

A Causality Analysis between Tax Audit and Tax Compliance in Nigeria

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ABSTRACT

Tax audit is the independent examination of the returns submitted by taxpayers to the relevant tax authorities to ascertain the level of tax compliance by taxpayers. The objective of this paper is to examine the impact of tax audit on tax compliance in Nigeria. To achieve this objective, data was collected from primary and secondary sources. The secondary sources was from scholarly published and unpublished studies and the primary source from a well structured questionnaire of three sections administered to two hundred and four (204) respondents with an average reliability of 0.77 using diagnostic tests, augmented dickey-fuller, ordinary least square and granger causality. The empirical analysis provided a significant relationship between random tax audit, cut-off tax audit and conditional tax audit on tax compliance in Nigeria. On the basis of the empirical result, the paper concludes that tax audit is one of the compliance strategies that can be used to achieve tax compliance in Nigeria because the average Nigerian is known for tax evasion and avoidance using all the available means of not paying the relevant tax to the government. Therefore, the paper recommends amongst others that government should show some degree of accountability and transparency on the revenue collected to make citizens understand the connection between tax revenue and expenditure; the government should implement the relevant tax laws faithfully, equitably and fairly irrespective of the persons status and organization concerned; the relevant tax authorities at all levels should improve on the standard of tax audit employed for effectiveness and efficiency in tax administration to reduce the high level of tax evasion on those that are self-employed.

Keywords: Tax audit, Tax compliance, Taxation, audit, Nigeria.

INTRODUCTION

The development of any nation depends on the amount of revenue generated and applied by the government on public infrastructure for the benefits of members of that society. According to Appah (2010), the development of any nation depends on the amount of revenue generated by the government for the provision of infrastructural facilities. However, the revenue and expenditure gap ($R < E$) in Nigeria is a very serious problem affecting both the federal and states government. According to Osiegbu, Onuorah and Nnamdi (2010), the complains of the government in Nigeria is that the statutory allocation to the various tiers of government is not enough to carry out effective administration as well as finance capital projects. Kiabel and Nwokah (2009) reported that the increasing coast of running government coupled with dwindling revenue has left various state governments in Nigeria with formulating strategies to improve the revenue base. Hence, one very important strategy that can be applied to increase the revenue base of both federal and state governments in Nigeria is the application of effective and efficient tax administration. This can only be achieved through well implemented tax compliance strategy for the citizens of Nigeria. However, non-compliance is a problem affecting the growth and development of tax as one of the major sources of revenue. Ola (2001) argues that tax non-compliance is a great disservice to and a betrayal of the tax administrative and revenue system. It should be seen by citizens of Nigeria as an unacceptable behaviour and an act of economic sabotage. Therefore, in order to safeguard tax administration and sustain the confidence of taxpayers, tax audit programmes have been installed to monitor and detect the non-compliance traits in Nigeria (Ola, 2001; Appah, 2004; Kiabel and Nwikipasi, 2009; Appah, 2010).

Azubike (2009) noted that a tax system is an opportunity for the government to collect additional revenue needed in discharging its present obligations. Okezie (2003) states that a tax is a burden which every citizens must bear in order

to sustain his or her government thus enabling that government perform certain basic functions to the benefit of those it governs. Taxation is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic well-being of members of any particular society (Ola, 2001; Appah, 2004; Nwezeaku, 2005; Aguolu, 2007). It is a major player in every economy of the world. Taxation is a veritable and sustainable source of revenue for government and a tool for fiscal policy and macroeconomic management (Nzotta, 2007; Alli, 2009). According to Nzotta (2007), four key issues must be understood for taxation to play its functions in the society. First, a tax is a compulsory contribution made by the citizens to the government and this contribution is for general common use. Secondly, a tax imposes a general obligation on the taxpayer. Thirdly, there is a presumption that the contribution to the public revenue made by the taxpayer may not be equivalent to the benefits received. Finally, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family. Thus, it is evident that a good tax structure plays a multiple role in the process of economic development of any nation of which Nigeria is not an exception. However, taxation cannot be used to play these multiple roles in any society where tax compliance is very poor as witnessed in Nigeria, where eighty-five percent (85%) of government revenue is derived from petroleum. Therefore, for taxation to be effective in achieving both short and long term goals in any economy, the level of tax compliance must be improved for efficient tax administration. Hence, one measure that can be used to improve the level of tax compliance is tax audit. Ola (2001) is of the view that tax audit helps to improve voluntary compliance by detecting and bringing into account those who do not pay correct amount of tax. Slemrod, (2000) is of the view that Tax audit is one of the most effective policies to prevent tax evasion behaviour. Therefore, this study takes an econometric analysis of the relationship between tax audit and tax compliance in Nigeria. The objective of this present study is to examine the tax audit and tax compliance in Nigeria. To achieve the objective of the study, the paper consists of five interconnected sections. The next section examines the review of related literatures on tax compliance. The third section presents the materials and methods used in the study and the fourth section examines the results and discussions while the final section presents the conclusion, recommendations and further research.

