



THE IMPACT OF TAX AUDIT AND TAX INVESTIGATION ON TAX COMPLIANCE OF BUSINESSES (A CASE STUDY OF LAGOS STATE, NIGERIA)

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ABSTRACT

The purpose of the study was to examine the impact of tax audit and tax investigation on tax compliance of businesses using Lagos State as a case study. The specific objectives of the study were: to investigate the effect of tax audit on the tax compliance of businesses in Lagos state; to examine the impact of tax investigation on the tax compliance of businesses and to evaluate the inter-relational impact of tax audit and investigation on tax compliance on businesses in Lagos state.

Quantitative research methodology was used as predestined by the purpose of this research. Secondary data were reviewed for the analysis. Descriptive statistics was employed for the data analysis, and ordinary least squares method was employed to provide answers to the research questions and test the hypotheses. Additionally, inter-relational impact of tax audit and tax investigation on tax compliance on businesses was examined using Pearson's correlation coefficient. A deductive research design was chosen.

The findings showed that the degree of tax compliance of businesses in Lagos State has a positive correlated to tax audit and tax investigation. It was advised that tax authorities conduct annual tax audits and expand tax audits and investigations to cover more businesses, particularly those operating in the digital economy and informal sector, and provide constant professional training for tax auditors and investigators to equip them for the evolving changes in the industry. Continuous improvement in tax compliance of businesses through encouragement and enforcement will assist the government in generating more tax-related revenue.

Key word: Tax audit, Tax investigation, Tax compliance, Businesses

1.0 Introduction

Taxation is the bedrock on which a society is built. As stated by Alabede et al. (2011), “The amount of tax generated by the government to meet her spending depends largely on the degree of compliance and the effectiveness of the enforcement tools”. Tax audits and tax investigations are the principle tools aimed at driving the taxpayer to pay the right amount of tax and to become compliant with the provisions of tax laws.

According to IRS statistics (2022), the US shows a \$496 billion gross tax gap yearly, with 80 percent coming from underreporting income, while the rest from non-filing and underpayment. This reveals a huge tax loss from non-compliance by businesses in the United States. Nigeria likewise suffers the same fate, and the tools mentioned above have been introduced to reduce some losses. According to Olokooba et al. (2018), repeated tax law violations and an increase in poor tax compliance have forced governments at all levels to review enforcement measures for efficient tax administration to increase tax revenue. However, the question that keeps coming up is, 'to what extent has tax investigation and audit contributed to the revenue generation in Nigeria through tax compliance?' (Adediran et al. 2018).

1.1 Statement of the Problem

It is not easy to measure the level of non-compliance of taxpayers via undisclosed incomes, but it can be said with certainty that the amount of revenue lost by the government yearly through tax evasion is massive. Washington (2022), in his study, quoted former IRS Commissioner Charles Rossotti as estimating \$574 billion in legally owed taxes uncollected in 2019 in the US, which new research indicates might be an understatement. If the United States with all the sophistication and automation can suffer such a colossal amount in tax evasion, what then could not happen in Nigeria? Hence there is need to drive tax compliance by using tools like tax audits and tax investigation. It is against this backdrop that this study evaluates the impact of tax audits and investigations on tax compliance of businesses in Lagos state.

1.2 Aims and Objectives

This main aim of the study was to examine the Impact of Tax Audit and Investigation on Tax Compliance of Businesses. Lagos State Nigeria was taken as a case study. Lagos state maintains Nigeria's highest State Internally Generated Revenue record, with over 85percent of it coming from the Tax Revenue Board (LIRS).

The specific objectives of the study were:

1. To investigate the impact tax audit has on the tax compliance of businesses in Lagos state.
2. To examine the impact tax investigation has on the tax compliance of businesses in Lagos state.
3. To evaluate the inter-relational impact of tax audit and investigation on tax compliance on businesses in Lagos state.

1.3 Research Questions

The following were the questions that guided this study:

1. What is the impact of tax audit on tax compliance of businesses in Lagos state?
2. How does tax investigation impact tax compliance of businesses in Lagos state?
3. What is the resultant effect of combination of tax audits and tax investigations on tax compliance of businesses in Lagos state?

1.4 Significance of the study

The study will give the tax administrators the crucial information needed to decide how best to oversee tax audit and investigation with regard to tax compliance of businesses. Secondly, it will serve as a guide and source of reference for further research related to tax audit, investigation, and compliance.

2.0 Review of related literature

The literature reviewed examined this study using the conceptual framework, theoretical framework, and empirical literature. Gaps in the literature will be also discussed.

2.1 Conceptual Framework

The conceptual framework discusses the three major concepts: tax audit, tax investigation, and tax compliance for better understanding.

Tax Audit entails checking a company's books of accounts and other records to ensure that the prospective tax liability information contained in the financial statements is accurate (Cai et al. (2019). According to Olaoye et al. (2018), effective tax audit significantly impacts the overall tax revenue accruable to the government. It was further established that there was no particular provision under Companies Income Tax Act (CITA) for tax audit until Section 43 Subsection 4 of CITA (2004) was introduced. In the view of Nurebo et al. (2019), one of the benefits of tax audit is that it fosters and improves tax compliance. Akhand (2018) argues that in Bangladesh, major business taxpayers are more likely to adhere to tax laws out of concern for penalties due to a tax audit.

Tax Investigation on the other hand, is the verification of a company's accounts to identify any unpaid taxes that result from the taxpayer's omissions leading to under-assessment (Nurebo et al, 2019). In prior studies, Gaaya et al. (2018) and Martins and Sa (2018) made the case that the key to starting a tax investigation is when the taxpayer is accused of fraud, deliberate default, or negligence, and the main objective is to get the taxpayer to pay back taxes. The tax authority must make unbiased assessments and judgments based on verifiable evidence for the tax investigation to succeed. Taxpayers evade paying taxes using illegal means.

