

# POLAC MANAGEMENT REVIEW (PMR) DEPARTMENT OF ECONOMICS AND MANAGEMENT SCIENCE NIGERIA POLICE ACADEMY, KANO



# DIGITIZATION OF TAX ADMINISTRATION BY FEDERAL INLAND REVENUE SERVICE: A HISTORICAL REVIEW

Sani Damamisau Mohammed Department of Taxation, Federal University Dutse

**Bashir Ali Sulaiman** Department of Taxation, Federal University Dutse

**Rukayya Tijjani Ibrahim** Department of Taxation, Federal University Dutse

Muhammad Muhammad Sallau Department of Taxation, Federal University Dutse

Yusuf Abdu Gimba Department of Taxation, Federal University Dutse

#### **Abstract**

Rapidly increasing digitization of businesses around the world is forcing tax authorities around the globe to reform tax administration by digitizing it to ensure simplification of tax filing and compliance for efficient collection of due taxes. The Nigerian Federal Inland Revenue Service is responsible for collecting oil and non-oil tax revenues which are crucial to overall monthly revenues pooled into the Federation Account which are then shared among the federating units of Federal Republic of Nigeria. Therefore, the aim of this study is to review the historical trends of efforts by Federal Inland Revenue Service to digitize its tax administration. To achieve this aim, secondary data is collected from documents on the various forms of implemented digitization efforts by the Federal Inland Revenue Service 2005-2021. Collected data is descriptively presented and analysed while public policy analytical framework underpins the study. Results from the study revealed that the Federal Inland Revenue Service has implemented successive digitization programs which collectively resulted into enhancing the administration of taxation by the service. However, the time lag between succeeding programs is perhaps inadequate for proper results to be obtained. The policy implications are the need for the service to leverage more on technology for better service delivery and compliance. The service should be allowing reasonable time lag for proper implementation of digitization programs in the future. Staff of the service that developed the TaxProMax solution should be encouraged and be allowed to take it to global best practices.

Keywords: Tax, Administration, Federal Inland Revenue Service, Digitization, Revenue

#### 1. Introduction

In what is perhaps indicating the olden history of taxation, a clay tablet with writings on taxation was discovered 6,000 years B.C. in the city of Laqqash of the Mesopotamian empire which is in present day Iraq. Equally, taxation existed in the ancient empires of Egypt, China, Greece and Rome (Jia, Li & Gao, 2019) and taxation is not only existing in the advanced countries of Organization for Economic Cooperation and Development (OECD) but is playing a significant role in their Gross Domestic Product (GDP). The minimum tax to GDP ratio across the OECD countries for the year 2020 is 17.90% in Mexico, the maximum is 46.50% in Denmark while the

average for the bloc is 33.50% thereby indicating the importance of taxation in these advanced countries. Conversely, the average tax to GDP ratio for Asia and Pacific countries is 21% while that of Sub Saharan African countries is 16.60%. (Organization for Economic Cooperation & Development 2022a; 2021a; 2021b). The low tax to GDP ratio of developing Asian and most especially African countries is linked to tax avoidance and evasion estimated within the rage of 6-13% of their tax to GDP ratio (Cobham &Janský 2018; Johannesen, Tørsløv &Wier 2019; OECD 2017). However, tax avoidance and evasion are also reported in OECD countries accounting for 2-3% of their tax to GDP ratio (Cobham &Janský 2018) which could be considered as low. Despite this,

OECD countries are committed to fast tracking the digitization of their tax administration to enhance efficiency (OECD 2021c).

Nigeria is one of the developing African countries and its tax to GDP ratio is only 6% which is far below the average tax to GDP ratio of 16.60% for the continent (OECD 2021b). Nigeria's Federal Inland Revenue Service vested with authority of collecting federal taxes that are of significance to overall revenues of the federal government has been putting efforts to digitize its tax administration. Consequently, the aim of this study is to review the historical development of efforts by the service towards digitizing its tax administration. This may bring to light how the service has been implementing successive digitization efforts to enhance its services and ensure tax compliance. Similarly, the study may be of use to policy makers by highlighting achievements and challenges of the successive digitization efforts in a codified form. This is section one of the study, section two is literature review dwelling on conceptual and empirical review of relevant literature. Section three is on methodology of the research, section four is on discussions of findings while section five is conclusion and recommendations of the study.

# 2. Literature Review

This section reviewed conceptual and empirical literature related to the study for enhanced understanding of studied subjects. The Federal Inland Revenue Service is the authority administering federal tax jurisdiction.

