# ELECTRONIC TAX ADMINISTRATION AND TAXPAYER'S COMPLIANCE ATTITUDE IN NIGERIAN NORTH EAST REGION: EMPIRICAL EVIDENCE FROM TARABA STATE

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## Abstract

*This study examines the impact of electronic tax administration on tax payers' compliance attitude in Taraba State, Nigeria. The study was conducted using cross sectional data collected with the instrument of questionnaires that were administrated on a sample of 312 individual taxpayers drawn from the three senatorial zones of Taraba State. The data of the study which were subjected to multiple regression analysis provide an interesting revelation about connection between electronic tax administration system and taxpayers' compliance attitude in Taraba State. First, the results established that electronic tax awareness is positive and significant on tax payers' compliance attitude. Furthermore, the study also found perceived ease of use as well as electronic tax payment to exhibit positive and significant impact on taxpayers' compliance attitude. However, unlike the other findings, the results revealed that electronic tax service quality exerted negative impact on taxpayer's compliance attitude. By implication, the findings of this study suggest that for electronic tax administration system to have the right impact on individual taxpayers' compliance attitude in Taraba State, policy makers have to direct their attentions and efforts toward improving electronic tax awareness, perceived ease of use of online tax service, and electronic tax payment.*

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**Keywords:** Electronic tax administration, Tax compliance, Electronic Tax Awareness, Electronic Tax Payment, Electronic Tax Service Quality

## Introduction

Government in every country whether developing or developed country require revenue to finance public expenditure. The public expenditure is mainly for the provision of defense, infrastructure, health, education and other important social amenities in a country. One of the principal and cheap sources of revenue available to governments of any country is tax (Alabede, 2020). Since taxation provides substantial source of revenue to government, this implies that instability in tax revenue will affect public expenditure. On this ground, Mwakalobo (2015) stated that inadequate tax revenue generation had adverse consequence on public spending. Nevertheless, tax revenue mobilization and collection have remained one of the greatest challenges facing tax administrators in most developing countries including Nigeria. In this regard, statistics from Organization for Economic Cooperation and Development (OECD, 2020) reported that tax revenue collected in Nigeria dropped from 9.6% of the GDP in 2011 to 6.1% in 2019. This collection which was far below world's tax-GDP ratio of 14.58% in 2018, was the lowest in the African region. Moreover, the problem of tax revenue mobilization and collection is even more critical at Nigeria's subnational levels. For instance, report from National Bureau of Statistics (NBS, 2020) indicated

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that the 36 states and Federal Capital Territory (FCT) collected sum of ₦1.112 trillion as tax revenue in 2019. This amount which represents approximately 83% of total internally generated revenue (IGR) of states and FCT came down by 2.25% to ₦ 1.09 trillion in 2020 (NBS, 2021). With respect to tax revenue performance on subnational basis, NBS reported that Taraba State which collected about ₦ 3.7 billion tax revenue recorded the lowest IGR in 2019 and came second to the last state in 2020 (NBS, 2021).

Although literature has connected poor tax revenue collection to severally economic, political and behavioural factors, researches have indicated that taxpayer's compliance attitude substantially contributed to low tax revenue performance in developing countries like Nigeria (Cobham, 2005; Alabede 2014), To this end, Alm (1999) argued that tax administration as component of tax system is existing to ensure tax compliance. Thus, tax system that is characterized with weak tax administrative capacity will surely suffer from nonchalant attitude by taxpayers towards complying with tax rules. From this perspective, therefore tax compliance is the function of tax administration of ensuring that taxpayers file their tax returns, correctly report their income or capital gain tax liabilities and pay their taxes all in accordance with provisions of tax codes. Given this background, the role of tax administration in inculcating right tax compliant attitude among taxpayers cannot be underrated. Accordingly, OECD (2004) argued that tax administrators should adopt strategies to ensure noncompliance with tax rules and regulations is minimized among taxpayers.

As part of the strategies to improve efficient and effective tax administration in order to stimulate voluntary tax compliance among taxpayers, most tax authorities applied internet to provide tax services. The application of internet in tax administration became known as electronic tax administration. According to Wasao (2014), electronic tax system as an online platform whereby the taxpayer is able to access through internet all the services offered by a tax authority such as the registration for a Tax Identification Number (TIN), filing of returns and application for compliance certificate. Thus, electronic tax administration system facilitates filing of tax returns, payment of taxes and generation of tax clearance certificate by tax payers using online platforms.

In developing countries, where government faces great challenges in collecting tax revenues due inefficient tax administration and low tax compliance, introduction of electronic tax administration became imperative. However, Bird and Zolt (2008) argued that the application of technology would provide opportunities for more things to be done in tax administration and for administrative functions to be perform differently and better in developing countries.

