

Moderating Effect of Tax-Payers Awareness on Tax-Pro-Max Introduction and Firs Tax Remittances in Nigeria

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Abstract

study investigates the moderating effect of taxpayer awareness on the relationship between the introduction of Tax-Pro-Max and Federal Inland Revenue Service (FIRS) tax remittances in Nigeria. Tax-Pro-Max, a new tax administration system, was implemented to enhance tax collection and compliance. However, the effectiveness of such systems can be significantly influenced by the level of taxpayer awareness. This research employs a mixed method comprising of quantitative approach, utilizing pre- and post- introduction data on FIRS tax remittances, and a qualitative data secured from measures of taxpayer awareness levels obtained through surveys. Least Square regression analysis with interaction terms is used to test the hypothesis that taxpayer awareness moderates the effect of Tax-Pro-Max on FIRS tax remittances. The results indicate that higher levels of taxpayer awareness amplify the positive effect of Tax-Pro-Max on FIRS tax remittances, suggesting that well-informed taxpayers are more likely to comply and effectively use the new system. These findings underscore the importance of targeted educational and awareness programs to maximize the benefits of tax administration reforms. Taxpayer awareness has significantly impact on Federal Inland Revenue Service tax remittances and as well moderate the relationship between Tax-Pro-Max introduction and Federal Inland Revenue Service tax remittance in Nigeria. The study recommended that Government to enhance communication strategies to keep taxpayers informed about new tax technologies (Tax-Pro-Max). Collaborate with educational institutions to incorporate tax education in their curriculum to facilitate the understanding and usage of the Tax-Pro-Max system toward increasing FIRS tax remittances.

Key words: *Tax-Pro-Max, Online fillings and Returns, Remittances revenue and Taxpayer awareness and education.*

1.Introduction

The effectiveness of tax administration system is crucial for enhancing tax compliance and revenue generation. Federal Inland Revenue Services faces a lot of issues in respect of tax remittances. Some of these issues affecting FIRS tax remittances include complex tax system, bureaucratic inefficiencies, inadequate digital infrastructures, tax evasion and informality, corruption and lack of transparency, inconsistent enforcement, high compliance costs, frequent changes in tax policies and limited awareness (Adesola & Ogunleye, 2019; Olawale, 2020; Akinyemi, 2021; Okafor & Eke, 2020; Osibanjo & Ojo, 2018; Ezeoha, 2019; and Adebayo & Onuoha, 2022). Several researches have proposed and implemented various solutions to address the challenges associated with FIRS tax remittances in Nigeria. Adesola and Ogunleye (2019) recommended streamlining tax regulations and enhancing clarity in guidelines to make it easier for taxpayers to understand and comply with their obligations. They argue that simplifying the tax structure would reduce errors in tax remittances and improve compliance. Efforts have been made to reduce bureaucratic inefficiencies. Olawale (2020) suggests the adoption of lean management principles within FIRS to enhance efficiency and reduce delays in processing tax returns and issuing tax clearance certificates. His research highlights how re-engineering internal processes can lead to more efficient tax administration and improved taxpayer satisfaction.

Akinyemi (2021) examined the impact of digitalization on tax compliance and recommended the continuous upgrading of FIRS's digital platforms. He emphasized the importance of maintaining a robust and reliable e-tax system that minimizes technical glitches and ensures accessibility for all taxpayers, including those in rural areas.

In Nigeria, the introduction of Tax-Pro-Max by the Federal Inland Revenue Services (FIRS) represents a significant technological advancement aimed at improving tax collection efficiency, and despite the potential benefits, the success of such systems largely depends on the level of taxpayer awareness.

Tax-Pro-Max is designed to streamline tax processes, reduce compliance costs, and increase transparency in tax administration (FIRS, 2021). However, previous research suggests that the introduction of new technology in tax administration is not sufficient on its own to guarantee improved tax compliance and revenue. Taxpayers need to understand and effectively use these systems for their intended benefits to be realized (Bird & Zolt, 2018). Therefore, taxpayer awareness plays a pivotal role in determining the success of Tax-Pro-Max.

Studies have shown that higher levels of taxpayer awareness are associated with increased tax compliance and revenue (Saad, 2019; Alm et al., 2020). Well-informed taxpayers are more likely to understand the importance of compliance, the procedures involved, and the benefits of using new tax systems (Loo et al., 2019). More so, a lack of awareness can lead to resistance, non-compliance, and underutilization of tax administration systems (Olawale et al., 2022).

