



## ABSTRACT

This study examined the mediating effect of IPPIS on its relationship between electronic tax system and internally generated revenue in the Nigerian emerging economy, using North Eastern States board of internal revenue as the case in point. To achieve this objective, electronic tax registration, electronic filing of tax returns and electronic payment of tax was used as proxies for electronic tax system. This study was anchored on expediency theory of taxation and technology acceptance model. A quantitative cross-sectional survey data from the six North Eastern States board of internal revenue was formulated using the questionnaire for over 425 staff of state board of internal revenue service within the north eastern state. Findings from the study revealed

# ELECTRONIC TAX SYSTEM AND INTERNALLY GENERATED REVENUE: MEDIATING EFFECT OF INTEGRATED PAYROLL AND PERSONAL INFORMATION SYSTEM (IPPIS) IN NIGERIA

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## Introduction

In emerging countries like Nigeria, electronic income collection has gained improved importance. About 30 years ago, the e-tax system was initiated globally (Cobham, 2010); and since then, e-tax system has come to be a common network, helping several tax payers across the universe annually. E-taxation is the electronic tax filing system. It requires taxpayers to pay their duties online from their individual or business bank accounts (FIRS, 2015). Okoye & Ezejiofor (2014) identified e-taxation as a tax system administration carried out online. They noted that because e-taxation is electronic tax filing system, the payment of e-tax can be made directly through bank account and via the use of ATM via debit card or credit card. While it is believed that the purpose of presenting e-taxation is to progress revenue generation in the system.

There has been unprecedented advancement in technology in the last ten decades, to the extent that several roles that were hitherto played by man manually have been taken over by computer. To remain competitive and viable, therefore most governments, organizations, businesses and people have adopted technological systems and the internet of thing in various businesses. The technology adoption increased the advancement in the growth of the concepts of e-commerce and e-governance including tax administrators all over the world are not left out as it become necessary to use computer systems and networks in the process of tax registration, filing of tax returns and payment of taxes (Newman & Eghosa, 2019). Technology has influenced lives in many ways and continues to change the way of doing things from the simple day to day activities to the complex and less routine tasks. The impact of technology can be seen and felt in every area of lives from commerce to entertainment, education, communications, healthcare, defense and taxation (PWC, 2013).

In the area of governance, many developed and developing economies around the world have experimented and proven that no nation can truly develop without developing its technology-based tax system; hence the primary function of a good tax system is to raise enough revenue to finance essential expenditures on the goods and services provided by government (Emmanuel, 2010). Therefore, a high lucrative means of generating the



positive and significant effect of that major variable examined, electronic tax registration and electronic filing of tax returns affect internally generated revenue among the North Eastern States through IPPIS and by extension, the Nigerian emerging economy. The time scope for this study was 6month. Therefore the study concluded that IPPIS has a mediating effect on the relationship between electronic tax system and internally generated revenue in North eastern Nigeria. Finally the study recommends that other geo-political in Nigeria should adopt the same approach when thinking about how best it's internally revenue can be improved upon.

**Keywords:** Electronic tax system, internally revenue generation and Integrated Payroll and Personal Information System

amount of revenue needed for providing the necessary infrastructure for our country through tax is no doubt by a well-structured tax system based on technology.

However, Nigeria is yet to reap the full benefit of electronic-based taxation system as the case in developed countries of the world (Enejo & Gabriel, 2014). Uremadu and Ndulue (2011), observed that tax revenue in Nigeria accounts for a small proportion of total government revenue over the years compared with the bulk of revenue needed for developmental purposes that is derived from oil. Chandler (2013) also observed that today's policymakers are still grappling with the questions of effective tax administration leading to adequate tax revenue.

