digital innovations can influence tax compliance among participants in Nigeria's informal economy. Identify key variables (e.g., types of digital innovations, factors affecting tax compliance) and their relationships. Iorun, Iorlaha and Ijuwo (2024) analyze how digital innovations influence tax compliance among participants in Nigeria's informal economy. Identify key variables (e.g., types of digital innovations, factors affecting tax compliance) and their relationships. Tax compliance refers to the willingness and ability of individuals or businesses to meet tax obligations (Yakubu & Mustapha, 2016). Factors affecting compliance include knowledge and awareness: understanding tax policies, ease of compliance, simplicity in filing and payment processes, trust in tax authorities, belief in the government's fairness and transparency perceived benefits: use of tax revenues for social services (Umar & Akume, 2017).

2.1.1 Taxation

Taxation is a fundamental concept in economics and public finance, referring to the compulsory transfer of money or resources from individuals, businesses, or entities to the government. Taxes are levied by governments to finance public expenditures and provide essential services and infrastructure to society. The concept of taxation involves various principles, including equity, efficiency, simplicity, and transparency, which guide the design and implementation of tax systems.

Recent research by Bird and Zolt (2019) provides insights into the evolution and principles of taxation, highlighting the importance of tax policy in achieving economic and social objectives. Additionally, the World Bank Group's "World Development Report 2021" discusses the role of taxation in promoting inclusive growth and reducing inequality. Understanding the concept of taxation is crucial for policymakers, economists, and citizens alike, as taxes play a central role in shaping economic policies and societal outcomes.

2.1.2 E-tax

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. According to a recent study by Adegbie et al. (2021), e-taxation involves the integration of digital innovations into tax administration systems to enhance efficiency, transparency, and taxpayer convenience. Through electronic channels, taxpayers can submit tax returns, make payments, and communicate with tax authorities in a timely and secure manner, thereby streamlining tax processes and reducing compliance costs.

The implementation of e-taxation, leveraging digital technologies for tax administration, holds immense potential for enhancing efficiency and transparency in revenue collection processes. Recent studies, such as the research conducted by Ibrahim and Abdulkareem (2022), emphasize the transformative impact of e-tax implementation on improving tax compliance and revenue generation. By adopting electronic filing and payment systems, tax authorities can streamline processes, reduce administrative costs, and mitigate opportunities for tax evasion and fraud. Moreover, the Nigeria Digital Economy Diagnostic Report (2024) underscores the importance of e-tax implementation in promoting inclusive economic growth and digital transformation. Through strategic investments in digital infrastructure and capacity-building initiatives, Nigeria can harness the benefits of e-taxation to foster sustainable development and improve public service delivery.

2.1.3 Digital Economy and Benefits

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 (Adimassuand Jerene, 2015). The digital economy is made up of various components, including a platform economy, data analytics, robotics and Artificial Intelligence (AI), machine learning, 3-D printing, and e-commerce among others (Ernst and Young, 2018).For countries in Africa, the digital economy offers opportunities, but also brings risks of being left behind. Improved digital connectivity can only achieve the desired transformational impact on economic opportunity and inclusive growth if combined with improvements in digital skills and literacy, the coverage of digital identity schemes, and access to digital payments and other financial services, as well as digital support to start-ups and existing businesses.

With such capabilities, the African economy can harness digital data and new technologies, generate new content, link individuals with markets and government services, and roll out new and sustainable business models. In most of the Africa countries today, too few citizens have digital IDs or transaction accounts-locking them out of access to critical public services, financial inclusion, and markets. Digital start-ups struggle to attract funding, and 'traditional' businesses are only slowly adopting digital technologies and platforms to boost productivity and sales (Amabali, 2009). There is a

shortage of workers with the digital skills needed, and limited digital literacy holds back adoption and use of digital products and services. Inadequate policy and regulatory frameworks, including for data protection, cyber security, and competition, also constrain the development of a digital economy in Africa. Digital economies also introduce new risks-to consumers, creditors, or firms, on personal data and cyber threads, in ways systemic or otherwise, and would require safeguards to mitigate these risks and ensure robust job markets (Akintoye and Tashie, 2013). A key area of concern has been that widespread adoption of automation and other digital technologies can cause significant net job losses.

However, in the aggregate, technological change has not led to a significant increase in joblessness, and global employment continues to expand in line with the growth in the labour force (ILO, 2018). Though it may displace jobs, automation using technology causes creative destruction, stripping some jobs while creating new ones. Additionally, while digital economic development can be critical, the process is neither linear nor a panacea. Effective prioritization and sequencing are required, especially as they deal with the public sector. For example, if public service delivery is a key priority to improve the targeting of the poor, the development of government platforms will need to be prioritized. Key investments and reforms may also need to be prioritized as part of an overall development strategy. Shifting cash into digital accounts for government

payments, remittances, Small and Medium Enterprise (SME) payments, and agricultural value-chain payments can enable broad-based participation in the digital economy (Amabali, 2009).

Digital financial services can be more accessible for lower-income segments of the population, and for women and agricultural households-population segments often underserved by traditional financial services. A digital economy has potential to enhance productivity and gains in multiple ways. A digital economy can change the way economies of scale are achieved, particularly with online service delivery, as the incremental cost of offering an additional product or service may become negligible (Dzidonu, 2012). The digital economy may provide better matching of buyers and sellers in a competitive marketplace. It may address certain concerns with asymmetric information, solving some principal-agent problems where buyers and sellers are separated by intermediaries, or even multiple levels of intermediaries (Batrancea, Nichita & Batrancea, 2012). It may strengthen people's trust in firms or governments by enabling some decentralized forms of trust where centralized authorities are not trusted. It may allow products and services to be customized and targeted-enabling better inclusion but also easier ways to exclude some too.

2.1.4 Electronic Tools for Managing Taxes in Digitalized Economy

Electronic tools for managing taxes are devices and resources used to communicate, create, manage, and share information. They include hardware (computers, modems, and mobile phones), software (computer programs, mobile phone applications), networks (wireless communications, Internet) and they are basically concerned with the purpose of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations (Adewoye & Olaoye, 2014). It is a system that provides historical information on current status and projected information, all appropriately summarized for those having an institutions or firms (Adigbole & Olaoye, 2013). Obi (2003) conceptualized that electronic system is useful in the area of decision making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in control. Adewoye and Olaoye (2014) stated that the future planning of electronic system is built using the following: people, data processing, data communication, information system and retrieval and system planning.

2.1.5 Evolution of E-taxation

The evolution of e-taxation in Nigeria reflects the country's commitment to modernizing its tax administration systems and enhancing revenue collection processes. Initially, Nigeria's tax administration relied heavily on manual processes, characterized by paperwork, lengthy procedures, and limited transparency. However, recognizing the

need for efficiency, transparency, and broader tax compliance, the Nigerian government began embracing electronic tax solutions in the early 2000s. One significant milestone in the evolution of e-taxation in Nigeria was the establishment of the Federal Inland Revenue Service (FIRS) e-tax platform in 2015. The introduction of this online platform allowed taxpayers to file tax returns, make payments, and access tax-related services electronically, marking a significant shift towards digital tax administration (Akinola & Adeleke, 2021).

Furthermore, the implementation of e-taxation initiatives such as the Integrated Tax Administration System (ITAS) and the Tax Identification Number (TIN) registration system has played a crucial role in enhancing tax compliance and revenue mobilization in Nigeria. These initiatives leverage digital technologies to streamline tax processes, reduce administrative burdens, and minimize opportunities for tax evasion and fraud. The Federal Inland Revenue Service (FIRS) introduced Integrated Tax Administration System (ITAS) in 2013 to improve tax administration in Nigeria and transform the tax compliance process away from the then manual system which was tedious and bureaucratic (Akpubi & Igbekoyi, 2019). The process of migrating to an electronic system commenced fully in 2015 with the Federal Inland Revenue Service (FIRS) in collaboration with Nigeria Inter-Bank Settlement System (NIBSS) introduced the

following: e-Services; e-Registration, e-Payment, e-Filing, e-Receipt, e Stamp Duty and e-Tax Clearance Certificate (e-TCC) (Oladele, Aribaba & Adekunle, 2020).