In Nigeria, tax administration is carried out along the three levels of governments operating in the country. Thus, there are different administrative organs established for tax administration at national, states and local government levels. In this case, Federal Inland Revenue Service (FIRS) is tax authority at national level while State Internal Revenue Service (SIRS) is the authority responsibility for tax administration in each state of Nigeria's federation and Revenue Committee is in charge of tax administration at local government councils. However, having recognized the inevitable role of technology in enhancing efficiency in tax administration in modern days, FIRS introduced electronic tax administration in 2013 through Integrated Tax Administration System (ITAS). The primary purpose of ITAS was to improve tax administration and simplify tax compliance process with aid of technology (Pricewater house Cooper, PwC, 2015). In 2021, FIRS upgraded its electronic tax administration through the introduction of Tax Pro-Max. In addition to the effort of FIRS in digitalizing tax administration in Nigeria, some state tax authorities which

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included Taraba State Internal Revenue Service (TSIRS) also adopted electronic tax system in order to enhance tax administration in their respective states. However, the pertinent question is that has the adoption of electronic tax administration positively impacted on compliance attitude of taxpayers in Nigeria. This study is undertaken primarily to ascertain whether the adopted of electronic tax administration has promoted positive attitude toward compliance with tax rules and regulations among taxpayers at subnational level. For this purpose, the study applied cross sectional survey research to collect data using the instrument of questionnaires which were administered on the sample of 319 individual taxpayers in Taraba State.

This study makes some important contributions to tax compliance literature. First, the study provides empirical evidence from subnational level about the impact of electronic tax administration on tax compliance and this would enrich the scanty literature available on the subject matter in Nigeria especially about electronic tax administration system in North East region and Taraba State in particular. On a general note, the results of the study which indicate significant and favourable connection electronic tax awareness, perceived ease of use, electronic tax payment and taxpayers compliance attitude would not only contributed in updating the literature on these variables but also have practical contributions by the way of guiding policy makers on those factors that desire their actions in order step up the right tax compliance attitude among the taxpayers about electronic tax administration system. The other parts of this paper are divided into 4 main parts starting with the first part which reviews the related literature. The second part presents the research framework and this is followed by hypotheses development in part three. The methodology as well as the results of analysis and discussion are documented in part four and five respectively. The final part of the paper presents the conclusion and policy implications of the findings.

## Literature Review

### Theoretical Background

A number of theories have been propounded to explain compliance attitude of taxpayers. However, the economic deterrence theory and theory of planned behaviour provide theoretical background for this study. Early research studies like Allingham and Sandmo (1972) applied Deterrence Theory to understand why taxpayers may not want comply with tax laws. The Economic Deterrence model is derived from Economic Theory of Crime and this Theory was credited to Becker (1968). The theory applied crime cost and benefit analysis in explaining taxpayer's attitude to complying with tax rules and regulations. According to the theory, taxpayers are likely to indulge noncompliant behaviour when the benefit they will derived from such behaviour is greater than the cost to be incurred. In this respect, cost to the taxpayers is form of the sanctions to be imposed for failure to comply with the provisions of tax laws.

From the perspective of the theory, taxpayers will obey with provisions of tax laws including paying tax obligation, when cost of noncompliance is much more the tax they have not paid. This theory provides the justification for the various measurements such as imposition of penalties and tax audit adopted by tax authority aimed at deterring noncompliance by taxpayers (Tran-Nam, 2015). However, Economic Deterrence theory has been criticized for completely ignoring influence of social, psychological and political factors on taxpayers' attitude in complying with tax rules and regulations. To this end, Theory of Planned Behaviour (TPB) is one of theories which was propound by Ajzen (1991) to provide social psychological framework for tax compliance.

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TPB is an extension of Theory of Reasoned Action which incorporated perceived behavioural control. From the thinking of the theory, perceived behavioural control and behavioural intention can directly predict outcome of the behaviour of individual. According to theory, in constructing behavioural intention, attitude, subjective normal and perceived behavioural control are the factors to be taken into consideration (Ajzen, 1991). These factors also are influenced by behavioural beliefs, normative beliefs and control beliefs of individuals. Behavioural beliefs will normally result to positive or negative attitude to certain behaviour (Bellova & Spirkova, 2021).

As for the application of TPB in taxation, Damayanti et al. (2015) declared that attitude to tax compliance and perception of taxpayers towards having certain effect on the intention to pay tax. Some researchers like Bobek and Hatfield (2003) applied TPB to provide empirical evidence which indicated that there is significant association between taxpayer's attitude as well as perceived behavioural control and behavioural intention to tax compliance. Consequently, this study relies on the theoretical proposition of TPB to investigate whether perception of taxpayers about electronic tax administration attributes affect intentions to comply tax rules and regulations as influenced by their attitudes.