Enahoro and Olabisi (2012), corroborate this view when they stated that there is a huge scale of corrupt practices prevalent in emerging economy such as Nigeria tax administrative system, which tells to a reasonable extent that the economy is at a disadvantaged position. Consequently, Nigerian tax system over the years has not been able to reach the expected objectives as a result of these setbacks and challenges, some of which include multiplicity of taxes, tax evasion, corruption, non-compliance with relevant tax laws, poor information base and records keeping. It is the view of some scholars that the loss of revenue caused by widespread tax evasion and tax avoidance in Nigeria is due to inefficient and inept tax administration. For instance, Angahar and Alfred (2012) opined that the machinery and procedures for implementing a good tax system in Nigeria are inadequate, hence tax evasion and avoidance of the self-employed individuals and organizations whose data base are not captured in the relevant tax authority's data system poses a great challenge and impediment to national economic growth. James and Moses (2012) corroborate this view when they stated that the prevalence of tax evasion in the Nigerian tax system, has curtailed the amount of revenue collected from tax income, which in no doubt has effect on the governance expenditure.

Consequently, the rationale for the adoption of electronic tax system in Nigeria came as a result of the invitation of the officials of International Monetary Fund (IMF) to appraise the Nigerian tax system in line with the global standards. Upon a critical scrutiny of the Nigerian tax system, the IMF recommended the modernization of the Federal Inland Revenue Service (FIRS) for it to remain virile and relevant amidst economic realities. In line with the recommendations of the International Monetary Fund (IMF), the FIRS adopted a seven fold programme of reforms which included re-engineering and automating tax collection and tax administration generally. It has been observed that in most countries where tax revenues significantly constitute a major part of the economy's revenue, they have been using electronic tax system for years (Umenweke and Ifedora, 2016).

For the purpose of clarity of the concept within the background; electronic tax system is the integration of information technology (IT) into tax administration in the form of electronic-tax (E-Tax). The use of IT to aid tax administration is the initiative that gave birth to the popular E-tax system. This is a master tool in combating the challenges of any tax system as it provides information, education and support to taxpayers



and facilitates compliance and administration. It should be clear, however, that E-tax system do more than provide information, education and assistance to taxpayers due to its unique components such as Electronic Tax Registration, Electronic Tax Filing and Electronic Tax Payment, it also guarantees reduced cost of administering taxes. Electronic tax system provides convenience to taxpayers for tax assessment and payment (Agrawal, 2016). This convenience can serve as a key driver for e-filing adoption especially in developing countries like Nigeria. Electronic tax system provides many aspects of convenience to taxpayers, for example, tax filing can be conducted at any time, any location, easy use of system, easy search of information and other online transactions that are not available in the traditional channels (Ndayisenga & Shukla, 2016). It also offers flexibility of time, reduces calculation errors on tax return forms to the taxpayers, taxpayers privacy and security (Agrawal, 2006). Furthermore, electronic tax system minimizes the work load of tax authorities and operational cost due to submission of tax returns on a paperless environment. It also reduces the costs of processing, storing and handling of tax return (Jayakumar & Nagalakshmi, 2006). Revenue generation has remained a major concern for numerous nations comprising Nigeria (Okauru, 2011). This is on the grounds that revenue is the thing that the administration uses to convey open products for the individuals (IMF, 2010). It is the measure of cash that an organization really gets during a specific time (Ofurum et al., 2018). Government income is cash the government got. The incomes of the government are normal from bases, for example, charges charged on the benefits and flourishing develop of people and organizations and on the properties and offices made, fares and imports, non-assessable bases, for example, government-claimed organizations' benefits, national bank pay and capital receipts as outside credits and obligations from worldwide money related establishments (Ofurum et al., 2018). Government income is an important apparatus of the financial strategy of the government.

While it is believed that the intention of introducing E-taxation is to increase income collection in the system, though, there is a paucity of empirical evidence that has shown the degree to which the new technology has achieved this purpose on company income tax, value added tax and capital gain tax as well as the introduction on the integrated payroll and personnel information system (IPPIS) hence necessitating this research.