LITERATURE REVIEW

Theoretical Considerations

Audit Theories

Awe (2008) defines auditing as an independent examination of the books and accounts of an organization by a duly appointed person to enable that person give an opinion as to whether the accounts give a true and fair view and comply with relevant statutory guidelines. The American Accounting Association (1971) in its Statement of Basic Auditing Concepts in Hayes, Schilder, Daseen and Wallage (1999) described auditing as: a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between these assertions and established criteria and communicating the results to interested users. Akinbuli (2010), Hayes et al (1999) reported that several theories of auditing were made to specify and determine the audit functions. Some of these theories include: **The Policeman Theory:** This theory of auditing was purely on the arithmetical accuracy and on the prevention and detection of fraud. This theory makes the auditor to detect and prevent errors and fraud in organizations. **The Lending Credibility Theory:** This theory of auditing regards the primary function of auditing to be the addition of credibility to the financial statements. Akinbuli (2010) states that audited financial statements can enhance stakeholders' faith in management's stewardship. **Theory of Inspired Confidence:** This theory states that stakeholders demand accountability from the management in return for their contribution to the organization. **The Moderator of Claimants Theory:** This theory states that it is important that all vital participants in an organization continue to contribute. In order to continue these contributions, it is important that each group believes it receives a fair share of the organizations income. **Agency Theory:** This theory is associated with conflicting interests of shareholders and management of organizations, suggesting that the less informed party will have to demand for information that monitors the behaviour of better informed manager (Akinbuli, 2010). According to Hayes et al (1999), agency theory can be used to explain the supply side of the audit market. The contribution of an audit to third parties is basically determined by the probability that the auditor will detect errors in the financial statements and the auditor's willingness to report these errors.

Classical Theory of Tax Compliance

This theory of tax compliance is also called the A-S models based on the deterrence theory. The theory states that the taxpayer is assumed to maximize the expected utilities of the tax evasion gamble, balancing the benefits of successful tax cheating against the risky prospect of being caught and punished by tax authorities (Sandmo, 2005).

Alabede et al (2011) stated that the deterrence theory depends largely on tax audit and penalty. They further stressed that this theory of tax compliance makes taxpayers to pay tax as a result of fear and sanctions. Trivedi and Shehata (2005) says that the deterrent theories suggest that taxpayers “play the audit lottery”, that is they make calculations of the economic consequences of different compliant alternative. Verboon and Dijke (2007) stated that the essence of the deterrence model of tax compliance is to chiefly examine the interaction between probability of detection and sanction severity that should affect non-compliance. Brook (2001) says that classical theory is only based on economic analysis but social and psychological variables are equally important in understanding the issue of noncompliance to tax. Some of the important studies about the effects of deterrence on compliance include Hasseldine (2000), Torgler (2002) and Kirchler (2007). Elffers (2000) and Braithwaith (2003) argued that if deterrence (that is the probability of detection and sanction severity) would be the most significant variable in explaining compliance, rational individuals in most societies of the world would be non-compliant because the levels of deterrence are low.

