ASSESSING THE NEXUS BETWEEN ELECTRONIC TAXATION AND REVENUE GENERATION EFFICIENCY IN NIGERIA

[1]Ezeala, George, [2] Opara Mary Jane Chinwendu and [3] Omaliko Emeka Leonard
[1, 2 & 3] Department of Accountancy, Nnamdi Azikiwe University, Awka,
E-mail: [1] ezeala.g@unizik.edu.ng, [2] chinweopara2018@gmail.com [3] el.omaliko@unizik.edu.ng

Abstract
The study was conducted to determine if electronic taxation system adopted in Nigeria was able to eliminate tax evasion and related problems associated with the manual taxation system previously in use and subsequently improving revenue generation of the government particularly company income tax and personal income tax. Primary data was obtained by means of a 5-point Likert scale questionnaire deployed to assess respondents' perceptions and opinions related to the study's objectives. The study deployed Kolmogorov-Smirnov test for analysis of data so obtained for the study. Result showed that (1) electronic tax system has significantly reduced tax fraud in Anambra state, Nigeria (2) electronic tax system has significantly improved revenue generation with regards to personal income tax in Anambra state, Nigeria (3) electronic tax system has significantly improved revenue generation through company income tax in Anambra state, Nigeria. With regards to the findings stated above, the study recommended that tax authorities in every state in Nigeria and other developing countries should invest in the necessary infrastructure and provide training to their staff to ensure a successful implementation of electronic taxation system. Again, it was recommended that tax authorities should continue to promote the use of electronic taxation systems to encourage voluntary compliance. Finally, it was recommended that tax authorities should focus on improving their electronic tax systems to make them more efficient and effective in order to consolidate on the gains already made in adoption of electronic taxation system.

Key Words:
Electronic Taxation, Revenue Generation, Personal Income Tax, Company Income Tax

Introduction

There has been unparalleled improvement in Information and Communication Technology (ICT) in the last two decades, to the extent that numerous activities that were previously performed by human manually have been taken over by computerized systems (Ezeala, Ajuonu & Afolalu, 2023; Oketa, Nwamgbebu, Nkwede & Chikaodili, 2021). According to PricewaterhouseCoopers (PwC) (2013), the influence of Information and Communication Technology (ICT) can be seen and felt in every aspect of lives from business to entertainment, education, communications, healthcare, defense and taxation.

Studies have shown that tax administration in Nigeria has continuously been affected with numerous loopholes, discrepancies, complications in filing and collection of taxes (Ofurum, Amaefule Okanya & Amaefule, 2018; Adegbie & Akinyemi, 2020; Nnubia, Okafor, Chukwunwike & Asogwa, 2020; Oketa et al, 2021). The use of computer systems and networks in the process of tax registration, filing of tax returns and payment of taxes is believed to promote efficiency and effectiveness in tax administration (Ezeala & Obi, 2022; Newman & Eghosa, 2019). In a bid to improve the Nigeria tax system for effective tax administration, the Nigeria Interbank Settlement System (NIBSS) and SystemSpecs Nigeria Limited, in 2015, partnered with the Federal Inland Revenue Services (FIRS) to provide electronic payment of taxes in Nigeria. Electronic taxation system was introduced to automate all core processes from tax registration, assessment, payment, monitoring exercise, tax audit and investigation, taxpayers file management and returns filing. The system looks at how tax payment can be encouraged through simplification and increased efficiency in payment processing. It is expected that e-taxation will eliminate tax evasion and related problems associated with the manual tax system and provide an enable environment to both the tax administrator and taxpayer by compelling them to be transparent thereby improving revenue generation.

Despite the improved technology integration in the Nigeria Tax system, it remains unclear how the implementation has affected government tax revenues specifically, and overall federally collected revenue and Gross Domestic Product. According to Oketa et al (2021), tax authorities skeletally adopt e-taxation as such tax revenue has not recorded significant improvement in Nigeria. Again, most of the prior studies have conflicting conclusion as to how electronic taxation system has impacted on revenue generation of the government. Hence, this study is aimed at establishing if electronic taxation could eliminate tax evasion and subsequently improve revenue generation of the government specifically on the area of personal income tax and company income tax.

