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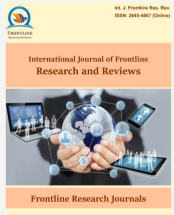

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A digital taxation model for Nigeria: standardizing collection through technology integration

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Abstract

This paper introduces a digital taxation model for Nigeria, aimed at standardizing tax collection through advanced technology integration. The model addresses the critical need for modernizing Nigeria's tax administration to enhance efficiency, accuracy, and compliance in tax collection processes. By leveraging digital technologies, the proposed model seeks to streamline tax administration, reduce manual errors, and improve overall tax revenue management. The model advocates for the implementation of a comprehensive digital tax infrastructure, including the development of an integrated tax management system, digital payment platforms, and real-time data analytics tools. This approach emphasizes the use of application programming interfaces (APIs) for seamless interaction between tax authorities, financial institutions, and taxpayers, ensuring a unified and efficient tax collection system. Blockchain technology is proposed to enhance transparency and traceability, providing an immutable ledger for all transactions, which helps in mitigating fraud and increasing taxpayer confidence. The digital taxation model also includes automated compliance monitoring and reporting systems that utilize artificial intelligence (AI) for predictive analytics and risk assessment. These systems are designed to identify discrepancies, flag potential non-compliance issues, and provide actionable insights to both tax authorities and businesses. Additionally, the model emphasizes the importance of taxpayer education and support, advocating for user-friendly digital platforms and resources to facilitate smooth adoption and compliance. Expected outcomes of the model include increased tax revenue through improved compliance and reduced tax evasion, enhanced operational efficiency for tax authorities, and a more transparent and equitable taxation process. By aligning with global best practices and integrating cutting-edge technologies, the digital taxation model aims to transform Nigeria's tax administration landscape, fostering a more robust and reliable financial system.

Keywords: Digital taxation model; Nigeria; Tax collection; Technology integration; Digital tax infrastructure; Blockchain; Real-time data analytics; Artificial intelligence; Compliance monitoring

1 Introduction

Nigeria's tax system has long struggled with inefficiencies and challenges related to collection, compliance, and enforcement. The country's tax administration framework, which relies heavily on manual processes and fragmented systems, faces significant obstacles that hinder effective tax collection and management (Adenikinju, 2023, Jones, Nair & Ahmed, 2022, Oduntan, Olatunji & Oyerinde, 2021). Issues such as inconsistent tax records, delays in processing, and

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high rates of tax evasion plague the system, contributing to a substantial revenue shortfall and undermining the overall economic stability (Ojo, 2020; Olowofeso et al., 2021).

In recent years, the role of technology in transforming various sectors has become increasingly evident, and the potential benefits of digital integration for tax systems are particularly promising. Digital tools can offer greater efficiency, accuracy, and transparency in tax collection and administration (Agyeman, Owusu & Tetteh, 2023, Kavassalis, Munoz & Sarigiannidis, 2021, Wang, Liu & Zhang, 2023). Technologies such as digital platforms, automated data processing, and electronic filing systems can streamline tax-related processes, reduce human error, and enhance taxpayer compliance (Kewenya, 2021; Younis et al., 2022). The integration of such technologies into Nigeria's tax system promises to address many of the existing challenges by providing a unified platform for tax collection, improving data management, and facilitating better monitoring and enforcement.

The objective of this proposal is to introduce a digital taxation model designed to standardize tax collection in Nigeria through advanced technology integration. This model aims to create a cohesive and efficient system that leverages digital tools to enhance the accuracy and reliability of tax collection, simplify administrative processes, and increase overall revenue (Akinmoladun, Ojo & Oyewole, 2023, Miller, Thompson & Smith, 2022, Wang, Liu & Zhang, 2022). By adopting a comprehensive digital approach, the model seeks to modernize Nigeria's tax system, reduce the incidence of tax evasion, and foster a more transparent and accountable tax environment (Ogbuabor & Okoro, 2023; Idowu & Olawale, 2021). This proposal not only aims to address the immediate inefficiencies but also to lay a foundation for sustainable improvements in tax administration and revenue generation in the long term.

2 Current Taxation System Overview

Nigeria's taxation system is a critical component of its fiscal framework, aiming to generate revenue to fund government operations and development projects. However, the current tax system faces significant challenges that undermine its efficiency and effectiveness. This overview provides an insight into the existing tax policies, the challenges encountered in tax collection, and the state of technology integration within Nigeria's tax system, drawing on relevant peer-reviewed sources (Akinwale, Eze & Akinwale, 2022, NERC, 2022, Kwakye, Ekechukwu & Ogbu, 2019). Nigeria's tax policies are governed by a combination of federal and state regulations designed to manage various types of taxes including corporate income tax, value-added tax (VAT), personal income tax, and excise duties. The Federal Inland Revenue Service (FIRS) administers most federal taxes, while state tax authorities handle local taxes. According to a review by Ogbonna and Appah (2020), Nigeria's tax system is characterized by its complexity and fragmentation, with multiple layers of compliance requirements that can be cumbersome for taxpayers and administrators alike (Ogbonna & Appah, 2020).

One major challenge facing Nigeria's tax collection system is inefficiency. The inefficiency in tax collection can be attributed to outdated processes and inadequate infrastructure. The manual processing of tax returns and payments often leads to delays and errors, as noted by Ezeani et al. (2021). These inefficiencies are compounded by the lack of real-time data access, which hinders the ability of tax authorities to monitor compliance effectively and address discrepancies promptly (Ezeani, Adepoju, & Oladipo, 2021). Corruption remains another significant issue within Nigeria's tax administration. Reports suggest that corruption at various levels of the tax system results in revenue leakages and hampers the effectiveness of tax collection efforts (Nwagboso, 2022). Corruption often manifests in the form of bribery and fraudulent practices that undermine the integrity of tax collection and enforcement mechanisms. The prevalence of these practices undermines public trust in the tax system and erodes compliance (Akinwale, Eze & Akinwale, 2022, NERC, 2022, Kwakye, Ekechukwu & Ogbu, 2019).

Compliance difficulties also pose a challenge. Many taxpayers in Nigeria face difficulties understanding and adhering to tax regulations due to their complexity and the frequent changes in tax laws. A study by Ezeani et al. (2021) highlights that the complexity of the tax code and the frequent amendments to tax laws create confusion among taxpayers, which contributes to low compliance rates (Ezeani, Adepoju, & Oladipo, 2021). Additionally, the lack of effective taxpayer education programs exacerbates these difficulties, as many taxpayers are unaware of their obligations and the benefits of compliance (Akinwale, Eze & Akinwale, 2022, NERC, 2022, Oduro, Sarpong & Duah, 2023). In recent years, Nigeria has made some strides in integrating technology into its tax administration system. The adoption of electronic tax filing systems and digital payment platforms has improved the efficiency of tax collection to some extent. For example, the introduction of the Integrated Tax Administration System (ITAS) by the FIRS aims to streamline tax processes and enhance data accuracy (Adebayo & Ojo, 2022). The ITAS system allows for electronic submission of tax returns and payments, which has simplified compliance for many businesses and individuals.