### The Federal Inland Revenue Service (FIRS)

The history of FIRS is traceable to colonial era West African Inland Revenue Department (IRD) covering Ghana, Gambia, Sierra Leone and Nigeria. Nigerian tax administration was carved out of IRD in 1943 when the Nigerian Inland Revenue Department (NIRD) was created. The NIRD was renamed Federal Board of Inland Revenue (FBIR) in 1961 while the FIRS Act of 2007 created the FIRS with financial and administrative autonomy (Federal Inland Revenue Service 2022). This federal tax jurisdiction is responsible for collecting all federally collectable taxes such as Petroleum Profits Tax (PPT), Companies Income Tax (CIT), Value Added Tax (VAT), Education Tax (ET) Taxes and levies collection by FIRS are key etc. determinants of the total amount of money available for sharing between Nigeria's federating units. This prompted FIRS to start digitizing its administration to in 2005

(Premium Times 2020). However, the digitization came at time when of acute inadequate availability and accessibility of modern IT are reported in Nigerian MDAs (Tiamiyu 2000a, 2000b).

#### The Modernization Project

Tax returns filling, assessments, payments, generation of payments receipts, compliance tracking and tax clearance certification are been carried out manually in FIRS up to and including the year 2005. These procedures are embedded with tendencies of corruption as there are constant interactions between staff and taxpayers thereby which increases possibilities of fraud, reduction in taxpayer's compliance and reduced tax collections. Likewise, there are lapses in the collection and remittance of tax revenue, fraudulent or falsified tax clearances among other numerous problems associated with the manual procedures. In an effort to digitize the operations of the service to overcome these and other challenges associated with tax administration by FIRS, the service started leveraging on IT in 2005 when a modernization project was initiated. The project was geared towards automating operations of the service from different facets such as automation of tax filling and collection which is expected to curtail corruption, increase FIRS's monitoring and tracking capabilities and enhance compliance (Bennet 2012).

Reforming tax administers is integral to reforming any tax administration; therefore, attention was paid on this by making 80% of the 7,000 workforce professionals and computer literate. Similarly, legislation is important in tax administration and the passage of the FIRS Act in 2007 is seen as huge success. The service implemented the Unique Taxpayer Identification Number (U-TIN) project in collaboration with the Joint Tax Board (JTB) in 2010 which is considered a significant stride in leveraging on technology. The major challenge of the modernization projects is getting the full support of all stakeholders especially the executive and the legislature (Premium Times 2020).

### **Unique Taxpayer Identification Number (U-TIN)**

This is a 14-digit digital identification number issued to individual corporate taxpayers the jurisdiction of FIRS and registered taxpayers under the jurisdiction of states internal revenue services. This digitization effort was launched in

2011 which is an electronic means of registering and identifying taxpayers for the purpose of establishing a central data base to store the information of tax payers and facilitate information sharing among tax authorities and other stakeholders and ensure compliance by tax payers. This digitization effort was implemented by FIRS in collaboration with the Joint Tax Board (JTB) where the data center resides (Nigerian Governors Forum 2010; Okauru 2012). The program has shown considerable success of establishing taxpayers' data base; however, lack of political will from state revenue services (Deloitte 2015; Premium Times 2020). This effort is followed by the introduction of Taxpayers Identification Number (TIN) in 2011.

# The Taxpayer Identification Number (TIN)

The FIRS observed that low compliance and collection of taxes as one of the major weaknesses of the manual procedures. Therefore, drawing from the success of UTIN data base and address its problems, TIN was introduced on 5<sup>th</sup> April 2012 (Okauru 2012) although it is contended as 5<sup>th</sup> April 2011 (Premium Times 2020). This study adopts 5<sup>th</sup> April 2012 as it is a date stated by the Executive Chairman of the service before the expiration of her tenure on 9<sup>th</sup> April 2012 (Premium Times 2012). The launching of TIN is to overcome problems of UTIN prompting the service to introduce Project-FACT (Friendly, Accurate, Complete and Timely). This aspect which is a component of TIN makes it possible to track online real time what tax was collected, who made the payment, where it was paid, when it was paid, who received the payment, how much was paid, and where the funds were (Premium Times 2020). Taxpayers Identification Number is a ten (10) digit unique number given to tax payers in Nigeria and the aim of issuing this unique number is to create closer linkage between tax payers and the various tax authorities in Nigeria and increase revenue generation accruing to all tiers of the governments (Act 2 1988). The issuance of TIN has increased number of registered taxpayers from 10million in 2015 to 14million in 2017 to 19million in 2018 and to about 45million in 2019 and over 3million registered companies as at 2019 (The Cable 2019). The implementation of TIN has arguably overcome the problems associated with UTIN. Succeeding TIN in the digitization efforts by FIRS is the Integrated Tax Administration System (ITAS).