## Tax Compliance

There are three main stakeholders in any tax system. The first is the government whose responsibility is to impose taxes on the income, expenditure and capital gain of individuals and organization so as to raise revenue to finance its programmes. The second stakeholder is the tax authority which is assigned to responsibility of assessing, collecting and accounting for the taxes imposed on individuals and organizations. The third party to the tax system, are the citizens of a country who are within tax bracket. These citizens are referred to as taxpayers and their responsibility in the system is to obey all the provisions of tax rules and regulations including those dealing with the payment of their tax obligation. The act of obedient to provisions of tax laws by taxpayers is referred to as tax compliance. However, in the literature, different meaning of tax compliance has been provided by different authors. In the early definition of the concept, Allingham and Sandmo (1972) considered tax compliance to mean the act of reporting actual income for tax purpose. Allingham and Sandmo (1972) ignored other aspects of tax compliance in their definition. But a more comprehensive meaning of the concept as provided in Roth et al. (1989) see tax compliance as the act which is accomplished when taxpayer files all tax returns at the right time and that the returns correctly report the tax liability in accordance with tax code.

In another simple definition, James and Alley (2004) described tax compliance as the extent by which taxpayer obeys the relevant provisions of tax laws. In an institutional definition of the concept, OECD (2004) regarded tax compliance as the degree to which taxpayer meet tax obligations. The tax obligations of taxpayer are obligation to register for tax, to file for tax return and to pay tax. In another submission, Kirchler et al. (2008) also grouped tax compliance into enforced compliance and voluntary compliance. Tax compliance that is enforced through the power of tax authority is viewed enforced compliance while the act of taxpayer to comply with tax laws willingly is voluntary compliance. In a recent definition of tax compliance, the term "ability and willingness" are incorporated to demonstrate that compliance is voluntary not enforced. In this respect, Hassan et al. (2021) viewed tax compliance as the "ability and willingness" of taxpayer to obey tax codes, report accurate income and pay appropriate amount taxes at stipulated time. In the view of OECD (2004), tax compliance has four components which taxpayers are expected to

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comply with in order have full compliance. These components are registration compliance, filling compliance, reporting compliance and payment compliance.

i.  Tax Registration Compliance: This component refers to the willingness of taxpayer to make himself/herself available to the tax office for tax registration purpose. In some countries like Nigeria, individuals and organizations are expected by the tax codes to make them available to the tax office for registration as taxpayers. In some cases, the registered taxpayers are issued unique number for proper identification.

ii. Filing Compliance:  When tax return is filed by taxpayer with appropriate tax authority as required by the tax codes at stipulated time such act is referred to tax return filling compliance. This filling is mostly done online in recent times.

iii. Reporting Compliance: Reporting compliance involves the act of the taxpayers to accurately report to the appropriate tax authority their income and expenses for tax purpose. In addition, making correct tax claims against the income and this includes tax allowances, reliefs etc.

iv. Payment Compliance: This component of compliance is concerned with the act of the taxpayer to willfully pay correct amount of tax to the appropriate tax authority at stipulated times. Tax payment may be done through the mean approved by tax authority including electronic means.

**Electronic Tax Administration System**

Advancement in information communication technology (ICT) has created opportunity for the application of technology in delivery of goods and services. One of the areas which technology has been useful in delivery of service is in the tax administration. Today, most tax authority's world -wide have adopted ICT in providing various tax services to taxpayers. The application of internet facility in supporting tax administration is referred to electronic tax administration. The application of such online platform enables the taxpayers to register for tax, fill tax returns, pay tax and obtain tax clearance certificate electronically.

On the benefits of electronic tax administration, OECD (2017) stated that the application of technology to create electronic filing of tax returns and payment of taxes has enable tax authorities to improve tax revenue collection, enhance the efficiency, and quality of tax services provided to taxpayers. On the side of taxpayers, OECD (2017) also pointed out that development of digitalization of tax system has reduced taxpayer compliance cost and tax administration costs as well as improving enforcement of tax rules and regulation.  Electronic tax administration system consists of basic seven subsystems. These seven subsystems are electronic tax registration, electronic filing, electronic submission, electronic assessment, electronic dispatch/ notification, electronic collection and electronic tax payment.

**Empirical Studies**

Oladele et al. (2020) explore the impact of electronic tax administration on tax compliance and the resultant effect on tax revenue in Nigeria using data on central government tax revenue posted seven years before and after the adoption of e-tax administration by the central tax authority. The study reported a strong connection between the electronic tax system and tax compliance. On the other hand, Le et al. (2020) used data collected through questionnaire administered on 402 business taxpayers operating in Vietnam to determine the factors influencing electronic tax compliance.