Objectives of the study

The broad objective of the study is to ascertain whether tax administration using electronic platforms helps to prevent tax fraud in Anambra State. The study specifically aims to:

1. Determine the degree to which the use of electronic tax system reduces the rate of tax avoidance in Anambra State, Nigeria.
2. Examine the extent to which electronic tax system has improved the collection of personal income tax revenue in Anambra State, Nigeria.
3. Ascertain the extent to which electronic tax system has improved the collection of company income tax revenue in Anambra State, Nigeria.

Research questions

1. To what extent can tax fraud be reduced by means of electronic taxation system?
2. To what extent can personal income tax revenue improve due to adoption of electronic tax system of tax collection?
3. To what extent can company income tax revenue improve due to adoption of electronic taxation system of tax collection?

Research Hypotheses

The following hypotheses, in their null forms, are put forward to guide the direction of the study

Ho_1. Electronic taxation has not significantly reduce tax fraud associated with Revenue generation

Ho_2. Electronic taxation has not significantly improve personal income tax revenue

Ho_3. Electronic taxation has not significantly improve company income tax revenue

Significance of the study

The study will reveal to the government at all levels, the extent if any, to which electronic taxation has significantly improved the efficiency in revenue generation especially in the area of personal income tax and company income tax. Again, it will aid citizens to understand the need for tax payment and increase their compliance rate. Finally, the study will serve as a reference document for both researchers and the academic institutions around the world on related matters.

REVIEW OF RELATED LITERATURE

Conceptual review

Government Revenue generation

Government derives revenues from a variety of sources, including taxes levied on the incomes and wealth accumulation of individuals and corporations, as well as the goods and services produced, exports and imports, non-taxable sources such as the income of government-owned corporations, central bank revenue, and capital receipts in the form of external loans and debts from international financial institutions (Adebayo, Adeyemi & Osunwole 2022). In Nigeria, federally collected revenue is split into two categories: oil revenue and nonoil revenue. According to Ezeala & Obi (2022), the sources of revenue to the Nigerian government can be classified into two namely (1) Revenue from oil and (2) Revenue from non oil. Each class of revenue is further classified into two: (a) Tax Revenue (b) Non Tax Revenue. While oil revenue includes all revenue generated in the country from oil and gas activities, non-oil revenue includes all revenue earned from sources other than oil and gas activities. Regardless of the numerous sources of revenue available to Nigeria's various tiers of government as outlined in the 1999 constitution, Nigeria Oil and gas exports account for more than 95% of export earnings and over 80% of her gross domestic product (Ezeala & Obi , 2022).

Nevertheless, due to the negative impact on Nigeria's revenue caused by too much reliance on oil, the Nigerian government is now focused more on the income generation via taxation. Samuel & Tyokoso (2014) asserts that raising of revenue necessary to meet government spending is traditional function of a tax system. Taxation is now planting seed of transformation in numerous states of the Federation of Nigeria (Olotu, 2012), it is thus viewed as a new cash cow. According to the Tell Magazine of April 30, 2012, more states across Nigeria are now turning to taxation to shore up their revenue to finance serious infrastructural projects. In the words of Olotu (2012) federations have seen their tax proceeds boosted in recent times and this has allowed the establishment of several life and public transforming ventures and packages leading to progressively more content populace.

Electronic taxation

According to the Wikipedia (2024), e-taxation is a mechanism where tax records or tax returns are filed electronically, usually without the need to file any paper returns; it involves the use of Internet technology, the World Wide Web and software for a wide variety of tax administration and enforcement purposes which is suitable and convenient for both tax authorities and taxpayers. Wasao (2014) depicts electronic tax system as an online framework where taxpayers can have access to all services offered by a financial authority such as enrolment for a personal identification number, filing of returns and application for compliance certificate.

Olaoye and Atilola, 2018; Wasao, (2014) posited e-taxation as the system of collection and administration of tax procedure through an electronic medium. It is an online network through which the taxpayers have license to the platform via the use of internet, in other to have entry into the facilities provided by the tax expert such as the registration for a tax identification number, electronic tax filing of tax returns etc. E-taxation is one of the ways through which governments around the world utilize information and communication technologies to improve the delivery of public services and the dissemination of public administration information (such as sending a notice of tax payment due) to the public (Che-Azmi & Kamarulzaman, 2014). Umenweke and Ifediora (2016) opine that e-taxation is an automated process gradually phasing out the manual tax administration globally.