Typically, tax evasion schemes involve an individual or corporation misrepresenting their income to the Internal Revenue Service. Misrepresentation may take the form either of underreporting income, inflating deductions, or hiding money and its interest altogether in offshore accounts (Martins and Sa, 2018).

Tax Compliance is the process by which taxpayers voluntarily comply with the relevant tax laws and regulations by taking care of their tax obligations without being required to do so (Zandi & Rabbi, 2015). It comprises voluntarily and knowingly paying taxes when they are due in accordance with applicable tax legislation (Olaoye & Ekundayo, 2019). Research by Verboon and Van-Dijke (2014) identifies tax compliance as the willingness of taxpayers to work with the appropriate tax authorities by completing their payments voluntarily. Assuring accurate tax computations, early filing, and payments within the authorised time frame are other ways businesses ensure compliance with current tax rules and regulations (Olaoye et al., 2017).

2.2 Theoretical Review

The classical theory of tax compliance states that taxpayers weigh the advantages of tax evasion against the danger of being caught by tax authorities (Sandmo, 2005). Alabede et al, (2011) stated that tax audits and penalties for tax avoidance and evasion constitute the foundation of the traditional notion of compliance. He argued that businesses pay their tax liability because they are concerned about being caught by the tax authority.

Another theoretical grounding for tax compliance or evasion is hinged on the Theory of planned behaviour. The Theory of Planned Behaviour assumes that individuals act rationally, according to their attitudes, subjective norms, and perceived behavioural control (Shaw, 2016). These factors are not necessarily actively or consciously considered during decision-making, but form the backdrop for the decision-making process (Shaw, 2016). This theory postulates that people are more prone to engage in a behaviour if they believe it might result in positive outcomes. Benk, (2002) asserts that behavioural faiths and control faiths influence intention through character, subjective norms, and acknowledged behavioural control to demonstrate the extent to which an individual strives to perform a particular behaviour. This hypothesis was applicable to this study since the taxpayer's behaviour and attitude is directly related to tax compliance. The question is, "What is the intention of a taxpayer when he does not pay his taxes?"

2.3 Empirical Review

The study by Beredugo et al. (2019), which explored tax evasion and avoidance through a successful tax audit and inquiry in Cross Rivers State, is the first piece of literature to be reviewed. Their research showed that tax audits significantly impacted tax avoidance and evasion in the state. In their conclusion, they claimed that a complete tax audit exercise would motivate taxpayers to file their tax returns promptly and that a more vigorous tax audit and investigation system would lessen tax evasion and avoidance in the state.

Alemu (2020), adopted both primary and secondary data sources to solve the significant challenges confronting the tax authorities. He found that tax audits, fines, penalties, and knowledge, affect tax compliance positively or negatively. Additionally, Olaoye and Ekundayo (2019) found a positive effect of tax audit on tax compliance in their study, "Effects of Tax Audit on Tax Compliance and Remittance of Tax Revenue in Ekiti State." They suggested that tax audits be conducted routinely by tax authorities to ensure proper taxes are paid.

In their earlier study: "Tax audit and tax productivity in Lagos state", Olaoye et al. (2018) used both primary and secondary data to conclude that the use of tax audit exercise has enhanced revenue generation in Lagos State.

They agreed that the effective use of tax audits improves voluntary compliance and decreases tax evasion and avoidance, which would boost tax revenue going to the government.

Harelimana (2018) researched how tax audits affected Rwanda's ability to collect taxes. This study descriptively used primary and secondary data. The results showed that tax audits positively affected revenue generation in Rwanda. In addition, Oladipupo and Obazee (2016) investigated the impact of taxpayers' knowledge and penalties on tax compliance in small and medium-sized businesses in Nigeria. Their research found that tax knowledge significantly positively impacted tax compliance, whereas default penalties had a marginally positive impact.

The Bauchi State board of internal revenue was used as a case study in Badara's (2012) investigation into the impact of tax audits on tax compliance in Nigeria. The study found that the tax audit used by the appropriate tax authorities had a favourable impact on tax compliance. Modugu and Anyaduba (2014). Also investigated on the impact of tax audit on tax compliance in Nigeria and used ordered logistic regression to analyse primary data. Their outcome showed that there is a positive correlation between tax audit and tax compliance, but it is weak as it stands at 24.4% and a higher coefficient of 69.7% between government spending and tax compliance.

The effect of tax audit and investigation on revenue generation in Nigeria was consequently carried out by Adediran et al. in 2013. They concluded that these strategies increase tax collection for the government and significantly reduce tax evasion.

In summary, there is a concession that tax audit and investigation are crucial in generating revenue. According to Modugu and Anyaduba, there is a link between tax audits and compliance, and compliance levels rise when there is a high possibility of becoming the target of an audit. Similarly, Adediran et al. (2013) stated that tax audits and investigations could increase the government's revenue generation and reduce the tax evasion rate. Therefore, tax audits and investigations have a favourable effect on the rise in tax revenue. The question is, "How do tax audits and investigations impact tax compliance?"

3.0 Methodology

Research methodology describes the ways in which one may proceed with the research. The research methodology outlines the research philosophy, research design and research approach. It further discusses the source of data and how the data is manipulated. This study is hinged on the Positivism philosophy as this approach provides ample opportunity to use theories that have existed in developing hypotheses to be tested. Mack (2010) had suggested that interpretivism philosophy, as its ontological view, tends to be subjective rather than objective. Hence, interpretivism philosophy was not adopted as the author seeks an objective, non-biased outcome, not based on one's belief system, way of thinking or interpretation.

The research approach is intended to focus on the research's nature taking the problem into consideration. There are three main divisions of the research approach, which are inductive, deductive, and abductive approaches. This study used the deductive research approach because it explains the relationship between concepts and variables and generalises research findings to a certain extent.