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The findings indicate that perceived ease to use and awareness as the factors having significant influence on electronic tax compliance. The same manner, Adhikari (2020) investigates the influence of tax awareness and understanding on taxpayers' compliance in Nepal using sample of taxpayers. The regression results reveal that tax awareness and understanding positively and significantly influenced taxpayers' compliance.  Equally, with data collected from 93 private business taxpayers operating in Indonesia, Dewi (2019) examined the influence of tax knowledge, awareness and tax effective system and reported that tax awareness did not affected tax compliance. The study of Shukla and Kumar (2019) which also explored the intention of business persons to use electronic tax administration using 204 SMEs operating in India, reported that perceived useful has significant impact on electronic tax system.
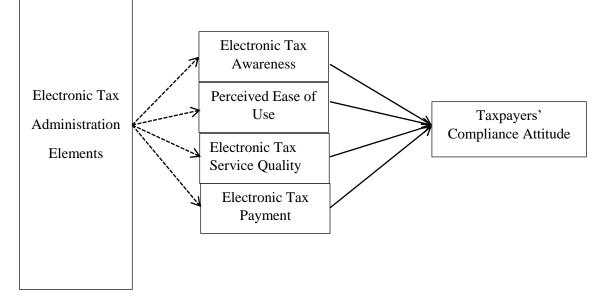
With respect to research on tax service quality, Mustapha and Obid (2015) examined the mediating effect of perceived ease of use on the linkage between tax service quantity and online tax system using 206 individual taxpayers in Nigeria and reported positive significant connection between tax service quality and online tax system. In another study, Ardy and Damayanti (2018) performed meta-analysis to determine factors affecting tax compliance in Indonesia. The study reported that tax service quality and awareness are positive and significantly related to tax compliance in Indonesia. In a more recent study which investigated the effect of tax service quantity on taxpayer compliance in payment of land and building tax, Joni and Handryno (2021) found tax service quantity to have positive impact on taxpayer compliance. However, Artawan et al. (2020) who assessed the effect of tax service quality to building taxpayer trust and satisfaction on enhancing taxpayer compliance, found that service quality not have direct influence on tax compliance.

**Research Framework**
The research framework presented below depicts the nature of relationship between the independent variables and the dependent variable of this study. In this case, research framework based on the empirical evidence from literature (Mustapha & Obid, 2015; Oladele et al., 2020; Adhikari, 2020; Joni & Handryno, 2021), demonstrates that Electronic Tax Administration elements which are Awareness of Electronic Tax, Perceived Ease of Use, Electronic Tax Service Quality and Electronic Tax Payment (independent variables) are directly connected to Taxpayers' Compliance Attitude (dependent variable).

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                              ┌──────────────────┐
                              │  Electronic Tax  │
                              │    Awareness     │
                              ├──────────────────┤
┌──────────────┐             │ Perceived Ease of│            ┌──────────────────┐
│ Electronic Tax│            │      Use         │            │   Taxpayers'     │
│Administration │ ---------> ├──────────────────┤ ---------> │Compliance Attitude│
│   Elements    │            │  Electronic Tax  │            └──────────────────┘
└──────────────┘            │  Service Quality │
                              ├──────────────────┤
                              │  Electronic Tax  │
                              │     Payment      │
                              └──────────────────┘
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## Hypotheses Development

With reference to the literature review and research framework in preceding sections, the following hypotheses set out for validation in this study:

$H0_1$: Awareness of electronic tax administration has no significant influence on taxpayers' compliance attitude.

$H0_2$: Perceived ease of use of electronic tax administration has no significant impact on taxpayers' compliance attitude.

$H0_3$: Electronic Tax service quality has no significant effect on taxpayers' compliance attitude.

$H0_4$: Electronic tax payment has no significant impact on tax payers' compliance attitude.

## Data and Methodology

### Research Design, Population and Sample

This study used cross sectional survey design to obtain information on the perception of taxpayers about electronic-tax administration as well as tax compliance attitude in Taraba State. The target population of this study was individual taxpayers under direct assessment from Jalingo, Wukari and Gassol local government areas which represent three senatorial zone of Taraba State. Population of the individual taxpayers under direct assessment from three local government areas was 1412 as at September, 2021 and this consisted 600 from Jalingo, 372 from Wukari and Gassol with 440.

From the population figure, 312 individual taxpayers were estimated to be the appropriate sample size for the study using Yamane Taro's formula. Then, in order to provide for possible non-response rate, 20% of the sample size was added and this increased the target sample to 374. However, the actual sample which responded to the study by correctly completing and returning the instrument was 319. The 319 samples were selected from among different category of

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individual taxpayers under direct assessment from the target local government areas (See Table 1). In selecting the samples of the study, multistage sampling technique was applied. In the first stage, clustered sampling technique was used to select one local government to represent each of three geo-political zones of Taraba State. Secondly, stratified proportionate sampling technique was applied to classify the taxpayers into different category of their businesses/vocation and finally, simple random sampling method was applied to select actual respondents of the study.