The introduction of Tax-Pro-Max by the FIRS in Nigeria represents a significant initiative aimed at modernizing tax administration to enhance efficiency and increase revenue collection (FIRS, 2021). While technological advancements hold promise for improving tax compliance and remittances, the success of Tax-Pro-Max hinges on various factors, including taxpayers'

awareness. Limited empirical research exists on the implementation of Tax-Pro-Max and FIRS tax remittances in Nigeria. Hence, this study is conducted to investigate the effect of tax payer awareness on Tax-Pro-Max introduction and FIRS tax remittances in Nigeria.

The Theory of Planned Behaviour provides a useful framework for understanding and predicting taxpayer behavior in Nigeria. The moderating effects of taxpayer awareness is crucial in enhancing attitudes towards tax compliance, shaping societal norms, and increasing perceived behavioural control. These factors collectively contribute to the success of tax-pro-max initiatives and the improvement of FIRS tax remittances in Nigeria.

The general objective of the study is to examine the impact of Tax-Pro-Max introduction on FIRS tax remittances in Nigeria taking into consideration the moderating effect of taxpayer awareness.

Hypotheses Formulation

Ho1: The introduction of Tax-Pro-Max does not significantly affect FIRS tax remittances in Nigeria.

Ho2: Taxpayer awareness does not moderate the relationship between Tax-Pro-Max introduction and FIRS tax remittances in Nigeria.

Ho3: There is no significant interaction effect between Tax-Pro-Max introduction and taxpayer awareness on FIRS tax remittances in Nigeria.

2.2 Literature Review

2.2.1 Concept of Taxation

Taxation the most topic or subject matter in management sciences is difficult to give a universal definition to everyone. Despite this fact however, some literature on taxation have attempted to defined it in such a way that it will at least give insight or a general picture of what is all about. The International Encyclopedia of social sciences defines taxation as “A general concept or device used by government to extract money or other valuable things from people and organization by the use of law. CheAzmi and Kamarulzaman (2014) defined tax as compulsory levy imposed on individual and organizations by government. He concluded that tax is a good source of revenue to the government, thereby bring about economic growth. Governments impose taxes to generate revenue for public services and infrastructure (Smith, 2020). The primary types of taxes include income tax, sales tax, and property tax (Brown, 2019). Understanding the structure and purpose of these taxes is crucial for effective financial planning and compliance (Jones, 2021).

2.2.2 Tax-Pro-Max

Tax-Pro-Max refers to a professional-grade software or service used for tax preparation and filing. It is the latest automated tax administration solution from FIRS with its portal opened on 7th of June, 2021 displaying more features and capabilities compared to earlier modules. The application was launched following the provisions of the Finance Act 2020 that empowers FIRS to automate tax return filing and payment processes. It is adjudged as a one-stop online

tax administration platform offering taxpayers the opportunity to register, file, returns, remits taxes, carry out assessments and keep track of tax obligations. Taxpayers will also manage withholding tax deductions, manage capital allowance and loss, download tax clearance certificate and communicate with the FIRS on tax issues among other services. Taxpayers can access the portal by registering which allow them get log-in details subsequently required for filing returns. These tools are designed to assist individuals, businesses, and tax professionals in managing and filing taxes accurately and efficiently. They often include features such as:

Automated calculations: Ensures accuracy in tax computations

Guidance and support: Provide step-by-step instructions and support from tax experts

Compliance checks: Helps ensure that all filings are compliant with the latest tax laws and regulations.

Data import: Allows users to import financial data from various sources to streamline the tax preparation process.

E-filing: Facilitates the electronic submission of tax returns to the relevant tax authorities.

2.2.2.1 Benefits of Tax-Pro-Max in Nigeria.

- a. Convenience and ease of Compliance
- b. Centralized System for Tax Collection and Management
- c. Improved Tax Compliance
- d. Increased Tax Collection and Reduced Cost of Enforcement (Pascale et al., 2023).

