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Tax Audit Determinants and Corporate Tax Compliance in Nigeria

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Abstract:
This study examines whether the impact of tax audit probability, frequency of tax audit and tax penalties could improve corporate tax compliance in Nigeria. The study adopted a survey research design to elicit data from the respondents. In testing the research hypotheses, the study adopted the use of descriptive statistics, correlation and least square regression methods to analyse the data. The findings revealed a significant impact of tax audit probability and frequency of tax audit on corporate tax compliance. However, there was no significant impact of tax penalties on corporate tax compliance. The study recommends that a tax audit exercise should be frequently carried out in order to strongly discourage non-compliance. In addition, the government should empower significantly the relevant tax authorities to monitor and enforce regulations toward tax compliance in Nigeria.

Keywords: *Economic deterrence theory, Tax audit, Tax audit frequency, Tax audit probability, Tax compliance*

1. Introduction

The non-compliance with tax systems remains a serious concern to the relevant tax authorities globally (Yusof, Ling & Wah, 2014), and the government responsibility of meeting the needs of its citizens is usually demanding (Anyaduba & Modugu, 2013). To meet up with the provisions of basic amenities and other social services requires a substantial amount of funds. Similarly, Appah and Eze (2013) and Appah (2010) both posited that for any nation to experience development, there must be substantial amount of revenue generated which must be properly applied on public infrastructures for the benefits of members of the society. However, the revenue and expenditure gap in Nigeria is worrisome (Appah & Eze, 2013). The reduction in revenue generation and the continuous increase in the cost of running government have left various states in Nigeria to formulate strategies at improving their revenue base (Kiabel & Nwokah, 2009), hence, the need for tax compliance.

Azubike (2009) described a tax system as an opportunity for the government to collect additional revenue needed in discharging its obligations. However, noncompliance with tax payment could be a problem affecting the growth and development of tax as an alternative source of revenue. In the same vein, Ola (2001) argues that a non-compliance with tax payment is a betrayal of the tax administration and revenue system. Therefore, a well implemented tax compliance strategy that can safeguard tax administration, sustain the confidence of taxpayers and tax audit programmes need to be embraced in order to monitor and detect the non-compliance traits of corporate taxpayers in Nigeria (Appah, 2004; Kiabel & Nwikpasi, 2009).

Although, there has been a dearth of research work in this area, coupled with the exclusion of frequent tax audit that determines tax compliance in most prior studies in and outside Nigeria (Anyaduba & Modugu, 2013; Appah & Eze, 2013; Norman & Marisa, 2012). The paucity of researchers in this area of interest constitutes a vacuum in academics, which must be filled to enhance tax policy formulation strategy. In the light of this, the study basically examined whether the impact of tax audit probability, frequency of tax audit and tax penalties could improve corporate tax compliance in Nigeria.

2. Literature Review

This section discusses the theoretical framework, the review of related literature and hypotheses development for the study.

2.1. Theoretical Framework

The main theoretical approaches to tax compliance have commonly been divided into the economic deterrence theory and the wider behavioural theory that incorporates both social and fiscal psychological approaches. However, the theory that is particularly relevant in the context of this study is the economic deterrence theory. The economic deterrence theory views taxpayers as perfectly moral, risk-neutral or risk-averse individuals who seek to maximise their utility, and choose to evade tax whenever the expected gain exceeds the cost. Thus, a pure cost-benefit approach is given for reason why taxpayers may comply with the tax laws.

According to Allingham and Sandmo (1972) and Srinivasan (1973), taxpayer is endowed with two strategies: (a) to pay the tax according to the real income or (b) to declare a smaller amount of income and consequently pay less tax. Choosing between these two extremes depends on the probability of being audited. Individuals are assumed to opt for the strategy that yields the highest expected utility under conditions of uncertainty. On the other hand, if the taxpayer is not audited, the second strategy could be opted for by the taxpayer. Apart from the probability of being audited, fines, tax rates and income could also determine compliance. Based on this, this study contributes to the existing literature by introducing tax audit probability, frequency of tax audit exercise and tax penalties as determinants of corporate tax compliance.

2.2. Review of Related Literature

2.2.1. Tax Audit Probability and Tax Compliance

The study of Alm and McKee (2004) investigates the application of experimental methods to examine the individual tax compliance. Finding revealed that tax audit probability had a significant positive impact on tax compliance. This finding is also in tandem with the study of Slemrod, Blumenthal and Christian (2001) who examined selected taxpayers and found evidence of taxpayers' behaviour changes in response to an increased tax probability audit. In addition, Studies by Anyaduba and Modugu (2013) also revealed that self-assessment systems and tax audits impacted significantly on tax compliance.