## **Integrated Tax Administration System (ITAS)**

To strengthen and further automate tax administration in Nigeria, FIRS introduced Integrated Tax Administration System (ITAS) project in 2013 aimed at enhancing tax administration and simplifying tax compliance process by leveraging on technology (The Nation 2014). ITAS will result in re-engineering and automating overall tax processes by FIRS. When fully administration implemented ITAS will assist tax payers to file tax returns electronically, be able to pay their taxes online, get instant credit for withholding taxes deducted on their income, generate tax clearance certificates and communicate with the FIRS local tax office through the message center (PriceWaterCoopers 2015). The implementation of ITAS project has resulted in eliminating duplicating TIN numbers to taxpayers, resulted in training about 5,000 staff of the service on its operation, enhanced e-filing of tax returns, and improve Nigeria's ranking on global ease of doing business and assisted in resolving 5,700 issues received from users (Federal Inland Revenue Service 2015). Therefore, it could be contended that ITAS has further moved forward the digitization of tax administration by FIRS. The Standard Integrated Government Tax Administration System (SIGTAS) followed ITAS.

# **Standard Integrated Government Tax Administration System (SIGTAS)**

SIGTAS is a software utilized in assessing and collecting revenues launched and it was launched in 2014 to provide taxpayers with wide range of benefits such as automatic calculation of tax and penalty, identification of errors or omissions by taxpayers, automated payment posting, receipt generation and remitting Withholding Tax (WHT) credits (Deloitte 2018; The Nation 2014). A total of 1,826,508 corporate taxpayers are currently registered in ITAS system (Federal Inland Revenue Service 2015). Thus, SIGTAS has built on ITAS to strengthen the digitization of tax administration efforts by FIRS; however, the service has to scrap ITAS and SIGTAS in 2022 on introducing TaxPro-Max solution (Deloitte 2018).

## TaxPro-Max Solution

TaxPro Max is home grown tax administration solution software developed by staff of FIRS and is the latest efforts to fully digitize tax administration by FIRS. The portal of this digital solution was opened on 7<sup>th</sup> of June 2021 displaying more features and capabilities than previous

digital platforms. This application was launched in accordance with the Finance Act 2020 which empowers FIRS to automate tax return filing and payment processes. It is adjudged as a fully encompassing online tax administration platform offering taxpayers the opportunity to register, file returns, remit taxes, carry out assessments and keep track of tax obligations. Accessibility to the portal by taxpayers is by online registration which allow them to get log-in details for further accessibility. On filing the returns, a Document Identity Number (DIN) will be generated which will then be used to remit taxes via the portal. The launching of Taxpromax has been adjudged as a welcome development (Chartered Institute of Taxation 2022). Digitization of tax administration has been empirically investigated worldwide; thus, it may be useful to present some of these empirical studies.

### 2.1 Empirical Literature Review

Martíneza, Arzozb and Arreguic (2022) examined whether digitization improves tax collection efficiency in 28 countries of Organization for Economic Cooperation and Development (OECD). The study offers an insight into tax administration performance and evidences of relationship between fiscal decentralization and tax structure and technical efficiency of tax collection. Data on technical efficiency estimates for the 28 OECD countries over the period 2004 - 2017 was obtained by means of Data Envelopment Analysis (DEA). The DEA is followed by an exploration of how technical efficiency is affected by fiscal decentralization and tax structure variables. Results from the study revealed that technical efficiency represented by digitization of tax administration has a positive and significant impact on the efficiency of tax collection. Thus, signifying the importance of digitizing tax administration on improved tax revenue collection in the context of developed economies. Digitization of tax administration is also found useful in reducing tax evasion which is perhaps an important component to reducing tax revenue.