#### **Problem statement**

Poor contributions of tax revenues to total revenue collected in Nigeria are alarming (Okauru, 2011). African states such as Ghana, Tunisia, Morocco, and so on, have their tax incomes constituting important share of their entire revenue, Nigeria being the giant of Africa has an important low portion of tax-to-total revenue when likened with these nations (Ofurum et al., 2018). OECD (2014) exposed that in Ghana 73% of its total revenue was made from tax; in Tunisia, tax revenue accounted for 31.3% of her total revenue, while in Morocco, tax-to-total revenue ratio was 28.5%. Though, in Nigeria, tax-to-total revenue ratio was 5.2 percent in 2014 (Federal Inland Revenue Service, 2015, & CBN, 2016). Also obtainable archives displays that this figure has remained below 13% since 2001, and tax revenues has not accounted up to 50% of collected revenue of government since this period to date (Ofurum et al., 2018).

The E-tax was introduced with the chief aim of combating vices that were mainly associated with the collection of taxes like; Tax evasion, filing of wrong tax returns and claiming of undeserved tax refunds (Wamathu, 2014). Income resulting from taxes has remained very low and no physical growth really took place, hence the influence on the poor is not being felt. Inadequate tax workers, deceitful actions of tax collectors and absence of understanding of the significance to pay tax by tax payers are few of the difficulties of tax income (Afuberoh & Okoye, 2014).

Previous study by Onuiru et al. (2015) noted that the tax system in Nigeria is bounded by myriad of problems ranging from slight data available on the history of tax revenues or taxpayers owing to an absence of good archives keeping system (Federal Republic of Nigeria, 1997); the nonexistence of complete tax figures and a centralized archive for the current ones (Federal Republic of Nigeria, 2002); inadequate manpower and other essential capitals into redundant parts and job purposes (Ariyo, 1997); repetition of taxes and its bad influence



on taxpayers a problem resulting from a clash in the administrations' fiscal accountability and its fiscal power (Odusola, 2002); and thoughtful efforts by taxpayers to evade taxes (Odusola, 2003). With the application of E-taxation, it is anticipated that after empirical investigation, E-taxation will increase revenue generation in Nigeria. While it is believed that the intention of introducing E-taxation is to increase income generation in the system, though, there is a paucity of empirical evidence that has shown the degree to which the new technology has achieved this purpose on company income tax, value added tax and capital gain tax, hence the need for this study.

One of the major challenges of North Eastern States board of internal revenue is the issue of tax evasion and avoidance which most times are as a result of corruption. This can be seen in the form of bribery by the taxpayers to the tax officials for reduction in the amount of tax to be paid or absolute non-payment of tax, patronage/nepotism, collusion between taxpayers and tax officers. Other major problems with the traditional system of taxation in North Eastern States board of internal revenue are the issues of lack of tax statistical data or poor data base due to its manual nature, poor records keeping of the available information they have which has resulted to missing files, torn documents, multiplicity of taxes, poor tax administration, inability of the state government to prioritize tax efforts which have all resulted to very low tax yield

However, in a bid to improve on tax revenue, the federal government has introduced the enrollment of staffs into the IPPIS which will greatly improve the tax collection process as well as improving the internally revenue generation among these states under study. This electronic tax system, revotax, is provided by an independent ICT consultants called APPMART Limited. When effectively implemented, it is aimed at curtailing the loopholes, weaknesses and problems associated with the manual system of taxation in North Eastern State Board of internal revenue (NESBIR), thereby eliminating physical contacts between the taxpayers and tax officials and increasing her revenue generation.

Electronic registrations, electronic filing of tax returns and electronic tax payments, provide adequate tax records for easy communication of information and efficiently minimize cost of administration so as to boost her internal revenue generation. Extant studies to the best of our knowledge focused on examining the impact of e-taxation on revenue generation in Nigeria (Eneajo and Gabriel, 2014; Leyira, Chukwuma and Asia, 2012). Electronic tax system has been in operation in North Eastern State without any assessment of its effectiveness. Currently and to the best of the researcher's knowledge, there is no existing study that has empirically shown the extent to which the new adopted IPPIS has affected tax revenue in North Eastern Nigeria. It is to bridge this gap that this study is highly imperative as it will bridge gap in literature.