In contrast, Beron, Tauchen and Witte (1988) reported no correlation between tax audits and compliance. Audits were found to be more effective in inducing taxpayers to over claim deductions rather than encouraging them to correctly report actual income. On the basis of this, the first hypothesis is stated thus:

- H_{01}: Tax audit probability has no significant impact on corporate tax compliance in Nigeria

2.2.2. Frequency of Tax Audit and Tax Compliance

The standard economic theory assumes that tax compliance is positively correlated with tax audit frequency. However, evidence on the impact of audit frequency is ambiguous. For instance, Spicer and Lundstedt (1976) confirmed that the tax audit frequency had a significant impact on tax compliance. Alm, McClelland and Schulze (1999) emphasized that the rate of tax compliance rises in a non-linear way as the audit tax frequency increases. In their experiment conducted, an audit frequency of 0% led to a compliance rate of 20% and it increases significantly from 50.20% to 67.50% for an audit frequency of 2% and 10% respectively. This implies that high audit frequency significantly affects tax compliance. The second hypothesis for the study is thus stated as:

- H_{02}: Audit tax frequency has no significant impact on corporate tax compliance in Nigeria

2.2.3. Tax Penalties and Tax Compliance

The study of Palil and Mustapha (2011) revealed that penalties have an impact on tax compliance. The higher the penalties on tax defaulters, the greater the discouragement on potential tax evasion. In the same vein, Gordon (1990), Wang and Conant (1988), Marrelli and Martina (1988) and Marrelli (1984), found that penalty rates have a negative association with tax evasion. In contrast, from the findings of Virmani (1989), it was revealed that tax penalty rates had a positive association with evasion, meaning that higher rates would not prevent tax evasion. Therefore, the third hypothesis for the study is stated as:

- H_{03}: Tax penalty has no significant impact on corporate tax compliance in Nigeria

3. Methodology

This study adopted a survey research design to guarantee that the researchers reach adequate and considerable population. The population consists of the entire staff of both Federal and State Board of Inland Revenue service across the six geopolitical zones in Nigeria (South West, South-South, South-East, North-West, North-Central and North-East). Due to the large number of staff, this study judgementally considered a sample size of one hundred and seventy (170) respondents spread across three states in the three geopolitical zones (Edo in South-South, Lagos in South-West and Imo in South-East). The respondents were randomly selected and the choice of the states and zones were based on proximity and ease of access to data.

The study made use of primary data. Questionnaire was designed on a 5-point Likert form scale from strongly agree to strongly disagree to elicit responses from the 170 respondents. The validity of the questionnaire was assured by Experts and pilot survey adopted for the reliability test with a correlation coefficient of 0.76 (76%). A total of one hundred and seventy (170) copies of questionnaires were administered of which one hundred and fifty (151) copies representing 89% were found useable. The data generated were coded and analysed using descriptive statistics, correlation and ordinary least square (OLS) regression methods. The choice of these tools is that they measure the normality of the variables and their significant impacts. The decision rule was to accept the null hypotheses if the statistical criterion is greater than 0.05 (prob>0.05) otherwise accept the alternate hypotheses (prob<0.05).

3.1. Model Specification

For the purpose of measuring the impact between dependent and independent variables, a model adapted from the study of Anyaduba and Modugu (2013)is hereby specified:

TAXCOMP= f (TAXPROB, TAXFREQ, TAXPEN)……………………………………..(i)

The functional form of the model could be presented explicitly as:
TAXCOMP= α_0 + α_1TAXPROB + α_2TAXFREQ+ α_3TAXPEN +μ………………………(ii)
Where:
TAXCOMP= Corporate tax compliance
α_0= Intercept of the regression line
$\alpha_1 – \alpha_3$= slope of the regression line
μ = error term that represents other independent variables that affect the model but not captured.
TAXPROB= Probability of being audited
TAXFREQ= Frequency of being audited
TAXPEN= Penalties and fine for defaulters.
Aprioiri signs: α_1>0, α_2>0, α_3<0.
The model specified above captured corporate tax compliance (TAXCOMP) as dependent variable while probability of being audited (TAXPROB), frequency of being audited (TAXFREQ) and penalties and fine for defaulters (TAXPEN) as independent variables.

4. Result and Discussion of Findings

4.1. Result

The table 1 below presents the descriptive statistics of all the variables used in the study.

	TAXCOMP	TAXPROB	TAXFREQ	TAXPEN
Mean	4.331126	2.536424	1.629139	3.331126
Median	4	2	2	3
Maximum	44	5	3	5
Minimum	2	1	1	2
Std. Dev.	3.361987	0.877685	0.606805	0.709195
Skewness	10.96015	1.105477	0.39373	0.10452
Kurtosis	130.0983	4.560371	2.330186	2.790132
Jarque-Bera	104658.5	46.07433	6.724183	0.552044
Probability	0	0	0.034663	0.758796
Sum	654	383	246	503
Sum Sq. Dev.	1695.444	115.5497	55.23179	75.44371
Observations	151	151	151	151

Table 1: Descriptive Statistics
Source: Output from E-View 8

Table 1 shows the results of the descriptive statistics used in the analysis. The mean and standard deviation of the variables are: TAXCOMP (Mean=4.331126, STD=3.361987); TAXPROB (Mean=2.536424, STD=0.877685); TAXFREQ (Mean=1.629139, STD=0.606805) and TAXPEN (Mean=3.331126, STD=0.709195). All these are very low which indicate that tax compliance, tax audit probability and tax audit frequency exhibit considerable clustering around the mean.