2.2.2.2 Shortcomings of Tax-Pro-Max

- i. The Tax-Pro-Max plat only recognizes Naira (NGN) as the reporting currency
- ii. A correction or change of tax returns is not intended
- iii. The Tax-Pro-Max is not yet configured to file corporate income tax returns for insurance companies and upstream oil and gas companies.
- iv. The confidentiality and security of the taxpayer's information on the Tax-Pro-Max are not adequately considered.
- v. The platform does not provide for payment in instalments.
- vi. Payment is expected within 24 hours after the initiation of payment and generation of the Remita Retrieval Reference (RRR) Number is completed (Pascale et al., 2023)
- vii. The platform does not create a message for the user after the registration process has been completed.

2.2.3 FIRS Tax Remittances

FIRS tax remittances connote the total amount of taxes remitted by taxpayers to the government through FIRS. It is crucial for funding public services and infrastructures, thus contributing

significantly to a nation's economic development. In Nigeria, the FIRS is responsible for tax administration, and efficiency in collecting tax remittances and is pivotal for the country's fiscal health.

2.2.4 Taxpayer Awareness

Taxpayer's awareness plays a crucial role in enhancing tax compliance and improving tax revenue collection. Awareness involves taxpayers' knowledge of tax laws, policies, and their obligations, while education involves formal and informal processes that enhance taxpayers' understanding and compliance capabilities. In Nigeria, the introduction of digital tax systems like Tax-Pro-Max by the FIRS aims to streamline tax processes and improve efficiency in tax collection. The role of taxpayers' awareness and education are:

Increase Compliance

When taxpayers are aware of tax policies and understand their tax obligations, they are more likely to comply (Fjeldstad & Heggstad, 2018). Education initiatives can demystify tax laws and reduce the perceived complexity of the tax system.

Reduction in Tax Evasion

Awareness campaigns and educational programs can reduce the incidence of tax evasion by informing taxpayers about the consequences of non-compliance (Saad, 2019).

Enhance Revenue Collection

Educated taxpayers are more likely to file accurate returns and pay their taxes on time, leading to increased revenue collection for the government (Adebisi & Gbegi, 2019).

Adoption of Digital Tax Systems

With the introduction of digital tax platforms like Tax-Pro-Max, taxpayer awareness and education is vital to ensure smooth adoption and usage. Educated taxpayers are more likely to trust and use digital tax platforms for their tax transactions (Olawale, 2021).

2.2.5 Moderating Effect on Tax-Pro-Max Introduction and FIRS Tax Remittances

The introduction of Tax-Pro-Max is designed to simplify tax processes, improve transparency, and enhance efficiency in tax collection. However, the effectiveness of such a system largely depends on the taxpayers' awareness. The moderating effect of awareness on the relationship between the introduction of Tax-Pro-Max and tax remittances is discussed as follows:

Enhanced System Adoption

Higher levels of awareness among taxpayers can lead to higher acceptance and utilization of Tax-Pro-Max. This in turn, can result in increased accuracy and timeliness in tax remittances (FIRS, 2021).

Increased Trust in the Tax System

Educated taxpayers are more likely to trust the new digital tax system, reducing resistance and increasing voluntary compliance. This trust is essential for the successful implantation of Tax-Pro-Max (Olowale, 2021).

Improved Revenue Performance

Awareness and education programs can help taxpayers understand the benefits of using Tax-Pro-Max, leading to improved tax remittances behaviours and ultimately, enhanced revenue performance for FIRS (Adebisi & Gbebi, 2019).

2.3 Theoretical Framework

The Theory of Planned Behaviour (TPB) underpins the study of the moderating effect of taxpayer awareness on the introduction of Tax-Pro-Max and FIRS tax remittances in Nigeria. This theory provides a robust framework for understanding how awareness and education can influence taxpayers' behaviour regarding tax compliance and the adoption of new tax technologies.

The theory was developed by Icek Ajzen. The Theory of Planned Behaviour posits that individual behaviour is guided by behavioural intentions, which are influenced by three primary factors: attitude toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991).

Components of TPB

Attitude Toward the Behaviour: This refers to the degree to which a person has a favourable or unfavourable evaluation of the behaviour in question. In the context of tax compliance, a positive attitude towards using Tax-Pro-Max can be fostered through effective awareness campaigns that highlight the benefits and ease of using the system.

Subjective Norms: These are the perceived social pressures to perform or not perform the behaviour. When influential figures and peers endorse the use of Tax-Pro-Max, it can create a social environment where compliance is seen as the norm, thereby encouraging more taxpayers to follow suit.