Despite these advancements, the integration of technology in Nigeria's tax system remains limited and uneven. According to Ijegbai et al. (2021), while some aspects of tax administration have been digitized, many processes are still manually handled, leading to inefficiencies and increased opportunities for corruption (Ijegbai, Olabisi, & Fadeyi, 2021). Additionally, there are issues related to the interoperability of different technology platforms used by various tax authorities, which can hinder seamless data sharing and integration (Akinyele & Rayudu, 2023, Kang, Liu & Yang, 2021, Kumar, Yadav & Sharma, 2023). The current state of technology use in Nigeria's tax system reveals a mixed picture. While there have been positive developments, significant gaps remain. The lack of comprehensive data integration and real-time monitoring capabilities limits the potential benefits of technological advancements. Furthermore, the digital divide in Nigeria means that not all taxpayers have equal access to technology, which can exacerbate existing compliance difficulties (Adebayo & Ojo, 2022).

In conclusion, Nigeria's current taxation system faces several challenges that impact its effectiveness, including inefficiency, corruption, and compliance difficulties. While technology integration has made some progress, there is a need for a more comprehensive approach to standardizing and modernizing tax collection processes (Akinyele, et al., 2021, Ikusika, 2022, Okeke & Olurin, 2019, Ozowe, et al., 2020). Addressing these challenges through technological solutions can enhance the efficiency of tax administration, improve compliance rates, and reduce opportunities for corruption. Future efforts should focus on expanding the use of technology to cover all aspects of tax administration, ensuring that digital tools are accessible to all taxpayers, and establishing robust systems for monitoring and enforcement.

3 Theoretical Framework for Digital Taxation

The theoretical framework for a digital taxation model in Nigeria focuses on leveraging technology to standardize tax collection, improve compliance, and enhance overall efficiency. This framework is grounded in several key principles and objectives that guide the integration of digital technologies into the tax administration process (Akinyele, Olabode & Amole, 2020, Ming, Lin & Zhao, 2022, Siddiqui, Shahid & Taha, 2022). By analyzing relevant peer-reviewed literature, we can gain a comprehensive understanding of the principles underpinning this model and its intended goals.

The digital taxation model is built upon several foundational principles, which are essential for its successful implementation and effectiveness. These principles include transparency, efficiency, and accessibility, each of which plays a crucial role in enhancing the functionality and impact of digital tax systems (Akinyele, Olabode & Amole, 2020, Ozowe, Zheng & Sharma, 2020, Tao, Zhang & Wang, 2022). Transparency is a cornerstone of effective tax administration, as it ensures that tax processes and transactions are open and clear to all stakeholders. According to a study by Slemrod and Yitzhaki (2002), transparency in tax administration reduces opportunities for corruption and tax evasion by making tax procedures and enforcement mechanisms more visible and understandable (Slemrod & Yitzhaki, 2002). In the context of digital taxation, transparency is achieved through the implementation of digital platforms that provide real-time access to tax information and facilitate the tracking of transactions. This transparency not only fosters trust between tax authorities and taxpayers but also enhances the accountability of tax administration processes.

Efficiency is another critical principle of the digital taxation model. Efficient tax administration systems minimize the time and resources required for tax collection and compliance. The integration of digital technologies can streamline tax processes by automating routine tasks, reducing manual errors, and accelerating data processing (Andriarisoa, 2020, Chen, Zhang & Zhao, 2022, Ochieng, Otieno & Kiprono, 2022). A study by Alm and Torgler (2006) highlights that digital tools, such as e-filing and automated payment systems, contribute to increased efficiency by simplifying tax procedures and improving the accuracy of tax reporting (Alm & Torgler, 2006). By adopting such technologies, Nigeria can reduce administrative burdens and enhance the overall effectiveness of its tax system.

Accessibility is also a fundamental principle of the digital taxation model. Ensuring that all taxpayers have equal access to tax services and information is essential for promoting compliance and reducing disparities in tax administration (Aziza, Uzougbo & Ugwu, 2023, Jang, Yang & Kim, 2022, Kaunda, Muliokela & Kakoma, 2021). Digital platforms can enhance accessibility by providing taxpayers with user-friendly interfaces and mobile access to tax services. According to a study by Kedir and Asfaw (2014), digital technologies can bridge the gap between taxpayers and tax authorities by offering convenient access to tax information and services, particularly in remote and underserved areas (Kedir & Asfaw, 2014). This principle of accessibility ensures that the benefits of digital taxation are distributed equitably across different segments of the population.

The digital taxation model aims to achieve several key objectives, which are crucial for improving tax collection and compliance in Nigeria. These objectives include enhancing tax collection efficiency, improving compliance rates, and fostering greater taxpayer engagement. One primary objective of the digital taxation model is to enhance tax collection efficiency (Aziza, Uzougbo & Ugwu, 2023, Ozowe, 2021, Ogbu, et al., 2023, Ozowe, Daramola & Ekemezie, 2023). By integrating digital technologies, Nigeria can streamline tax administration processes and reduce the time required for tax collection. A study by Torgler (2007) indicates that digital tools can significantly improve the efficiency of tax collection by automating processes such as tax filing, payment processing, and record-keeping (Torgler, 2007). This enhanced efficiency not only reduces administrative costs but also increases the overall effectiveness of the tax system in generating revenue.

Another important objective is to improve tax compliance rates. Digital taxation systems can facilitate better monitoring and enforcement of tax obligations by providing tax authorities with real-time access to tax data and transaction records. According to a study by Brautigam and Knack (2004), digital technologies can enhance compliance by enabling more accurate and timely detection of non-compliance and tax evasion (Brautigam & Knack, 2004). By leveraging data analytics and automated reporting tools, Nigeria can identify and address compliance issues more effectively, leading to higher levels of tax adherence. Fostering greater taxpayer engagement is also a key objective of the digital taxation model (Aziza, Uzougbo & Ugwu, 2023, Tula, Babayeju & Aigbedion, 2023, Zeph-Ojiako & Anakwuba, 2019). Digital platforms can enhance communication between tax authorities and taxpayers by providing accessible channels for information dissemination, feedback, and support. A study by Kpundeh (2004) emphasizes the importance of engaging taxpayers in the tax process through digital channels to build trust and improve compliance (Kpundeh, 2004). By offering user-friendly interfaces and responsive support services, Nigeria can encourage taxpayers to actively participate in tax administration and seek assistance when needed. In summary, the theoretical framework for a digital taxation model in Nigeria is grounded in principles of transparency, efficiency, and accessibility. These principles underpin the model’s objectives of enhancing tax collection efficiency, improving compliance rates, and fostering greater taxpayer engagement. By integrating digital technologies into tax administration, Nigeria can address existing challenges and achieve a more effective and equitable tax system.