Kitsios, Jalles and Verdier (2020) conducted a cross-country study aimed at investigating how the use of digital technologies can reduce the prevalence of cross-border tax fraud and increase governments tax revenue. To achieve its aim, the study exploit variations in bilateral trade transactions, using data on 28 intra-EU and 85 cross-country trade transactions over the period 2003–16 from trade documents while tax evasion is measured using

discrepancies in trade statistics between origin and destination countries. Collected data was analysed based on trade gravity regression model with the main regressor of interest which is tax digitization proxied by the United Nation's Online Service Index (UN OSI) while the control variables are Gross Domestic Product (GDP), GDP per capita, inflation and exchange rates. Results from the study revealed that tax evasion can be alleviated by the use of digital technologies; thus, digitization can improve tax compliance and substantially improve tax revenue gains. Studies are also conducted in the context of developing countries like Nigeria on the usefulness of digitizing tax administration for enhanced tax revenue collections.

Adu, Buabeng, Asamoahm, and Damoah (2019) evaluated the impact of digitization of local revenue collection processes in Accra Metropolitan Assembly (AMA) the local council of Accra. The council of AMA introduced the use of point of sale devices in the collection of rates in 2012; therefore, the study evaluated the impact of this digital mode of rate collection 2012-2016 on overall rates revenue collection over the period of the study. Primary and secondary data were collected over the period of the study, the primary data was obtained by conducting an in-depth interview with 17 staff of the AMA. The secondary data was sourced from the annual reports and annual composite budgets of AMA 2012-2016. Results from interviewed revenue staff of AMA agreed that there was significant increase in rates collection after the introduction of the digital. Analysis of quantitative secondary data revealed that collection of rates overtook fees and fines that used to be the highest contributor of revenue from 2012 when the device was introduced. Focusing on Nigeria, studies have been conducted on the effect of TIN on tax revenue collections enhancement.

Tyokoso, Onho and Musa (2021) examined Tax Identification Number (TIN) and Tax Revenue Performance in Nigeria focusing on the effect of TIN on tax revenues collections by FIRS from Valued Added Tax (VAT), Company Income Tax (CIT), Custom and Excise Duties (CED) and Petroleum Profit Tax (PPT). To carry out the study, secondary data was obtained from the annual statistical bulletin of the Central Bank of Nigeria (CBN) 1998-2017. Collected data was analyzed by means of regression analysis in form of paired sample t-test and findings from the study revealed significant positive difference in the means of VAT, CIT, CED, and PPT after

the introduction of TIN. Thus, there is empirical evidence indicating that TIN as a digital identification which is an important component of the efforts to digitizing tax administration by FIRS has enhanced tax revenue collection. The impact of TIN on enhancing revenue collection was also empirically tested on tax revenue collections by state governments Nigeria.

Abdul, H., Zubairu, U., & Abubakar, B. (2021) assessed the effectiveness of the introduction of Taxpayer Identification Number (TIN) in curbing tax evasion in Niger State, Nigeria by obtaining the perceptions of officials of Niger State Internal Revenue Service. Adopting an exploratory qualitative research design and using purposive sampling, ten tax officers were interviewed semi-structurally to understand their perceptions of the level of tax evasion in Niger State before and after the introduction of TIN. Data obtained from the conducted semi-structured interviews was analysed in two steps, first step was the transcription of each of the interviews while the second step was analysis of the responses obtained from the interviewees to identify similar themes. Result from the thematic analyses of the interviews revealed that all ten tax officials agreed that tax evasion was most prevalent pre-TIN than post-TIN thereby proving the efficacy of TIN in curbing tax evasion.

# 3. Methodology

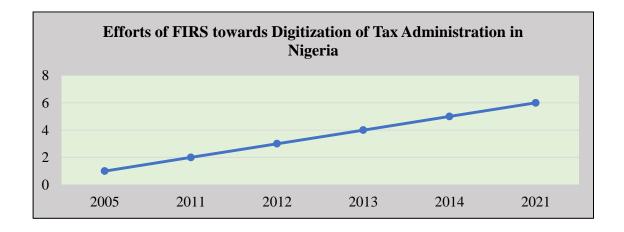
The aim of this study is tois to review the historical trends of efforts by Federal Inland Revenue Service to digitize its tax administration. To this effect, the study is designed as ex-post facto and qualitative secondary data on the various digitization efforts of FIRS is collected and descriptively analysed.