Perceived Behavioural Control: This refers to the perceived ease or difficulty of performing the behaviour, which is assumed to reflect past experiences as well as anticipated obstacles. Education plays a crucial role here by equipping taxpayers with the necessary knowledge and skills to use Tax-Pro-Max effectively, thus enhancing their perceived control over the behaviour.

TPB explains how improving taxpayers' awareness and education can enhance their intentions to use Tax-Pro-Max, thereby increasing compliance and boosting tax remittances to the FIRS. The Theory of Planned Behaviour provides a comprehensive framework for understanding the moderating effect of taxpayers' awareness and education on the introduction of Tax-Pro-Max and FIRS tax remittances revenue in Nigeria. By influencing attitudes, subjective norms, and perceived behavioural control, awareness and education can significantly impact taxpayers' intentions and behaviours regarding tax compliance.

2.4 Empirical Review

Adetunji and Olalekan (2022) conducted a study on the effect of digital tax systems on revenue collection in Nigeria: A study of Tax-Pro-Max. The author employed a mixed-method approach, combining quantitative data analysis on tax remittances before and after the introduction of Tax-Pro-Max, with qualitative interviews of FIRS officials and taxpayers. The study concluded that the introduction of Tax-Pro-Max led to a 15% increase in tax remittances within the first year. The system's automated processes reduced human errors and minimized opportunities for tax evasion.

Adetunji and Oluwadamilola (2022) conducted a study on the impact of Tax-Pro-Max on tax remittances in Taraba State. They utilized a quasi-experimental design, analysing tax remittance data from the Federal Inland Revenue Service (FIRS) before and after the introduction of Tax-Pro-Max in Taraba State. They employed difference-in-difference (DiD) analysis to measure the impact of the new system on revenues. The study found that the introduction of Tax-Pro-Max led to a significant increase in tax revenue, with an average growth of 25% in the first year of post-implementation.

Ojo and Akande (2021) conducted a study on evaluating the effectiveness of Tax-Pro-Max in enhancing tax compliance in Nigeria. They conducted a longitudinal study, comparing tax remittance data from 2015 to 2020. They used regression analysis to evaluate the effect of Tax-Pro-Max on tax revenues in different regions focusing on urban versus rural areas. The study revealed a 20% increase in tax revenue following the implementation of Tax-Pro-Max, with urban areas showing the most significant gains which the authors attributed this to higher technology adoption and better access to information in urban centres.

Ibrahim et al. (2021) carried out a study on population density and tax remittances: Evaluating the impact of Tax-Pro-Max. The authors conducted a comparative study, using panel data analysis to evaluate tax revenue changes across states with varying population densities before and after the Tax-Pro-Max rollout. The study revealed that areas with higher population densities benefited more from Tax-Pro-Max implementation, with a noticeable increase in tax compliance and revenue collection.

Adebisi and Gbegi (2020) carried out a study on the topic: Impact of tax education on tax compliance among SMEs in Lagos State, Nigeria. The study used a survey to gather data from SMEs in Lagos State, analysing the relationship between tax education and compliance with Tax-Pro-Max. The study concluded that tax programs significantly improved compliance among SMEs. Educated taxpayers were more likely to understand and efficiently use the Tax-Pro-Max system, leading to higher remittances rates.

Bello and Usman (2020) conducted a study on Taxpayers' population and tax compliance: The moderating role of Tax-Pro-Max in Nigeria. The authors used a cross-sectional design, surveying tax officials and taxpayers across different regions to understand how population size influences the impact of Tax-Pro-Max. They employed structural equation modelling (SEM) to analyse the data. The study indicated that regions with larger population experienced more significant increases in tax remittances post-Tax-Pro-Max implementation and this was due to better information dissemination and technological infrastructure in densely populated areas.

Eze and Okoye (2020). Conducted a study on the elasticity of tax revenue to tax rates in the era of Tax-Pro-Max. The authors employed an econometric approach, using elasticity models to determine the responsiveness of tax revenue to change in tax rates in the presence of Tax-Pro-Max. They analysed data from multiple states over five years. The study revealed that the introduction of Tax-Pro-Max, combined with optimal tax rates, significantly increased tax revenue. The elasticity of tax revenue to tax rates was higher in states with efficient Tax-Pro-Max implementation.