**Table 1: Distribution of the Sample**

| S/N | Category of individual Tax Payers | Population | Proportionate Sample | Actual sample | Percentage % |
|-----|-----------------------------------|-----------|---------------------|--------------|--------------|
| 1 | Profession | 706 | 187 | 156 | 41.71 |
| 2 | Trade | 517 | 137 | 121 | 32.35 |
| 3 | Sole Proprietor | 102 | 27 | 22 | 5.88 |
| 4 | Dividend/ Rent | 30 | 8 | 7 | 1.87 |
| 5 | Management Services | 32 | 8 | 7 | 1.87 |
| 6 | Agriculture | 25 | 7 | 6 | 1.60 |
| | Total | 1412 | 374 | 319 | 85.29 |

Source: Researcher's compilation 2021

**Research Instrument**
Data of the study were collected using the instrument of questionnaire. The questionnaire was structured into 6 parts. The first part was designed to obtain demographical information of the respondents while the five remaining parts contained 7 items each used to measure the five variables of the study. The items which were used to obtain information about views and attitude of the respondents on the variables were constructed on five likert-scale rating style. Validity test was performed on the research instrument using face and content validity tests. In both cases, the validity tests were performed using tax experts from academic and professional fields.

In addition, a pilot study was carried out to evaluate the reliability of the research instrument. For the purpose of this pilot study, 40 questionnaires were prepared and administered to some of the target audience within Jalingo Local Government Area. The questionnaires collected from the pilot study were subjected to Cronbach's Alpha test to determine internal consistency of the instrument. On the same note, the questionnaires retrieved from respondents in the main study were also subjected to Cronbach's Alpha test. The results of the Cronbach's Alpha of each variable for both the pilot and the main study as presented in Table 2 are not below the minimum of 0.70 recommended in the literature (Hair et al. 2010). This is an indication that the research instrument of the study was statistically reliable.

**Table 2: Reliability Test Results**

| Description | Pilot Study | Main Study |
|-------------|-------------|------------|
| Tax compliance attitude | 0.774 | 0.734 |
| Electronic tax awareness | 0.784 | 0.752 |
| Perceived ease of use | 0.860 | 0.781 |
| Electronic Tax Service Quality | 0.951 | 0.812 |

| Electronic tax payment | 0.770 | 0.716 |
| --- | --- | --- |

Source: Field Survey (2021)

**Description and Measurement of Variables**

The dependent variable for this study is tax payers' compliance attitude while the independent variables are: electronic tax administration, electronic tax awareness, perceived ease of use, tax service quality and electronic tax payment. Each variable was measured using 7 items adopted from past tax researches. The operational definition and measurement of the variables are summarized in Table 3.

**Table 3: Measurement of Variables**

| Variable | Operational Definition | Measurement |
|---|---|---|
| **Dependent Variable** Taxpayer Compliance Attitude | The act of taxpayer to comply with tax rules and regulations pertaining to tax registration, filing return, correct declaration of income and payment of taxes. | Registration, timely filling of returns, cost of filling, ease of filling, correct declaration, timely payment and nature of tax administration (Nurlis & Meiliyah, 2020). |
| **Independent Variables** Electronic Tax Awareness | Condition where a person knows, recognizes, respects and obeys the applicable tax provision seriously and desires to fulfill his or her tax obligations by electronic means (Muliari & Setiawan, 2011 as cited in Negara & Purnamasari, 2018). | Tax Perception, level of knowledge in paying taxes, tax financial condition, tax notification, Platform accessibility, Latest developments and Sensitization (Nurlis 2015). |
| Perceived Eases of Use | The extent to which taxpayer believes that by using electronic tax facility would be easy to use and free from using a lot of effort (Davis, 1989) | Level of ease of use, knowledge easing E-filling return, Nature of E- platforms, Reliability of E-platforms, User friendly nature of E- platforms, Knowledge of use of electronic platforms and Convenience and speed of E- platforms (Night & Bananuka, 2020). |
| Electronic Tax Service Quality | Quality internet service provision by tax authorities which are stable, user friendly, convenient and secure. | Responsiveness of E- tax services, Reliability of E- tax services, Informative nature of E-tax services, Assurance of E-tax services, Usability of E-tax services, Performance of E-tax services and Secured nature of E-tax services (Mustapha, 2017). |
| Electronic Tax Payment | Process in which taxpayer paid taxes using electronic means approved by tax authority. | Faithful representation, Tax knowledge, Safety, Convenience, Satisfaction, Ease of tax payment and Modernization (Night & Bananuka, 2020; Akpubi & Igbekoyi, 2019). |

**Model Specification**

This study explores the effect of electronic tax administration contextual factors on compliance attitude of individual taxpayers under direct assessment in Taraba State. For this purpose, electronic tax administration contextual factors of Electronic Tax Awareness, Perceived Ease of Use, Tax Electronic Service Quality and Electronic Tax Payment are the independent variables while Taxpayer's Compliance Attitude is the dependent variable. The model below which depicts

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the relationship between independent variable and dependent variables is the estimating model of the study.