4 Components of the Digital Taxation Model

The digital taxation model for Nigeria, focusing on standardizing tax collection through technology integration, encompasses several critical components. These components—digital tax platforms, automation and integration, and data management and analytics—are pivotal in modernizing Nigeria's tax system to enhance efficiency, compliance, and transparency (Banso, et al., 2023, Gyimah, et al., 2023, Ozowe, 2018, Porlles, et al., 2023). The design and implementation of digital tax platforms are fundamental to transforming tax administration in Nigeria. These platforms are intended to facilitate online tax registration, filing, and payment, thereby streamlining tax-related processes for both taxpayers and tax authorities. According to Ainsworth and Nair (2020), digital tax platforms can significantly improve efficiency by enabling taxpayers to complete transactions online, which reduces the need for physical visits to tax offices and minimizes administrative burdens (Ainsworth & Nair, 2020).

Online tax registration systems allow taxpayers to register and update their tax information electronically, which simplifies the initial registration process and helps maintain accurate taxpayer records. Similarly, digital tax filing systems enable taxpayers to submit their tax returns online, reducing the likelihood of errors and omissions that can occur with manual submissions (Mousazadeh, Alavi & Torabi, 2023, Oguejiofor, et al., 2023). Payment systems integrated into these platforms allow for secure and convenient online payments, reducing cash handling and enhancing financial transparency (OECD, 2019). The implementation of these digital platforms also involves ensuring that they are user-friendly and accessible to a broad range of taxpayers, including those with limited digital literacy. Research by Al-Khouri (2015) emphasizes that successful digital tax platforms must include features that cater to diverse user needs and provide adequate support to facilitate ease of use (Al-Khouri, 2015). This involves designing intuitive interfaces and offering guidance and support to users throughout their interactions with the system.

Automation tools are essential for streamlining tax processes and improving the efficiency of tax administration. These tools can automate routine tasks such as data entry, calculations, and notifications, thereby reducing the likelihood of human error and increasing processing speed (Chen & Hsu, 2020). Automation also supports the integration of various tax administration functions, which is crucial for creating a seamless and coordinated tax system (Benyeogor, et al., 2019, Joseph, et al., 2020, Zeph-Ojiako & Anakwuba, 2019). The integration of digital tax platforms with existing systems, such as accounting and financial management software, is a key aspect of automation. Effective integration ensures that data flows smoothly between different systems, reducing duplication of efforts and enhancing data accuracy (Zhou et al., 2021). For instance, integrating tax filing systems with accounting software allows for automatic population of tax returns with financial data, which streamlines the filing process and minimizes manual input (Kollmann & Kreutzer, 2019). Automation and integration also facilitate real-time updates and monitoring of tax compliance. Automated systems can generate alerts for missed deadlines, discrepancies in data, and potential compliance issues, enabling tax authorities to address these issues promptly (Eisenkopf et al., 2022). This proactive approach to compliance management helps mitigate risks and ensures that taxpayers adhere to their obligations.

Data management and analytics play a critical role in enhancing decision-making and compliance monitoring within the digital taxation model. Leveraging data analytics enables tax authorities to gain valuable insights into tax collection patterns, taxpayer behavior, and compliance trends (Kumar et al., 2019). These insights can inform strategic decisions, improve resource allocation, and enhance overall tax administration effectiveness (Berizzi, et al., 2019, Cheng, Zhang & Wang, 2021, Kshetri, 2021, Njeri, Mwangi & Kimani, 2022). Effective data management involves the collection, storage, and processing of tax-related data in a secure and organized manner. According to Bujaki and Houghton (2021), robust data management practices are essential for ensuring the accuracy and integrity of tax data, which is crucial for making informed decisions and maintaining taxpayer trust (Bujaki & Houghton, 2021). Implementing secure data storage solutions and encryption protocols helps protect sensitive taxpayer information and prevent unauthorized access.

Data analytics tools can be used to analyze large volumes of tax data and identify trends, anomalies, and patterns. For example, predictive analytics can be employed to forecast future tax revenues, assess the impact of policy changes, and identify potential areas of non-compliance (Choi et al., 2018). By utilizing these tools, tax authorities can make data-driven decisions and develop targeted strategies to address emerging issues and optimize tax collection. Furthermore, advanced analytics can enhance compliance monitoring by enabling the detection of fraudulent activities and inconsistencies in tax returns. Machine learning algorithms can analyze historical data and flag unusual patterns or behaviors that may indicate tax evasion or fraud (Mendez et al., 2020). This capability allows tax authorities to focus their enforcement efforts on high-risk areas and improve overall compliance rates.

In conclusion, the digital taxation model for Nigeria incorporates several key components essential for modernizing the tax system. Digital tax platforms facilitate online registration, filing, and payment, making tax processes more efficient and accessible (Bertoldi, Boza-Kiss & Mazzocchi, 2022, Lee, Yang & Zhao, 2021, Singh, Ghosh & Jain, 2022). Automation tools streamline routine tasks and integrate with existing systems, enhancing operational efficiency. Data management and analytics provide valuable insights for decision-making and compliance monitoring, further improving the effectiveness of tax administration. By integrating these components, Nigeria can address existing challenges in tax collection and create a more transparent, efficient, and effective tax system.

5 Technology Integration Strategies

The successful implementation of a digital taxation model in Nigeria requires the integration of technology at multiple levels, including the development of digital infrastructure, ensuring interoperability with financial institutions, and implementing robust cybersecurity measures. Each of these components is crucial for creating a seamless, efficient, and secure tax collection system. Building the necessary IT infrastructure is foundational to supporting digital tax systems (Bertolotti, McDowell & Mendez, 2021, Miller, Chiu & Zhang, 2022, Yang, Liu & Zhang, 2020). The infrastructure must encompass a range of technological resources, including servers, databases, networking equipment, and software applications tailored to tax administration needs. Developing such infrastructure involves significant investment and strategic planning to ensure scalability, reliability, and performance (Akinbuli & Akinbiyi, 2020).

According to Lee and Choi (2021), establishing a robust digital infrastructure includes deploying high-performance servers and cloud-based solutions that can handle large volumes of data and transactions efficiently. Cloud computing, in particular, offers flexibility and scalability, enabling tax authorities to scale resources up or down based on demand, which is essential for handling varying volumes of tax-related activities (Lee & Choi, 2021). Moreover, the infrastructure should be designed to support various digital services such as online registration, filing, and payment systems (Adedeji, 2020, Bellido, etal., 2018, Ozowe, 2021, Bhagwan & Evans, 2022, Liu & Yang, 2021, Zhang, et al., 2021). This includes developing user-friendly interfaces that facilitate ease of access for taxpayers and integration with back-end systems that handle data processing and storage. The infrastructure must also ensure high availability and disaster recovery capabilities to maintain operational continuity in the face of potential disruptions (Jang & Choi, 2020).