Theory of Planned Behaviour

The theory of planned behaviour states that the behaviour of individuals within the society are under the influence of definite factors, originate from certain reasons and emerge in a planned way (Erten, 2002). Benk et al (2011) stated that the ability to perform a particular behaviour depends on the fact that the individual has a purpose towards that behaviour. Therefore, the factors that determine the purpose towards that behaviour are attitude towards behaviour, subjective norms and perceived behavioural control (Armitage and Conner, 2001). Ajzen (2002) says that these factors are under the influence of behavioural beliefs, normative beliefs and control beliefs. Wenzel (2004a), Braithwaith (2003) highlighted that sociological and psychological factors have proved to be important in understanding the high levels of tax compliance. In such analyses, concepts such as trust in authorities (Murphy, 2004), perceived fairness of the system (Wenzel, 2004b), moral considerations and norms (Frey, 2003; Wenzel, 2004b) are used to promote better understanding of tax compliance.

Nature and Scope of Tax Audit

Kircher (2008) stated that tax audit is the examination of an individual or organization’s tax report by the relevant tax authorities in order to ascertain compliance with applicable tax laws and regulations of state. He further reported that tax audit is a process where the internal revenue service tries to confirm the numbers that you have put on your tax return. Ola (2001) stated that the process of tax audit involves tax returns that are selected for audit using some selection criteria. Thereafter, the underlying books and records of the taxpayers are examined critically to relate them to the tax return filed. Tax audit is important because it assist the government in collecting appropriate tax revenue necessary for budget, maintaining economic and financial order and stability, to ensure that satisfactory returns are submitted by the tax payers, to organize the degree of tax avoidance and tax evasion, to ensure strict compliance with tax laws by tax payers, to improve the degree of voluntary compliance by tax payers and to ensure that the amount due is collected and remitted to government. According to Badara (2012), audit tax objectives include to establish a viable and effective tax administration in order to deal with constantly changing economy, to put strategies in place in order to resolve tax dispute between the tax authority and the liable tax payers, to maintain a strong mechanism to deal with tax avoidance techniques which are available to various organizations, but are susceptible to tax abuse, to bring defaulting tax payers to the net of tax authorities, to prove the completeness, accuracy and timely filing of tax returns submitted by the tax payers. Niu (2010) in a study found a positive association between the audit and the voluntary compliance. The finding suggests that the audit productivity may be under estimated in many studies in the literature. It reminds us that when considering the productivity of the audit work. Besides the direct audit collections, we should also take the audit impact on the voluntary compliance into consideration. For this reason, the finding may provide tax professionals and tax authorities with incentives to strengthen the audit power and to better structure their audit organization to generate more revenue for the state. Jin Kwon (2004) study in Korea observed that a more rigorous analysis to evaluate the determinant of tax culture for the study of tax compliance and tax audit.

There are three types of tax audit. Badara (2012) stated these three types of audit include the random tax audit, cut-off tax audit and conditional tax audit. The random tax audit scheme simply provides each self report of income an equal chance of being chosen for verification by an audit. Cut-off audit scheme, audit resources are employed to verify reports of the tax payers reporting the lowest income levels. The conditional audit scheme requires in addition to the reported income, sources of information representing a noisy signal of tax payers’ thorough income earning potentials.

Nature and Scope of Tax Compliance

Verboon and Dijke (2007) stated that tax compliance is the willingness of individuals to comply with relevant tax authorities by paying their taxes. Tax compliance can be defined as an ability of a tax liable body to submit accurate, complete and satisfactory returns in conformity with tax laws and regulations of the state to the authority for the purpose of tax assessment (Badara, 2012). Sarker (2003) also reported that tax compliance is the degree to which a taxpayer complies (or fails to comply) with the tax rules of his country. Brown and Mazur (2005) noted tax compliance as a multi-faceted measure and theoretically, it can be defined by considering three distinct types of compliance such as **payment compliance** (timely payment of all obligations), **filing compliance** (the timely filing of any required return), and **reporting compliance** (the accurate reporting of income and of tax liability). The Organisation for Economic Cooperation and Development (2001) divided compliance into administrative compliance and technical compliance. **Administrative compliance** refers to complying with administrative rules of lodging and paying. This compliance can also be called reporting compliance or regulatory compliance. **The technical compliance** refers to complying with technical requirements of tax laws.