TC = ƒ (*E-Tax Administration Contextual Factors*) …………………………………………... (1)

TC=ƒ(*E-Tax Awareness, Perceived Ease of Use, Tax E-Service Quality, E-payment*) ……………………(2)

The broad model is depicted as:

$$Y= \beta_0 + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \varepsilon$$ …………………………………………... (3)

Where, Y = Taxpayers' Compliance Attitude; $\beta_0$ = intercept, $\beta_1 \ldots \beta_4$ = the slope which represents the extent to which changes in taxpayer's compliance attitude relate to change in the one unit of the independent variables.

X1 = Electronic Tax Awareness

X2 = Perceived Ease of Use

X3 = Tax Electronic Service Quality

X4 = Electronic Tax Payment

$\varepsilon$ = error term.

## Results and Discussions

### Demographic Information Analysis

From the demographic information in Table 4, more than half (184) of the respondents of the study were male while greater part of them were within the age bracket of 20-40 years (44.2%). On the basis of nature business/vocation, most of the respondents were traders (26%) and majority of them had been in business between 6 and 10 years (43.6%). As for income of the respondents, large number earned maximum income of ₦300,000 annually (34.6%). 249 of the respondents were registered taxpayers and this represents about 80% of the total respondents. In the same vein, majority of the respondents indicated that they were aware of electronic tax payment (82.1%) while about 42% of the respondents had business/vocation located in Jalingo.

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**Table 4: Demographic Information**

| Option | Frequency | Percentage (%) |
|---|---|---|
| **Gender** | | |
| Male | 184 | 59 |
| Female | 128 | 41 |
| **Age** | | |
| 20-40 years | 138 | 44.2 |
| 41- 60 years | 95 | 30.4 |
| 60+ years | 79 | 25.3 |
| **Nature of the business** | | |
| Trade | 81 | 26 |
| Sole Proprietor | 59 | 18.9 |
| Management service | 50 | 16 |
| Profession | 60 | 19.2 |
| Investment | 47 | 15.1 |
| Agriculture | 15 | 4.8 |
| **Number of years in business** | | |
| 1-5 years | 95 | 30.4 |
| 6-10 years | 136 | 43.6 |
| 11 years | 81 | 26 |
| **Level of income of the business** | | |
| ₦1-300,000 | 108 | 34.6 |
| ₦ 300,001-800000 | 59 | 18.9 |
| ₦ 800,001-1000000 | 79 | 25.3 |
| Above ₦ 1000000 | 66 | 21.2 |
| **Registered tax payer** | | |
| Yes | 249 | 79.8 |
| No | 63 | 20.2 |
| **Awareness electronic payment** | | |
| Yes | 256 | 82.1 |
| No | 56 | 17.9 |
| **Business location** | | |
| Jalingo | 132 | 42.3 |
| Wukari | 82 | 26.3 |
| Gassol | 98 | 31.4 |

Source: Field Survey (2021)

**Descriptive Statistics**

As presented in Table 5, the descriptive statistics reveal that the average scores of the variables of the study ranged from 2.230 to 2.510 with Perceived Ease of Use having the highest mean score while E-Tax Payment had the lowest score. This suggests that the sampled taxpayers had strong opinion in favour of the ease of usage of electronic tax administration compared to other contextual

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factors. As for standard deviation statistics, E- Tax Awareness has the highest score of 1.789 while E- Tax Service Quality with 1.064 has the lowest score. Generally, the statistics suggest that the standard deviation of the variables widely dispersed.

On the normality tests, the statistics values of skewness and kurtosis of all the variables except for E- Tax Awareness are within threshold value of +/- 1.96 recommended in the literature (Hair et al., 2010). Generally, this means variables of the study are normally distributed.

**Table 5: Descriptive and Normality Statistics**

| Variable | Min. | Max. | Mean | Standard Deviation | Normality Statistics | |
|---|---|---|---|---|---|---|
| | | | | | Skewness | Kurtosis |
| Taxpayer Compliance Attitude | 1 | 5 | 2.330 | 1.250 | -0.501 | -0.168 |
| E- Tax Awareness | 1 | 5 | 2.470 | 1.789 | 3.376 | 26.980 |
| Perceived Eases of Use | 1 | 5 | 2.510 | 1.350 | -0.489 | -0.290 |
| E- Tax Service Quality | 1 | 5 | 2.380 | 1.064 | 0.231 | -0.417 |
| E- Tax Payment | 1 | 5 | 2.230 | 1.277 | 0.389 | 0.078 |

Source: SPSS Output (2021)

**Correlation Analysis**

The result of correlation analysis in Table 6 indicates that weak and positive association between Taxpayer's Compliance Attitude and three of the independent variables. Specifically, the Taxpayer's Compliance Attitude positively related to Electronic Tax Awareness, Perceived Ease of Use and Electronic Tax Payment at 1% level of significance while relationship between Taxpayer's Compliance Attitude and Electronic Tax Service Quality is negative and not significant. As for the correlation among the independent variables, the coefficients reveal positive and moderate association.