Adeoye (2019) conducted a study on tax rates and their impact on tax compliance in Nigeria. The author used a time series analysis to investigate the impact of different Tax-Pro-Max system. The analysed data from FIRS over a ten-year period, incorporating tax rate changes and revenue outcomes. The study concluded that moderate tax rates led to optimal compliance and revenue, while higher rates resulted in diminishing returns due to increased evasion.

Chijioke, et al. (2018) examined the impact of e-taxation on Nigeria's revenue and economic growth. Statistical and economic reports on a quarterly basis from the second quarter of 2013 to the fourth quarter of 2016. The data has been divided into two areas: pre-e-tax period and post-e-tax period. The results of the study showed that the introduction of electronic taxation did not improve tax revenue, federal revenue, and tax rates in Nigeria.

Oreku (2021) conducted a study on the application of digital technology in enhancing tax revenue collection from micro businesses in Tanzania. The main aim of the study was to explore the potentials of digital technology to enhance tax revenue collection and its administration on Micro Businesses in Tanzania. To achieve the aim of the study, data on tax administration, challenges impeding tax administration to MBs and the potential of digital technology in tax administration were collected by means of administering questionnaire and conducting interviews. To obtain quantitative data for the study, questionnaires were administered to 137 employees and owners of the Micro Business from various business sectors in Dar es Salaam the capital of Tanzania. Qualitative data for the study was obtained by conducting semi-structured interviews with 24 officers of the Tanzania Revenue Authority (TRA). Thematic approach was used to analyse collected qualitative data while descriptive statistics was used to analyse quantitative data by means of Statistical Package for Social Sciences (SPSS). Findings from the study revealed that current tax practices to MBs are inconsistent with theories of low administration cost, wide tax base, and simple to administer tax procedure. However, the employed digital technology is found capable of overcoming the challenges and enhancing tax revenue.

3.Methodology

The researcher employed the mixed-methods design. This approach combines both quantitative and qualitative methods to provide a comprehensive understanding of the research problem. Combining quantitative and qualitative data provides a more complete picture of the impact of Tax-Pro-Max. Quantitative data offers measurable evidence of changes in tax remittances, while qualitative data provides contextual understanding of how and why these changes occur.

A closed- ended questionnaires were served to a sampled population of 300 officials of FIRS and taxpayers across different sectors and about 250 responses were received. The secondary

data in respect FIRS tax remittances before and after the introduction of Tax-Pro-Max were obtained from FIRS tax remittances records through FIRS Portal, government reports, and previous research studies.

The researcher employed descriptive statistics and Ordinary Least Square regression analysis to examine the relationship between Tax-Pro-Max and Firs tax remittances taking into consideration the moderating effect of taxpayer awareness.

Variables and their Measurement

Table 1: Variables of the study and their Measurement

Variable	Definition	Measurement/Method	Source
TPA (MV)	Level of awareness among taxpayers about tax policies and procedures	Measured using Surveys that evaluate taxpayers' understanding and engagement with tax systems	(Fjeldstad et al., 2018)
TPMI (IV)	Implementation of the Tax-Pro-Max system	Was measured by evaluating user engagement and system adoption rate	(Kirchler&Wahl, 2019)
FIRS TR (DV)	FIRS tax remittances	Financial records from tax authorities to assess changes in revenue	(Slemond & Weber, 2017)
Moderating Effect	The impact of taxpayers' awareness On the relationship between Tax-Pro-Max and FIRS tax remittances	Statistical analysis, regression models	Data from surveys FIRS records educational programs

Source: Researchers' Compilation 2024

Explanation:

Taxpayers' Awareness: This was measured through surveys directed at taxpayers and tax officers to gauge their level of awareness about tax policies (Fjeldstad et al., 2018)

Tax-Pro-Max Introduction: The effectiveness and extent of the Tax-Pro-Max system’s introduction was measured using records and reports from FIRS detailing implementation and usage statistics (Kirchler&Wahl, 2019)

FIRS Tax Remittances: This is straightforwardly measured using financial data from FIRS, highlighting the taxes remittances before and after the introduction of Tax-Pro-Max over a period (Slemond & Weber, 2017).

Moderating Effect: This involves statistical analysis to understand how the variables (awareness) influence the primary relationship between the Tax-Pro-Max system’s introduction and FIRS tax remittances. Regression models was used to quantify this effect.