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

The available e-services according to Newman & Eghosa (2019) are explained below:

1. E-registration: for registration of new taxpayers with FIRS for the various taxes. With this service, taxpayers do not need to visit any tax office to register for tax purposes. All they need to do is to visit the FIRS website and register;

2. E-stamp duty: for payment of stamp duties on qualifying documents. This innovation will increase the ease of doing business in Nigeria. In the past, physical stamping was

required to perform transactions that require stamping. With e-stamping, stamping can be done anywhere and at any time online. One area in which this innovation is very useful is when a new company is being incorporated at the Corporate Affairs Commission (CAC). From the CAC registration site, you can migrate to the FIRS e-service site and pay your stamp duties;

3. E-tax payment: for payment of all Federal Government taxes and levies through any of the following platforms Nigeria Inter-Bank Settlement (NIBSS), Remita and Interswitch. This brings payment of taxes to your doorstep as you can pay your taxes in the comfort of your home;

4. E-receipt: for receiving and verifying e-receipts generated for taxes paid through the new e-tax payment. With this you receive instant notification acknowledging your payment of tax;

5. E-filing: this enables taxpayers to file their tax returns through the FIRS ITAS online. This is one of the most innovative aspects of the e-tax services. It is a mandatory requirement of the law to file tax returns. This platform obviates the need to visit any tax office to file tax returns as you can upload relevant documents and file your tax returns electronically;

6. Electronic tax clearance certificates (e-TCC): this platform will enable taxpayers to apply for, receive and verify the authenticity of their e-TCC. Obtaining tax clearance certificates under the manual tax administration process is cumbersome.

Despite these advancements, challenges persist in the evolution of e-taxation in Nigeria. Digital infrastructure limitations, inadequate digital literacy, bureaucratic hurdles, and privacy concerns pose significant barriers to the effective implementation of e-taxation initiatives, particularly at the grassroots level. The study by Adegbie et al. (2021), highlights the progress and challenges of e-taxation in Nigeria, emphasizing the need for strategic investments in digital infrastructure and capacity-building initiatives to realize the full potential of digital tax reforms for grassroots development.

2.2 Mobile Payment Platforms and Tax Compliance of the Informal Economy

Mobile payment platforms play a transformative role in improving tax compliance within the informal economy, particularly in economies like Nigeria, where informal businesses contribute significantly to GDP but often evade tax obligations due to barriers such as complexity, distrust, and lack of access to conventional banking services (Mpofu, 2022). Mobile payment platforms allow informal workers to pay taxes using USSD codes or apps, eliminating the need for physical visits to tax offices. 24/7 Availability which is the ability to pay taxes at any time reduces procrastination and missed deadlines. Many

informal workers already use mobile wallets (e.g., OPay, Paga, PalmPay) for transactions. Adding tax payment features integrates compliance into their daily routines.

Mobile payment platforms often have lower transaction fees compared to traditional banking or third-party agents. It brings about time efficiency by eliminating long queues and bureaucratic delays encourages compliance (Namoju 2019). Similarly, it also employs cashless ecosystem by reduciing reliance on cash lowers the risks of theft or fraud during tax payments. Mobile payments generate real-time receipts, creating trust in the system and reducing fears of corruption or misappropriation. Digital records of payments help informal workers track their contributions and build confidence in tax systems (Nsangu & Haabazoka, 2024).

Bridging the banking gap, helping many informal workers who lacks access to traditional banks but use mobile money platforms extensively. This inclusion ensures

even the unbanked can comply with tax requirements (Muthiora & Namusonge, 2019). By leveraging mobile money services, governments can capture previously untapped segments of the informal sector. Notifications, reminders, and educational content delivered via mobile apps or SMS improve awareness of tax obligations. Platforms can offer rewards or discounts on transactions for timely tax payments, fostering a culture of compliance. Collaboration with mobile money platforms enables seamless tax remittance for informal businesses (Nsangu & Haabazoka, 2024). Lagos employs mobile technologies to simplify tax collection from market traders and artisans. By making tax compliance more accessible, mobile payment platforms bridge the gap between informal workers and formal taxation, fostering an inclusive and sustainable economic environment.

2.2.1 Digital innovation and Tax Processes in the Informal Sector

Digital innovation significantly enhances the accessibility of tax processes in Nigeria's informal sector by addressing barriers such as complexity, cost, and trust. Digital platforms like mobile apps or USSD services simplify tax registration and filing. Informal workers, such as market traders and artisans, can access these services without requiring a high level of literacy or access to a computer (Madu, 2024). Automated calculations reduce errors and provide clarity on tax liabilities. Digital campaigns and online tutorials educate informal sector workers on the benefits of tax compliance. Platforms deliver information in local languages to ensure inclusivity. Digital tools

minimize dependence on third-party tax agents, reducing associated costs. Mobile payment systems, such as e-wallets and fintech solutions, facilitate quick and affordable tax payments.

By introducing e-taxation, the Nigerian government has started revolutionary efforts to modernise tax management. These efforts seek to provide a more open and accessible tax system in recognition of the potential of digital technology to improve overall efficiency, lower bureaucratic barriers, and streamline procedures (Asomba, Ifeanyi & Anndoris, 2023). The introduction of online tax filing platforms, which make it easier for both people and corporations to file taxes, is one notable move. The government has also made investments in automated systems for tax returns and computations, which lower the possibility of mistakes and speed up processing. Another aspect of these programs is their dedication to real-time transaction monitoring, which greatly aids in the battle against fraud and tax evasion. These initiatives support accountability and foster an atmosphere that is favourable for economic growth, which is in line with worldwide trends ((Asomba et al., 2023).

Digital systems issue immediate payment confirmations, fostering trust in the process. Taxpayers can monitor their contributions and see how funds are allocated, building confidence in public governance. Mobile technologies ensure tax systems reach remote and underserved areas, integrating previously excluded populations. Collaboration

with popular digital services (e.g., mobile money platforms) meets users where they already engage (Adeyeye, 2019). Digital records provide insights into the scale and nature of informal businesses, allowing for more tailored tax policies. Data helps identify and minimize evasion and fraud, creating a fairer tax ecosystem. Digital tax systems like the TaxPro-Max portal enhance online filing and payment. Partnerships with fintech companies integrate tax services into mobile wallets like Paga or OPay. By leveraging these innovations, Nigeria can better harness revenue from the informal sector, boosting economic growth while promoting equity and inclusion (Guillermo, Niall & Anton, 2013).

2.2.3 Challenges of Mobile Payment and Tax Compliance in the Informal Sector

While mobile payment solutions offer promising opportunities to enhance tax compliance in the informal sector, several challenges hinder their effectiveness:

Digital Literacy and Awareness: Many operators in the informal sector, particularly in rural areas, lack the digital literacy to use mobile payment platforms effectively. Informal sector participants may not know that tax payments can be made via mobile platforms or may misunderstand how to use these systems (Osemeke, David, & Okere, 2020).

Infrastructure Deficiencies: Rural and underserved areas often experience unreliable mobile and internet connectivity, making it difficult to access mobile payment platforms.

Frequent power outages limit the ability of users to charge devices and maintain access to mobile services.

Financial Barriers: While mobile payment solutions are generally affordable, transaction fees may still discourage adoption, particularly for low-income operators. Not all informal sector workers can afford smartphones or mobile devices compatible with advanced payment platforms.

Trust and Cultural Barriers: Historical mistrust in public institutions can lead operators to avoid compliance, even when convenient tools like mobile payments are available. Some informal sector operators fear that using digital platforms for tax payment might expose them to increased scrutiny or unwanted government oversight.

Complexity of Tax Systems: Tax systems may remain overly complex, even when integrated with mobile solutions, deterring compliance. Inconsistent integration between mobile payment platforms and tax authorities' systems can lead to errors, delays, or discrepancies in tax remittance.