Electronic Taxation System in Nigeria

In December 2010, the Federal Inland Revenue Service (FIRS) currently known as Nigeria Revenue Service (NRS) was given approval by the Federal Executive Council to procure, install and implement the Integrated Tax Administration System (ITAS). The implementation of ITAS was to drive efficient tax administration in Nigeria. ITAS was designed to accept income tax, Value Added Tax, sales tax and other indirect taxes, licensing and authorizing, PAYE tax, excise duty, land taxes, withholding taxes, among others. In July 2017, the Nigeria Revenue Service (NRS) restructured the electronic tax system to operate nationwide by introducing six new electronic tax services (e-services) namely: e-registration, e-stamp duty, e-tax payment, e-filling, e-receipt and e-tax clearance certificate. This move was geared towards improving tax revenue, tax administration, and better services to the taxpayers all the time from anywhere, as well as to improve tax compliance and reduce costs of compliance.

The e-registration provides the facility for enrolment of new taxpayers with the Nigeria Revenue Service (NRS) for various taxes. E-stamp duty enables payment of stamp duties on qualified documents. The e-tax payment allows for the payment of all federal taxes and levies through any of the following platforms - Nigeria Inter-Bank Settlement (NIBSS), Remita and Interswitch. This brings payment of taxes to the doorstep of the tax payer as one can pay his taxes from the comfort of his home. The e-filing enables taxpayers to file tax returns via the NRS integrated tax administration system, e-receipt enables the tax payer receive and verify receipts generated for taxes paid through the new e-tax payment. With this, tax payer can receive instant notification acknowledging his payment of tax. The e-tax clearance certificate enables taxpayers to apply for, receive and verify the authenticity of his tax clearance certificate from the comfort of his home. Summarily, the electronic tax system is expected to promote efficiency and effectiveness in tax administration.

Personal Income Tax

Personal income tax (PIT) is the tax imposed by the government on an individual, sole-ownership, partnership and incorporated firms other than limited liability and public limited liability companies carrying on business in Nigeria. The sources of this tax are but not limited to income from labour (salaries), pensions, dividends (shareholders) and interest. The law that backs the statutory responsibilities of income earners in the economy of Nigeria to pay tax is the Personal Income Tax Act (PITA). This law has therefore witnessed some reforms over the years and the updated tax law is the Personal Income Tax Amendment Act (2011). Personal income tax is a variable and a concept that is familiar in any economy that receives taxes and perhaps that have a fair or good taxation system. This is because the personal income tax is expected to generate a high level of income to the government for the purpose of carrying out its mandate as a government (PITAAM, 2011). The personal income tax rate in Nigeria stands at 24 percent (24%). PIT is administered by States Internal Revenue Service (SIRS) in respect to their residents while the Federal Inland Revenue Service (FIRS) administers this tax on non-residents, members of the Armed Forces, Police officers of Nigerian Foreign Service and residents of the Federal Capital Territory (FCT).

Company Income Tax (CIT)

Company Income Tax or Corporate Tax is a compulsory levy by government on the profits or revenues made by the registered companies. A registered company attached to its name is Limited (Ltd) or Public Company (Plc). Ezeala & Obi (2022) depicted company income tax as a tax on the incomes of incorporated entities in Nigeria. This tax also comprises of taxes charged on the income of non-resident businesses carrying on business in Nigeria as enforced by the government. The companies' income tax (CIT) is the tax levied on companies that are engaged in various businesses except for petroleum operation (Ezeala et al, 2022). Some nations enforce such taxes at the national level, and a related tax may be enforced at state or local levels. By law, Corporations are meant to pay corporate duty in Nigeria depending on the business size. Income tax is charged on company's total profit for an assessment year at 30% rate, however for small business, 20% tax rate is admissible (Ezeala et al, 2022). In Nigeria, the Corporate Affairs Commission (CAC) is in charge of registering limited liability companies. The income tax on corporations is a subset of direct taxes because the incidence of payment and the burden of the tax are borne by the corporations and are not transferable to third parties. The Federal Inland Revenue Service (FIRS) under the supervision of the Federal Board of Inland Revenue (FBIR) is the relevant tax authority saddled with the responsibility of assessing and collection of companies' income tax among others.