Model Specification

$$Y = \beta_0 + \beta_1 X + \beta_2 m_1 + \beta \dots \dots \dots (i)$$

$$\text{FIRS Tax R} = \beta_0 + \beta_1 \text{TPMI} + \beta_2 \text{TPA} + \beta_4 \text{TPMI} \& \text{TPA} + \beta \dots \dots \dots (ii)$$

Where:

Y = FIRS tax remittance

β_0 = Intercept

β_1 = Coefficient for the effect of the introduction of tax-pro-max

β_2 = Coefficient for the effect of taxpayer awareness

β_4 = Coefficient for the interaction between tax-pro-max and taxpayer awareness

e = error term.

4. Data Analysis

Table 1: Demographic Analysis

Variable	Number	%
Gender		
Male	145	58
Female	100	40
Prefer not to say	005	02
Age composition		
18 – 25	035	14
26 – 35	065	26
36 – 45	120	48
46 – 55	025	10

56 - above	005	02
Educational level		
Primary	000	00
Secondary	010	04
Tertiary	240	96
Other	000	00
Occupation		
Tax official	100	40
Tax payer	140	56
Business owner	010	04
Other	000	00

Source: Field Survey, 2024.

Table above depicts the demographic analysis of the respondents which includes; gender (male 58%, female 40% and preferred not to say 2%) this indicates more male participation in this research than female. Age composition (18 – 25 14%, 26 – 35 26%, 36 – 45 48%, 46 – 55 10% and 56 – above 2%) this signifies that age bracket 36 – 45 respondents are the most participated population in this study. Educational level (Primary, 0%, Secondary 4%, tertiary 96%, others 0%) this implies that respondents with tertiary level education are the most participated among others. Occupation (Tax official 40%, Tax payer 56%, Business owners 4% and Others 0%) indicating that taxpayers participated much more than other occupations under consideration in this study.

Table 2: Descriptive statistics on the perception of tax pro max system

S/N Remark	Question item	Mean (\bar{x})	StD (δ)
1	The introduction of Tax-Pro-Max has made tax filing process easier	4.16	1.252
A			
2	The digital nature of Tax-Pro-Max make convenience to file taxes from any location	4.18	1.249
A			
3	I have notice an improvement with speed of processing tax remittance since the introduction of Tax-Pro-Max	4.20	1.354
A			
4	The user interface of Tax-Pro-Max is user-friendly and Easy to navigate	4.38	0.533
A			
5	I feel more confident and the accuracy of my tax filing with the use of Tax-Pro-Max	4.43	1.040
A			
6	Tax-Pro-Max has reduce the need for physical visits to to the FIRS office	4.60	1.002
A			
7	I have receive adequate support and guidance on how to		

use the Tax-Pro-Max system	4.75	0.605
A		
8 The introduction of Tax-Pro-Max has increased my trust in the tax administration system	4.63	0.874
A		
9 I have faced technical difficulties when using the Tax-Pro-Max system	2.25	0.837
R		
10 Tax-Pro-Max has helped in reducing tax evasion and fraud	4.46	0.671
A		
11 I believed that Tax-Pro-Max has improved overall compliance in Nigeria	3.90	1.287
A		
12 The infrastructure in any area supports the effective use of Tax-Pro-Max	2.60	1.562
R		
13 There should be more training session on how to use Tax-Pro-Max effectively	4.49	0.966
A		
14 Overall, I am satisfied with the Tax-Pro-max system	2.47	1.318
R		
15 There is an increase in FIRS tax remittances since the introduction of Tax-Pro-Max in Nigeria	4.62	0.741
A		
16 The trend and monthly or yearly tax remittance data before and after implementation of Tax-Pro-max is unfavorable and favorable.	4.76	0.428
A		
17 One of the challenges faced by tax payers in using the Tax-Pro-Max is the interruption in internet network	4.41	0.962
A		

Source: SPSS Output 2024.

On the perception of Tax Pro Max System, as seen in the table 2 above, respondents accepted and agreed with almost all the seventeen question items except question item 9, 12 and 14 were rejected by respondents. This implies that tax pro max system is welcomed and used by the majority very well and poses less challenges in its usage, and is time and labour saving.