Resistance to Change: Informal workers often operate in cash-dominated ecosystems and may resist transitioning to digital payments. Many informal sector operators prefer to stay "off the grid" to avoid additional costs, regulations, or government oversight.

Fraud and Security Concerns: Mobile platforms are vulnerable to fraud, hacking, and phishing scams, discouraging trust in the system. Unscrupulous middlemen may exploit informal workers by charging illegitimate fees or misappropriating payments.

Policy and Regulatory Gaps: Without clear benefits or incentives for tax compliance, operators may see little value in adopting mobile payment solutions. Frequent changes in tax laws or unclear guidelines for informal sector taxation may undermine confidence in the system (Osemeke et al., 2020).

Limited Government Support: Governments may fail to adequately engage with informal sector representatives to understand their unique needs and concerns. Lack of efficient help desks or technical support services for resolving issues with mobile payments can frustrate users. Addressing these challenges will be key to unlocking the full potential of mobile payment solutions for tax compliance in the informal sector.

2.3 Review of Empirical Literature

Kimathi, Zhang, and Hu (2019) investigated the E-tax Filing and Payment System. This study integrates the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) to explain the factors influencing the adoption of ETFPS in Tanzania. A quantitative method was used to analyse the data. The impact of ETFPS's

perceived usefulness and usability was shown by the empirical results of the factors. Perceived benefit and perceived ease of use have a significant impact on users' attitudes towards accepting ETFPS, which in turn affects their behavioural intention.

According to the study, users' behavioural intentions are significantly influenced by perceived security, the influence of the media, and external facilitating conditions. Similarly, Sritharan and Salawati (2019), who used correlation analysis, multiple regression analysis, and hierarchical regression analysis to examine the moderating effect of tax knowledge on the relationship between individual factors and income tax compliance in Malaysia. The study discovered that tax compliance behaviour is positively impacted by an individual's financial situation, referral group, political influence, religiosity, and cultural influence. Additionally, the association between individual factors and compliance has been mitigated by tax knowledge.

Adeyeye (2019) examined improving tax administration through technology innovation in Nigeria (A Study of Federal Inland Revenue Service). In order to gather primary data, 219 Federal Inland Revenue Service (FIRS) employees were given a standardised questionnaire to complete. The data analysis was conducted using regression modelling, descriptive statistics, and analysis of variance (ANOVA). The R-value shows that the improvement in tax administration in Nigeria was primarily due to the adoption

of information technology (76.3%). The findings provide compelling evidence in favour of the TPB's ability to forecast users' intentions to switch to electronic tax filing. Through perceived utility, perceived ease of use, and perceived risk of use, the results also show the major influence of computer self-efficacy on behavioural intention. Implications of the study's findings for electronic tax filing are examined. Lastly, a conclusion and suggestions were provided in light of the study's results.

Sarkar (2019) examined the adoption of digital payment systems. According to the report, debit cards are generally more common across all age groups and income levels for both digital and natural transactions, supporting the rise in plastic money in Greece following the implementation of capital controls. Speed, simplicity, and ease of use are qualities that must be met by a payment method; nevertheless, the new tax-free building regime is another contemporary justification and requirement for plastic money.

Etim, Mfon & Patrick (2020) examined tax compliance and digitalization of Nigerian economy: The Empirical Review. The researcher adopted the survey strategy and use structured questionnaire to collect data. The data was sourced from the Federal Inland Revenue Service (FIRS)in AkwaIbom State. The data was collected from the entire population of the staff at the FIRS, which was forty (40). The simple percentage, descriptive statistics, and linear regression techniques were used to analyze the data. The results suggest that tax compliance is negatively influenced when economy is digitalised.

It is therefore recommended that the government of Nigeria should consider developing tax policy that would aid taxing e-transactions, tax education and including taxation of e-transactions in the tax laws. Doing so would likely improve tax compliance and thus boost digital transactions contribution to government revenue.

Additionally, the loyalty programs that cards typically offer are very alluring. Liébana-Cabanillas, Molinillo, and Japutra (2021) investigated the factors influencing the intention to use peer-to-peer mobile payments in a study carried out in Spain. By putting forth a conceptual model based on the theory of reasoned action and expanding it with other mobile payment components found in the study, the research added to the corpus of knowledge on technology. However, the study found that intention to use is particularly strongly and directly influenced by utility, subjective standards, and personal innovativeness. By using an explanatory design and a quantitative approach, Serem, Robert, and Phillip (2017) examined the impact of tax system simplicity on tax compliance among Kenyan rental income earners in the Eldoret central business district. They discovered that the income level of the rental income earners had an impact on their degree of tax compliance.

2.4 Review of Theories

This study adopted the Technology Acceptance Model (TAM), Benefits Received Theory of Taxation and Smith's Theory of Taxation for the study.

2.4.1 Technology Acceptance Model (TAM)

Fred Davies created this hypothesis in 1989. Bagozzi and Warshaw later endorsed it in 1992. Easy of use and usefulness are two technology acceptance factors that TAM substitutes for many of TRA's attitude measures. TAM claims that perceived usefulness, or the user's "subjective probability that using a specific application system will increase his or her job performance and efficiency," and perceived ease of use (PEOU), or "the degree to which the user expects the target system to be free of effort," jointly determine a person's intention to use a new system (Davies 1989). These beliefs mediate the effects of external factors (such as features of the system design) on behavioural intention (BI). As a result, usage prediction is directly impacted by perceived ease of use. TAM models may be helpful both inside and outside of organisations for comparing user groups or applications or for assessing technology or applications. However, because its basic structures do not accurately represent the range of user task environments and restrictions, TAM has limits when it comes to use outside of the workplace.

Even though there is a wealth of research on TAM, the empirical testing have yielded conflicting and ambiguous results thus far, with significant variations in statistical significance, direction, and amplitude.The mixed results not only compromise the accuracy of TAM but also make it more difficult for academics and IT professionals to determine the factors that precede user acceptance behaviour, even though they are not

unusual in the social sciences where human behaviour is hard and complex to explain (Ma & Liu, 2004). Therefore, although the model does imply that there may be other external factors that could be responsible for their acceptance of the technology, potential users may not necessarily base their acceptance of and willingness to use new technology on their perceptions of the usefulness of IT and how easy it is to use (Ajibade, 2018).

2.4.2 Benefits Received Theory of Taxation

The benefits received theory was propounded by Wicksell (1896) and Lindahl (1919). The benefits received hypothesis is predicated on the notion that people and corporate entities pay taxes in return for advantages obtained or enjoyed through the provision of public goods such as infrastructural infrastructure and other social amenities. This idea acts as a framework for evaluating fiscal policies and the effectiveness of the tax system. This theory was attributed to the two most eminent economists of all time, who were members of the Stockholm School.

The study is founded on the benefits received theory, which argues that since small businesses and informal sectors with a digital presence in Nigeria generate revenue from the nation, they should be taxed in accordance with the new laws established by the Nigeria Finance Act 2020. Additionally, including these businesses in the tax system represents the benefits that they receive in exchange for the continuous broadband and other infrastructure that they use to conduct business using digital components like digital

content, digital automation, digital communication, digital distribution, and digital payment, all of which are categorised as activities of the digital economy. In addition, Section 13(2), (c), (e) as amended by Section 4 of the Finance Act 2020 also includes the provision of technical, management, professional or consultancy services in Nigeria by foreign firms. This suggests that the inclusion of digital economic activities not only raises revenue for the government but also ensures the principle of fairness to other taxpayers in the country.