### **Objective**

- (i) Determine the effect of Electronic tax registration on internally revenue generation in Nigerian Emerging economy for sustainable development
- (ii) Examine the effects of Electronic filing of tax returns on internally revenue generation in Nigerian Emerging Economy for sustainable development
- (iii) Ascertain the extent to which Electronic tax payment affect internally revenue generation in Nigerian Emerging Economy for sustainable development
- (iv) To examine the extent to which IPPIS mediate the relation between electronic tax system and internally generated revenue in North Eastern Nigeria for sustainable development

### **LITERATURE REVIEW**

Ofurum, Amaefule, Okonya and Henry (2018), empirically examined the impact of E-taxation on Nigeria's revenue and economic growth: A pre-post analysis. The study aimed at determining how the implementation of E-taxation in 2015 has affected tax revenue, federally collected revenue and tax-to-GDP ratio. Data were sourced through secondary means from Federal Inland Revenue service and CBN statistical and economic reports on quarterly basis from the second quarter of 2013 to fourth quarter 2016. Analysis of data was done



through the use of paired sample t-test and simple regression. The findings of the analysis revealed that the implementation of electronic taxation has not improved tax revenue, federally collected revenue and tax-to-GDP ratio in Nigeria. It was recommended amongst others that federal government through the federal Inland Revenue Services should conduct more enlightenment seminars in all 36 states in the country to increase the knowledge on the use of all electronic services on their platform.

Obert, Rodgers, Tendai and Desderio (2018), evaluated the effect of e-tax filing on tax compliance in Zimbabwe. The objective of the study was to determine how the e-tax filing has influenced tax compliance by clients in Harare, Zimbabwe. Data were collected through the aid of structured questionnaires. Analysis of data was done using multiple regression with the aid of SPSS version 20.0. The results of the analysis showed that: electronic filing actually influenced tax compliance; that there was a positive attitude by clients towards electronic filing and finally, that electronic filing has also significantly increased the ease of doing business.

Madegwa, Makokha and Namusonge (2018), investigated the effect of automation of revenue collection on the performance of county government in Kenya. The objective of the study was to determine the effect of communication and the performance of Trans Nzoia county government in Kenya. The study used a semi structured self-administered questionnaires to collect data from the respondents. Data was analyzed using descriptive statistics with the application of SPSS. The result of the analysis showed that online process of automation of revenue collection process influence performance in Trans Nzoia county government office to a great extent. From the findings, the study recommended that automation of the revenue management process should be improved to enhance efficiency in the revenue collection process.

Ajape, Afara and Uthman (2017), empirically investigated the influence of E-tax system on Tax administration and Tax revenue generation in Lagos state Internal Revenue Service. The objective of the study was to determine the influence of an electronic system of taxation on tax administration efficiency and tax revenue generation in Lagos state. Survey research design was adopted using a structured five point Likert scale questionnaire to obtain data. Data gathered were analyzed using descriptive statistics, while hypotheses were tested using the multivariate analysis of variance (MANOVA) with the aid of SPSS. Major findings of the study revealed that respondents do not differ that e-tax system has enhanced revenue generating potentials of Lagos state. The study recommended that relevant tax authority should formulate and implement policies that would promote the sustainability of positive effects of the e-tax system and to train tax official on how to harness the benefits of administering taxes electronically.