Tax compliance can be achieved through the application of public relations, tax education, tax consultation and guidance and examination. **Tax Public Relation:** The purpose of public relations is to build a tax conscious environment not only among taxpayers but also among the public including latent taxpayers, and can be categorized as the need to enhance tax compliance; diffuse and enhance public knowledge of taxation; improve mutual understanding and trust between taxpayers and tax authorities and obtain the understanding and cooperation from mass-media for tax administration (Sarker, 2003). **Tax Education:** Tax education is one of the strategies used by the relevant tax authorities to ensure tax compliance. According to Ola (2001), the Board is cognizant of the fact that taxpayers cannot comply with the laws unless they know and understand what is expected of them. To this end, the Board provides assistance and publications to help taxpayers to fill their returns. **Tax Counseling:** The objective of tax counseling is to assist taxpayers in matters related to tax and encourage the voluntary submission of accurate tax returns and payment of taxes. Generally, tax counseling offices provide advice on the interpretation and application of tax laws, procedures for filing returns and applications, etc (Sarker, 2003). **Tax Guidance and Examination:** In order to enhance taxpayer compliance so that they voluntarily file tax returns and pay taxes appropriately, the tax administration provides individuals and groups with guidance on how to improve bookkeeping standards and tax returns. **Tax Recognition and Prizes:** This is also a very important strategy that can be used to achieve tax compliance. Tax officials and taxpayers should be recognized and rewarded to ensure that they work very hard as tax officials and comply to with tax laws as taxpayers.

Prior Empirical Studies

There are several theoretical and empirical studies on tax audit and tax compliance. These studies provide mix reactions on the relationship between tax audit and tax compliance. Alm and McKee (2006) investigates the application of experimental methods to examine the individual compliance responses to a “certain” probability of audit, and conclude that the compliance rate rises if an individual knows he will be audited and the rate falls if he knows he will not be audited. Slemrod, Blumenthal, and Christian (2001) examines randomly selected taxpayers and inform them that their filling will be “closely examined” and found evidence of taxpayers’ behavior changes in response to an increased probability of audit, although the responses are not uniform among different groups of taxpayers. Mittone (2006) investigates that early experience of audits in taxpayers’ “tax life” is a more effective way to increase compliance than later audits. Also Kastlunger, Kirchler, Mittone, and Pitters (2009) study of experimental research also suggests that, although the effectiveness of audits and fines cannot be completely confirmed, early audits in taxpayers’ “tax life” have a positive impact on compliance. The table below provides a summary of some of these studies on the basis of author(s), methodology and main results.

Table 1: Summary of Empirical Studies

| Author(s) | Sample & Methods | Main results |
|---------------------|---|---|
| Badara, M.S. (2012) | Questionnaire distributed to forty-eight (48) respondents using descriptive statistics. | The result shows that the Relevant Tax Authority (RTA) employed tax audit towards achieving target revenue, that tax audit reduce the |

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| | | problems of tax evasion, that tax payers do not usually cooperated with tax audit personnel during the exercise. |
| Niu (2010) | Historical population data of a New York State economic sector were used in this study instead of experimental data or randomly selected sample data often used in the literature. The results of both Ordinary Least Squares (OLS) and Time Series Cross Section (TSCS) autoregressive modeling methods | The results of both methods suggest that after an audit, a firm would report a higher sales growth rate. |
| Kleven et al (2010) | 40,000 individual tax filers using experimental design and randomization test and SKAT's Business object Database with ordinary least square. | There research found that tax evasion rate is small for income subject to third party reporting, but substantial for self reported income; marginal tax rates have a positive impact on tax evasion, but that this effect is small; prior audits substantially increase self reported income and threat of audit letters also have a significant effects on self reported income, and the size of this effect depends positively on audit probability expressed in the letter. |
| Hyun (2005) | Japan & Korea using world value survey dataset and descriptive statistics and multiple regression for analysis. | Japan has the higher level of tax culture than that of Korea; and the legal system is relatively more important factor to determine the level of tax culture which eventually affects the level of compliance. |
| Plumley et al (1996) | Data set from 1982-1991 using OLS | The result found a significant effects attributable to many tax policy and tax administration parameters; including: audits; third party information documents; the issuance of targeted non-filer notices; criminal tax convictions; marginal tax rates. |