**Table 6: Correlation Matrix Result**

| | TCA | ETA | PEOU | ETSQ | ETP |
|---|---|---|---|---|---|
| TCA | 1.000 | | | | |
| ETA | 0.283** | 1.000 | | | |
| PEOU | 0.263** | 0.416** | 1.000 | | |
| ETSQ | -0.017 | 0.370** | 0.720** | 1.000 | |
| ETP | 0.188** | 0.388** | 0.471** | 0.416** | 1.000 |

Source: SPSS Output (2021). Note: 1. ** Correlation is significant at the 0.05 level (2-tailed). 2. TCA= Taxpayer's Compliance Attitude; ETA = E- Tax Awareness; PEOU =Perceived Ease of Use; ETSQ = E- Tax Service Quality and ETP = E- Tax Payment.

**Regression Results**

Before the regression analysis, some diagnostic tests were carried out to ascertain whether the data of the study conform to the assumptions underlying OLS which is technique used to estimate the relationship the independent variables and dependent variable. The result of VIF with the highest value of 2.619 indicated that multicollinearity was not threat to the analysis of the study. Similarly, since the values of the Durbin-Watson of this study is below the threshold value of 2, there was evidence to believe that autocorrelation was not present in the model of the study.

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In respect to the regression results, Table 7 indicates that the general influence of the explanatory variables included in the model explain the dependent variable up to about 25% as indicated by the R Square, while the remaining 75% are explained by other factors not captured in the model. However, the explanatory variables could only conservatively account for 24% of variance in the dependent variable. As for the F-statistics, the result shows the value of 25.631 which implies that the model of the study is statistically fit to predict tax payers' compliance attitude at 1% significance level.

Pertaining to the individual results of the variables, the regression results indicate that Electronic Tax Awareness which has a coefficient value of 0.1421 and p-value of 0.001, is positively associated with Taxpayer's Compliance Attitude at 1% level of significance. This means that a unit increase in Electronic Tax Awareness among the taxpayer will favourably change Taxpayer's Compliance Attitude by 0.1421%. This result rejected the statement in hypothesis ($H0_1$) that awareness of electronic tax administration has no significant influence on taxpayers' compliance attitude. This means that awareness of electronic tax administration by the taxpayers will have significant influence on their compliance attitude towards taxation. The result is consistent with the findings reported in some previous studies like Le et al. (2020) and Adhikari (2020 that tax awareness exerted positive and significant impact on tax compliance.

Similarly, the regression results also indicate that Perceived Ease of Use has a coefficient of 0.388036 and p-value of 0.0000 which means that Perceived Ease of Use is positively and significantly connected with Taxpayer's Compliance Attitude. Precisely, the regression coefficient value suggests that a unit increase in Perceived Ease of Use will favourably impact taxpayers' attitude to comply tax rules and regulations using electronic means. This regression result contradicts the statement in hypothesis ($H0_2$) that perceived ease of use of electronic tax administration has no significant impact on taxpayers' compliance attitude. Hence, the statistic evidence rejected $H0_2$. This goes to say that when taxpayers form a good perception about ease of usage of electronic tax system this will lead to better compliance attitude by taxpayers. But, on the other hand, any negative perception by taxpayers about electronic tax administration will no doubt affect their compliance attitude. However, it is worthy of noting that the perception of the taxpayers on the ease of usage of electronic tax system squarely depends on the availability of information technology infrastructure. In a developing country like Nigeria where physical infrastructure such information technology, electricity supply etc. are inadequate, the effectiveness and efficiency of electronic tax system may be threatening. Nonetheless, the finding on the link between Perceived Ease of Use and Taxpayer's Compliance Attitude lends support from some previous studies in literature which reported positive relationship between two the variables (Shukla & Kumar, 2019; Le et al., 2020)

Contrary to other results, the statistical evidence indicates that Electronic Tax Service Quality has a coefficient of -0.402878 with a p-value of 0.0000 and this means tax service quality is negatively and significantly related to level of taxpayer's compliance attitude. The result which is not expected in direction it came, is not in line with the predication in hypothesis ($H0_3$) that electronic tax service quality has no significant effect on taxpayers' compliance attitude. As a result, the hypothesis is rejected. This finding signifies that the electronic tax service quality offered by tax authority plays important role in influencing taxpayer compliance attitude and such influence cannot be underestimated in having successful tax administration. However, the evidence from the

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regression and correlation analysis demonstrate that the quality of e-tax service in Nigeria particularly in Taraba State has not reached appreciable level to have expected favourable impact on taxpayers' compliance because as indicated in some previous studies (Mustapha & Obid, 2015; Ardy & Damayanti, 2018; Jonis & Handryno, 2021) tax service quality should have exerted positive and significant impact on tax compliance not negative as reported in this study.