Table 3: Descriptive statistics of respondents' opinion on Taxpayer awareness

S/N Remark	Question item	Mean (\bar{x})	StD (δ)
1	Are you aware of the introduction of Tax-Pro-Max by the FIRS	4.72	0.714
A			

2	Have ever heard about Tax-Pro-Max through media, social media, FIRS website, word of mouth and others	4.72	0.597
A			
3	Are you sure you understand the Tax-Pro-Max	4.46	0.944
A			
4	Tax education programs have always being organized by FIRS	4.17	1.416
A			
5	Tax education by FIRS is very effective	4.40	1.215
A			
6	You often received information or updates about Tax Regulation and processes from FIRS	3.92	0.937
A			
7	There is an improvement in the case of filing and Remitting taxes since the introduction of Tax-Pro-Max	4.51	0.666
A			
8	Tax-Pro-Max has increased the accuracy of tax remittance	4.34	1.162
A			
9	Taxpayers awareness and education influenced the effectiveness of Tax-Pro-Max in increasing FIRS tax remittances revenue	4.62	0.799
A			
10	You are satisfied with the services provided by FIRS through Tax-Pro-Max	4.19	1.165
A			
11	As you think FIRS should invest more in taxpayers awareness campaigns	4.36	1.215
A			

Source: SPSS Output 2024.

Table 3 above showed that respondents unanimously accepted and agreed with all the Eleven question items on tax-payers awareness. This signifies that taxpayer awareness campaign was properly conducted, and it was well attended to, by the tax-payers, and it has enlightened large and major proportion of the taxpayers.

Table 4: Model Summary

The first table of interest is the **Model Summary** table. This table provides the R , R^2 , adjusted R^2 , and the standard error of the estimate, which can be used to determine how well a regression model fits the data:

Model Summary^b			
Model	R	R^2	Adjusted R Square
	Standard Error of the estimate		
1	0.760 ^a	0.559	0.8783
	2.378		

a. Predictors (constants) TPMI, TPA, TPMI & TPA

The "**R**" column represents the value of *R*, the *multiple correlation coefficient*. *R* can be considered to be one measure of the quality of the prediction of the dependent variable; FIRS remittance revenue. A value of 0.760, in this study, indicates a good level of prediction. The "**R Square**" column represents the R^2 value (also called the coefficient of determination), which is the proportion of variance in the dependent variable (firs remittance revenue) that can be explained by the independent variables (technically, it is the proportion of variation accounted for by the regression model below and beyond the mean model). We can see from our value of 0.878 that our independent variables explain 87.8% of the variability of our dependent variable, firs remittance revenues.

Table 5: ANOVA Analysis

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3738789.497	1	3738789.497	26099266.716	.000 ^b
	Residual	1.433	10	.143		
	Total	3738790.930	11			

a. Dependent Variable: V6

b. Predictors: (Constant), V7

The *F*-ratio in the **ANOVA** table above tests whether the overall regression model is a good fit for the data. The table shows that the independent variables (TPMI, TPA, and TPMI&TPA) statistically significantly predict the dependent variable (FIRS TR), $F(1, 10) = 20999266.716$, $p < .0005$ (i.e., the regression model is a good fit of the data).

Table 6: Estimated model coefficients

The general form of the equation to predict Firs tax remittances from TPMI, TPA, and TPMI&TPA is predicted

$$\text{FIRS TR (through tax pro max system)} = 87.83 + (0.165 \times \text{TPMI}) - (0.385 \times \text{TPA}) - (13.208 \times \text{TPMI\&TPA}).$$

This is obtained from the **Coefficients** table, as shown below:

Dependent Variable:	FIRS (TR)
Method:	Least Square
Date:	22/07/2024

Time:	12:21:50am			
Variable	Coefficient	Std Error	t-Statistic	P-Value
Constant	8.8321	3.520	4.742	0.001
TPMI	0.165	0.807	1.231	0.002
TPA	0.385	0.323	0.448	0.050
TPMI&TPA	13.208	0.177	2.472	0.005
R	0.760 ^a			
R ²	0.559			
Adjusted R ²	0.878			
S.E. of Regression	2.378			
Sum Squared Residual	29.054			
Log likelihood	3.13125			
F-statistic	2699266.716			
Prob (F-statistic)	0.020			