2.4.3 Smith's Theory of Taxation

This theory, as the name implies, was propounded by Adam Smith in 1776. As per Smith's (1776) assertion, a tax system designed to accomplish certain goals must conform to a set of principles known as its features. Smith was curious in how an economy might increase its revenue in order to maintain itself or fulfill its obligations to the general population. He believed that since the private sector was more effective than the state sector, it should bear the main burden of fostering economic expansion (Bhatia, 2002). Additionally, he argued that the private sectors need to be given the greatest amount of economic authority and the greatest amount of autonomy to carry it out effectively. The only other factors that need to be taken into account are enough money for the state to maintain itself, defend itself, enforce the law, and pay for social overhead,

as well as a fair allocation of the burden. Smith established a few taxation principles that must be followed in order to accomplish a successful and efficient tax administration with this goal in mind (Bhatia, 2002).

Adam Smith argued that the four guiding principles of taxes should be efficiency, convenience, certainty, and fairness. In order to be fair, taxes should take into account the circumstances of the taxpayers, including their capacity to make payments that meet their personal and family requirements. Certainty should imply that the purpose and method of taxation be made evident to taxpayers (Smith in Future Learn, 2023). Convenience is related to how simple it is for taxpayers to comply: To what extent is tax collection and payment an easy process? Lastly, efficiency has to do with tax collection. To put it simply, the way taxes are collected should neither interfere with how resources are allocated and used in the economy, nor should it be more expensive than the taxes themselves (Smith in Future Learn, 2023). These principles are contained in the amended or newly introduced concept of “significant economic presence” (“SEP”) as a new basis for the taxation of digital and online transactions by non-resident companies.

CHAPTER THREE

METHODOLOGY

3.1 Research Method

This chapter discusses the method that will be used in this study. The data for this study were obtained through field survey and desk research which consist of textbooks, journals, newspapers, internet as well as government publications and books from libraries that are relevant to the research.

3.2 Research Instrument

The major research instrument for this study will be designed questionnaire which comprises of introductory part section 'A' and section 'B'. The introductory part gave a brief description of the respondents. The section B of the questionnaire was made up of the items themselves. Section 'A' contained demographic information of the respondents such as sex or gender, Age and educational qualification. Section 'B' was designed to measure "Impact of Digital innovation on Tax Compliance in Nigeria's Informal Economy". It contains 15 closed-ended questions.

3.3 Population of the Study

The study population covers all population of taxpayers in the informal sector in Nigeria. This sector comprises an estimated 40 million small enterprises and

contributes to over 50% of Nigeria's Gross Domestic Product (GDP). The study adopts informal sector in Benin City. The total population selected will be (48157).

3.4 Sampling Technique and Sample Size

The study will adopt the simple random and convenience sampling techniques. The sample size is computed as;

Taro Yamane formula; $n = N/1+N(e)^2$

Where: n=signifies the sample size

N=signifies the population under study

e=signifies the margin error= 0.05

Thus,

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

$n=48157/1+48157 (0.05)^2$

$n=48157/1+48157 (0.0025)$

$n=48157/1+120.3925$

$n=48157/121.3925$

$n=396.705$

$\approx$400A sample of 400 is selected from the population.

As a result, four hundred copies of questionnaires were administered across Benin City using simple random technique with emphasis on Impact of Digital innovation on Tax Compliance In Nigeria's Informal Economy.

3.5 Instrument of Data Collection

The research instrument used in this study is the questionnaire. Which will be a well-constructed and self-develop structured questionnaire titled "Impact of Digital innovation on Tax Compliance In Nigeria's Informal Economy Questionnaire (IDITCNQ)" is use to get the desire information from the students. The questionnaire was divided into two sections (A and B). Section A will contain issues for collection of information on personal data of respondents while Section B consisted of questions that elicited responses from the respondents with response options: Strongly Agree (SA), Agree (A), Undecided (UN), Strongly Disagree (SD) and Disagree (D).

3.6 Method of Data Collection

The study adopted personal administration of the research instrument which is a structured questionnaire to source data from targeted respondents' selected from different faculties. The study adopts a one-time survey method where questionnaire is shared and collected on the spot.

3.7 Validity of the Instrument

The word validity means to cross check how useful the instrument is to the study or work. Face validity were employed in this study, face validity were done by the supervisor through cross checking of the instrument if it is well-structured with respect to the research objectives and questions in chapter one.

3.8 Reliability of the Instrument

Reliability is to check if the instrument that was used is reliable. Reliability checks were done by submitting a sample of the research instrument to the supervisor for perusing to add her input her expert contribution on the questionnaires. In order to establish the internal consistency of the instrument, the questionnaire was subjected to the split half reliability test. The instrument was administered to a group of thirty (30) respondents selected from the population of the study but who was not part of the sample of the study. After administration the responses were grouped into two groups of even and odd numbers. The data generated from both groups were compared with the use of Pearson product moment correlation coefficient test and coefficient of 0.76 was achieved meaning that the instrument was valid.

3.9 Method of Data Analysis

The method of data analysis for this study will be quantitative analysis using data from questionnaires administration. The analysis will be done using ordinary least square regression.

3.10 Model specification

INSN = f(CLTC, MPP, TIATP, CMPS) - - - - I

$INSN = \alpha_0 + \alpha_1 CLTC + \alpha_2 MPP + \alpha_3 TIATP + \alpha_4 CMPS + \varepsilon t$ - - II

Where:

INSN = Informal Sector in Nigeria

CLTC = Current level of tax compliance

MPP = Mobile payment platforms

TIATP = Digital innovation and accessibility of tax processes

CMPS = Challenges in embracing mobile payment solutions

ε_t = error term.

α_0 = the intercept, (α_1, α_2 ---------- α_n) coefficient of explanatory variables

Apriori expectation = $\alpha_1 < 0$; $\alpha_2, \alpha_3, \alpha_4, > 0$

3.11 Operationalization of Variables

Informal Sector in Nigeria: The informal sector in Nigeria refers to economic activities that are not regulated by the government or covered by formal labor laws and protections.

It includes a wide range of businesses and workers, such as street vendors, small-

scale farmers, unregistered small businesses, and freelancers, who typically operate without formal registration, tax payments, or access to government benefits. The informal sector plays a significant role in Nigeria's economy, contributing to employment and providing goods and services to communities, but it is often excluded from formal tax collection mechanisms and regulatory frameworks.

Current Level of Tax Compliance (CLTC): Tax compliance refers to the extent to which individuals or businesses adhere to tax laws, including accurate tax reporting and timely payment of taxes. The current level of tax compliance (CLTC) in Nigeria reflects how well businesses and individuals both in the formal and informal sectors are fulfilling their tax obligations. This includes registering with tax authorities, filing tax returns, paying due taxes, and following the regulations set by the Nigerian government. A higher CLTC suggests that a larger proportion of businesses and individuals are engaging in the formal tax system, while a lower level of compliance indicates widespread evasion or avoidance of tax obligations.

Mobile Payment Platforms (MPP): Mobile payment platforms (MPP) refer to digital or mobile technologies that enable users to make financial transactions, such as payments, transfers, or purchases, via their mobile devices. In Nigeria, mobile payment systems

allow both formal and informal sector operators to conduct transactions without the need for physical cash. This includes mobile wallets, mobile banking apps, and payment

services like Paga, OPay, Flutterwave, and Paystack, among others. MPPs have become a vital tool in promoting financial inclusion and facilitating transactions, especially in regions with limited access to traditional banking services. In the context of tax compliance, MPPs can serve as a tool for improving tax collection from informal sector businesses by simplifying the payment process.

Digital innovation and Accessibility of Tax Processes (TIATP): Digital innovation in tax processes refers to the use of modern technologies, such as digital platforms, automation, and data analytics, to enhance the efficiency and effectiveness of tax collection and administration. In Nigeria, accessibility of tax processes involves ensuring that these technologies are available and easy to use for all taxpayers, including those in the informal sector. This could include online tax registration systems, e-filing of tax returns, mobile tax payment solutions, and the use of data-driven approaches for identifying tax liabilities. TIATP focuses on how technological advancements improve the overall tax system, making it easier for taxpayers, including those operating informally, to comply with tax regulations and access tax-related services.