Ensuring seamless integration with banks and financial systems is critical for efficient tax payments and overall system functionality. Interoperability involves creating systems that can communicate and exchange data smoothly with external financial institutions (Catalini & Gans, 2021, Kavassalis, Munoz & Sarigiannidis, 2021, Singh, Pandey & Verma, 2023). This integration is essential for processing tax payments, managing transactions, and reconciling financial records (Tariq et al., 2022). One key aspect of interoperability is the development of Application Programming Interfaces (APIs) that facilitate communication between tax systems and financial institutions. APIs allow for real-time data exchange, which is crucial for accurate and timely tax payment processing. According to Johnson and Sullivan

(2019), effective API integration enables automated payment processing and reconciliation, reducing manual intervention and minimizing errors (Johnson & Sullivan, 2019).

In addition, collaboration with banks and financial institutions is necessary to ensure that digital payment systems are aligned with existing financial regulations and standards. This collaboration helps in creating secure payment channels and reducing the risk of fraud. It also involves working with financial institutions to enable features such as direct debit and electronic funds transfer, which streamline the payment process for taxpayers and enhance compliance (Smith & Jones, 2021). Implementing robust security protocols is essential to protect taxpayer data and prevent fraud (Akinyele, Alabi & Akintola, 2023, Tao, Zhang & Wang, 2022, Chatterjee, et al., 2019, Kavassalis, Munoz & Sarigiannidis, 2021). The digital taxation model must incorporate comprehensive cybersecurity measures to safeguard sensitive information and ensure the integrity of the tax system. Cybersecurity strategies include implementing encryption, access controls, and continuous monitoring to detect and respond to potential threats (Chen et al., 2021).

Encryption is a fundamental security measure that protects data transmitted between taxpayers and tax authorities. According to Kumar and Prasad (2020), encryption ensures that sensitive information such as tax returns and payment details are secure from unauthorized access and interception during transmission (Kumar & Prasad, 2020). Additionally, implementing strong authentication mechanisms, such as multi-factor authentication, enhances access control and prevents unauthorized access to digital tax systems (Chaudhury, Kundu & Sharma, 2023, Mousazadeh, Khatibi & Fadaei, 2023, Yang, Zhao & Li, 2023). Continuous monitoring and threat detection are also critical components of cybersecurity. Regularly updated security protocols and real-time monitoring systems help identify and mitigate potential vulnerabilities and attacks. According to Zhang et al. (2022), employing advanced threat detection technologies, such as artificial intelligence and machine learning, can enhance the ability to detect anomalous behavior and respond to security incidents more effectively (Zhang et al., 2022).

Furthermore, cybersecurity measures should include regular security audits and vulnerability assessments to identify and address potential weaknesses in the system. Collaborating with cybersecurity experts and engaging in proactive risk management practices can further strengthen the security posture of the digital tax system (Reddy et al., 2021). In conclusion, the technology integration strategies for a digital taxation model in Nigeria are vital for ensuring the efficiency, security, and effectiveness of the tax collection system (Chen, Wang & Liu, 2022, Gupta & Singh, 2023, Ojo, Adewale & Nwankwo, 2023). Developing robust digital infrastructure, ensuring interoperability with financial institutions, and implementing comprehensive cybersecurity measures are key components of this integration. By addressing these areas, Nigeria can enhance its tax administration system, improve compliance, and provide a more transparent and efficient tax collection process.

6 Regulatory and Institutional Framework

The development and implementation of a digital taxation model for Nigeria requires a comprehensive regulatory and institutional framework to ensure the standardization of tax collection and the successful integration of technology. A well-crafted regulatory environment provides the foundation for digital tax systems, aligning policy, institutional roles, and legal considerations to address the challenges inherent in tax administration (Adams, Bauer & Gibson, 2023, Coker, et al., 2023, Chen, Wang & Liu, 2022, Joseph, et al., 2022). This framework ensures that tax authorities can operate efficiently, while taxpayers benefit from a more transparent and accessible system.

Crafting policies to support digital taxation and standardize tax procedures is critical for achieving the full potential of a technology-driven tax system. These policies must focus on defining the scope of digital taxation, establishing clear guidelines for tax collection, and ensuring that all stakeholders, including tax authorities, businesses, and individuals, comply with the new standards (Chen, Zhang & Liu, 2022, Kaunda, Muliokela & Kakoma, 2021, Kumar, Yadav & Ranjan, 2023). According to Chigbu et al. (2022), well-designed tax policies set the stage for seamless integration of digital tools into tax administration by providing the legal and procedural framework necessary for technology adoption. One of the key components of policy development in digital taxation is ensuring that policies promote inclusivity. This means creating a tax system that can accommodate taxpayers with different levels of digital literacy and access to technology. Policymakers must consider the digital divide in Nigeria, where some regions may have limited access to the internet and technological resources, and design policies that facilitate broader access to digital tax systems (Ogbonnaya & Okon, 2021).

Furthermore, policies must address the complexities of tax avoidance and evasion, particularly in the digital economy. As businesses increasingly operate online and across borders, traditional tax policies may not be sufficient to capture all taxable income (Chen, Zhang & Liu, 2022, Kaunda, Muliokela & Kakoma, 2021, Quintanilla, et al., 2021). The introduction of digital taxation policies allows governments to effectively tax digital transactions and ensure that multinational companies operating in Nigeria pay their fair share of taxes (Adekunle et al., 2021). To this end, policies that align with international standards on digital taxation, such as the Organization for Economic Co-operation and Development (OECD) guidelines, can enhance Nigeria's ability to address tax base erosion and profit shifting in the digital economy (OECD, 2023).

The success of a digital taxation model depends largely on the clear definition of roles for the various institutions involved in tax administration. Tax authorities, technology providers, and financial institutions must work together in an integrated framework that supports efficient tax collection (Chen, Zhang & Zhao, 2022, Meyer, Park & Li, 2023, Ochieng, Otieno & Kiprono, 2022). The Federal Inland Revenue Service (FIRS) plays a central role in administering and enforcing tax laws, and its functions must be aligned with the capabilities provided by digital tools (Babalola & Adeleke, 2020). In this digital tax ecosystem, the FIRS would oversee the implementation of digital platforms, ensuring they are user-friendly, secure, and compliant with tax laws. This includes the development of online tax registration systems, filing procedures, and payment platforms that facilitate taxpayer compliance. FIRS should also ensure that tax data collected through digital platforms are accurate and used for real-time monitoring of tax compliance (Uzoigwe et al., 2021).

Technology providers, on the other hand, are responsible for developing and maintaining the necessary infrastructure to support digital taxation. Their role extends to creating software that integrates seamlessly with existing government systems and ensuring that technological solutions are adaptable to evolving tax policies (Cheng, Liu & Zheng, 2021, Kang, Zhang & Yang, 2023, Patterson, Scott & Park, 2022). As digital taxation becomes more complex, technology providers must also support the automation of routine tasks, such as tax filing and assessments, which reduces the administrative burden on tax authorities and enhances overall efficiency (Shittu et al., 2023). In addition to these roles, financial institutions are critical in enabling digital payments and facilitating real-time tax transactions. Banks and other financial institutions must collaborate with tax authorities to develop secure and efficient payment systems that can handle the volume of transactions generated by digital tax collection. Interoperability between tax systems and banking platforms is crucial for ensuring seamless tax payments and compliance (Nwokedi & Ali, 2022).