The study employed quantitative methodology as the choice of approach depended on the research question (Ochieng, 2009). Secondary data obtained from the records of monthly revenues recorded from tax revenue for Lagos State for the past five (5) years used for analysis in this study. The data was specifically obtained from the records of Lagos State Internal Revenue Service, the operational arm of tax revenue generation for Lagos State.

To determine the impact of tax audit and tax investigation on tax compliance using Lagos state internal revenue service as the case study, secondary data were analysed using inferential statistics, specifically, the ordinary least square regression analysis model. It consists of one dependent variable and two independent variables; in descriptive statistics, the ordinary least square regression model is the ideal choice for the analysis. The stationarity test was conducted using the Augmented Dickey-Fuller and Philip Peron methods.

The Ordinary least square regression model is specified as follows:

$$Y_t = \alpha + \beta_1 * TAt + \beta_2 * TIt + \epsilon_t$$

The variables will be represented by:

Y = Dependent variable (Tax Compliance)

TA = Independent variable (Tax Audit)

TI = Independent variable (Tax Investigation)

α = Constants of the model

β_0 = Value of Y, when (TA and TI = 0)

β_1 = Stochastic variable/ error terms of the models.

t = time series

The advantage of using the regression analysis model is that it confidently determines how tax compliance is impacted by each variable (tax audit and tax investigation) and to what extent. Also, this model will avail us the opportunity to analyse and interpret the result within the time frame for the research.

3.1 Limitation of secondary research

The fact that secondary data was gathered for a specific goal other than the researchers' is a significant limitation as it restricts the author from addressing some of the research questions and objectives. Also, there is no control over the data regarding the data collection process and the data quality (Saunders et al. (2020)).

3.2 Secondary Data Ethical Consideration

Research ethics is concerned “with the prevention of any harm which may occur during research” as well as “with identifying high standards of research conduct and putting them into practice” (Open Learn, 2020). The main ethical concern in this study was to make sure that the author was cited and acknowledged. The results were not manipulated to validate predicted conclusions. Also, the secondary data employed were reviewed and interpreted objectively. Finally, there was no violation of the privacy of the source from which the data was gathered (Schulte & Sweeney, 1995)

4.0 Findings, analysis and interpretation

The Ordinary Least Square was adopted to test the three hypotheses and answer the questions identified in this study, considering that monthly data were gathered for the variables for five years. Also, descriptive statistics and the stationarity (Appendix) of the three variables were carried out.

4.2 Results Presentation

The trend and results are presented within this sub-section.

4.2.1 Trend Analysis

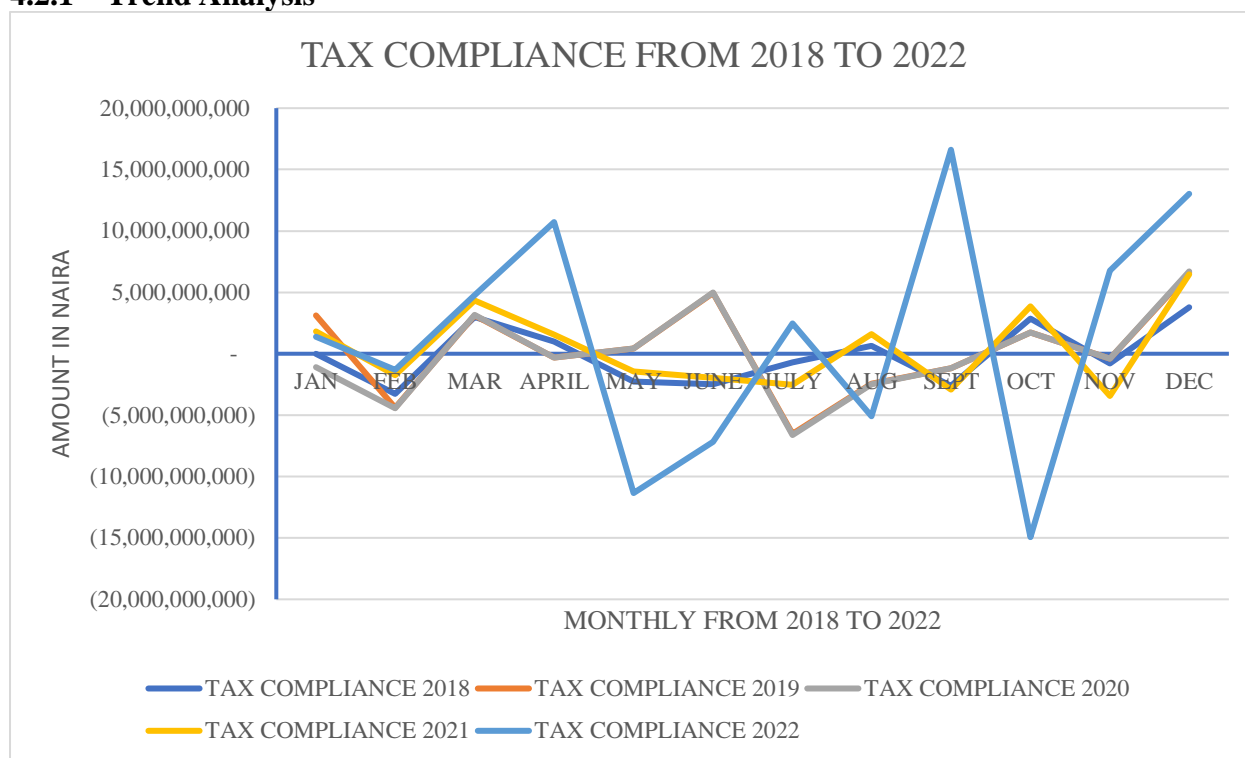


Figure 1: Trend of Tax Compliance

The graph above shows that taxpayers' compliance with tax due to tax audits and investigations has been swinging up and down throughout the years. The move movement was witnessed in 2022 as there were huge rises and falls, but, on average, the variable has been on the rise, or it has risen more than it fell.