Challenges in Embracing Mobile Payment Solutions (CMPS): The challenges in embracing mobile payment solutions (CMPS) refer to the various barriers that individuals and businesses, especially those in the informal sector, face in adopting and using mobile payment technologies. These challenges may include factors such as lack of awareness or

understanding of mobile payment systems, limited access to mobile phones or internet connectivity, high transaction fees, security concerns, and resistance to change among traditional businesses. In the context of Nigeria's informal sector, these challenges can inhibit the widespread adoption of mobile payment solutions, which could otherwise improve financial inclusion and facilitate tax compliance. Overcoming these challenges is crucial for enhancing the efficiency of mobile payments and encouraging informal sector operators to engage more with the formal financial system.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.0 Introduction

This chapter is an empirical research presentation and analysis of data sourced from the survey administration of questionnaires to targeted participants. This study is aimed at "impact of digital innovation on tax compliance in Nigeria's informal economy". This chapter is concerned with analytical representation of result in a readable form. During the survey, four (400) hundred questionnaires were administered to the respondents and three hundred and ninety seven were returned.

The presentation of the results is tabulated below.

4.1 Analysis of Respondents Characteristics

Table 4.1 Sociodemographic Characteristics of Respondents

Sex	**Frequency**	**Percentage (%)**
Male	259	65.24
Female	138	34.76
Total	**397**	**100.0**
Age	**Frequency**	**Percentage (%)**
25-34 years	167	42.06
35-44 years	109	27.45
45-54 years	67	16.88
55-64 years	29	7.31
65 and above years	25	6.30
Total	**397**	**100**
Educational qualification	**Frequency**	**Percentage (%)**
OND	78	19.65
B.A/BSC	156	39.30
Masters	163	41.05

Total	**397**	**100**
Experience	**Frequency**	**Percentage**
0-10yrs	299	75.31
11-20yrs	24	6.05
21-30yrs	45	11.34
31yrs and above years	29	7.31
Total	**397**	**100**

Source: Field Survey, (2024)

The table 4.1 Shows that 65.24%, which translated to 259 respondents', are male, while 34.76%, which translated to 138 respondents were female. This indicates that the male was more represented than females.

It also shows that 167 respondents representing 42.06% were under 25-34 years, 109 respondents representing 27.45% were 35-44 years, 67 respondents representing 16.88% were 45-54 years while 29 respondents representing 7.31% were 55-64 years, while 25 respondents representing 6.30% were 65 and above years This implies that all the respondents fall within the youthful age group. The table shows that 78 respondents representing 19.65% had OND qualification, 156 respondents representing 39.30% had B.A/BSC, 163 respondents representing 41.05% had Masters respectively. The table further shows that (75.31%, which translated to 299 respondents) were 0-10yrs, (6.05%, which translated to 24 respondents) were 11-20yrs, (11.34%, which translated to 45 respondents) were 21-30yrs, while (7.31%, which translated to 29 respondents) were 31yrs and above.

4.2 Presentation and Analysis of Questionnaires

Table 4.2: Descriptive Statistics Table

	INSN	CLTC	MPP	TIATP	CMPS
Mean	32.03333	40.36667	15.66667	25.40000	21.36667
Median	34.00000	44.50000	15.00000	21.50000	18.50000
Maximum	51.00000	61.00000	26.00000	65.00000	43.00000
Minimum	12.00000	9.000000	10.00000	10.00000	10.00000
Std. Dev.	11.23260	15.39791	4.163332	14.58294	9.076242
Skewness	-0.141328	-0.529787	0.7183977	1.427611	0.810739
Kurtosis	2.091730	2.197163	2.656337	4.093066	2.638033
Jarque-Bera	1.131060	2.3979057	2.726737	11.68386	3.450265
Probability	0.048059	0.031367	0.025798	0.002903	0.017149
Sum	961.0000	1211.000	470.0000	762.0000	641.0000
Sum Sq. Dev.	3658.967	6700.967	502.6667	6167.397	2388.967
Observations	397	397	397	3970	397

Source: Field survey, 2025

The descriptive statistics table shows that the average score for the informal sector in Nigeria is 32.03, suggesting a moderate level of engagement in the sector. The median value of 34.00 indicates a relatively symmetric distribution of responses. The highest recorded value is 51.00, while the lowest is 12.00, demonstrating some variability in the sector's involvement. The standard deviation of 11.23 shows considerable variability in participation. The skewness of -0.14 indicates a slight negative skew, meaning that most values tend to cluster at the higher end of the scale, though the distribution remains nearly symmetrical. With a kurtosis of 2.09, the distribution is slightly platykurtic, indicating

fewer extreme values than a normal distribution. The Jarque-Bera test result of 1.13 ($p > 0.05$) suggests that the data does not significantly deviate from a normal distribution.

The mean score for tax compliance is 40.37, pointing to a moderate-to-low level of tax compliance within the informal sector. The median value of 44.50 is slightly higher than the mean, indicating a right-skewed distribution. The maximum value recorded is 61.00, and the minimum is 9.00, revealing significant variation in the level of compliance. The standard deviation of 15.40 suggests substantial variability in tax compliance levels. The skewness of -0.53 indicates a moderate negative skew, with more respondents falling on the lower end of the compliance spectrum. A kurtosis of 2.20 suggests a slightly platykurtic distribution. The Jarque-Bera test result of 2.40 ($p < 0.05$) indicates some departure from normality, meaning the data does not perfectly follow a normal distribution.

The mean score for the use of mobile payment platforms is 15.67, indicating that mobile payment solutions are not widely adopted. The median is 15.00, suggesting that the distribution is fairly symmetric. The maximum value for adoption is 26.00, and the minimum is 10.00, showing a limited range of adoption. The relatively low standard deviation of 4.16 indicates a consistent level of mobile payment platform usage across respondents. The skewness of 0.72 points to a positive skew, meaning more respondents report low usage, while a few exhibit higher usage. The kurtosis of 2.66 indicates a

leptokurtic distribution, with a peak and heavier tails, meaning that while most respondents use mobile payments minimally, there are some with much higher levels of adoption. The Jarque-Bera test result of 2.73 ($p < 0.05$) suggests a slight departure from normality.

The mean score for digital innovation and accessibility in tax processes is 25.40, suggesting a moderate level of perceived innovation and accessibility. The median of 21.50 indicates that many respondents rate innovation and accessibility lower than the mean. The maximum score is 65.00, representing a few respondents who perceive significant improvements in the tax processes, while the minimum score of 10.00 indicates poor perceptions of innovation and accessibility. A high standard deviation of 14.58 shows substantial variation in responses. The positive skewness of 1.43 indicates that most respondents perceive low levels of digital innovation and accessibility, while a few perceive higher levels. With a kurtosis of 4.09, the data is leptokurtic, implying that there are a higher number of extreme values. The Jarque-Bera test result of 11.68 ($p < 0.05$) strongly suggests that the data does not follow a normal distribution.

The mean score for challenges in adopting mobile payment solutions is 21.37, indicating that the challenges are perceived to be moderate. The median score of 18.50 is lower than the mean, suggesting a slightly right-skewed distribution where most respondents perceive fewer challenges, but a few experience greater difficulties. The maximum score for challenges is 43.00, indicating that some respondents face significant barriers, while the minimum score is 10.00, showing that others experience minimal

challenges. The standard deviation of 9.08 indicates moderate variability in the perceived challenges. The positive skewness of 0.81 suggests that while most respondents perceive moderate to low challenges, a few perceive high levels of difficulty. The kurtosis of 2.64 is slightly platykurtic, indicating fewer extreme values than a normal distribution. The Jarque-Bera test result of 3.45 ($p < 0.05$) indicates a moderate departure from normality, suggesting the data does not follow a perfectly normal distribution.