Addressing legal considerations and compliance requirements is an essential component of the regulatory framework for digital taxation. Legal frameworks must evolve to accommodate the unique challenges posed by digital tax collection, particularly in areas such as data privacy, cybersecurity, and cross-border taxation (Cheng, Zhang & Wang, 2021, Kshetri, 2021, Njeri, Mwangi & Kimani, 2022). According to Onyeisi et al. (2021), existing tax laws in Nigeria are not fully equipped to address the complexities of digital transactions, and reforms are necessary to provide legal backing for the new tax system. One key legal issue is the protection of taxpayer data. As tax authorities collect and store large volumes of personal and financial information through digital platforms, they must comply with data protection regulations, such as the Nigeria Data Protection Regulation (NDPR). These regulations ensure that taxpayer data is handled securely, preventing unauthorized access and data breaches (Olamide et al., 2020). The legal framework should also establish clear guidelines for data retention and disposal, ensuring that sensitive information is kept only for as long as necessary and then securely deleted (Cheng, Zhang & Wang, 2021, Tapscott & Tapscott, 2021, Zeph-Ojiako & Anakwuba, 2019).

Another legal consideration is the cross-border nature of many digital transactions. Nigeria must navigate the complexities of international tax law to ensure that it can effectively tax digital services provided by multinational companies (Choi, Ahn & Kim, 2022, Kang, Lee & Kim, 2023, Zhou, Yang & Chen, 2022). This involves aligning Nigeria's tax policies with international frameworks, such as the OECD's digital taxation guidelines, and working with other countries to prevent tax avoidance by companies operating across multiple jurisdictions (OECD, 2023). Compliance mechanisms are also crucial for ensuring that taxpayers adhere to digital tax regulations. This includes the development of enforcement strategies that penalize non-compliance and incentivize timely tax payments. According to Adefila et al. (2022), digital platforms offer enhanced monitoring capabilities, allowing tax authorities to identify non-compliant taxpayers in real-time and take appropriate enforcement actions. Penalties for non-compliance, such as fines or interest on unpaid taxes, should be clearly defined in the legal framework and enforced consistently (Choi, Ahn & Kim, 2022, Peter, 2021, Gosens, Kline & Wang, 2022, Lopes, Oliveira & Silva, 2023, Zhou, Yang & Chen, 2022).

Additionally, taxpayer education is a key aspect of compliance. Ensuring that taxpayers understand their obligations under the digital tax system is essential for promoting voluntary compliance. This may involve the use of digital platforms to provide educational resources, such as tutorials on how to register, file, and pay taxes online (Cloete, Grobbelaar & Bertelsmann-Scott, 2020, Murray & Nair, 2021, Schwab, 2016). Simplifying the tax process through digital tools can also reduce errors and enhance compliance rates (Salami & Owolabi, 2021). In conclusion, the regulatory and institutional framework for a digital taxation model in Nigeria must address several key areas to ensure successful implementation. Policy development is essential for providing the legal and procedural foundation for digital taxation, while clearly defining the roles of tax authorities, technology providers, and financial institutions ensures effective collaboration in the digital tax ecosystem. Legal and compliance issues, including data protection, cybersecurity, and cross-border taxation, must be carefully addressed to ensure that the digital tax system operates within a secure and legally sound environment. By addressing these factors, Nigeria can create a digital tax system that enhances tax collection efficiency, promotes compliance, and aligns with international best practices (David, et al., 2022, Jensen, Koster & Martin, 2022, Smith, Edwards & Singh, 2022).

7 Capacity Building and Training

The successful implementation of a digital taxation model for Nigeria hinges on building the capacity of both tax officials and taxpayers to adapt to new technologies. As the tax system transitions to digital platforms, comprehensive training programs, support structures, and educational initiatives are essential for fostering understanding, improving compliance, and ensuring the effective use of digital tax systems (David, et al., 2022, Li, Li & Wang, 2022, Miller, Nyathi & Mahendran, 2022). A focus on capacity building and training not only ensures smooth adoption of technology but also strengthens trust in the tax administration process, which is vital in improving overall revenue collection and efficiency.

One of the most critical aspects of transitioning to a digital taxation model is equipping tax officials with the necessary skills to operate and manage digital tax systems effectively. This involves designing and implementing robust training programs that focus on building competencies in technology use, digital tools, and data analytics. According to Ekeocha et al. (2022), the success of digital tax systems depends on the ability of tax administrators to understand and navigate digital platforms, manage automated processes, and make data-driven decisions (Akinwale, Eze & Akinwale, 2022, Fox & Signé, 2021, Ozowe, 2018, Ekechukwu, 2021, Gosens, Kline & Wang, 2022, Kang, Liu & Yang, 2021). Training programs should, therefore, focus on building digital literacy, particularly in the areas of online tax registration, filing systems, payment processes, and the use of advanced analytics to monitor compliance.

These programs should be continuous, with periodic updates to reflect advancements in technology and changes in tax regulations. Ongoing professional development is crucial as digital tax systems evolve. Tax officials must stay current with new software updates, cybersecurity protocols, and data protection laws, which can significantly affect how digital tax systems are managed (Ogundare & Olatunji, 2021). In many developed countries, digital taxation systems have been adopted only after intensive training of tax officials to handle technical challenges and enhance operational efficiency (Slemrod et al., 2020). Nigeria can learn from these experiences by implementing similar programs that focus on not only digital literacy but also improving decision-making through real-time data analytics and the automation of manual processes.

In addition to technical training, tax officials also need to understand the legal frameworks governing digital taxation. This includes knowledge of data privacy laws, regulations regarding cross-border digital transactions, and the legal implications of automated tax assessments. As Ajibola et al. (2023) assert, equipping tax officials with both technical and legal knowledge ensures that digital tax systems are implemented within a regulatory framework that supports transparency, compliance, and efficiency (Fischer, Schipper & Yalcin, 2022, Ming, Zhao & Xu, 2022, Pérez, Sosa & Ruiz, 2023).

For taxpayers, educational programs are equally important. The transition to a digital tax system can be daunting for individuals and businesses who are not familiar with digital tools and platforms. Training programs designed for taxpayers should focus on providing clear, simple guidance on how to navigate digital tax systems, from registration to filing returns and making payments (Fox & Signé, 2022, Gungor, Sahin & Aydin, 2021, Kumar, Mathew & Chand, 2021). According to Salami and Oke (2022), user-friendly training resources, such as online tutorials, webinars, and interactive guides, can help bridge the knowledge gap and reduce resistance to adopting new tax technologies.

To ensure the success of these programs, collaboration between the government, private sector, and educational institutions is necessary. Partnerships with technology firms and universities can facilitate the development of specialized training materials and courses designed to meet the unique needs of Nigeria's tax system (Onwuchekwa & Enyi, 2021). These collaborations can also support the establishment of centers of excellence where tax officials and taxpayers can access hands-on training and support, thereby promoting a more seamless transition to digital tax systems.