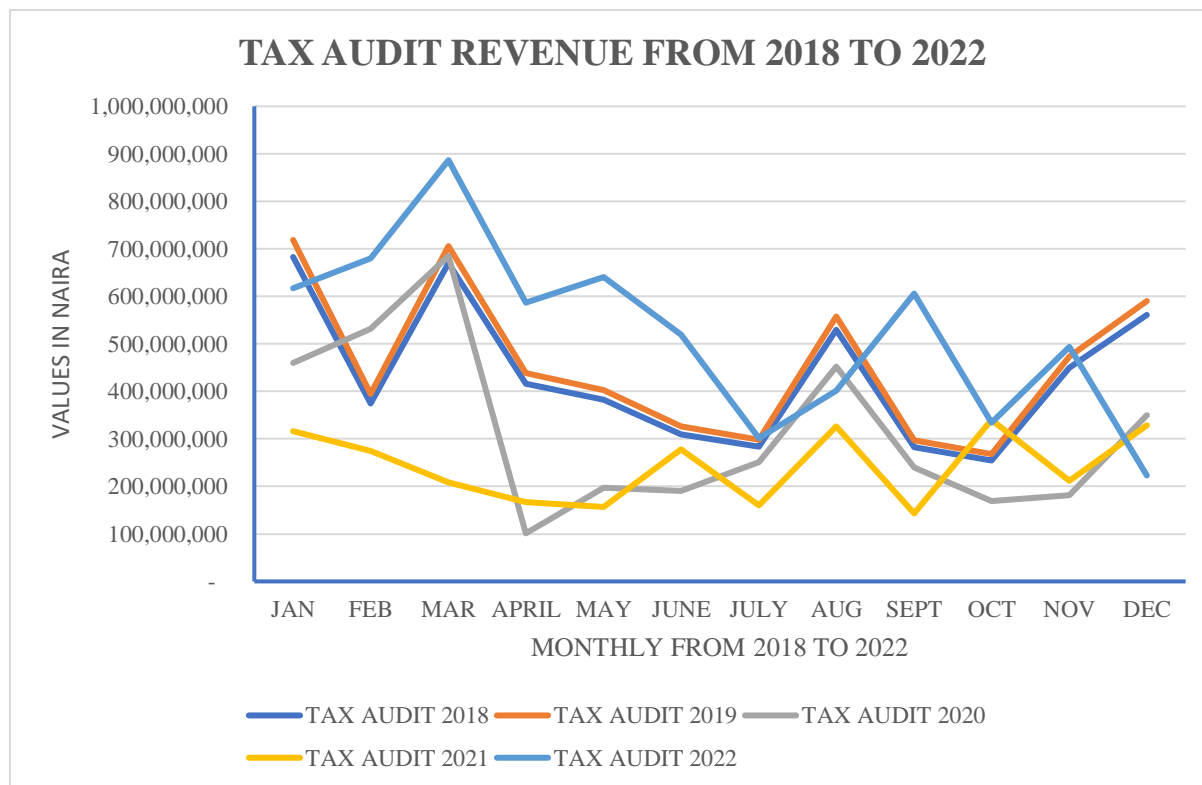


Figure 2: Trend of Tax Audit Revenue

Figure 2 shows that the revenue from tax audits was always high at the beginning of every year before it began to fall. By implication, tax audit revenue shows a negative trend yearly.

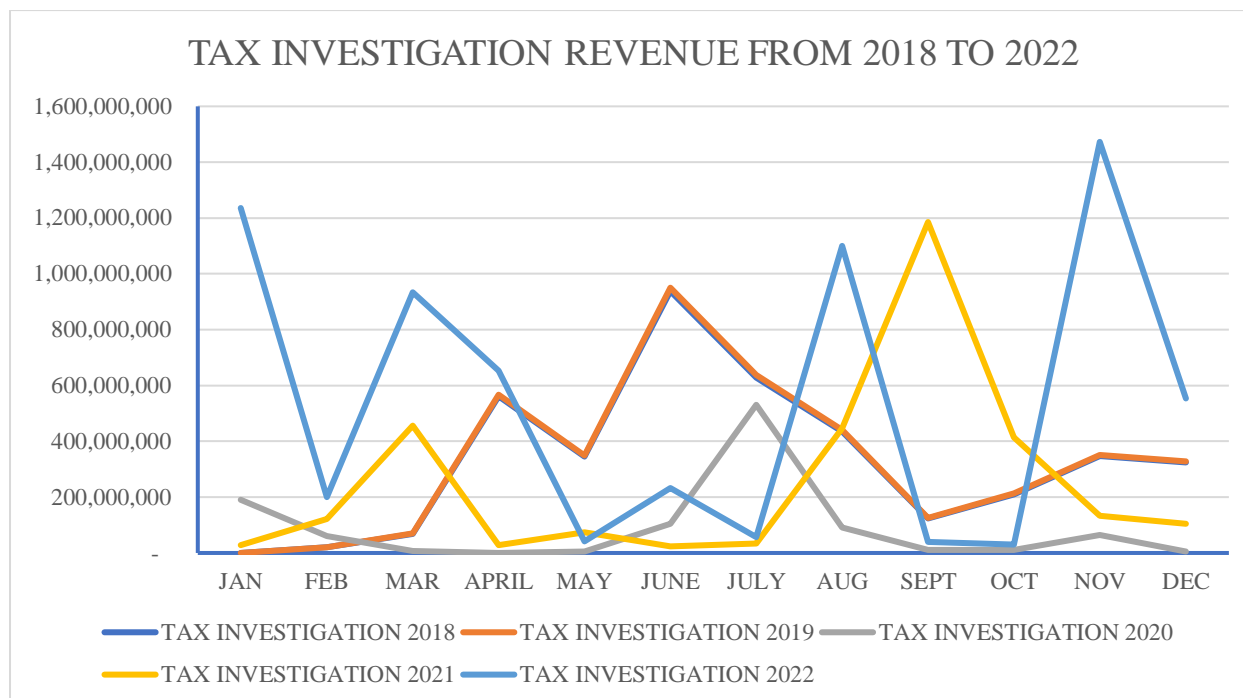


Figure 3: Trend of Tax Investigation

This is the most inconsistent variable throughout the period under study. This is because it rose and fell every other month, making it difficult to determine the main pattern of its movement.