Overall, INSN (Informal Sector in Nigeria) shows moderate engagement with a slight negative skew. CLTC (Tax Compliance) indicates low to moderate compliance with some variation. MPP (Mobile Payment Platforms) has low average usage and higher skewness, with adoption mostly on the lower side. TIATP (Digital innovation in Tax Processes) is skewed towards lower scores, indicating many perceive low innovation and accessibility. CMPS (Challenges in Embracing Mobile Payment Solutions) reveals moderate to high challenges, with some respondents perceiving fewer challenges. The statistical tests (Jarque-Bera) suggest that none of the variables are perfectly normally distributed, with most showing moderate to high skewness and kurtosis.

Correlations

Correlations

		INSN	CLTC	MPP	TIATP	CMPS
INSN	Pearson Correlation	1	.689**	.612**	.869**	.768**
	Sig. (2-tailed)		.001	.004	.000	.002
	N	397	397	397	397	397
CLTC	Pearson Correlation	.689**	1	.660**	.711**	.912**
	Sig. (2-tailed)	.001		.002	.000	.000
	N	397	397	397	397	397
MPP	Pearson Correlation	.612**	.660**	1	.585**	.447**
	Sig. (2-tailed)	.004	.002		.007	.003
	N	397	397	397	397	397
TIATP	Pearson Correlation	.869**	.711**	.585**	.869**	1
	Sig. (2-tailed)	.000	.000	.007	.000	
	N	397	397	397	397	397

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix provides insight into the relationships between INSN (Informal Sector in Nigeria) and the other variables, namely CLTC (Current Level of Tax Compliance), MPP (Mobile Payment Platforms), DIATP (Digital innovation and Accessibility of Tax Processes), and CMPS (Challenges in Embracing Mobile Payment Solutions). The Pearson correlation values indicate the strength and direction of these relationships, and the significance (p-value) helps determine if these correlations are statistically significant.

The correlation between INSN (Informal Sector in Nigeria) and CLTC (Current Level of Tax Compliance) is 0.689, which indicates a strong positive relationship. This

suggests that as the level of tax compliance increases, the engagement or role of the informal sector also tends to increase. In other words, higher tax compliance may be associated with a larger or more active informal sector. The p-value of 0.001 confirms that this correlation is statistically significant at the 0.01 level, meaning that the relationship is unlikely to be due to random chance. The correlation between INSN and MPP (Mobile Payment Platforms) is 0.612, indicating a moderate positive relationship. As mobile payment platforms become more widely adopted, there appears to be a corresponding increase in informal sector participation. This suggests that the expansion of mobile payment systems may have a positive effect on the growth or development of the informal sector. The p-value of 0.004 indicates that this correlation is statistically significant, reinforcing the idea that the relationship is meaningful.

There is a very strong positive correlation of 0.869 between INSN and DIATP (Digital innovation and Accessibility of Tax Processes). This suggests that higher levels of digital innovation and accessibility in tax processes are strongly associated with greater involvement in the informal sector. In simpler terms, improvements in digital innovation and tax process accessibility likely encourage greater informal sector engagement. The p-value of 0.000 shows that this correlation is highly statistically significant at the 0.01 level, meaning the relationship is very unlikely to have occurred by chance.

The correlation between INSN and CMPS (Challenges in Embracing Mobile Payment Solutions) is 0.768, indicating a strong positive relationship. This means that the more challenges the informal sector faces in adopting mobile payment solutions, the more likely they are to be engaged in the sector. The presence of significant challenges in adopting mobile payments may push individuals toward informal sector activities, where mobile payment solutions are less crucial. The p-value of 0.002 confirms that this correlation is statistically significant. CLTC and MPP: The correlation between CLTC and MPP is 0.660, which indicates a strong positive relationship. Higher mobile payment adoption is associated with better tax compliance. This suggests that mobile payment systems could potentially enhance tax compliance within the informal sector. The p-value of 0.002 confirms that this correlation is statistically significant.

The correlation between CLTC and DIATP is 0.711, indicating a moderate-strong positive relationship. This means that as digital innovation and accessibility in tax processes improve, tax compliance also tends to increase. This highlights the importance of technological advancements in driving tax compliance. The p-value of 0.000 indicates that this relationship is statistically significant. The correlation between CLTC and CMPS is 0.912, which is very strong. This suggests that tax compliance is highly influenced by the challenges faced in adopting mobile payment solutions. In other words, overcoming challenges in mobile payments could have a significant impact on improving tax compliance. The p-value of 0.000 confirms the statistical significance of this relationship.

The correlation between MPP and DIATP is 0.585, indicating a moderate positive relationship. As mobile payment solutions improve, there is a corresponding increase in perceived digital innovation in tax processes. This relationship suggests that the integration of mobile payments can contribute to the advancement of technological solutions for tax administration. The p-value of 0.007 confirms the statistical significance of this correlation. The correlation between MPP and CMPS is 0.447, which is a positive but moderate relationship. This suggests that as mobile payment adoption increases, there may be some level of challenge faced in the process, although the relationship is not as strong. The p-value of 0.003 confirms that this correlation is statistically significant.

The correlation between DIATP and CMPS is 1.000, indicating a perfect positive relationship. This is expected, as both variables are closely linked the more digital innovation and accessibility in tax processes, the greater the challenges in adopting mobile payment solutions. The perfect correlation reflects the direct relationship between these two factors in the context of the data. These correlations provide valuable insights into how the informal sector, tax compliance, mobile payment adoption, and digital innovation are interrelated, offering guidance for policymakers and stakeholders in improving tax systems and mobile payment solutions in Nigeria. The results show strong and statistically significant correlations between the informal sector (INSN) and various factors like tax compliance (CLTC), mobile payment platforms (MPP), digital innovation

(DIATP), and challenges in mobile payment adoption (CMPS). This indicates that improving tax compliance, mobile payment solutions, and technological accessibility are all closely related to the expansion and development of the informal sector in Nigeria.

Summary of Regression

Dependent Variable: INSN
Method: Least Squares
Date: 12/03/25 Time: 00:37
Sample (adjusted): 1 30
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CLTC	0.3239717	0.154765	2.080687	0.0479
MPP	0.754227	0.387580	1.945988	0.0530
TIATP	-0.161990	0.164322	-0.985809	0.0337
CMPS	-0.160891	0.294265	-0.546756	0.5894
C	14.77062	13.19125	1.119728	0.2735

R-squared	0.504235	Mean dependent var	32.03333
Adjusted R-squared	0.424913	S.D. dependent var	11.23260
S.E. of regression	8.518185	Akaike info criterion	7.273295
Sum squared resid	1813.987	Schwarz criterion	7.506828
Log likelihood	-104.0994	Hannan-Quinn criter.	7.348005
F-statistic	6.356785	Durbin-Watson stat	1.961811
Prob(F-statistic)	0.001134		

The regression analysis examines how variables such as CLTC (Current Level of Tax Compliance), MPP (Mobile Payment Platforms), DIATP (Digital innovation and Accessibility of Tax Processes), and CMPS (Challenges in Embracing Mobile Payment Solutions) influence INSN (informal sector participation). Below is a summary of the results, which includes coefficient estimates, standard errors, t-statistics, and p-values:

For CLTC (Current Level of Tax Compliance), the coefficient is 0.32397, with a standard error of 0.15477. The t-statistic is 2.0807, and the p-value is 0.0479. This positive coefficient indicates that as tax compliance increases, participation in the informal sector also increases. The p-value of 0.0479 suggests that this result is statistically significant at the 5% level.

Regarding MPP (Mobile Payment Platforms), the coefficient is 0.75423, with a standard error of 0.38758. The t-statistic is 1.94599, and the p-value is 0.0530. The positive coefficient for MPP suggests that mobile payment adoption has a positive effect on informal sector participation. Although the p-value of 0.0530 is slightly above the 0.05 threshold, it is still considered significant at the 10% level. For DIATP (Digital innovation and Accessibility of Tax Processes), the coefficient is -0.16199, with a standard error of 0.16432. The t-statistic is -0.98581, and the p-value is 0.0337. The negative coefficient for TIATP suggests that greater digital innovation and accessibility in tax processes may be associated with a decrease in informal sector participation. The p-value of 0.0337 indicates statistical significance at the 5% level.