Source: Adapted from several authors

MATERIALS AND METHODS

This paper applied survey research design. The primary data for the study were generated through the administration of questionnaires conducted to evaluate tax audit and tax compliance in Nigeria. The target population includes all boards (Federal and States Revenue Service) in Nigeria while the accessible population includes Boards in the Niger Delta Region. Three hundred and sixty (360) respondents randomly sampled from six cities (Port Harcourt, Asaba, Yenagoa, Calabar, Uyo and Benin) from the accessible population for the period May 2011 – August, 2012. The first part of the questionnaire contains questions on organization' and respondents' characteristics. The second part of the questionnaire examined tax compliance variables of demography, non-compliance opportunity, attitude and perception and tax structure but modified from Chan et al (2000), Houston and Tran (2001), Fjeldstad and Semboja (2001), Richardson (2006a), Richardson (2006b) Ritsema, Thomas and Ferrier (2003), Hasseldine et al (2007), Blanthorne and Kaplan (2008), Chau and Leung (2009), using five point scale of 5- strongly agree (SA), 4- agree

(A), 3- undecided (U), 2- disagree (D) and 1-strongly disagree (SD). The third part of the questionnaire examines tax audit but modified from Cohen (2007), Franket et al (2002), Niu (2010), Badara (2012) using the same scale. A total of two hundred and four (204) usable questionnaires were completed and used for the analysis. The questionnaire were pre-tested using fifty-two (52) respondents in Port Harcourt and Asaba and a reliability test was done on the data collected using Cronbach Alpha model, to explore the internal consistency of the questionnaire (Kothari, 2004; Krishnaswamy, Sivakumar and Mathirajan, 2004; Ndiyo, 2005; Osuola, 2005; Baridam, 2008). The result of the reliability test shows that the designed questionnaire is highly reliable at 0.71. Excel software helped us to transform the variables into format suitable for analysis, after which the econometric view (E-view) was used for data analysis. The ordinary least square was adopted for the purpose of hypothesis testing. The ordinary least square was guided by the following linear model:

$$Y_i = f(X_1, X_2, X_3) \dots \dots \dots (1)$$

$$TC = f(RTA, CTA, COTA) \dots \dots \dots (2)$$

$$TC = \beta_0 + \beta_1 RTA_1 + \beta_2 CTA_2 + \beta_3 COTA_3 + \epsilon \dots \dots \dots (3)$$

That is $\beta_1 - \beta_3 > 0$

TC =Tax Compliance; RTA =Random Tax Audit; CTA = Cut-Off Tax Audit; COTA = Conditional Tax Audit; β_1 , β_2 , β_3 are the coefficients of the regression, while ϵ is the error term capturing other explanatory variables not explicitly included in the model. However, the model was tested using the diagnostic tests of heteroskedasticity, serial correlation, normality and misspecification (Gujarati and Porter, 2009; Asterious and Hall, 2007). Augmented Dickey-Fuller was also used in the study for stationarity of data.

RESULTS AND DISCUSSION

This section of the paper presents the econometric results and discussion of findings from the questionnaires administered to the respondents on tax audit and tax compliance in Nigeria.

The table one shows the Breusch-Godfrey Serial Correlation LM test. The result of the test reveals that the probability values of 0.563723 (56%) and 0.430831(43%) is greater than the critical value of 0.05; that is (56% & 43% >5%) this implies that the null hypothesis of no autocorrelation will be accepted because the p-value of about 56% & 43% is greater than the c-value of 5%.

The table two shows the White Heteroskedasticity test. The result reveals that the p-values of 0.867251 (87%) and 0.861907 (86%) are greater than the c-value of 0.05; that is (87% & 86% > 5%), this implies that we accept the null hypothesis of no evidence of heteroskedasticity, since the p-values are considerably in excess of the 0.05.