Theoretical Review

Technology Acceptance Model (TAM)

Propounded by Davies (1989) and later modified by Venkatesh and Bala in 2008, the Technology Acceptance Model (TAM) explains the intent of individual's behavior with the ability to use innovative technology and the approach (accepting or rejecting) to the technology. TAM was based on the Theory of Reasoned Action (TRA), a psychological theory that attempted to explain the features affecting the development of technology. Ajzen (1991) opines that theory of reasoned action enlightens on individuals' behavioral intention as being a function of their attitude. The major determinants are perceived usefulness (PU) and perceived ease of use (PEOU). While Perceived usefulness bothers on the increase in the degree of efficiency and effectiveness of performance for the user, perceived ease of use deals with the level that user believes using the target system would be free of effort / stress. According to Davies (1989), Perceived effortlessness of use influences the perceived practicality of the technology, and together they determine the attitude and behavioral aim of the individual.

Technology Acceptance Model is relevant to the present study since it postulates that tax payers respond to e-tax payment differently on the basis of perceived usefulness and perceived ease of use. When citizens perceive that payment of tax electronically is easy, convenient and useful, they tend to embrace the innovativeness thereby improving revenue generation for the government.

Empirical Review

Onuselogu and Onuora (2021) investigated e-tax payment and revenue generation in Nigeria. They employed ex post facto research design and collected secondary data from Federal Inland Revenue Service (FIRS) and Central Bank of Nigeria (CBN) Statistical release and Quarterly Economic Reports. Employing Ordinary Least Square method for data analysis, the study found that e-company income tax payment has an insignificant positive effect on revenue generation in Nigeria. The study, among others, recommended that to maximize the irrefutable impact of e-company income tax payment, the government of Nigeria should set modalities on how to inform firms on the significance of e-tax payment to businesses and the government in general. Abuh and Jeremiah (2022) assessed whether the introduction of electronic tax system in Nigeria will produce high tax collection when compared with the manual system. Covering a period of ten years (2011-2015 and 2016 – 2020), Paired t-test data analysis technique was used to compare the pre and post electronic tax collections to determine for any significant difference. Following the expectation from the advent of electronic tax system, the actual secondary data extracted revealed a reduction in tax collection within the period of study. The result of non-oil tax revenues reveals a significant difference between pre and post e-tax. On the other hand, the result in respect of oil tax shows that there was a difference but it is not significant. The study recommends that the FIRS should revisit this new system for reorientation and sensitization on regular basis until the tax payers are satisfied with the new method, implementation to be in phases following the responses from the tax payers directly or through consultants and FIRS must be ready and willing to listen and address relevant inputs and responses from the tax payers if the objectives of the new system must be achieved. Nnubia, Okafor, Chukwunwike, Asogwa and Ogan (2020) assessed the impact of e-tax assessment on income generation in Nigeria on a pre–post analysis covering a period of 2012 - 2018. They deployed Ordinary Least Square Method to analyze the secondary data obtained from Federal Inland Revenue Service tax report and CBN Statistical release and Quarterly Economic Reports. Findings from their analysis showed that e-tax collection has not contributed to both company income tax revenue and value added tax revenue generation in Nigeria. The study recommends that government through Federal Inland Revenue Services should work out modalities on the most proficient method to sharpen companies on the fundamentals of E-tax collection. Ofurum, Amaefule Okanya & Amaefule (2018) studied e-tax collection on Nigeria's revenue and economic growth utilizing pre-post method of analysis. The study utilized ex-post facto research design and secondary data were collected from the Federal Inland Revenue Service (FIRS) and Central Bank of Nigeria (CBN) Statistical Bulletin on quarterly basis from second quarter 2013 to final quarter 2016. The secondary data collected from FIRS and CBN were analyzed using t-test and the results obtained disclosed that e-tax assessment does not improve the amount of revenue generated and tax-to-GDP proportion in Nigeria. The study further revealed that revenue generation and tax-to-GDP ratio importantly contracted after e-taxes was applied. They recommended that the federal government through FIRS should conduct more enlightening seminars in all the 36 states in the country to increase the knowledge on the use of all electronic services on their platform. Soetan (2017) examines the effect of tax administration on tax revenue generation in Nigeria. Survey research design was employed and structured questionnaire was developed and given to One hundred and twenty-six (126) respondents to collect data for this study. Collected data were processed with the help of SPSS tool and Descriptive statistics and simple regression statistical techniques were used to analyze the data. The study found that tax administration does not have significant effect on tax revenue generation in Nigeria.