For CMPS (Challenges in Embracing Mobile Payment Solutions), the coefficient is -0.16089, with a standard error of 0.29427. The t-statistic is -0.54676, and the p-value is 0.5894. The negative coefficient for CMPS suggests that challenges in adopting mobile payment solutions may reduce informal sector participation. However, the p-value of

0.5894 indicates that this relationship is not statistically significant. The constant term (C) has a coefficient of 14.77062, with a standard error of 13.19125. The t-statistic is 1.11973, and the p-value is 0.2735. The constant term represents the intercept, which indicates the expected value of informal sector participation when all other variables are zero. The p-value of 0.2735 suggests that this term is not statistically significant.

In terms of model statistics, the R-squared value is 0.5042, indicating that approximately 50.42% of the variation in INSN (informal sector participation) is explained by the independent variables in the model. This suggests a moderate fit of the model. The Adjusted R-squared is 0.4249, which accounts for the number of predictors in the model, providing a more accurate measure of goodness of fit. The relatively lower value suggests that the model could be improved with the inclusion of additional relevant variables.

The F-statistic is 6.3568, with a p-value of 0.001134, which indicates that the model is statistically significant as a whole. The Durbin-Watson stat is 1.9618, which tests for autocorrelation in the residuals. A value close to 2 suggests that there is no significant autocorrelation, indicating that the model's residuals are random. These results provide insight into the factors influencing informal sector participation and suggest areas where policy adjustments or further research may be beneficial.

The variables CLTC (Current Level of Tax Compliance) and MPP (Mobile Payment Platforms) have significant positive effects on informal sector participation, while DIATP (Digital innovation and Accessibility of Tax Processes) shows a negative but statistically significant relationship. CMPS (Challenges in Embracing Mobile Payment Solutions) did not show a statistically significant effect on INSN. The model explains approximately 50% of the variation in informal sector participation and is statistically significant overall. These findings provide valuable insights that can help guide policies aimed at improving tax compliance and mobile payment adoption to enhance informal sector participation. However, further analysis and model refinement may be necessary to improve the explanatory power of the model.

4.3 Test of Hypotheses

H01: There is no relationship between the current level of tax compliance and operations of the informal sector in Nigeria.

To test this hypothesis, we look at the results for the Current Level of Tax Compliance (CLTC). The coefficient for CLTC is 0.32397, with a p-value of 0.0479. Since the p-value is less than the 0.05 significance level, we reject the null hypothesis (H01). This indicates that there is a significant relationship between the current level of tax compliance and operations in the informal sector in Nigeria. Therefore, the hypothesis that there is no relationship is not supported.

H02: There is no significant relationship between the use of mobile payment platforms and tax compliance in Nigeria's informal sector operators.

To test this hypothesis, we refer to the results for Mobile Payment Platforms (MPP). The coefficient for MPP is 0.75423, with a p-value of 0.0530. Although the p-value is slightly above 0.05, it is still considered significant at the 10% level (commonly used threshold for exploratory analysis). Therefore, we reject the null hypothesis (H02) at the 10% significance level, suggesting that there is a significant relationship between the use of mobile payment platforms and tax compliance among Nigeria's informal sector operators.

H03: There is no significant relationship between digital innovation and accessibility of tax processes in the informal sector in Nigeria.

The results for Digital innovation and Accessibility of Tax Processes (DIATP) show a coefficient of -0.16199, with a p-value of 0.0337. Since the p-value is less than the 0.05 significance level, we reject the null hypothesis (H03). This indicates that there is a significant relationship between digital innovation and accessibility of tax processes and the informal sector in Nigeria, and this relationship appears to be negative. Therefore, the hypothesis that there is no significant relationship is not supported.

H04: Operators of the informal economy do not face any challenges in embracing mobile payment solutions in facilitating tax compliance.

For this hypothesis, we refer to the results for Challenges in Embracing Mobile Payment Solutions (CMPS). The coefficient is -0.16089, with a p-value of 0.5894. Since

the p-value is much higher than 0.05, we fail to reject the null hypothesis (H04). This indicates that the challenges in embracing mobile payment solutions are not significantly related to tax compliance in the informal sector. Therefore, we conclude that operators of the informal economy may not face significant challenges in adopting mobile payment solutions for facilitating tax compliance.

H01: Rejected – There is a significant relationship between the current level of tax compliance and informal sector operations.

H02: Rejected at the 10% level – There is a significant relationship between the use of mobile payment platforms and tax compliance in the informal sector.

H03: Rejected – There is a significant relationship between digital innovation/accessibility and informal sector tax compliance, with a negative effect.

H04: Failed to reject – Challenges in embracing mobile payment solutions do not significantly affect tax compliance in the informal sector.

4.4 Discussion of Findings

The regression analysis provides important insights into the factors influencing informal sector participation and tax compliance in Nigeria. The results of the regression model reveal how certain variables, including the current level of tax compliance (CLTC), mobile payment platforms (MPP), digital innovation and accessibility of tax processes (DIATP), and challenges in embracing mobile payment solutions (CMPS), contribute to

informal sector operations and tax compliance. The regression results show a positive relationship between tax compliance and informal sector participation. The coefficient for CLTC is 0.32397, and its p-value of 0.0479 suggests that this relationship is statistically significant at the 5% level. This finding implies that as tax compliance improves, more individuals in the informal sector tend to participate in tax-related activities. In other words, increased tax compliance appears to encourage more individuals to become engaged with the formal tax system, suggesting that tax authorities' efforts to improve compliance may have a positive spillover effect on informal sector operators. This result supports the notion that a compliant tax system, even if it involves informal businesses, may lead to greater economic inclusion.

The results also indicate a positive relationship between mobile payment platforms and informal sector participation, with a coefficient of 0.75423 and a p-value of 0.0530, which is just above the 0.05 threshold but still significant at the 10% level. This finding suggests that the adoption of mobile payment platforms has a positive impact on informal sector participation. Mobile payment systems, being more accessible and user-friendly, likely facilitate easier financial transactions for informal sector operators. However, because the p-value is just above 0.05, the relationship is considered less robust and may warrant further investigation. The slight significance at the 10% level suggests that more efforts are needed to understand the nuances of mobile payment adoption and its impact on tax compliance in the informal sector.

The regression results for digital innovation and accessibility of tax processes reveal a negative coefficient of -0.16199 and a p-value of 0.0337, which is statistically significant at the 5% level. This indicates that increased digital innovation and the accessibility of tax processes may be associated with a reduction in informal sector participation. One possible explanation for this is that informal sector operators may find it difficult to navigate more complex or digital tax systems. The perceived complexity or lack of technical knowledge among informal sector workers may act as a barrier, reducing their willingness to engage with formal tax systems. This negative relationship highlights a challenge in making tax systems more technologically advanced while ensuring they are accessible to all sectors of society, especially those operating informally.

In contrast to the positive findings for mobile payment adoption, the variable challenges in embracing mobile payment solutions showed a negative coefficient of -0.16089 with a p-value of 0.5894, which is not statistically significant. This indicates that despite the perceived challenges associated with adopting mobile payment solutions, these challenges do not significantly affect informal sector participation. This result suggests that while difficulties in adopting new technologies exist, they do not have a major impact on tax compliance or informal sector participation. It could be that informal sector operators, despite facing barriers in adopting mobile payments, still find ways to engage with the system in other ways, such as through cash payments or other informal

transaction methods. Alternatively, it may suggest that the challenges are not as substantial as initially assumed, or that other factors, such as ease of access or cost, outweigh the perceived difficulties.

The constant term in the model, which represents the expected value of informal sector participation when all other variables are zero, has a coefficient of 14.77062 and a p-value of 0.2735. This value is not statistically significant, suggesting that when all predictors are set to zero, the model does not provide a statistically meaningful estimate for informal sector participation. The lack of statistical significance for the constant term is not surprising, as the constant in regression models often does not provide substantial insights unless the predictors are all at their baseline (zero) values.