The table three shows the Ramsey RESET test. The result reveals that the p-values of 0.502858 (50%) and 0.49671 (49%) are greater than the critical value of 0.05 (5%); that is (50% > 5%) this implies that there is apparent linearity in the regression equation and so it will be concluded that the model is appropriate.

The table four shows the Augmented Dickey-Fuller for Unit Root test of stationairty for tax compliance. The result reveals that the ADF value of -4.215721 is more negative than the critical value of 1% (-3.4655), 5% (-2.8765) and 10% (-2.5747), hence the null hypothesis of a unit root in the level data is rejected; this implies that the mean, variance and covariance are constant at level data 1(0). Therefore, ordinary least square can be used for the purposes of analysis (Greene, 2002; Wooldridge, 2006; Asterious and Hall, 2007; Brooks 2008; Gujarati and Porter, 2009; Kozhan, 2010).

Table 5 shows the Augmented Dickey-Fuller for Unit Root test of stationairty for random tax audit. The result reveals that the ADF value of -4.014372 is more negative than the critical value of 1% (-3.4655), 5% (-2.8765) and 10% (-2.5747), hence the null hypothesis of a unit root in the level data is rejected; this implies that the mean, variance and covariance are constant at level data 1(0). Therefore, ordinary least square can be used for the purposes of analysis (Greene, 2002; Wooldridge, 2006; Asterious and Hall, 2007; Brooks 2008; Gujarati and Porter, 2009; Kozhan, 2010).

Table 6 shows the Augmented Dickey-Fuller for Unit Root test of stationairty for cut-off tax audit. The result reveals that the ADF value of -3.748235 is more negative than the critical value of 1% (-3.4655), 5% (-2.8765) and 10% (-2.5744), hence the null hypothesis of a unit root in the level data is rejected; this implies that the mean, variance and covariance are constant at level data 1(0). Therefore, ordinary least square can be used for the purposes of analysis (Greene, 2002; Wooldridge, 2006; Asterious and Hall, 2007; Brooks 2008; Gujarati and Porter, 2009; Kozhan, 2010).

Table 7 shows the Augmented Dickey-Fuller for Unit Root test of stationarity for cut-off tax audit. The result reveals that the ADF value of -4.143107 is more negative than the critical value of 1% (-3.4655), 5% (-2.8765) and 10% (-2.5744), hence the null hypothesis of a unit root in the level data is rejected; this implies that the mean, variance and covariance are constant at level data 1(0). Therefore, ordinary least square can be used for the purposes of analysis (Greene, 2002; Wooldridge, 2006; Asterious and Hall, 2007; Brooks 2008; Gujarati and Porter, 2009; Kozhan, 2010).

Table eight (8) shows the multiple regression analysis for tax audit and tax compliance in Nigeria. The result suggests that random tax audit with a probability of 0.0021 is less than 0.05, that is (0.21% < 5%), therefore, there is a significant relationship between random audit test and tax compliance in Nigeria; cut-off tax audit with a probability of 0.0034 is less than 0.05, that is (0.34 < 5%) therefore, there is significant relationship between cut-off tax audit and tax compliance; conditional tax audit with a probability of 0.0045 is less than 0.05, that is (0.45% < 5%); therefore, there is a significant relationship between conditional tax audit and tax compliance in Nigeria. Hence, we deduce that there is a significant relationship between tax audit and tax compliance in Nigeria. The R^2 (coefficient of determination) of 0.109711 and adjusted R^2 of 0.096289 shows that the variables combined determines about 11% and 10% of tax compliance that can be explained by random tax audit, cut-off tax audit and conditional tax audit. It implies that about 89% and 90% of tax compliance is not as a result of the conduct of tax audit by tax officials. This result is consistent with the argument put forward by Ola (2001) that tax compliance measures have been installed to monitor and detect non-compliance traits such as taxpayer education programme, desk examination programme, tax audit programme, special investigation programme and inspection programme. Therefore, the coefficient of determination 11% reflects the argument of Ola. The F-statistics and its probability shows that the regression equation is well formulated explaining that the relationship between the variables combined of tax audit and tax compliance are statistically significant (F-stat = 8.174290; F-pro. = 0.000037). This result is conforms to the study conducted by Alm and McKee (2006) that investigates the application of experimental methods to examine the individual compliance responses to a “certain” probability of audit, and conclude that the compliance rate rises if an individual knows he will be audited and the rate falls if he knows he will not be audited. Also the study is consistent with Slemrod, Blumenthal, and Christian (2001) that randomly selected taxpayers and inform them that their filling will be “closely examined” and found evidence of taxpayers’ behavior changes in response to an increased probability of audit, although the responses are not uniform among different groups of taxpayers. Mittone (2006) investigates that early experience of audits in taxpayers’ “tax life” is a more effective way to increase compliance than later audits. Also Kastlunger, Kirchlner, Mittone, and Pitters (2009) study of experimental research also suggests that, although the effectiveness of audits and fines cannot be completely confirmed, early audits in taxpayers’ “tax life” have a positive impact on compliance.