Monica, Makokha and Namusonge (2017), investigated the effect of electronic tax system on tax collection efficiency in domestic taxes department of Kenya revenue authority (KRA). The objectives of the study were to find out the effect of electronic tax filing on revenue collection efficiency; examine the effect of staff competency on revenue collection efficiency and to ascertain the level of taxpayers' knowledge in operating electronic tax system in Kenya. The main data collection tools were questionnaires administered to the employees of KRA and taxpayers. Descriptive and inferential statistics were employed as data analysis technique. Findings from the study revealed that most tax payers strongly agreed that they were able to fully access and operate the tax system. Secondly, Employees competence was a significant predictor of the tax collection efficiency while taxpayers seeking clarifications on tax issues online is minimal.

Owino, Otieno and Odoyo (2017), empirically examined the influence of information and communication technology (ICT) on revenue collection in county government in Kenya. The objectives of the study were to determine the influence of ICT system for single business permits on revenue collection; evaluate the influence of ICT system for land rates on revenue collection; establish the influence of ICT system for bus park on revenue collection in Migori and Homa Bay county governments in Kenya. Primary data were collected with the use of questionnaires, and analyzed using descriptive and regression techniques. The finding showed that a strong and almost a perfect association existed between ICT systems adopted in county governments and the revenue collection; the application of ICT systems explain up to 91.9% variation in revenue collection efficiency in county governments.





Further findings revealed that the application of those systems improve revenue collection efficiency in the county governments.

### **Theoretical Framework**

**1 Benefit Theory of Taxation** - According to this hypothesis, the state should impose charges on people as indicated by the advantage gave on them. The more advantages an individual gets from the exercises of the express, the more he should pay to the public authority. On the off chance that, as per the "benefits hypothesis of tax collection," we think about assessments as installments in return for government benefits, maybe states should be obliged to give individual tax reductions on inhabitants who add to their duty coffers. The advantages hypothesis would infer that an inhabitant should have the option to gather individual tax breaks to the degree that her expense installments to the source state surpass the cash estimation of any source state government benefits she as of now gets, including framework, controlled work and capital business sectors, etc. Albeit instinctively appealing, the advantages hypothesis of tax collection experiences a few significant disadvantages. To begin with, it is difficult to actualize accurately because of the trouble of deciding the measure of government benefits, including diffuse advantages, for example, military assurance got by every occupant and non-inhabitant citizen.

Second, the advantages hypothesis doesn't accord with current understandings of pay tax assessment. In an absolutely homegrown setting, states by and large don't condition government benefits upon recipients' installment of assessments. Surely, citizens accepting the biggest government advantages might be the individuals who, because of their penniless conditions, settle the least duties.

Third, if the state keeps up a specific association between the advantages gave and the advantages determined. It will be contrary to the fundamental guideline of the duty. A duty, as we probably am aware, is obligatory commitment made to the public specialists to meet the costs of the public authority and the arrangements of general advantage. There is no immediate remuneration on account of an assessment.

Fourth, a large portion of the consumption caused by the record is for the overall advantage of its residents, it is unimaginable to expect to assess the advantage appreciated by a specific individual consistently. In the event that we apply this standard practically speaking, at that point the helpless should make good on the heaviest duties, since they advantage more from the administrations of the state. Furthermore, in the event that we get more from the poor via charges, it is contrary to the rule of equity.

### **Ability-to-pay approach**

The ability-to-pay approach theory according to Akakpo (2009) as cited in Nnubia & Okolo (2018); Gatsi et al. (2013) is that, taxes are founded on taxpayers' ability to pay; thus, there is no quid pro quo. This theory is presented by Arthur Cecil Pigou (Samuelson, 2012). It treats proceeds and expenses of government distinctly. This theory pointed out that, taxes paid are understood as a sacrifice by taxpayers, which advance the subjects of what the sacrifice of each taxpayer should be and how it should be measured.