Unlike the result of electronic tax service quantity, the regression of Electronic Tax Payment indicates coefficient value of 0.0.214787 with a p-value of 0.0001 and this suggests that payment of taxes via electronic means is positively related to taxpayers' compliance at 1% significance level. Specifically, this means that a unit improvement in electronic tax payment facility will cause favourable change in taxpayer's compliance attitude and this turn, is expected to have positive impact on tax revenue collection. This finding does not agree with statement in hypothesis (H0$_4$) that electronic tax payment has no significant impact on tax payers' compliance attitude. For this reason, the finding rejected the H0$_4$. Consequently, this implies that payment of taxes through electronic means has positive impact on the taxpayers' compliance. This result is not surprising, considering the fact that as reported in some studies (example Nomlala & Oluka, 2021;) online tax payment reduces compliance cost of taxpayers. The reduction in cost compliance resulting from the implementation of electronic tax payment is expected to lead to favourable tax compliance as reported in this study.

**Table 7: Regression Result**

| Variables | Coefficients | Std.Error | Sig. |
|---|---|---|---|
| Constant | 1.415742 | 0. 1233 | 0.000 |
| Electronic Tax Awareness | 0.142126 | 0. 0362 | 0.001 |
| Perceived Ease of Use | 0.388036 | 0. 057934 | 0.000 |
| Electronic Tax Service Quality | -0.402878 | 0. 052600 | 0.000 |
| Electronic Tax Payment | 0.214787 | 0. 052293 | 0.001 |
| R-Square | 0.2503 | | |
| Adjusted R-Square | 0.2405 | | |
| F-Statistics | 25.6305 | | |
| Sig. | 0.0000 | | |

Source: SPSS Computation (2021)

**Conclusion and Policy Implication**

This study was undertaken primarily to assess the impact of electronic tax administration on taxpayers' compliance attitude in Taraba State. For this purpose, the study applied cross sectional survey using instrument of questionnaires to collect data from samples of individual taxpayers who were under direct assessment in Taraba State. The findings of the study from the regression analysis provide interesting revelations about the connection between the elements of electronic tax administration system adopted in the analysis and taxpayers' compliance attitude in Taraba State.

In the first place, the analysis provides evidence suggesting that electronic tax awareness is positively and significantly connected with taxpayers' compliance. This goes to say that more awareness about electronic tax system will lead to greater tax compliance. Secondly, the study also established direct and strong relationship between perceived ease of use and taxpayers' compliance. This means as perception of the taxpayer about ease of usage of electronic tax system increase favourably so will their compliance with tax regulation including tax payment. This finding illustrates the fact that electronic tax system eliminated the complexity associated with manual tax administration and brought ease to the experiences of taxpayers in their encounter with tax system.

Furthermore, the finding reveals that electronic tax quality service is significantly related to taxpayers' compliance. However, contrary to expectation the regression coefficient indicate the association between the variables is negative. As for the finding on the relationship between electronic tax payment and tax compliance, the analysis indicates the two variables had positive and significant relationship. This finding is not surprise because electronic tax payment is expected to attract more patronage from taxpayers as a result of its capacity to reduce cost compliance.

The findings of the study pose a number of implications to policy makers. First, the finding which reveals positive association between electronic tax awareness and taxpayer compliance attitude implies that for policy makers to inculcate favourable compliance attitude among taxpayers, they must direct efforts toward creating awareness about tax electronic system. For this reason, we recommend that policy maker particularly tax administrators should use both conventional and social media to sensitize the public about the electronic tax system with particular focus on taxpayers.

Similarly, the implication of the finding indicating that perceived ease of use is directly related to taxpayers' compliance is that for tax administrators to induce favourable tax compliance attitude among individual taxpayers, they must adopt electronic technology that is easy to use to support tax administration. Accordingly, in order to encourage favourable tax compliance from taxpayers, we recommend that tax authority should apply and adopt a simple and a more friendly interactive technology to support electronic tax administration. In the same vein, the finding on the connection between electronic tax service quality and tax compliance implies that electronic tax service quality being provided to taxpayers in Taraba State has not reached satisfactory level for it to exert positive impact on their compliance attitude. To this end, we therefore recommend a deliberate effort from policy maker toward improving the quality of tax electronic service by the ways of equipping tax offices in the State with adequate and modern ICT infrastructure as well as training of tax personnel to acquire modern ICT skill.

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