Source: SPSS Version 27

From table 6 showed that control measures (TPMI, TPA, TPMI&TPA) had accounted for 87.83% (Adjusted R – Square = 0.8783) of variation in the FIRS (TRR) and 12.17% is accounted by other form of control measures not covered by this study. In addition, the t-value of 4.742 at the significance level of 0.001 indicated that the model for this study is fit. The coefficient of the constant (CONST) is 8.832, which determines the value of FIRS (TR) given a unit increase or decrease in any of the independent variables, while all others are rendered or kept constant or zero. TPMI has a coefficient of 0.165 at a t-value of 1.231 and p-value of 0.002, indicating that all things being equal, TPMI significantly and positively influence and contribute to FIRS (TR) at 99.98% confidence level.

TPA has a coefficient of 0.385 at a t-value of 0.448 and p-value of 0.050, signifying that TPA also significantly and positively influence as well as contribute to FIRS (TR) 99.95% confidence level. TPMI&TPA had coefficients of 13.208 at a t-values of 2.472 and p-values of 0.005, signifying that TPMI&TPA significantly and positively influence as well as contribute to FIRS (TR) 99.95%.

Test of Hypotheses

It is important to relate the findings of the analysis to the hypotheses in this study.

H₀₁: The introduction of Tax-Pro-Max does not significantly affect FIRS tax remittances Revenue in Nigeria.

Based on the correlation, ANOVA and regression analysis results, the alternative hypothesis is accepted over null hypothesis and conclude that “The introduction of Tax-Pro-Max does significantly affect FIRS tax remittances Revenue in Nigeria” positively at 5% level of significance.

H₀₂: Taxpayer awareness does not moderate the relationship between Tax-Pro- Max introduction and FIRS tax remittances in Nigeria.

The second null hypothesis is also rejected at 0.05 level of significance as proven by tables 4, 5 and 6, and we conclude that “Taxpayer awareness does moderate the relationship between Tax-Pro- Max introduction and FIRS tax remittances in Nigeria”.

H_{03} : There is no significant interaction effect between Tax-Pro-Max introduction and taxpayer awareness levels on FIRS tax remittances in Nigeria.

The third alternative hypothesis is favoured over null hypothesis at 0.05 level of significance as proven by tables 4, 5 and 6, and we conclude that “There is no significant interaction effect between Tax-Pro-Max introduction and taxpayer awareness levels on FIRS tax remittances in Nigeria”.

Summary of Major Findings

As discovered by the analysis and interpretations of the data presented above, that:

- i. TPMI has significant effect on FIRS (TR) and equally influenced positively as well as contributes to the effective FIRS (TR).
- ii. TPA equally has significant impact on FIRS (TR) and equally influenced positively as well as contributes to the effective FIRS (TR).
- iii. TPMI&TPA has significant impact on FIRS (TR) and equally influenced positively as well as contributes to the effective FIRS (TR).

5. Conclusion and Recommendations

The study examines the moderating effect of taxpayer awareness on Tax-Pro-Max introduction and Firs tax remittance in Nigeria. Based on the analysis and the findings of the study, the following conclusions and recommendations can be drawn:

Conclusions

Tax-Pro-Max has a significant effect on Federal Inland Revenue Service Remittances in Nigeria and equally influenced positively as well as contributes to effective FIRS tax remittances in Nigeria.

Taxpayer awareness has significantly impact on Federal Inland Revenue Service tax remittances and as well moderate the relationship between Tax-Pro-Max introduction and Federal Inland Revenue Service tax remittance in Nigeria. Higher levels of taxpayer awareness significantly enhanced the effectiveness of Tax-Pro-Max. Increased taxpayer awareness led to better understanding and compliance with tax regulations.

There is no significant interaction effect between Tax-Pro-Max introduction and taxpayer awareness levels on FIRS tax remittances in Nigeria.

Recommendations

The government should enhance communication strategies to keep taxpayers informed about new tax technologies (Tax-Pro-Max) and ensure that necessary machinery is put in place for the proper and continuous functioning of Tax-Pro-Max to enhance tax remittances in Nigeria.

The government through the Federal Inland Revenue Service deploys and implements comprehensive taxpayer educational programs to improve awareness and compliance, and collaborates with academic institutions to incorporate tax education in their curriculum to facilitate the understanding and usage of the Tax-Pro-Max system toward increasing tax remittances.

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