#### 3.1 Theoretical Framework

Public institutions are established to render services to the public and the rendering of the services must be carried effectively and efficiently in the best interest of the public. Thus, an effective public institution is one that its performance to increase the quality of life of the citizens through its capacity to deliver on the goals and objectives of government can be assessed (Olaopa 2018). Public institutions are resulting from establishment of public policies; therefore, the goals and objectives of the institutions are coming from the established policies. Thus, undertaking an analysis of policies by governments and institutions help in determining whether implemented policies and activities of established institutions are good or bad. Drawing from this, this study reviewed the historical trends of efforts by Federal Inland Revenue Service to digitize its tax administration. Through the historical review of the efforts put in place by FIRS on digitizing tax administration, the study revealed whether implemented efforts are achieving their ultimate goals. Therefore, this study is best understood using the lens of public policy analytical framework as employed by Hanga, Mohammed, Dandago and Musa (2020); Mohammed (2018).

#### 4. Discussion of Findings

This section is devoted to discussing efforts put in place by FIRS to digitize its tax administration 2005-2021 and the discussion reflects literature, theory and practice. Figure I, is on trends of the efforts implemented by FIRS.



From Figure I, FIRS started with modernization project effort in 2005 which is the 1<sup>st</sup> stage in the trends of efforts by the service 2005-2021. The modernization project is aimed at moving from manual processes of tax administration to modern ways of administering tax while leveraging on technology. This modernization project is intended to reduce interactions between staff and taxpayers overcome tendencies of corruption, reduce possibilities of fraud, increase taxpayer's compliance and enhance tax collections. This is coming at a time when IT is just an evolving phenomenon in MDAs in Nigeria, FIRS inclusive (Tiamiyu 2000a; 2000b) as corroborated by the report of United Nations Conference on Trade and Development that Nigeria score 0.175 on scale of 1 for high technologically advanced countries. This is an indication of low level of technological development in Nigeria by the year 2005; indeed, the country is placed 99<sup>th</sup> out of 117<sup>th</sup> studied countries (UNCTAD 2005). Despite this challenge, the effort has yielded positive results by making staff of the service computer literate through organized inhouse and external computer competency trainings. Similarly, the service started using computers in its services such as keeping proper records of tax payers and taxes paid. This effort also laid the foundation of all subsequent digitization efforts of the service; thus, it is regarded as a huge success (Premium Times 2020).

The second stage of digitization efforts by FIRS as in Figure I is in 2011 when the Unique Taxpayer Identification Number (U-TIN) which is a 14-digit electronic means of identification was launched to aid in registering and identifying taxpayers. This in turn will result in establishing a central data base to store the information of tax payers and facilitate information sharing among tax authorities and other stakeholders and ensure compliance by tax payers. This effort of digitizing tax administration in Nigeria could be contended as successful as it further strengthened previous effort by establishing a data base of tax payers despite the problem of duplicating numbers to taxpayers (Deloitte 2015; Premium Times 2020). This is a prelude to knowing the taxpayers, allowing tracking them and ensuring tax compliance.

The third stage is in 2012 when the Taxpayer Identification Number was launched on 5<sup>th</sup> April 2012 to

tackle duplication of issuance of UTIN, standardize tax collections by banks by making it timely, transparent and accountable. In this regard the service fully implemented its Project-FACT (Friendly, Accurate, Complete and Timely). Project-FACT has prevented a situation whereby a corporate taxpayer can open a tax file at Apapa or Ikeja Integrated Tax Office in Lagos then abandon such file after failing to file his returns only to pay his tax on lying to the Tax Controller at the Wuse Integrated Tax Office that the company has not done business since its registration. This is done by simply detecting the status and records of the corporate tax payers by simple search of FIRS portal (Premium Times 2011; Vanguard 2011). This digitization effort has achieved its aim of eliminating duplication of digital ID numbers, established central data base of taxpayers and enabled the service to track online real time what tax was collected, who made the payment, where it was paid, when it was paid, who received the payment, how much was paid, and where the funds were. This in turn has assured accountability of collected taxes making taxpayers more willing to comply (Premium Times 2020).

The fourth stage of the digitization effort as indicated in Figure I is in 2013 when the Integrated Tax Administration System (ITAS) was launched to ensure enhanced revenue collection, transparency in tax administration, enhance voluntary compliance improve the overall efficiency of tax administration. ITAS is to assist in filing tax returns electronically, payment of taxes online, generate tax clearance certificates, get instant credit for withholding taxes and assist taxpayers in with communicating local **FIRS** office (PriceWaterCoopers 2015). Through the implementation of ITAS, the service has succeeded in putting electronic services of e-registration, e-stamp duty, e-filing, epayment and e-receipt (Richards & Ekhator 2019). The implementation of ITAS is also acknowledged as an opportunity for FIRS to reduce compliance costs and significantly aided collection and audit functions (International Monetary Fund 2018). Therefore, it could be contended that this fourth effort towards digitizing tax administration by FIRS has significantly achieved it goals.