While the above studies showed no significant impact of electronic taxation system on revenue generation, other studies have variously concluded that electronic taxation system has made significant impact on revenue generation. Okoye and Olayinka (2021) who investigated the effect of electronic taxation on revenue generation in Lagos state, obtained data on internally generated revenue from the annual reports of the state. Deploying Linear Regression model and analysis of variance (ANOVA) with the aid of Statistical Package for Social Sciences (SPSS 20) on the sample size of forty (40) tax stations in Lagos state, revealed electronic tax payment, electronic tax filing and electronic tax clearance certificate issuance significantly affects revenue generation in Lagos state. Omesi and Appah (2022) assessed the correlation between electronic taxation and revenue generation in Nigeria. Researchers employed ex post facto research design and quarterly time series data from 2012 to 2020. The data collected from Federal Inland Revenue Service and Central Bank of Nigeria was analyzed using descriptive statistics and pre-post Test. Findings of the study revealed that there is significant difference between Pre- Post tax revenue with regards to company income tax, value-added. Oketa et al (2021) examined electronic tax system and internally generated revenue in Ebonyi State, Nigeria. The study used primary data obtained from a structured questionnaire that was administered on 94 respondents. Using descriptive and multiple regression analysis, findings disclosed that electronic tax registration and electronic filing of tax returns influences the internally generated revenue of the state but electronic tax payment did not statistically show significant effect on the internally generated revenue of state. The study recommended that the revenue board should adopt a user-friendly electronic tax system that can make electronic tax filing and payment easy for the taxpayers in Ebonyi State. Adegbie and Akinyemi (2020) examined electronic payment system and revenue generation in Lagos State, Nigeria. They obtained primary data from a structured questionnaire administered on 366 respondents. Using descriptive statistics, analysis of variance (ANOVA) and multiple regression analysis model, they concluded that electronic payment proxies of automated teller machine (ATM) and electronic tax card (ETC) significantly and positively influences personal income tax generation and the payment of penalties and rates. Adebayo and Idowu (2020) studied electronic-taxation and revenue-generating effectiveness in the era of Treasury Single Account operations from 2010 to 2019. They employed ex post facto research design and obtained secondary data from Federal Inland Revenue Service, CBN, and Economic Reports from 2010 to 2019 which they grouped into pre and post-e-tax periods. Using descriptive and t-statistics, they concluded that tax revenue and tax-to-GDP significantly improved after e-taxation and TSA were successfully implemented. John-Akamelu and Iyidiobi (2019) focused on the impact of e-taxation in reduction of tax malpractice, and improved revenue generation. The study was analyzed using survey design and sample t-test was used on the data collected. The study revealed that e-taxation has positive effect on revenue generation and curbing of mal practices in the state government. Amos, John and Eric (2019) assessed the effect of tax administration on revenue generation in Nigeria using Benue State Internal Revenue Service (BIRS). Frequency, percentages, mean and standard deviation were employed to analyze the collected data obtained from 187 questionnaires administered to staff of the Benue State Internal Revenue Service (BIRS). The hypotheses were tested using the T-test statistics. Findings revealed that electronic tax payment system significantly improves tax accountability also, widened tax bracket and lessening of one-time payment significantly improves the revenue generation in Benue state. Olaoye and Atilola (2018) examined the influence of e-tax payment on income generation in Nigeria using trend analysis, descriptive statistics of mean and standard deviation, paired sampled t-test. The study applied secondary data from the first quarter of 2012 to the 2nd quarter of 2018. The investigation discovered that e-tax payment has positivistic insignificant consequence or influence on company income tax proceeds, value added tax and capital Gain tax revenue in Nigeria with t-statistics and p-value of 1.218 and 0.247 respectively. Olaoye and Awe (2018) investigated the effect of taxpayer identification numbers on revenue generation in Ekiti State. Their discovery was that full implementation of the taxpayer identification number has a significant impact on the state's internally generated revenue. The data collected were analyzed using correlation and regression analysis, and the study employs a single equation model in which revenue generation in Ekiti State was proxied using internally generated revenue (IGR). The study concluded that full adoption of taxpayer identification numbers in Ekiti State has the potential to boost revenue generation within the state. The paper by Olurankinse and Oladeji (2018) examined self-assessment, e-taxation payment systems and revenue generation in Nigeria. The study employed cross sectional survey research design and data was obtained from a well-structured questionnaire after face validity and reliability test using Cronbac alpha which the questionnaires were analyzed using both Pearson’s product moment correlation coefficient statistical tool and the regression analysis. Respondents were drawn from 30 tax executives from 30 quoted companies in Rivers State of Nigeria.