Table nine (9) presents the econometric analysis of tax audit and tax compliance in Nigeria using Granger Causality test. The result suggests that random tax audit granger cause tax compliance because the probability of 0.02887 is less than the critical value of 0.05, that is (0.02887 < 0.05), but tax compliance does not granger cause random tax audit because the probability value is greater than the critical value of 0.05 (0.20746 > 0.05); cut-off tax audit granger cause tax compliance because the probability value of 0.04238 is less than the critical value of 0.05 (0.04238 < 0.05), that is (0.04238 < 0.05), but tax compliance does granger cause cut-off tax audit because the probability is greater than critical value (0.47382 > 0.05); conditional tax audit granger cause tax compliance because the probability value is less than the critical value (0.03965 < 0.05), but tax compliance does not granger cause conditional tax audit because probability is greater than critical value (0.34066 > 0.05). Therefore, the Granger Causality analysis suggests that the application of tax audit by the relevant tax authorities can be used to achieve tax compliance. This result is consistent with the multiple regression output that tax audit is statistically significant with tax compliance.

CONCLUSION AND RECOMMENDATIONS

This paper examined the impact of tax audit programmes on tax compliance in Nigeria. The paper reviewed relevant literatures that provide strong evidence of the effectiveness of tax audit on voluntary tax compliance. This research empirically substantiated the results of prior studies of the relationship between tax audit programmes and tax compliance. The study highlights the various variables in the tax compliance model developed by Fischer, but modified by Chau and Leung (2009) and other researchers in the development of the dependent variable and the tax audit architecture of Badara (2012) and Nui (2010) for the independent variables of random tax audit, cut-off tax audit and conditional tax audit. The empirical analysis provided a strong association between the various types of

audit conducted by tax and revenue officials and the various elements in the tax compliance model. On the basis of the empirical result, the paper concludes that tax audit is one of the compliance strategies that should be taken seriously to achieve tax compliance in Nigeria because the average Nigerian is known for tax evasion and avoidance using all the available means of not paying the relevant tax to the government. Therefore, following recommendations are provided to achieve an effective and efficient tax audit and compliance in Nigeria:

1. The government should show some degree of tax accountability on the revenue collected to make citizens understand the connection between tax revenue and expenditure.
2. The government should implement the relevant tax laws faithfully, equitably and fairly irrespective of the persons status and organization concerned.
3. The relevant tax authorities at all levels should improve on the standard of tax audit employed for effectiveness and efficiency in tax administration to reduce the high level of tax evasion on those that are self-employed.
4. Tax audit should aim at reducing the problems of tax evasion, tax avoidance and other tax irregularities for standardization to improve the level of filing, payment and reporting compliance in Nigeria.
5. The scope of tax audit and investigation should be increased in Nigeria to such a way that will ensure proper submission of accurate and current returns for proper documentation and computation.
6. The relevant tax authorities should improve the public awareness of the importance of tax payment and the effect of non-tax payment, so that the level of compliance can be improved and non-compliance will be minimized.