4.2.2 Descriptive Statistics

The table below describes the three variables using indicators like mean, median, maximum, skewness, and several others.

Table 1: Descriptive Analysis

	Tax Compliance	Tax Audit	Tax Investigation
Mean	395962.7	394146.3	323051.3
Median	-158973.5	345194.5	195084.0
Maximum	16610319	886554.0	1472790.
Minimum	-14936140	143315.0	0.000000
Std. Dev.	5209075	174032.3	359698.3
Skewness	0.225778	0.605999	1.391271
Kurtosis	4.827373	2.623977	4.272131
Jarque-Bera	8.562718	3.891632	22.62208
Probability	0.013824	0.142871	0.000012
Sum	22965834	22860484	18736977
Sum Sq. Dev.	1.5515	1.712	7.3712
Observations	58	58	58

The analysis included 58 observations, and the mean of the revenue accruing to tax compliance is ₦396m, tax Audit is ₦ 94m, and that of Tax Investigation is ₦323m monthly. The maximum value of the variables is ₦1.67 billion for Tax compliance, ₦887 million and about ₦1.5 trillion. The statistics also showed zero tax investigation, a decline of ₦14trillion for Tax Compliance, and ₦143m for tax Audit. The skewness showed that the three variables are positively skewed, having values of 0.23 for Tax Compliance, 0.61 for Tax Audit, and 1.39 for Tax Investigation. The probability statistic's positive value indicates that the variables are positively correlated.

4.2.3 Test of Hypotheses

The results with respect to the objectives of the study are shown and interpreted below.

Objective One: The influence tax audit has on the tax compliance of the taxpayers in Lagos state.

The result is shown below.

Table 3: Model 1

Dependent Variable	Log Tax Compliance			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA	0.504027	0.251878	2.001081	0.0050
C	5.079582	2.152659	2.359677	0.0217
R-squared	0.65640	F-statistic	4.004324	
Adjusted R-squared	0.59248	Prob(F-statistic)	0.050153	

The first objective is to show the relationship between tax compliance and tax audit. The coefficient of the independent variable (tax audit) is 0.504, implying that an increase in tax audit led to a 50% rise in tax compliance. This result corroborates the theory that indicated a positive relationship between the two variables. The probability statistics of 0.0050 for tax audits corroborates the impact. The probability value of the F-statistics showed that the variables are significant in the model.

Objective Two: The impact tax investigation has on the tax compliance of the taxpayers in Lagos state.

The result is shown below.

Table 4: Model 2

Dependent Variable	Log Tax Compliance			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA	0.044082	0.033119	1.331019	0.0188
C	9.038127	0.266700	33.88878	0.0000
R-squared	0.70144	F-statistic	1.771611	
Adjusted R-squared	0.63129	Prob(F-statistic)	0.001884	

The second objective is to show the effect of tax investigation on tax compliance. The coefficient of the independent variable (tax investigation) is 0.044, which implies that an increase in tax investigation led to a 4.4% rise in tax compliance. This result corroborates the theory that indicated a positive relationship between the two variables. The probability statistics of 0.0188 for tax audit corroborate the impact. The probability value of the F-statistics showed that the variables are significant in the model.

Objective Three: The interrelationship effect that tax audit and tax investigation have on the tax compliance of the taxpayers in Lagos state.

The result is shown below.

Table 5: Model three

Dependent Variable	Log Tax Compliance			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA	0.460174	0.255198	1.803207	0.0077
LOGTI	0.034275	0.032936	1.040669	0.0302
C	5.183812	2.153425	2.407241	0.0194
R-squared	0.803367	F-statistic	2.546573	
Adjusted R-squared	0.700630	Prob(F-statistic)	0.007393	

The third objective is to show the combined effect of tax audits and tax investigations on tax compliance. The coefficients of tax audit and tax investigation are 0.46 and 0.034, respectively, indicating that as tax audit and investigation increased by 1% each, there is about 46% and 3.4% rise, respectively. These results align with those of the first and second results of the impact of the individual independent variable on tax compliance. The probability statistics of 0.0077 for tax audit and 0.302 for tax investigation confirm these impacts.

4.3 Analysis and interpretation

This section discusses and evaluates the study's findings to three research questions. The essence of the study is to determine the pattern of influence that tax audit and tax investigation have had on tax compliance of businesses in Lagos state, Nigeria.

4.3.1 Evaluation of findings

The analysis in this study was carried out using Ordinary Least Square (OLS). This is because monthly data were gathered for the variables from 2018 to 2022. To ensure that a proper analysis was carried out in this study, there was also a descriptive analysis of the variables used.

Research Question One: What is the influence of tax audits on tax compliance?

For the first research question and hypothesis, which was to determine the influence of tax audit on the tax compliance of businesses in Lagos state, the least square method was used, describing and showing the trend of the two variables. It was discovered that the coefficient of the independent variable, the tax audit, was 0.504. It indicated that a rise in tax audits records brought about a 50% rise in the taxpayers' compliance with tax payments over the years.

Research Question Two: What is the impact of tax investigation on tax compliance?