Results disclosed an positive association amid self-assessment and e-tax payment systems and income collection or revenue generation. Allahverd, Alagoz and Ortakapoz (2017) examined the effect of e-taxation system on tax revenue and cost in Turkey, the study used secondary data gotten from the Turkish revenue authority, the data were examined in two groups which are pre-electronic tax period of 1993-2004 and post-electronic tax period of 2005-2016. Findings showed that the transition to the electronic tax system positively affected the tax revenues and reduced the cost per tax. Ezeala and Obi (2022) assessed the impact of non-oil tax revenue on the economic growth of Nigeria for period from 2004 to 2013. Company Income Tax, Value Added Tax and Custom & Excise Duties were purposefully selected to proxy non-oil tax revenue. Regression analysis was carried out so as to determine if the non-oil tax revenue has any significant effect on the nation’s economy. Their findings showed that company Income Tax, Value Added Tax and Custom & Excise Duties have significant impact on the economic growth of the nation implying that non-oil taxes are very important as revenue bases in Nigeria. They suggested diversification of the revenue base of the nation more to the non-oil tax revenue so as to further strengthen its impact on the nation’s economy. Eke and Omogbai (2022) examined the impact of tax reforms on revenue generation in Nigeria through petroleum profit tax, company income tax and value added tax. Secondary data was obtained from the Central Bank of Nigeria and the Federal Inland Revenue Service. The paired sample T test was used to ascertain the pre and post effect of tax reforms on revenue generation in Nigeria. The study revealed that there is a significant difference in PPT, CIT and VAT between the period of 2010-2014 and 2015-2021 towards revenue generation in Nigeria. The study recommends that the federal government through its agency on tax and finance should sustain the current tax reforms in order to improve revenue generation. Cornelius, Ogar and Oka (2016) examine the impact of company income tax on the Nigerian economy and the effectiveness of nonoil revenue on the Nigerian economy. Central Bank Statistical Bulletin was the data source which was extracted through desk survey method. Ordinary least square of multiple regression models was used to establish the relationship between dependent and independent variables. The finding revealed that there is no significant relationship between company income tax and the growth of the Nigeria economy. The research recommended that government should strive to provide social amenities to all nooks and crannies of the country, engage in a complete re-organization of the tax administrative machineries; in order to reduced tolerable problems of tax evasion and avoidance and finally, to enhance the tax base of government, employment opportunities should be created and a good environment for entrepreneurship and innovation to thrive using tax proceeds.

Methodology

Research Design

The adoption of descriptive survey design is appropriate for this research because it enables the researchers to gather a large amount of data from a sample that represents the population. Additionally, this design allows for the collection of opinions and perceptions, which are valuable in understanding the effectiveness of tax administration using electronic platforms.

Sample Size and Sampling Technique

Using Taro Yamane's (1967) formula for determining sample size, a sample of 78 tax officials/administrators was selected from the population of 97 individuals at the Board of Internal Revenue in Awka. The formula is provided below for reference:

$$\text{Sample Size} = \frac{N}{1+N(e)^2}$$

Where, N = the population size

e = estimated error of 5%

Substituting N= 97 and e = 0.05,

$$\text{Sample size} = \frac{97}{1+97\,(0.05)^2}$$

$$\text{Sample size} = \frac{97}{1.2425}$$

$$\text{Sample size} = 78.0684$$

The sample size of 78 was determined using the aforementioned formula.

Method of Data Collection

A 5-point Likert scale was deployed to assess respondents' perceptions and opinions related to the study's objectives. The questionnaire provided a range of options for respondents to indicate their level of agreement or disagreement with each statement therein.

Method of Data Analysis

Kolmogorov-Smirnov test was deployed for testing hypotheses, at a significance level of 5%. The rule is to reject the null hypothesis and accept the alternative hypothesis if the P-value is less than 0.05. Conversely, if the P-value is equal to or greater than 0.05, the decision rule is to accept the null hypothesis and reject the alternative hypothesis.