The fifth effort by FIRS to digitize its tax administration as indicated in Figure I was in 2014 when Standard Integrated Government Tax Administration System

(SIGTAS) was launched to enhance existing digitization effort (The Nation 2014). Consequent to implementation of SIGTAS, State Offices of Accountant General Platform (SAG) have automated the deduction at source and remittance of Value Added Tax (VAT) and WHT from transactions with State governments which are then directly to FIRS's account which has enhanced revenue collection. (Emejo 2019). Furthermore, this digitization effort has resulted in creating over 5,704 SIGTAS and 943 e-filing user accounts for staff, over 32,255 taxpayers are registered on the e-filing platform and a total of 1,826,508 corporate taxpayers are currently registered in ITAS-SIGTAS system (Federal Inland Revenue Service 2015).

The sixth and most recent tax digitization effort by FIRS as indicated in Figure I is the introduction of TaxProMax a home-grown software developed by staff of FIRS launched by opening its portal on 7<sup>th</sup> June 2021. The opening of this application was in accordance with the Finance Act 2020 and empowers FIRS to automate tax return filing and payment processes. The platform will also allow taxpayers to manage withholding tax deductions, capital allowance and loss, download tax clearance certificate, and communicate with the FIRS on tax issues. The launching of Taxpromax has been adjudged as a welcome development that will enable seamless filing of tax returns and remittance of tax and enhance the tax digitization efforts of by FIRS (Chartered Institute of Taxation 2022). Although there is no expert's comment on this new platform, its launching could be contended as further strengthening of the digitization efforts of FIRS.

On the overall, the efforts implemented by FIRS towards digitizing it tax administration are consistent with

#### References

Abdul, H., Zubairu, U., & Abubakar, B. (2021). Curbing tax evasion through Taxpayer IdentificationNumber (TIN) in Niger State, Nigeria. *Sriwijaya International Journal of Dynamic Economics and Business*, 5(1), 1-16. DOI: https://doi.org/10.29259/sijdeb.v5i1.1-16.

Act 2 (1998). Taxes and Levies (Approved list for Collection). Retrieved from <a href="https://www.firs.gov.ng/wp-content/uploads/2021/01/TAXES\_AND\_LEVIES.pdf">https://www.firs.gov.ng/wp-content/uploads/2021/01/TAXES\_AND\_LEVIES.pdf</a>.

reviewed literature in this study that found digitization very useful in curving tax evasion (Abdul, Zubairu & Abubakar 2021; Kitsios, Jalles & Verdier 2020) and increasing tax revenue (Adu, Buabeng, Tyokoso, Onho & Musa 2021; Asamoahm & Damoah 2019; Hanga, Mohammed, Dandago & Musa 2020; Martíneza, Arzozb & Arreguic 2022). Although the perspective of this study differs from the reviewed studies. successful implementation of succeeding efforts to digitize tax administration by FIRS has resulted in making tax administration processes electronic, established data base of taxpayers, simply filing of tax returns and assessments, improve compliance as evidenced by reported increase in tax revenues (Emejo 2019; International Monetary Fund 2018; Premium Times 2020; Premium Times 2011; The Nation 2014; Vanguard 2011).

#### 4. Conclusion and Recommendations

The aim of this study is to review the historical trends of efforts by Federal Inland Revenue Service to digitize its tax administration. Based on the review, it could be concluded that all efforts implemented by FIRS are positively contributing to the achievement of the overall goal of FIRS on digitization of tax. Similarly, based on the trends of the efforts, it could be concluded that time lag between succeeding digitization efforts are perhaps too short to determine the impact of the efforts. Therefore, the study is recommending that FIRS should vigorously pursue digitization of it tax administration to the best of global practices. Similarly, staff of the service that developed TaxProMax which is the latest digitization effort should be commended and be allowed to effect emerging modernization of the application.

Adu, E. P., Buabeng, T., Asamoah. K., & Damoah, C. M. (2019). Digitization of local revenue collection in Ghana: An evaluation of Accra Metropolitan Assembly (AMA). Electronic Journal of Information Systems in Developing Countries, 86(1), 1 – 12. <a href="https://doi.org/10.1002/isd2.12112">https://doi.org/10.1002/isd2.12112</a>.