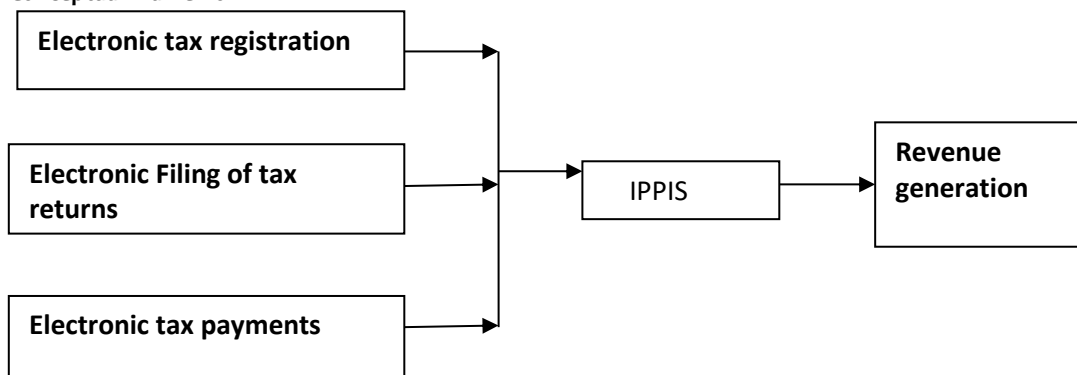
### **Technology Acceptance Model**

The second theory is Technology Acceptance Model (TAM). This theory was developed by Fred Davis in 1986. The Technology Acceptance Model is an information systems theory that models how users come to accept and use a technology. The theory is based on the assumption that the acceptability of an information system is determined by two main factors, being Perceived Usefulness (PU) and Perceived Ease Of Use (PEOU). Perceived Usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived Ease of Use (PEOU) is the degree to which a person believes that using a particular system would be free from effort. This theory is relevant to this study in the sense that the Technology Acceptance Model provides the bases for the adoption and implementation of the electronic tax system by the State Board of Internal Revenue Service based on the assumption of its perceived usefulness



on both the tax payers and tax of officials. The primary objective of the e-tax system is to solve the challenges of the traditional tax system which makes the State Board Internal Revenue Service the forerunner in the acceptance of the e-tax technology mainly because it has a direct positive effect on their job performance in terms of efficiency, timeliness, accuracy and reliability. As for the tax payers, the perceived usefulness of the e-tax system will be the general ease of paying taxes in terms of accuracy, simplicity, convenience and trust in the tax system which will in turn bring about voluntary compliance, hence solving one of the major problems of taxation in the state. The assumption of perceived ease of use on the other hand is however, a hindrance to both tax payers and tax officials who may feel they do not have what it takes to actually use the technology without much effort. This is mainly due to lack of technological exposure which poses a major threat to the use of e-tax system in emerging economy.

#### Conceptual Framework



Source: Developed by the researchers, 2023

#### MATERIALS AND METHOD

##### Sampling Design and procedure

This study uses both proportional stratified sampling and simple random sampling techniques. First, proportional stratified sampling technique was applied to determine the number of staff in the revenue offices of state internal revenue service within the north eastern states. In the second stage, simple random sample was used to select the actual samples of the study from each States.

##### Research Design

In this research, the main objective is to investigate the effect of Electronic tax system on internally generated revenue: mediating effect of integrated payroll and personal information system (IPPIS) in Nigeria. The study was a survey in nature as it requires the use of questionnaire for data gathering. The questionnaire was designed in sections with different items on electronic tax system, revenue generation and IPPIS of which its reliability and validity was tested. The questionnaire was designed to meet the needs of the study. Missing items and outliers was detected and deleted by applying the student  $t$  and cook distances from the questionnaire. The questionnaire was structured using the five-point Likert scale for accuracy. The questionnaire was distributed to stakeholders, staffs, institutions of learning who has one way or the other has impact or contribution to the study within the North Eastern States in Nigeria.

##### Data analysis Method

In this study, SPSS was used to analyze data. Descriptive analysis, Cronbach Alpha analysis, correlation analysis and multiple regression analysis are conducted through SPSS software to achieve the study result from the data collected.