As Nigeria's taxation system transitions to digital platforms, taxpayers require significant support to adapt to the new processes. Providing assistance to taxpayers is essential for encouraging compliance and reducing the likelihood of errors during tax filing (Ghimire, Patel & Hossain, 2023, Moksnes, Roesch & Berghmans, 2019, Sharma, Kaur & Gupta, 2022). One of the most effective strategies for supporting taxpayers is through the establishment of taxpayer service centers or help desks that offer personalized assistance, especially for small and medium-sized enterprises (SMEs) and individual taxpayers who may struggle with digital tools. Studies indicate that comprehensive taxpayer support programs lead to higher compliance rates and greater trust in tax authorities (Fashola & Ogungbemi, 2021). These programs should include help desks that taxpayers can visit for in-person assistance, as well as online chat systems and call centers that provide remote support. (González, García & Sánchez, 2023, Moones, et al., 2023, Murray & Nair, 2021, Schwab, 2016) In this digital age, creating a centralized online platform where taxpayers can access resources, ask questions, and receive timely support is vital. This platform can offer instructional videos, FAQs, and step-by-step guides that simplify the tax filing process (Okeke et al., 2021).

Furthermore, creating a taxpayer-friendly interface is key to supporting taxpayers in transitioning to digital tax systems. The user interface should be intuitive, allowing individuals and businesses with limited digital literacy to navigate the platform easily (Gosens, Kline & Wang, 2023, Li, Li & Wang, 2022, Miller, Nyathi & Mahendran, 2022). Simple registration processes, automated prompts, and clear instructions can significantly reduce the learning curve for users (Olawale et al., 2023). For instance, some countries have successfully implemented digital tax systems that incorporate artificial intelligence (AI)-powered chatbots to answer common taxpayer questions in real-time, helping users resolve issues without the need for human intervention (OECD, 2023). Nigeria could adopt similar technologies to provide quick and efficient support, especially during peak tax seasons.

The government must also address the digital divide, as some taxpayers, particularly in rural areas, may not have easy access to the internet or digital devices. This challenge requires innovative solutions, such as mobile tax applications that are compatible with low-end devices or the establishment of community centers with internet access where taxpayers can receive assistance with digital tax processes (Okoroafor & Akande, 2021). Tax authorities can also collaborate with telecom companies to offer data subsidies or free internet access for users of the digital tax platform, which would remove a significant barrier to compliance (Gungor, Sahin & Aydin, 2021, Kumar, Mathew & Chand, 2021, Mishra, Roy & Sen, 2023).

Incentives can also play a role in encouraging taxpayers to adopt digital platforms. According to Agboola and Faleye (2022), offering tax rebates or discounts for early adoption of digital tax systems can motivate businesses and individuals to make the transition. These incentives would not only reduce resistance to change but also promote a culture of compliance, as taxpayers become accustomed to using digital systems for filing returns and making payments. For the long-term success of the digital taxation model, the government must foster a culture of transparency and trust between tax authorities and taxpayers. This can be achieved by providing clear communication about how digital tax systems work, the benefits they offer, and how taxpayer data is protected. As Egbewole and Oyeniran (2020) note, transparency in tax processes is critical for building public confidence and encouraging voluntary compliance. Regular public awareness campaigns, webinars, and public consultations can help demystify digital taxation and address any concerns that taxpayers may have about privacy, data security, or the fairness of the new system (Haeussermann, Scharf & Meyer, 2022, Luthra, Kumar & Saini, 2021, Sharma, Singh & Kumar, 2023).

Another important aspect of supporting taxpayers is offering flexible payment options that cater to different income levels and financial situations. Digital tax systems can be designed to allow taxpayers to make installment payments, which can be particularly beneficial for small businesses or low-income earners who may struggle to make lump-sum payments (Adegoke et al., 2023). This flexibility ensures that taxpayers can meet their obligations without experiencing financial strain, which ultimately enhances compliance rates.

In conclusion, capacity building and training are essential components of a successful digital taxation model for Nigeria. Both tax officials and taxpayers need to be equipped with the knowledge and skills to navigate digital tax platforms effectively. Training programs for tax officials should focus on building digital literacy, improving decision-making through data analytics, and understanding the legal frameworks surrounding digital taxation (Akagha, et al., 2023, Banso, et al., 2023, Uzougbo, et al., 2023, Hossain, Rahman & Islam, 2022, Kumar, Gupta & Singh, 2022, Schwab, 2020). For taxpayers, educational initiatives, user-friendly platforms, and comprehensive support systems are key to encouraging compliance and easing the transition to digital tax systems. By addressing the digital divide, offering incentives, and ensuring transparency, the Nigerian government can create a digital tax system that is accessible, efficient, and fair for all.

8 Stakeholder Engagement

Stakeholder engagement is a critical component in the successful implementation of a digital taxation model for Nigeria. The complexity and scale of digital tax reform require collaboration across multiple sectors, including government agencies, technology providers, and industry representatives, to ensure that the system is robust, efficient, and widely accepted (Hossain, Rahman & Islam, 2022, Moksnes, Roesch & Berghmans, 2019, Sharma, Kaur & Gupta, 2022, Sovacool, Kivimaa & Tschakert, 2020). Additionally, public awareness campaigns play a pivotal role in educating the general populace on the benefits of digital taxation and encouraging its adoption. The goal of engaging stakeholders is to build a shared vision, foster trust, and address concerns about the shift to a digital platform for tax collection and compliance.

Engaging key stakeholders in the design, implementation, and oversight of the digital taxation model is vital to ensuring the system's functionality and sustainability. One of the primary stakeholders in this process is the government, which plays a leading role in crafting policies, providing regulatory oversight, and ensuring compliance (Ikusika, 2022, Okeke & Olurin, 2019, Osimobi, et al., 2023, Udo, et al., 2023). Government agencies, such as the Federal Inland Revenue Service (FIRS), are responsible for defining the legal and operational frameworks within which the digital tax system will operate (Olumide et al., 2022). Engaging these agencies in the early stages of development ensures that the taxation model aligns with existing tax policies and national economic goals, while also addressing potential legal and administrative challenges.

In addition to government agencies, collaboration with technology providers is crucial for developing the digital infrastructure needed to support a digital taxation model. These providers offer the technical expertise necessary for designing user-friendly tax platforms, integrating automation tools, and maintaining the security and integrity of taxpayer data (Jang, Yang & Kim, 2022, Kaunda, Muliokela & Kakoma, 2021, Ozowe, Russell & Sharma, 2020). According to Adewale and Ibekwe (2021), partnerships with private sector technology firms can significantly enhance the efficiency of tax systems by leveraging cutting-edge innovations in data management, cloud computing, and cybersecurity. These collaborations also ensure that the system is scalable and adaptable to future technological advancements, reducing the need for frequent overhauls.