Bennet, R. (2012). A change agent in the Tax Office: Nigeria's Federal Inland Revenue Service 2004 – 2009. Retrieved

fromhttps://successfulsocieties.princeton.edu/sites/succes

<u>sfulsocieties/files/</u> Nigeria%20Tax%20Agency\_ToU\_1.pdf.

Deloitte (2015). Tax Administration in Nigeria & the Challenge of IT: When is the bold play?Retrieved from <a href="https://www2.deloitte.com/content/dam/Deloitte/ng/Documents/tax/inside-tax/ng-tax-adm\_inistration-in-nigeria-and-the-challenge-of-IT.pdf">https://www2.deloitte.com/content/dam/Deloitte/ng/Documents/tax/inside-tax/ng-tax-adm\_inistration-in-nigeria-and-the-challenge-of-IT.pdf</a>.

Deloitte (2018). Automation of the withholding tax system. Retrieved from <a href="https://nairametrics.com/20">https://nairametrics.com/20</a> 18/09/04/automation-of-the-withholding-tax-system/.

Emejo, J. (2019). FG to Target 80% Revenue from Nonoil Sector in Three Years. Retrieved from <a href="https://www.thisdaylive.com/index.php/2019/11/06/fg-to-target-80-revenue-from-non-oil-sector-in-three-years/">https://www.thisdaylive.com/index.php/2019/11/06/fg-to-target-80-revenue-from-non-oil-sector-in-three-years/</a>.

Federal Capital Territory Internal Revenue Service Act (2015). Retrieved from <a href="https://placng.org/i/wp-content/uploads/2019/12/FCT-Inland-Revenue-Service-Bill-2015.pdf">https://placng.org/i/wp-content/uploads/2019/12/FCT-Inland-Revenue-Service-Bill-2015.pdf</a>.

Federal Inland Revenue Service (2015). Synopsis of ITAS Project Implementation. Unpublished internal document of Federal Inland Revenue Service.

Federal Inland Revenue Service (2022b). Our Charter. Retrieved from <a href="https://www.firs.gov.ng/ourcharter/">https://www.firs.gov.ng/ourcharter/</a>

Hanga, B. Y., Mohammed, S. D., Dandago, K. I., & Musa, H. (2020). The Impact of Tax Identification Number on Internally Generated Revenue of Adamawa State, Nigeria. *Federal University Wukari Journal of Accounting and Finance*, 1(2), 74-93.

International Monetary Fund (2018). Nigeria: Selected issues. Retrieved from file:///C:/Users/User/Downloads/cr1864.pdf

Jia, J., Li, J., & Gao, K. (2019). Brief discussion on the changes of tax system since China's reform and opening up (1978–2018). *American Journal of Management Science and Engineering*, 4(2),

Johannesen, N., Tørsløv, T., & Wier, L. (2019). Are Less Developed Countries More Exposed to Multinational Tax Avoidance? Method and Evidence from Micro-Data. *The World Bank Economic Review*, 34(3), 790–809 <a href="https://doi.org/10.1093/wber/lhz002">https://doi.org/10.1093/wber/lhz002</a>.

Kitsios, E., Jalles, J. & Verdier, G. (2020). Tax Evasion from Cross-Border Fraud: Does Digitalization Make a Difference? International Monetary Fund Working paper WP/20/245. Retrieved from file:///C:/Users/User/Desktop/POLAC%202/2020%20-%20Kitsios,%20Jalles%20and%20 Verdier.pdf.

KPMG (2020). CAC's public notice on inclusion of TIN on certificate of incorporation. Retrieved <a href="https://assets.kpmg/content/dam/kpmg/us/pdf/2020/07/tnf">https://assets.kpmg/content/dam/kpmg/us/pdf/2020/07/tnf</a> -nigeria-jul2-2020.pdf.

Martíneza, Y. U., Arzozb, P. P., & Arreguic, I. Z. (2022). Tax collection efficiency in OECD countries improves via decentralization, simplification, digitalization and education. *Journal of Policy Modeling*, 44(2), 298 - 318.

Mohammed, S.D. (2020). Clean development mechanism and carbon emissions in Nigeria. *Sustainability Accounting, Management and Policy Journal*, (11)3, 523-551.#

Nigerian Governors Forum (2010). Unique Tax Payers Identification Number (UTIN) Format for Board Inland Revenues (SBIR) and Federal Inland Revenue Service (FIRS).

Okauru, I. O. (2012). Update on Tax Matters- Unique Tax Identification Number Personal Income Tax (Amendment) Act, 2011 and Other Actions to Increase Revenue.

Olaopa, T. (2018). Public Institutions and Performance of Govts in Nigeria.