### Results and Discussion

Table 1 demonstrates the results of a total of 425 respondents' profile was collected in this research study. Out of the total respondents, 42.5% are male whereas the female respondents consist of more than 50% making up to about 57.5%. Two different age groups of respondents make up to more than 30%, which is the 31-40 years old group and the 41-50 years old group at 31.13% and 37.74% respectively. About more than half of the respondents have a degree or equivalent qualification, at the highest percentage of 67% out of all educational level. 34% Schools have been established for 5 to 10 years and only 7.5% of Schools has been established for more than 20 years.

### Profile of respondent

Table 1 profile of respondent

No	Item	Frequency (N)	Percentage (%)
1	Gender		
	Male	194	42.5
	Female	262	57.5
	Total	425	100
2	Age		
	Less than 30	52	11.3
	31-40	141	31.1
	41-50	171	37.7
	51-60	65	14.2
	Above 60	259	5.7
	Total	425	100
3	Highest qualification		
	SPM	47	10.4
	Diploma	60	13.2
	Degree	288	63.2
	Master	56	12.3
	PhD	4	0.9
	Total	425	100
4	Number of years firm established		
	Less than 5 years		
	5-10	128	26.4
	11-15	155	34
	16-20	103	22.6
	Above 20 years	43	9.4
	Total	34	7.5
		425	100

### Cronbach's alpha Analysis

Table 2 shows the reliability of the statistic results for all the variables included in this study. Cronbach's Alpha has been considered as a scale reliability measurement, which can be correlation efficient when the value is between 0-1 (Babin et al, 2003). All variables have a Cronbach's Alpha value of more than 0.8. In accordance to the rule of thumb, the result of Cronbach's Alpha value between 0.8-0.9 is at a very good level. This indicates that all questions contained are reliable and acceptable, and can be used for future analysis.





**Table 2.** Results of reliability test.

Variables	Cronbach's Alpha	N of items
Electronic tax registration with revenue generation	0.835	5
Electronic filing of tax returns with revenue generation	0.866	5
Electronic tax payment with revenue generation	0.844	4
IPPIS on Electronic tax registration with revenue generation	0.863	5

### Correlation

Correlation analysis measures the relationship between dependent variables, mediating variable and independent variable. The importance of doing correlation analysis is to know whether the change on independent variables, mediating variable will cause a change on dependent variable. Pearson correlation evaluates the strength of a linear relationship for two or more variables. The value of range is between 1 to -1, the correlation of 1 gives a perfect positive correlation, -1 show a perfect negative correlation, and 0 means there is no correlation between variables. A high correlation means two or more variables are strongly related to each other, while a weak correlation indicates that the variables are hard to related (Franzese & Iuliano, 2019).

Table 3 illustrates the results of Pearson correlation analysis. Overall, the findings show that the dependent variable (revenue generation) has significant positive correlation among independent variable and the mediating variable (Electronic tax system and IPPIS).

**Table 3.** Pearson correlation matrix

	Electronic Tax system	IPPIS	Revenue Generation
Electronic Tax system	1	0.626**	0.576**
IPPIS	0.626**	1	0.618**
Revenue Generation	0.576**	0.618*	1

### Multiple Linear Regressions

Multiple linear regression analysis is a form of linear regression analysis which is frequently used in linear regression analysis. Multiple linear regressions are used to describe the relationship between one dependent variable, mediating variable and two or more independent variables. Table 4 demonstrates the summary of regression model. R square is the coefficient of multiple determinations for multiple regressions, it varies between 0 and 1 and it indicates the percentage of variation explained by the line of multiple regressions out of the total variation.

**Table 4.** MLR model summary

Model	R	R square	Adjusted R square	Std. Error of the estimate
1	.815*	.744	.741	.456787

a. Predictors: (Constant), Electronic tax registration, Electronic filing of tax returns, Electronic tax payment, IPPIS

The value of R square is 0.744, which is understood as 74.4% of the total variation of dependent variable (revenue generation) in this model, which can be explained by the independent variable and mediating variable (i.e., Electronic tax system and IPPIS). The remaining of 25.6% of R square is involves the other variables other than the independent and mediating variables included in this study.