Data Presentation and Analysis

Data extracted from our questionnaire was analyzed and the mean scores presented in tables 1, 2 and 3 below

Table 1

S/N	Statements about hypothesis one	Mean
1	The introduction of TIN in Anambra State has led to a decrease in the number of individuals and businesses engaging in tax evasion practices.	3.28
2	The use of TIN has increased tax compliance in Anambra State	3.31

3	The adoption of TIN in Anambra State has led to improved accountability and transparency in tax administration	3.11
4	The use of TIN has enabled Anambra State to identify tax evaders more easily	3.14
5	The introduction of TIN has made tax compliance less prone to error thereby reducing the incentive for taxpayers to engage in tax avoidance practices.	3.39

Source: Author's computation

Table 2

S/N	Statements About Research Variables	Mean
6	The adoption of electronic tax systems in Anambra State made the collection of personal income tax revenue more efficient.	3.61
7	Electronic tax systems helped to enhance the accuracy of personal income tax revenue collection in Anambra State	3.41
8	Electronic tax systems enable Anambra State to automate tax collection processes, reducing the opportunities for corruption in the process	3.04
9	Electronic tax systems facilitates the integration of taxpayer information and improved data management	3.35
10	The adoption of electronic tax systems made tax compliance more convenient, leading to increased voluntary compliance.	3.3

Source: Author's computation

Table 3

S/N	Statements About Research Variables	Mean
11	The electronic tax system has enabled Anambra State to track and monitor the payment of company income tax revenue	3.59
12	The use of electronic tax systems has led to a reduction in errors and inaccuracies in the computation of company income tax	3.32
13	Electronic tax systems makes it easier for businesses to understand their tax obligations and avoid penalties for non-compliance	4.22
14	The integration of electronic payment options for company income tax has made tax payment more convenient for businesses in Anambra State	4.53
15	The adoption of electronic tax systems reduce the time and resources required to collect and process company income tax revenue for Anambra State.	3.12

Source: Author's computation

Test of Hypotheses

Hypothesis I Electronic tax system does not significantly reduce tax fraud associated with Revenue generation in Anambra state, Nigeria

Table 4 One-Sample Kolmogorov-Smirnov Test

N		74
Uniform Parameters[a,b]	Minimum	10.00
	Maximum	25.00
Most Extreme Differences	Absolute	.225
	Positive	.225
	Negative	-.051
Kolmogorov-Smirnov Z		1.937
Asymp. Sig. (2-tailed)		.001

a. Test distribution is Uniform.
b. Calculated from data.

Source: SPSS Version 22 Analysis Output (2023)

From table 4 above, the range of the uniform parameters was from 10.00 to 25.00. The most extreme differences between the observed distribution and the uniform distribution were computed, and the absolute value of the most positive difference was. 225, while the most negative difference was -.051. The Kolmogorov-Smirnov Z statistic was 1.937 and the corresponding asymptotic significance value (2-tailed) was .001 which is less than 0.05 indicating the rejection of the null hypothesis.

Test of Hypothesis II

2. Electronic taxation does not significantly improve personal income tax revenue in Anambra State.

Table 5 One-Sample Kolmogorov-Smirnov Test

N		74
Uniform Parameters[a,b]	Minimum	8.00
	Maximum	24.00
Most Extreme Differences	Absolute	.162
	Positive	.054
	Negative	-.162
Kolmogorov-Smirnov Z		1.395
Asymp. Sig. (2-tailed)		.041

a. Test distribution is Uniform.
b. Calculated from data.

Source: SPSS Version 22 Analysis Output (2023)

Result from table 5 above, showed a Kolmogorov-Smirnov Z value of 1.395 and the associated asymptotic significance (2-tailed) of .041 which is less than 0.05 alpha levels. This suggests that there is evidence to reject the null hypothesis in acceptance of the alternative hypothesis.

Test of Hypothesis III

Electronic taxation does not significantly improve company income tax revenue in Anambra State.

Table 6 One-Sample Kolmogorov-Smirnov Test

N		74
Uniform Parameters[a,b]	Minimum	13.00
	Maximum	25.00
Most Extreme Differences	Absolute	.196
	Positive	.182
	Negative	-.196
Kolmogorov-Smirnov Z		1.686
Asymp. Sig. (2-tailed)		.007

a. Test distribution is Uniform.

b. Calculated from data.

Source: SPSS Version 22 Analysis Output (2023)

Table 6 above showed a Z value of 1.686 and the associated asymptotic significance (2-tailed) of 0.007 which is less than 0.05. The (K = 1.686, p-value = 0.007) as shown in the result suggests the rejection of the null hypothesis in favour of the alternative hypothesis.