Organization for Economic Cooperation and Development (2017). Technology Tools to Tackle Tax Evasion and Tax Fraud. Retrieved from <a href="https://www.oecd.org/tax/crime/technology-tools-to-tackle-tax-evasion-and-tax-fraud.pdf">https://www.oecd.org/tax/crime/technology-tools-to-tackle-tax-evasion-and-tax-fraud.pdf</a>.

Organization for Economic Cooperation and Development (2021a). Revenue Statistics in Asia and the Pacific 2021 Emerging Challenges for the Asia-Pacific Region in the COVID-19 Era. Retrieved from <a href="https://www.oecd-ilibrary.org/sites/ed374457-en/index.html?itemId=/content/">https://www.oecd-ilibrary.org/sites/ed374457-en/index.html?itemId=/content/</a> publication / ed374457-en.

Organization for Economic Cooperation and Development (2021b). Revenue Statistics in Africa 2021.

Retrieved from <a href="https://www.oecd.org/tax/tax-policy/brochure-revenue-statistics-africa.pdf">https://www.oecd.org/tax/tax-policy/brochure-revenue-statistics-africa.pdf</a>.

Organization for Economic Co-operation and Development (2021c). Tax administrations continue to accelerate their digital transformation. Retrieved from <a href="https://www.oecd.org/ctp/administration/tax-administrations-continue-to-accelerate-their-digital-transformation.htm">https://www.oecd.org/ctp/administration/tax-administrations-continue-to-accelerate-their-digital-transformation.htm</a>.

Organization for Economic Cooperation and Development (2022a). Revenue statistics 2021 the initial impact of COVID-19 on OECD tax revenues. Retrieved from

Oyedele, S. O. (2015). The Nigerian public service and service delivery under civil rule. *Journal of Public Administration, Finance and Law*, 7(), 33 – 43.

Premium Times (2011). Leadership lessons from FIRS' Omogui Okauru.

Premium Times (2012). FIRS boss, Ifueko Omogui Okauru, bows out untainted.

Premium Times (2020). How we reformed FIRS, grew Nigeria's revenues – Former Chairman.

PriceWaterCoopers (2015). FIRS introduce electronic filing of tax returns and online payment of taxes.

Richards, N. U., & Ekhator, E. O. (2019). Electronic taxation in Nigeria: challenges and prospects. *International Company and Commercial Law Review*, (), 1-16.

Taxes and Levies Act (1998). Retrieved from <a href="https://www.firs.gov.ng/wp-content/uploads/2021/01/TAXES\_AND\_LEVIES.pdf">https://www.firs.gov.ng/wp-content/uploads/2021/01/TAXES\_AND\_LEVIES.pdf</a>.

The Cable (2019). From 10m in 2015, Nigerian taxpayers 'soon to hit 45m. Retrieved from <a href="https://www.thecable.ng/just-in-from-10m-in-2015-taxpayers-about-to-hit-45m#:~:text=The%">https://www.thecable.ng/just-in-from-10m-in-2015-taxpayers-about-to-hit-45m#:~:text=The%</a> 20number% 20of% 20taxpayers% 20in, will% 20soon% 20hit% 2045% 20million..

The Chartered Institute of Taxation (2022). FIRS Taxpromax solution: filing requirements and procedures. Retrieved from <a href="https://portal.citn.org/firs-taxpromax-solution-filing-requirements-and-procedures/blog/">https://portal.citn.org/firs-taxpromax-solution-filing-requirements-and-procedures/blog/</a>.

Tiamiyu, M. A. (2000a). Information technology in Nigerian federal agencies: problems, impact and strategies. *Journal of Information Science*, 26(4), 227–237. https://doi.org/10.1177/01655515000 2600403.

Tiamiyu, M. A. (2000b). Availability, accessibility and use of information technologies in Nigerian federal agencies: a preliminary survey. *Information Technology for Development*, 9 (2000), 91–104. <a href="https://doi.org/10.1080/02681102.2000.9525324">https://doi.org/10.1080/02681102.2000.9525324</a>.

Tyokoso, G. M., Onho, S. I., Musa, B. B. (2021). Tax identification number (TIN) and tax revenue performance in Nigeria. *Accounting and Taxation Review*, 5(2), 53-61.

United Nations Conference on Trade and Development (2005). World investment report transnational corporations and the internationalization of research and development.

Vanguard (2011). FIRS, NCS introduce Importers' Taxpayer's ID Number