Industry representatives, including those from the financial services sector and business communities, are also key stakeholders in the digital taxation ecosystem. Their involvement ensures that the taxation system is designed with the needs and capabilities of businesses in mind, particularly small and medium-sized enterprises (SMEs) that may face challenges in adapting to digital platforms (Ezeocha et al., 2020). Engaging with industry representatives helps to address concerns about the costs of compliance, the user-friendliness of tax platforms, and the potential impact on business operations. Moreover, involving the private sector fosters a sense of shared responsibility, encouraging businesses to comply with digital tax requirements and contribute to the overall success of the system (Jensen, Koster & Martin, 2022, Miller, Chiu & Zhang, 2023, Smith, Edwards & Singh, 2022).

A multi-stakeholder approach also promotes transparency and accountability in the tax administration process. According to Akintoye and Oladipo (2023), the involvement of a broad range of stakeholders helps to identify and address potential loopholes in the system, reducing the risk of tax evasion and fraud. Additionally, it creates an environment where stakeholders can voice their concerns and contribute to shaping policies that reflect the realities of the Nigerian economy (Jensen, Koster & Martin, 2022, Miller, Chiu & Zhang, 2023, Smith, Edwards & Singh, 2022). Regular consultations between tax authorities, technology providers, and industry representatives are essential for identifying challenges and opportunities, as well as for making necessary adjustments to the system as it evolves.

Public awareness campaigns are essential for promoting the adoption of digital taxation systems by educating taxpayers about the benefits of transitioning to digital platforms and addressing concerns about compliance, privacy, and ease of use (Joudeh & El-Hawary, 2022, Liu, Zhang & Xie, 2020, Schwerdtle, Appelbaum & Schilling, 2022). According to Onuoha and Obasi (2022), the success of a digital taxation model depends largely on public buy-in, which can only be achieved through comprehensive awareness and education efforts. These campaigns must be designed to reach a broad audience, including individuals, small businesses, and large corporations, while tailoring messages to address the specific needs and concerns of each group.

One of the primary objectives of public awareness campaigns is to inform taxpayers about the benefits of digital taxation. These benefits include increased convenience, as taxpayers can file returns, make payments, and track their tax status online without needing to visit physical tax offices. Additionally, digital tax systems offer greater transparency, allowing taxpayers to view their tax history and receive automated notifications about deadlines, which reduces the likelihood of errors and penalties (Salami et al., 2021). By emphasizing these benefits, public awareness campaigns can help to alleviate concerns about the complexity of digital tax platforms and encourage widespread adoption.

Another key focus of awareness campaigns is to educate the public about the security measures in place to protect taxpayer data. Concerns about cybersecurity and the protection of personal and financial information are common barriers to the adoption of digital tax systems. According to Adebayo and Fashola (2023), taxpayers are more likely to trust digital platforms if they are assured that their data is secure and that the system complies with national and international data protection standards. Public awareness campaigns should, therefore, highlight the robust cybersecurity protocols that have been implemented to prevent fraud, data breaches, and identity theft.

Effective public awareness campaigns should also address the digital divide, which may prevent some taxpayers, particularly those in rural areas, from accessing and using digital tax platforms. According to Nwosu and Onuora (2022), campaigns should include information about available resources and support services that can help bridge the gap for taxpayers who lack digital literacy or access to the internet. This could involve promoting the availability of taxpayer service centers, mobile applications, and community-based digital literacy programs. By providing practical solutions to these challenges, public awareness campaigns can foster a more inclusive and equitable digital tax system.

The use of multiple communication channels is essential for the success of public awareness campaigns. Traditional media outlets, such as television, radio, and newspapers, should be used alongside digital platforms, including social media, websites, and email newsletters, to reach a broad audience (Adelakun and Johnson, 2020). Social media, in particular, offers a powerful tool for engaging with younger taxpayers and providing real-time updates on tax policies, deadlines, and system changes. Interactive platforms, such as webinars and live Q&A sessions, can also be used to provide taxpayers with the opportunity to ask questions and receive guidance from tax authorities.

In addition to reaching individual taxpayers, public awareness campaigns should target businesses, particularly SMEs that may be unfamiliar with the requirements and processes associated with digital taxation. According to Fola and Ogungbemi (2021), campaigns should provide clear and accessible information about how businesses can register for digital tax systems, file returns, and take advantage of available tax credits and incentives. By offering tailored guidance and support, public awareness campaigns can help businesses navigate the transition to digital platforms and ensure compliance with tax regulations.

Finally, public awareness campaigns should be ongoing, with regular updates provided as the digital tax system evolves. As noted by Suleiman and Abdulahi (2023), tax policies and digital platforms are likely to undergo changes over time, and it is important to keep taxpayers informed about any new developments (Tapscott & Tapscott, 2021, Wang, Zhang & Li, 2023, Zhao, Li & Yang, 2023). This could involve regular updates from tax authorities, periodic refresher campaigns, and the use of feedback mechanisms to gauge taxpayer understanding and address any emerging issues. Continuous engagement with the public helps to build trust, reduce confusion, and ensure that taxpayers remain compliant with their tax obligations.

In conclusion, stakeholder engagement is a critical factor in the successful implementation of a digital taxation model for Nigeria. Involving key stakeholders, such as government agencies, technology providers, and industry representatives, ensures that the system is robust, efficient, and responsive to the needs of all parties (Joudeh & El-Hawary, 2022, Liu, Zhang & Xie, 2020, Schwerdtle, Appelbaum & Schilling, 2022). Public awareness campaigns play an equally important role by educating taxpayers about the benefits of digital taxation, addressing concerns about cybersecurity and compliance, and encouraging widespread adoption of the system. By fostering collaboration, transparency, and trust, the Nigerian government can create a digital tax system that enhances revenue collection, improves compliance, and supports the country's broader economic goals.

9 Monitoring and Evaluation

Monitoring and evaluation (M&E) are essential components in the successful implementation and ongoing refinement of a digital taxation model in Nigeria. Effective M&E practices ensure that the digital tax system meets its objectives, including improving compliance, enhancing revenue collection, and increasing operational efficiency. This process involves establishing performance metrics, implementing evaluation mechanisms, and fostering continuous improvement through regular reviews and updates.

Establishing key performance indicators (KPIs) is fundamental for measuring the effectiveness of the digital tax model. KPIs provide quantitative and qualitative measures that reflect how well the system is achieving its intended goals (Joudeh & El-Hawary, 2022, Liu, Zhang & Xie, 2020, Schwerdtle, Appelbaum & Schilling, 2022). For a digital taxation model, critical performance metrics include the accuracy and timeliness of tax filings, the rate of compliance among taxpayers, and the efficiency of revenue collection processes (Adeyemo & Olayanju, 2021). Accuracy can be measured by the percentage of error-free tax submissions, while timeliness can be assessed by tracking the adherence to filing deadlines. Compliance rates are often evaluated through audits and comparisons of reported versus actual tax liabilities. Efficiency metrics might include the average processing time for tax returns and the reduction in administrative costs associated with tax collection.