The variables were described for the study's second objective, and the model was evaluated using the least square method. It was discovered that the relationship between tax investigation and tax compliance conforms to the existing theory of positive relationship. The coefficient of tax investigation is 0.044, implying that an increase in tax investigation led to a 4.4% rise in tax compliance. This result corroborates the theory that indicated a positive relationship between the two variables (tax investigation and tax compliance).

Research Question Three: How do tax audit and tax investigation affect tax compliance?

The third hypothesis was a combination of the two variables (tax audit and tax investigation), and they were used to determine how they both impact the tax compliance of businesses. The trends of the variables, descriptive statistics, and the least square method were used. The coefficients of tax audit and tax investigation are 0.46 and 0.034, respectively, indicating that as tax audit and investigation increased by 1% each, there is about 46% and 3.4% rise, respectively. These results align with those of the first and second results of the impact of an individual independent variable on tax compliance. The probability statistics of 0.0077 for tax audit and 0.302 for tax investigation confirm these impacts.

4.3.2 Re-assessment of Research Question

Here, the findings with respect to each hypothesis tested were compared to existing theories and literature.

Research Question One: What is the influence of tax audits on tax compliance?

The results from the findings of the first hypothesis have been corroborated by some findings in the literature and the tenet in some of the theories. Some of the studies that support the findings in this study are the one by Olaoye et al. (2018) which was carried out to determine the relationship between tax audit and tax productivity. They adopted both the primary and secondary data and gathered that tax audits have a substantial impact on the productivity of tax in Lagos state. They also gathered that the tax audit exercise is the primary factor contributing to an increase in revenue through compliance. Alemu (2020) also supported the view of the study by adopting both primary and secondary data sources to solve the significant challenges confronting the tax authorities. Just like the first objective of this study, their study was to determine how tax audits and a few other variables (fines, penalties, knowledge) affect tax compliance. Olaoye and Ekundayo (2019) also claimed that tax audit (majorly field, desk, and back duty) are a crucial aspect of a government revenue agency, mainly because it engenders the compliance of the people to make the payment of their taxes.

The findings here align with the classical theory of tax compliance, which provides explanations for the fact that taxpayers seek to balance the risk associated with not paying taxes and fear of being caught (which is mainly through tax audit and investigation). By implication, tax compliance and revenue generation are when the taxpayers understand that the government could use tax audits to test their compliance (Olaoye and Ekundayo, 2019). To buttress this theoretical explanation, Alabede et al. (2011) explained that compliance is based on tax audits and penalties related to tax avoidance and evasion. They argued that taxpayers pay their tax liabilities because they fear the tax administration will catch up with them.

Research Question Two: What is the influence of tax audits on tax compliance?

Several studies lent credence to the current research, some of which are explained thus. The study by Onoja and Iwarere (2015), which argued that tax audit and tax investigation are involved in the inspection and treatment carried out by tax agencies, affirm the current study. They explain that tax investigation is an extension of tax audit and helps businesses comply with tax payments.

Research Question Three: How do tax audit and tax investigation affect tax compliance?

A few studies have supported the findings with respect to the third question, while a few others in the literature have negated it. The study by Olaoye and Ogundipe (2018) showed the intertwined impacts of tax audit and investigation on tax compliance. The result was in line with this study's findings because it also concluded that both independent variables positively impacted tax compliance. Also, Adediran et al. (2013), which examined the Impact of Tax Audit and Investigation on Revenue Generation in Nigeria, accredits the study by concluding that these tools help improve government revenue generation through compliance of businesses.

4.3.3 Contrast to other Findings

Contrary to the outcome of this study, the findings by Enofe et al. (2019), revealed that tax audits (desk, back duty, and field audit) bring about more tax evasion (that is, low tax compliance). Their study revealed that the tax investigation significantly and negatively impacts tax evasion, resulting in non-compliance with tax payments. Also, Olaoye and Ogundipe (2018) admits that while audits controls fraud and improve tax compliance, their findings revealed that tax investigation does not positively impact revenue generation.

With the outcome of this study and the review of other literature and theories in this field, the author is of the opinion that tax audit has a significant impact on tax compliance and tax revenue generation, and that the exercise should be continued by Lagos State IRS and adopted by other states.

Contrarily on tax investigation, although the results of this study indicate a beneficial impact on tax investigations, the data had an irregular pattern. This is because tax investigations are only conducted when tax fraud is suspected and there is sufficient evidence to carry out the exercise. Hence, the exercise cannot be done routinely, which denotes that it cannot be used as a tool to generate revenue regularly for the tax authority.

5.0 Conclusions and recommendations

The concluding part of the study focuses on the conclusion, recommendation, contribution of the study, limitations, and suggestions for further study.

5.1 Conclusion

Taxation is a significant government revenue source. As a result, the government must execute approaches that enhance a feasible volume of revenue from taxation while avoiding gaps that delay the government's development projects.

The study was conducted using Lagos State as a case study to ascertain the effect of tax audits and investigations on businesses' tax compliance. The study has been conducted to determine the impact of tax audits as well as tax investigations on tax compliance of businesses using Lagos state as the case study. Tax auditing is the examination of a company's accounts and records to ensure that the information in the financial statements regarding prospective tax liability is accurate (Cai, Lee, and Zeng, 2019).

A tax audit exercise is conducted to ensure a business has paid the appropriate amount of tax and to spot any underpayments. Contrarily, a tax investigation is a review of a company's books to determine any taxes owed by the taxpayer as a result of any actions taken by the taxpayer that led to the taxpayer being under-assessed (Olaoye et al., 2019).

The analysis of the study was done using the ordinary least square method to gather findings with respect to the three objectives of the study. The results of the first hypothesis showed a positive and significant relationship between tax audits as well as tax compliance of businesses. This indicates that the business entities continued to improve their levels of compliance, having undergone tax audit exercises. This relationship is in consonance with the theoretical background upon which the tenet of this study has been built.