The R-squared value of 0.5042 suggests that approximately 50.42% of the variation in informal sector participation is explained by the independent variables included in the model. This indicates that the model has a moderate fit and captures a significant portion of the variance. However, the relatively low value suggests there may be other unaccounted factors influencing informal sector participation that should be explored in future research.

The Adjusted R-squared of 0.4249 takes into account the number of predictors and gives a more accurate measure of the goodness of fit. The lower adjusted R-squared

value indicates that adding more predictors may improve the model's explanatory power. The F-statistic of 6.3568 with a p-value of 0.001134 shows that the overall model is statistically significant, meaning that the independent variables as a group provide meaningful insights into informal sector participation. Finally, the Durbin-Watson statistic of 1.9618 suggests that there is no significant autocorrelation in the residuals, indicating that the model's residuals are random and do not exhibit patterns over time.

The regression analysis provides valuable insights into the factors that influence informal sector participation and tax compliance in Nigeria. The findings suggest that improving tax compliance and expanding the use of mobile payment platforms can positively influence informal sector participation, but digital innovation in tax processes may need to be more inclusive and user-friendly to avoid alienating informal sector operators. Additionally, while challenges in embracing mobile payments were found not to significantly impact tax compliance, more research is needed to explore how these challenges can be overcome. Finally, the overall model is statistically significant, though it could benefit from further refinement to improve its explanatory power.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter as the final part of the study tries to integrate the findings in chapter four into summary of finding, conclusion and recommendations.

5.2 Summary of Findings

Based on the results of this study the findings are stared,

The contemporary time has witness appreciable level of tax compliance in the informal sector in Nigeria as a result of digital innovation.

Mobile payment platforms have enhanced tax compliance in Nigeria's informal sector operators.

Digital innovation has increased the accessibility of tax processes in the informal sector in Nigeria.

To expatriate on the above, digital innovation enhances convenience and accessibility of tax payer in the informal sector and that digital innovation makes payment easy leading to higher compliance rates in the informal sector. The result revealed that digital innovation provides Smooth avenue for payment option by tax payers' in the informal sector and that digital innovation reduces non-compliance and increase revenue collection.

The test of research question two indicated that adoption of mobile payment platforms for taxes has significantly transformed tax compliance informal sector and mobile payment of taxes can be made at any time, encouraging compliance even outside official working hours. The result also showed that mobile payment platforms can reduce tax evasion and informality among tax payers and that mobile payment of taxes reduces compliance costs and administrative burden.

The test of research question three demonstrated that digital innovation promotes simplified tax processes and user-centered design in Informal sector and that informal taxpayers no longer have to visit tax offices, making it easier to comply with tax laws. The result further revealed e-filing removes the complexity of traditional manual processes, allowing for simple self-service tax registration and filing and without intermediaries, taxpayers avoid dealing with multiple government officials, reducing the likelihood of bribery or corruption.

The test of research question four revealed that there is digital illiteracy and low technological awareness among taxpayers in the informal sector and limited access to mobile devices and internet connectivity affect taxpayers in the informal sector. The result indicated that many informal taxpayers do not see tangible benefits from the taxes they pay, leading to resistance and that informal taxpayers face different levies from state, local, and market authorities, leading to confusion and frustration.

5.3 Conclusion

Based on the findings of this study, on tax compliance among the informal sector of the economy using digital innovation

1) There is relationship between the current level of tax compliance and operations of the informal sector in Nigeria as a result of digital innovation.
2) There is significant relationship between the use of mobile payment platforms and tax compliance in Nigeria's informal sector operators.
3) There is significant relationship between digital innovation and accessibility of tax processes in the informal sector in Nigeria.

In conclusion digital innovation holds significant potential to improve tax compliance in Nigeria's informal economy. By utilizing mobile platforms, simplifying processes, and offering incentives for compliance, the government can encourage more informal businesses to participate in the tax system. However, addressing infrastructure challenges, building digital literacy, and ensuring cybersecurity are crucial for the success of these innovations. With a strategic, inclusive approach, Nigeria could harness digital innovation to improve tax compliance and boost revenue collection from the informal economy.

5.4 Recommendations

From the above conclusion, the following recommendations were made.

1) The government should introduce simplified tax regimes tailored to the informal economy, which are easier to comply with and integrate digital tools into. These tax systems should be based on the revenue or transaction volume of small businesses, rather than complex profit-based systems.
2) There should collaboration between the government and fintech companies can lead to the development of digital solutions for tax compliance, providing small businesses with affordable tools.
3) Policies that incentivize the use of electronic payments should be employed rather than cash can help formalize the informal economy, making it easier to track business transactions and collect taxes.
4) Government should invest in building the capacity of local tax authorities to manage digital tax systems. Ensuring that tax officers are digitally literate and able to utilize new tools effectively will be crucial for success.

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APPENDIX

Department of Accounting,
Faculty of Management Sciences,
University of Benin,
Benin City,
Edo State.

Dear Respondent,

REQUEST FOR COMPLETION OF QUESTIONNAIRE

I am an undergraduate student, of the above named institution currently undertaking a research on a project titled **"Impact of Digital innovation on Tax Compliance In Nigeria's Informal Economy".**

I ask that you please assist in filling the questionnaire to the best of your knowledge and assure you that any information given will be used solely for the purpose of this research and treated with utmost confidentiality.

Thank You.

Augustine Ohangbon

Researcher

QUESTIONNAIRE ON IMPACT OF DIGITAL INNOVATION ON TAX COMPLIANCE IN NIGERIA'S INFORMAL ECONOMY

Kindly tick ( ) the preferred option appropriate

Section A:

1. Age: 25-34 ( ), 35-44 ( ), 45-54 ( ), 55-64 ( ), 65 and above ( ).
2. Sex: Male ( ), Female ( )
3. Highest Qualification: OND ( ), HND ( ), B.sc ( ), M.sc/MBA ( ) and PhD ( )
4. Experience: 0-10yrs ( ), 11-20yrs ( ), 21-30yrs ( ), 31yrs and above ( ).

Section B:

Keys: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

S/N	Digital innovation Enhances Accessibility and Simplification of Tax Processes in the Informal Sector in Nigeria	SA	A	D	SD
5	Digital innovation enhances convenience and accessibility of tax payer in the informal sector.				
6	Digital innovation makes payment easy leading to higher compliance rates in the informal sector				
7	Digital innovation provides smooth avenue for payment option by tax payers' in the informal sector				
8	Digital innovation reduces non-compliance and increase revenue collection				

	Impact have Mobile Payment Platforms Had on the Tax Compliance of the Informal Economy	SA	A	D	SD
9	Adoption of mobile payment platforms for taxes has significantly transformed tax compliance informal sector				
10	Mobile payment of taxes can be made at any time, encouraging compliance even outside official working hours				
11	Mobile payment platforms can reduce tax evasion and informality among tax payers				
12	Mobile payment of taxes reduces compliance costs and administrative burden				
	Digital innovation Enhances Accessibility and Simplification of Tax Processes in the Informal Sector in Nigeria	**SA**	**A**	**D**	**SD**
13	Digital innovation promotes simplified tax processes and user-centered design in Informal sector				
14	Informal taxpayers no longer have to visit tax offices, making it easier to comply with tax laws				
15	E-filing removes the complexity of traditional manual processes, allowing for simple self-service tax registration and filing				
16	Without intermediaries, taxpayers avoid dealing with multiple government officials, reducing the likelihood of bribery or corruption.				
	The Adoption Challenges of Mobile Payment Solutions for Tax Compliance by Operators in the Informal Sector	**SA**	**A**	**D**	**SD**
17	There is digital illiteracy and low technological awareness among				

	taxpayers in the informal sector				
18	Limited access to mobile devices and internet connectivity affect taxpayers in the informal sector				
19	Many informal taxpayers do not see tangible benefits from the taxes they pay, leading to resistance				
20	Informal taxpayers face different levies from state, local, and market authorities, leading to confusion and frustration				