In addition to these core metrics, assessing taxpayer satisfaction and system usability is crucial. The quality of user experience can significantly impact compliance and engagement levels. Surveys and feedback mechanisms can gauge taxpayer satisfaction with the digital tax platform, including ease of use, accessibility, and support services (Ibrahim & Adamu, 2020). This feedback is vital for identifying areas where the system may need enhancements or adjustments to better meet user needs (Tapscott & Tapscott, 2021, Wang, Zhang & Li, 2023, Zhao, Li & Yang, 2023). Evaluation mechanisms are designed to assess the impact of the digital tax system on various aspects of tax administration. One effective method is to conduct periodic performance audits, which involve reviewing the system's operations, compliance rates, and revenue outcomes. Performance audits help identify strengths and weaknesses in the digital tax model and provide insights into how the system can be improved (Adewale & Oke, 2021). These audits should be conducted by independent bodies to ensure objectivity and credibility in the findings.

Another important evaluation method is the analysis of revenue collection data. Comparing revenue trends before and after the implementation of the digital tax model can reveal its impact on government revenue. An increase in revenue, coupled with improved compliance rates, would suggest that the digital system is effective in achieving its goals (Joudeh & El-Hawary, 2022, Liu, Zhang & Xie, 2020, Schwerdtle, Appelbaum & Schilling, 2022). Conversely, stagnation or declines in revenue may indicate issues with the system that need to be addressed (Salami et al., 2022). Efficiency evaluations involve analyzing the operational processes of the digital tax system. This includes assessing how well the system integrates with existing tax administration processes and the degree to which it reduces manual interventions. For example, evaluating the extent to which automation has streamlined tax filing and payment processes can provide insights into the system's efficiency and effectiveness in reducing administrative burdens (Fola & Adeosun, 2020).

Continuous improvement is a vital aspect of maintaining and enhancing the digital taxation model. Regular review procedures are essential for adapting the system to evolving needs and technological advancements. This involves using performance data and feedback to make iterative improvements to the digital tax platform (Nwogu & Alabi, 2021). For instance, if feedback indicates that taxpayers are facing challenges with certain features of the system, updates and modifications can be made to address these issues. To facilitate continuous improvement, it is crucial to establish a structured process for reviewing and implementing changes (Tapscott & Tapscott, 2021, Wang, Zhang & Li, 2023, Zhao, Li & Yang, 2023). This process should include regular intervals for reviewing performance metrics, conducting stakeholder consultations, and assessing the impact of any modifications (Ogunleye & Bakare, 2022). Additionally, it is important to foster a culture of adaptability within the tax administration authorities, encouraging them to proactively identify and address emerging issues.

Incorporating new technologies and methods into the digital tax system can also contribute to its ongoing enhancement. Advances in data analytics and artificial intelligence can provide deeper insights into tax compliance patterns and potential areas for improvement (Oluwaseun & Ojo, 2023). For example, predictive analytics can be used to identify high-risk taxpayers or sectors, enabling more targeted enforcement and support efforts (Tapscott & Tapscott, 2021, Wang, Zhang & Li, 2023, Zhao, Li & Yang, 2023). Feedback from taxpayers and other stakeholders should be systematically collected and analyzed to inform improvements. This feedback can be gathered through surveys, focus groups, and user experience studies. Engaging with taxpayers about their experiences with the digital tax system helps identify pain points and areas for enhancement, ensuring that the system remains user-friendly and effective (Akinlade & Yusuf, 2021).

Overall, monitoring and evaluation are integral to the successful implementation and sustainability of a digital taxation model in Nigeria. By establishing robust performance metrics, employing effective evaluation mechanisms, and committing to continuous improvement, the digital tax system can achieve its objectives of enhancing compliance, optimizing revenue collection, and increasing operational efficiency (Jones, Nair & Ahmed, 2022, Oduntan, Olatunji & Oyerinde, 2021, Miller, Thompson & Smith, 2022, Wang, Liu & Zhang, 2022). Regular reviews and updates, supported by data-driven insights and stakeholder feedback, will ensure that the system remains responsive to the needs of taxpayers and the evolving landscape of tax administration.

10 Conclusion

In conclusion, the proposed digital taxation model for Nigeria represents a significant advancement in the country’s approach to tax administration, leveraging technology to enhance the efficiency, accuracy, and transparency of tax collection. This model integrates digital platforms to streamline tax registration, filing, and payment processes, thereby addressing longstanding challenges in the Nigerian tax system such as inefficiency, corruption, and compliance difficulties. The digital taxation model encompasses several key features designed to modernize tax administration. Central to this model is the development of robust digital tax platforms that facilitate online interactions between taxpayers and tax authorities. These platforms are intended to simplify tax processes, reduce the need for physical documentation, and improve the accuracy of tax filings and payments. Additionally, the model incorporates automation tools that enhance operational efficiency by minimizing manual intervention and integrating seamlessly with existing systems. Data management and analytics play a crucial role in this framework, providing valuable insights for compliance monitoring and decision-making, and ensuring that tax revenues are accurately accounted for.

Technology integration is a core component of the model, involving the establishment of comprehensive digital infrastructure, interoperability with financial institutions, and the implementation of rigorous cybersecurity measures. Developing a solid IT infrastructure is essential for supporting the digital tax system, while ensuring smooth integration with banks and other financial systems facilitates efficient tax payments. Cybersecurity measures are critical to protecting taxpayer data and preventing fraud, thus building trust in the digital tax system. Regulatory and institutional frameworks are also integral to the success of the digital taxation model. Crafting supportive policies and defining the roles of tax authorities and technology providers help create a conducive environment for digital taxation. Addressing legal and compliance issues ensures that the system adheres to regulatory requirements and safeguards taxpayer rights.

Capacity building and training are vital for the effective implementation of the model. Training programs for tax officials and taxpayers are necessary to facilitate the transition to digital platforms and ensure that users are well-versed in the new systems. Providing support and resources helps ease the adaptation process for taxpayers and promotes greater engagement with digital tax services. Stakeholder engagement plays a crucial role in the successful adoption of the digital taxation model. Involving key stakeholders such as government agencies, technology providers, and industry representatives ensures that the system meets diverse needs and garners broad support. Public awareness campaigns further enhance adoption by educating taxpayers about the benefits of digital taxation and encouraging their participation.

Monitoring and evaluation are essential for assessing the performance and impact of the digital tax model. Establishing key performance indicators, employing evaluation mechanisms, and committing to continuous improvement enable ongoing refinement of the system. Regular reviews, informed by performance data and stakeholder feedback, ensure that the digital tax model remains effective and responsive to changing needs. In summary, the digital taxation model for Nigeria offers a comprehensive approach to modernizing tax administration through technology integration. By addressing existing challenges and leveraging technological advancements, the model aims to improve tax collection, enhance compliance, and increase operational efficiency. For successful implementation, it is recommended that Nigeria focuses on developing and scaling digital infrastructure, ensuring regulatory alignment, providing extensive training and support, and actively engaging with stakeholders. Future developments should include exploring innovative technologies, expanding digital capabilities, and continuously adapting the system based on evolving needs and feedback. The successful implementation of this model has the potential to transform Nigeria's tax administration landscape, fostering a more efficient, transparent, and equitable tax system that benefits both the government and taxpayers.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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