The results of the second hypothesis showed that tax investigation directly impacts tax compliance in Lagos state. The findings in this study also imply that the tax investigation drive in revenue generation has continued to improve knowledge in tax investigation, which has brought about a positive effect on the tax compliance of businesses in the state. This relationship is in consonance with the theoretical background upon which the tenet of this study has been built.

Regarding the third hypothesis, the findings indicated a favourable and significant impact of audit and tax investigation on the tax compliance of businesses. In conclusion, it was discovered that tax audit and tax compliance, as well as tax investigation and tax compliance, had a positive interrelationship.

As a result, it is possible to draw the conclusion that tax audits and investigations have a favourable impact on businesses' adherence to tax laws because evidence suggests that using these tools has enhanced businesses' compliance over the study period. This study is centred on Lagos State; hence a study of the impact of these tools may differ in other regions.

5.2 Recommendation for Business Application

Based on the findings and conclusion of this study, the author of this research study recommends that tax auditors and investigators become well-versed in tax laws, tax accounting, and audit and investigational techniques in order to help them gather admissible evidence on the field that can be used to establish additional tax liabilities.

In addition, with the large tax gap in taxes of companies in the digital economy, tax auditors and investigators should be specially trained to understand the operations of these industries to carry out their duties and maximise revenue effectively.

Also, the tax audit and tax investigation exercise should be expanded to cover non-resident companies with significant economic presence (SEP) in Nigeria. A large amount of revenue is lost from businesses operating in this sphere (Amazon, Netflix, and Facebook, to mention a few), and the Finance Act 2019 has made it mandatory for such companies to pay taxes on income earned from Nigeria's economy. The challenge is that without Nigeria's jurisdiction right over these companies, tax audits and investigation exercises cannot be carried out on these businesses.

The informal sector has grown over the years, and revenue from that sector has increased with a degree of voluntary compliance. The author recommends that tax audit exercises be carried out on businesses in the informal sector to drive revenue generation. This is consistent with Obara and Nangih (2017) research that suggests that effective tax monitoring for informal sector businesses to increase revenue generation is essential.

Lastly, this study's findings prove the positive impact of tax audits and tax investigations on tax compliance of businesses in Lagos State. The author strongly recommends that the Lagos State IRS expand its tax audit directorate and investigation unit to cover more businesses.

5.3 Limitations and Implications for Future Research

5.3.1 Limitation

This study has been carried out in line with prior research work, and most of the findings corroborate the outcome of several studies in the literature. However, the author encountered some limitations to this study.

A fundamental limitation of this research was the word count, which constrained the author's ability to present more facts and elaborate on more aspects of this study, which would have further enhanced the arguments being made. Some information and materials necessary for this study were omitted as including them would have taken the word count over the specified threshold.

Another limitation encountered in this study was the restriction to secondary data collection. The author would have had the chance to analyse individual survey data from businesses in Lagos State to determine whether their level of tax compliance was as a result of previous tax audits or tax investigations conducted on them or in accordance with the theory of planned behaviour, if primary data been used for this study.

5.3.2 The implication of the work for future research

The study has been concluded to contribute to knowledge as well as serve as a reference for future research works. As a leverage for other studies, new researchers can consider the gaps in this study by expanding this field of study. One area is carrying out a comparative study of the impact of tax audit and tax investigation on tax compliance in different states in Nigeria to establish if the outcome is the same or contrary.

Future studies might be conducted on the best ways to conduct tax audits and tax investigation exercises on non-resident businesses with significant economic presences (SEP) in Nigeria. They are currently required by Nigerian tax regulations to remit taxes on revenue made in Nigeria; however, the effectiveness of the tax paid and the level of compliance need to be checked using either of these tools.

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APPENDICES

Null Hypothesis: LOGTA has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.839197	0.0002
Test critical values:	1% level	-3.546099	
	5% level	-2.911730	
	10% level	-2.593551	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(LOGTA)
 Method: Least Squares
 Date: 02/05/23 Time: 17:13
 Sample (adjusted): 2018M02 2022M12
 Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA(-1)	-0.574175	0.118651	-4.839197	0.0000
C	4.902200	1.015026	4.829630	0.0000
R-squared	0.291202	Mean dependent var		0.008241
Adjusted R-squared	0.278767	S.D. dependent var		0.224599
S.E. of regression	0.190742	Akaike info criterion		0.442484
Sum squared resid	2.073795	Schwarz criterion		0.372059
Log likelihood	15.05326	Hannan-Quinn criter.		0.414992
F-statistic	23.41783	Durbin-Watson stat		2.149627
Prob(F-statistic)	0.000010			

Null Hypothesis: LOGTC has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.580512	0.0000
Test critical values:	1% level	-3.548208	
	5% level	-2.912631	
	10% level	-2.594027	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(LOGTC)
 Method: Least Squares
 Date: 02/05/23 Time: 17:14
 Sample (adjusted): 2018M03 2022M12
 Included observations: 58 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTC(-1)	-0.741858	0.132937	-5.580512	0.0000
C	6.964080	1.247210	5.583726	0.0000

R-squared	0.357372	Mean dependent var	0.010350
Adjusted R-squared	0.345896	S.D. dependent var	0.501250
S.E. of regression	0.405394	Akaike info criterion	1.065960
Sum squared resid	9.203284	Schwarz criterion	1.137010
Log likelihood	-28.91284	Hannan-Quinn criter.	1.093635
F-statistic	31.14211	Durbin-Watson stat	1.906158
Prob(F-statistic)	0.000001		

Null Hypothesis: LOGTI has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.624882	0.0000
Test critical values:		
1% level	-3.546099	
5% level	-2.911730	
10% level	-2.593551	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LOGTI)

Method: Least Squares

Date: 02/05/23 Time: 17:16

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTI(-1)	-0.839735	0.110131	-7.624882	0.0000
C	6.649717	0.877960	7.574053	0.0000