Summary of Findings, Conclusion nd Recommendations

Result from our analysis (see table 4) showing K = 1.937, p-value = 0.001 indicated that Electronic tax system significantly reduces tax fraud associated with Revenue generation in Anambra. Again, table 5 which presented K = 1.395, p-value = 0.041implies that Electronic taxation significantly improves personal income tax revenue in Anambra State. Finally table 6 which showed K = 1.686, p-value = 0.007 revealed that Electronic taxation significantly improves company income tax revenue in Anambra State.

From summaries above, we hereby conclude that:

1, Electronic tax system has significantly reduced tax fraud in Anambra state, Nigeria

2, Electronic tax system has significantly improved revenue generation with regards to personal income tax in Anambra state, Nigeria

3, Electronic tax system has significantly improved revenue generation through company income tax in Anambra state, Nigeria.

Based on the conclusion above, the following recommendations are put forward:

Given that the implementation of an electronic tax system has significantly reduced tax fraud in Anambra state, it is recommended that tax authorities in every state in Nigeria and other developing countries should invest in the necessary infrastructure and provide training to their staff to ensure a successful implementation. They should also work with the private sector to develop secure and user-friendly electronic tax systems that can meet the needs of taxpayers. Again, the finding that electronic taxation significantly improves personal income tax revenue in Anambra state suggests that tax authorities should continue to promote the use of electronic tax systems to encourage voluntary compliance. They should provide information and guidance to taxpayers on how to use the system and make the process of filing and paying taxes as convenient and user-friendly as possible. They should also use data analytics to identify patterns of non-compliance and take targeted enforcement actions to reduce tax evasion. Finally, the finding that electronic taxation significantly improves company income tax revenue in Anambra state suggests that tax authorities should focus on improving their electronic tax systems to make them more efficient and effective. They should work with the private sector to develop systems that are tailored to the needs of different types of businesses, and provide training and support to businesses to ensure they can use the system effectively. Government should also use data analytics to identify areas where companies may be under-reporting their income and take targeted enforcement actions to reduce tax evasion.

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APPENDIX I

S/N	Statements About Research Variables	SA	A	N	D	SD	Mean	Decision
1	The introduction of TIN in Anambra State has led to a decrease in the number of individuals and businesses engaging in tax evasion practices.	12	29	9	16	8	3.28	Accept
2	The use of TIN has increased tax compliance in Anambra State	16	24	12	11	11	3.31	Accept
3	The adoption of TIN in Anambra State has led to improved accountability and transparency in tax administration	6	27	16	19	6	3.11	Accept
4	The use of TIN has enabled Anambra State to identify tax evaders more easily	12	28	8	10	15	3.14	Accept
5	The introduction of TIN has made tax compliance less prone to error thereby reducing the incentive for taxpayers to engage in tax avoidance practices.	14	28	10	17	5	3.39	Accept
6	The adoption of electronic tax systems in Anambra State made the collection of personal income tax revenue more efficient.	35	8	12	5	14	3.61	Accept
7	Electronic tax systems helped to enhance the accuracy of personal income tax revenue collection in Anambra State	14	26	16	12	6	3.41	Accept
8	Electronic tax systems enable Anambra State to automate tax collection processes, reducing the opportunities for corruption in the process	8	28	3	29	6	3.04	Accept
9	Electronic tax systems facilitates the integration of taxpayer information and improved data management	14	27	14	9	10	3.35	Accept
10	The adoption of electronic tax systems made tax compliance more convenient, leading to increased voluntary compliance.	11	31	9	15	8	3.3	Accept
11	The electronic tax system has enabled Anambra State to track and monitor the payment of company income tax revenue	13	42	5	4	10	3.59	Accept

12	The use of electronic tax systems has led to a reduction in errors and inaccuracies in the computation of company income tax	5	41	9	11	8	3.32	Accept
13	Electronic tax systems makes it easier for businesses to understand their tax obligations and avoid penalties for non-compliance	16	58	0	0	0	4.22	Accept
14	The integration of electronic payment options for company income tax has made tax payment more convenient for businesses in Anambra State	62	2	3	1	6	4.53	Accept
15	Adoption of electronic tax system reduces the time and resources required to collect and process company income tax revenue for Anambra State.	5	30	8	31	0	3.12	Accept