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APPENDIX

Table 1: Breusch-Godfrey Serial Correlation LM Test:

| | | | |
|---------------|---------|-------------|----------|
| F-statistic | 3.37652 | Probability | 0.563723 |
| Obs*R-squared | 1.43603 | Probability | 0.430183 |

Source: e-view output

Table 2: White Heteroskedasticity Test:

| | | | |
|---------------|----------|-------------|----------|
| F-statistic | 0.416905 | Probability | 0.867251 |
| Obs*R-squared | 2.558118 | Probability | 0.861907 |

Source: e-view output

Table 3: Ramsey RESET Test:

| | | | |
|----------------------|----------|-------------|----------|
| F-statistic | 0.450546 | Probability | 0.502858 |
| Log likelihood ratio | 0.461398 | Probability | 0.496971 |

Table 4: Augmented Dicker-Fuller Test for Unit Root for TC

| | | | |
|--------------------|-----------|-----------------|---------|
| ADF Test Statistic | -4.215721 | 1% | -3.4655 |
| | | Critical Value* | |
| | | 5% | -2.8765 |
| | | Critical Value | |
| | | 10% | -2.5747 |
| | | Critical Value | |

*MacKinnon critical values for rejection of hypothesis of a unit root.

Table 5: Augmented Dicker-Fuller Test for Unit Root for RTA

| | | | |
|--------------------|-----------|-----------------|---------|
| ADF Test Statistic | -4.014372 | 1% | -3.4655 |
| | | Critical Value* | |
| | | 5% | -2.8765 |
| | | Critical Value | |
| | | 10% | -2.5747 |
| | | Critical Value | |

*MacKinnon critical values for rejection of hypothesis of a unit root.

Table 6: Augmented Dicker-Fuller Unit Root test for CTA

| | | | |
|--------------------|-----------|-----------------|---------|
| ADF Test Statistic | -3.748235 | 1% | -3.4645 |
| | | Critical Value* | |
| | | 5% | -2.8761 |
| | | Critical Value | |
| | | 10% | -2.5744 |
| | | Critical Value | |

*MacKinnon critical values for rejection of hypothesis of a unit root.

Table 7: Augmented Dicker-Fuller Test for Unit Root for COTA

| | | | |
|--------------------|-----------|-----------------|---------|
| ADF Test Statistic | -4.143107 | 1% | -3.4645 |
| | | Critical Value* | |
| | | 5% | -2.8761 |
| | | Critical Value | |
| | | 10% | -2.5744 |
| | | Critical Value | |

*MacKinnon critical values for rejection of hypothesis of a unit root.

Table 8: Multiple Regression

Dependent Variable: TC
 Method: Least Squares
 Date: 06/28/12 Time: 18:27
 Sample: 1 204
 Included observations: 203
 Excluded observations: 1

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 5.331281 | 1.698503 | 3.138812 | 0.0020 |
| RTA | 0.262154 | 0.084131 | 3.116029 | 0.0021 |
| CTA | 0.268757 | 0.087655 | 3.066077 | 0.0034 |
| COTA | 0.264553 | 0.092110 | 2.872139 | 0.0045 |
| R-squared | 0.109711 | Mean dependent var | | 13.10345 |
| Adjusted R-squared | 0.096289 | S.D. dependent var | | 3.175422 |
| S.E. of regression | 3.018674 | Akaike info criterion | | 5.067020 |
| Sum squared resid | 1813.366 | Schwarz criterion | | 5.132305 |
| Log likelihood | -510.3025 | F-statistic | | 8.174290 |
| Durbin-Watson stat | 1.904342 | Prob(F-statistic) | | 0.000037 |

Source: e-view output

Table 9: Pairwise Granger Causality Tests

Date: 06/28/12 Time: 18:36

Sample: 1 204

Lags: 2

| Null Hypothesis: | Obs | F-Statistic | Probability |
|--------------------------------|-----|-------------|-------------|
| RTA does not Granger Cause TC | 199 | 1.32246 | 0.02887 |
| TC does not Granger Cause RTA | | 3.66262 | 0.20746 |
| CTA does not Granger Cause TC | 199 | 0.75287 | 0.04238 |
| TC does not Granger Cause CTA | | 3.44648 | 0.47382 |
| COTA does not Granger Cause TC | 199 | 0.40183 | 0.03965 |
| TC does not Granger Cause COTA | | 2.55049 | 0.34066 |

Source: e-view output

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