R-squared	0.504945	Mean dependent var	0.148183
Adjusted R-squared	0.496260	S.D. dependent var	2.263977
S.E. of regression	1.606849	Akaike info criterion	3.819738
Sum squared resid	147.1719	Schwarz criterion	3.890163
Log likelihood	-110.6823	Hannan-Quinn criter.	3.847229
F-statistic	58.13882	Durbin-Watson stat	1.915701
Prob(F-statistic)	0.000000		

Null Hypothesis: LOGTA has a unit root

Exogenous: Constant

Bandwidth: 3 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-4.907207	0.0001
Test critical values:		
1% level	-3.546099	
5% level	-2.911730	
10% level	-2.593551	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.035149
HAC corrected variance (Bartlett kernel)	0.037479

Phillips-Perron Test Equation

Dependent Variable: D(LOGTA)

Method: Least Squares

Date: 02/05/23 Time: 17:15

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA(-1)	-0.574175	0.118651	-4.839197	0.0000
C	4.902200	1.015026	4.829630	0.0000
R-squared	0.291202	Mean dependent var		-0.008241
Adjusted R-squared	0.278767	S.D. dependent var		0.224599
S.E. of regression	0.190742	Akaike info criterion		-0.442484
Sum squared resid	2.073795	Schwarz criterion		-0.372059
Log likelihood	15.05326	Hannan-Quinn criter.		-0.414992
F-statistic	23.41783	Durbin-Watson stat		2.149627
Prob(F-statistic)	0.000010			

Null Hypothesis: LOGTC has a unit root

Exogenous: Constant

Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-5.606929	0.0000
Test critical values:		
1% level	-3.548208	
5% level	-2.912631	
10% level	-2.594027	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.158677
HAC corrected variance (Bartlett kernel)	0.162857

Phillips-Perron Test Equation

Dependent Variable: D(LOGTC)

Method: Least Squares

Date: 02/05/23 Time: 17:14

Sample (adjusted): 2018M03 2022M12

Included observations: 58 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTC(-1)	-0.741858	0.132937	-5.580512	0.0000
C	6.964080	1.247210	5.583726	0.0000
R-squared	0.357372	Mean dependent var		0.010350
Adjusted R-squared	0.345896	S.D. dependent var		0.501250
S.E. of regression	0.405394	Akaike info criterion		1.065960
Sum squared resid	9.203284	Schwarz criterion		1.137010
Log likelihood	-28.91284	Hannan-Quinn criter.		1.093635
F-statistic	31.14211	Durbin-Watson stat		1.906158
Prob(F-statistic)	0.000001			

Null Hypothesis: LOGTI has a unit root

Exogenous: Constant

Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-7.594238	0.0000
Test critical values:		
1% level	-3.546099	
5% level	-2.911730	
10% level	-2.593551	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	2.494440
HAC corrected variance (Bartlett kernel)	2.632775

Phillips-Perron Test Equation

Dependent Variable: D(LOGTI)

Method: Least Squares

Date: 02/05/23 Time: 17:16

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTI(-1)	-0.839735	0.110131	-7.624882	0.0000
C	6.649717	0.877960	7.574053	0.0000

R-squared	0.504945	Mean dependent var	0.148183
Adjusted R-squared	0.496260	S.D. dependent var	2.263977
S.E. of regression	1.606849	Akaike info criterion	3.819738
Sum squared resid	147.1719	Schwarz criterion	3.890163
Log likelihood	-110.6823	Hannan-Quinn criter.	3.847229
F-statistic	58.13882	Durbin-Watson stat	1.915701

ORDINARY LEAST SQUARE

Objective one

Dependent Variable: LOGTC

Method: Least Squares

Date: 02/05/23 Time: 18:13

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA	0.504027	0.251878	2.001081	0.0050
C	5.079582	2.152659	2.359677	0.0217

R-squared	0.65640	Mean dependent var	9.385956
Adjusted R-squared	0.59248	S.D. dependent var	0.411887
S.E. of regression	0.401617	Akaike info criterion	1.046674
Sum squared resid	9.193877	Schwarz criterion	1.117099
Log likelihood	-28.87688	Hannan-Quinn criter.	1.074165
F-statistic	4.004324	Durbin-Watson stat	1.512152
Prob(F-statistic)	0.050153		

Objective Two

Dependent Variable: LOGTC

Method: Least Squares

Date: 02/05/23 Time: 18:14

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTI	0.044082	0.033119	1.331019	0.0188
C	9.038127	0.266700	33.88878	0.0000
R-squared	0.70144	Mean dependent var		9.385956
Adjusted R-squared	0.63129	S.D. dependent var		0.411887
S.E. of regression	0.409174	Akaike info criterion		1.083960
Sum squared resid	9.543149	Schwarz criterion		1.154385
Log likelihood	-29.97681	Hannan-Quinn criter.		1.111451
F-statistic	1.771611	Durbin-Watson stat		1.475798
Prob(F-statistic)	0.001884			

Objective Three

Dependent Variable: LOGTC

Method: Least Squares

Date: 02/05/23 Time: 17:41

Sample (adjusted): 2018M02 2022M12

Included observations: 59 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTA	0.460174	0.255198	1.803207	0.0077
LOGTI	0.034275	0.032936	1.040669	0.0302
C	5.183812	2.153425	2.407241	0.0194
R-squared	0.803367	Mean dependent var		9.385956
Adjusted R-squared	0.700630	S.D. dependent var		0.411887
S.E. of regression	0.401325	Akaike info criterion		1.061418
Sum squared resid	9.019448	Schwarz criterion		1.167055
Log likelihood	-28.31182	Hannan-Quinn criter.		1.102654
F-statistic	2.546573	Durbin-Watson stat		1.527709
Prob(F-statistic)	0.007393			