ANOVA is an analysis of variance and it shows whether there is any potential statistical difference between the means of independent variable and the mediating variable. Table 5, provides an F statistic of 10.454 and a P- value (< 0.001) which is below the significant value of 0.05, this indicates that the model is fit to use for



further analysis since the independent variable and mediating variable have significantly predicted dependent variable (revenue generation).

**Table 6.** MLR ANOVA

Model	Sum of squares	df	Mean square	F	Sig.
Regression	36.977	4	2.997	14.854	0.000
Residual	32.920	421	.239		
Total	69.897	425			

a. *Dependent Variable: Revenue generation.*

b. *Predictors: (Constant), Electronic tax registration, Electronic filing of tax returns, Electronic tax payment, IPPIS.*

**Table 7.** Summary of findings.

Hypothesis	Pearson correlation	Multiple regression	Decision
<b>H1: Electronic tax system has significant positive relation with revenue generation</b>	r =0.513 p=0.000 (<.05)	P=0.025 (>0.05)	Accepted H1
<b>H2: IPPIS has positive relation with Student revenue generation</b>	r =0.592 p=0.000 (<.05)	P=0.003 (>0.05)	Accept H2
<b>H3: IPPIS has significant positive mediating effect on the relationship Electronic tax system and revenue generation</b>	r =0.635 p=0.000 (<.05)	P=0.001 (>0.05)	Accept H3

As presented in the tables of findings, the results suggest that Electronic tax system have a significant positive relation towards internally revenue generation. The analyzed outcomes from multiple linear regressions show a p-value of 0.003 and 0.001, which are less than 0.05. It indicates a significant relation between Electronic tax system and internally revenue generation and mediating effect of IPPIS the relationship between Electronic tax system and internally revenue generation. Hence, manual electronic tax system is a major factor that affect internally revenue generation. Due to manual approach of tax collection, low tax return has been recorded which posed pose threats to internally revenue generation within North-eastern Nigeria. Researchers are finding a mean to enhance internally revenue generation. Hence, IPPIS significantly and positively mediates internally revenue generation

State government has always been considering ways of improving internally revenue generation. This study would help the government to understand factors that promote internally revenue generation. Based on the findings, IPPIS and electronic tax system have shown a significant and positive relation with internally revenue generation

### Conclusion

Based on the findings, this study has analyzed the independent variable (Electronic tax system), the Mediating variable (IPPIS) and dependent variable (internally revenue generation) for sustainable development in North Eastern Nigeria. However, electronic tax system has positive and statistically significant to internally revenue generation. Therefore the findings concur to previous literatures that electronic tax system has significant influence on internally revenue generation. Also IPPIS is statistically significant to internally revenue generation and that IPPIS mediates the relationship between Electronic tax system and internally revenue generation in North Eastern Nigeria. It is believed that this study makes several contributions to the literature



on Electronic tax system and internally revenue generation, and provides some useful insight to the government and other individuals that IPPIS mediates internally revenue generation in North Eastern Nigeria. It is believed that future research on this topic may adopt different theoretical models to develop and investigate the mediating effect of IPPIS on the relationship between electronic tax system and internally revenue generation. Other Zones in Nigeria could be included in this study to investigate the mediating effect of IPPIS across other geo-political zones in the whole of Nigeria. Furthermore, study on States towards mediating effect of IPPIS could be conducted on various institutions related to internally revenue generation that might likely come out with more comprehensive position. The data only provide a snapshot of the timeline (5 months). Future research may increase the sample size and take a more longitudinal approach which could provide a better understanding of the research findings.

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#### Conflict of interest

There was no case of misunderstanding, misconception and conflict of interest among the various parties to the research work

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