Variables	Jarque-Bera	Probability
TAXCOMP	104658.5	0
TAXPROB	46.07433	0
TAXFREQ	6.724183	0.034663
TAXPEN	0.552044	0.758796

Table 2: Normality Test
Source: Researchers' Computation, 2015

From table 3 above, the data were normally distributed because the Jacque-Bera statistics probability values assume zero (0).

Dependent Variable: TAXCOMP				
Method: Least Squares				
Date: 08/06/15 Time: 22:26				
Sample: 1865 2015				
Included observations: 151				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.765813	1.897075	3.566444	0.0005
TAXPROB	-0.252712	0.331321	-0.76274	0.0448
TAXFREQ	-0.422603	0.477142	-0.885695	0.0272
TAXPEN	-0.331787	0.393184	-0.843847	0.4001
R-squared	0.581864	Mean dependent Var		4.331126
Adjusted R-squared	0.538302	S.D. dependent var		3.361987
S.E. of regression	3.375913	Akaike info criterion		5.297342
Sum squared resid	1675.328	Schwarz criterion		5.37727
Log likelihood	-395.9493	Hannan-Quinn criter.		5.329813
F-statistic	0.588338	Durbin-Watson stat		1.900509
Prob(F-statistic)	0.023579			

Table 3: Regression Result
Source: Output from E-View 8

Table 3 above shows the regression result. The R-squared exhibits approximately 0.58 (58%) which implies that the independent variables (TAXPROB, TAXFREQ and TAXPEN) jointly explain 58% variation in TAXCOMP. However, on account of adjustment, the change in TAXCOMP reduces to approximately 0.53 (53%). The remaining 47% left unexplained is captured in the error term which implies that there are other variables that could determine TAXCOMP. The F-statistics probability value of 0.02 reveals that the model fit is good. This, therefore, implies a linear relationship between TAXCOMP and the independent variables.

The Durbin-Watson statistic of approximately 2 reveals the absence of autocorrelation in the model. On the impact of each of the independent variables on the dependent variable (TAXCOMP); TAXPROB exhibits a significant (0.0468< 0.05) and weak negative impact (0.252712) on TAXCOMP. This implies that a unit rise in TAXPROB will lead to 0.252712 unit decline in TAXCOMP. On TAXFREQ, the result revealed a significant (0.0272<0.05) and weak negative impact (0.422603) on TAXCOMP. This implies that a unit rise in TAXFREQ will lead to 0.422603 unit decline in TAXCOMP. Finally, On TAXPEN, the result revealed an insignificant (0.4001>0.05) and weak negative impact (0.331787) on TAXCOMP. This implies that a unit rise in TAXPEN will lead to 0.331787 unit decline in TAXCOMP as the variable had insignificant impact.

4.2. Discussion of Findings and Test of Hypotheses
In this section, the hypotheses previously formulated were tested and the findings from the regression results equally discussed.

4.2.1. Tax Audit Probability and Corporate Tax Compliance
The result revealed that TAXPROB exhibits significant and weak negative impact on TAXCOMP at 5%. Based on the statistical significant criterion (0.04< 0.05), we therefore reject the null hypothesis and conclude that tax audit probability has significant impact on tax compliance. This implies that tax audit probability improved corporate tax compliance. The finding is in consonance with Anyaduba and Modugu (2013); Alma and McKee (2004) and Slemrod, Blumenthal and Christian (2001). On the contrary, the study of Beron, Tauchen and Witte (1988) did not support this as it revealed an insignificant impact of tax audit probability on tax compliance.

4.2.2. Tax Audit Frequency and Corporate Tax Compliance
The result revealed that TAXFREQ exhibits significant and weak negative impact on TAXCOMP at 5%. Based on the statistical significant criterion (0.03< 0.05), we therefore reject the null hypothesis. It is, therefore, concluded that the frequency of tax audit has significant impact on tax compliance. This indicates that tax audit frequency improved on corporate tax compliance. The finding is in agreement with the studies of Alm, McClelland and Schulze (1999) and Spicer and Lundstedt (1976) that tax audit has significant impact on corporate tax compliance.

4.2.3. Tax Penalties and Corporate Tax Compliance
The result revealed that TAXPEN exhibits an insignificant and weak negative impact on TAXCOMP at 5%. Based on the statistical insignificant criterion (0.40< 0.05), we therefore accept the null hypothesis and conclude that tax penalty has no significant impact on tax compliance. This finding is consistent with the study of Virmani (1989). However, studies of Palil and Mustapha (2011), Gordon

(1990), Wang and Conant (1988), Marrelli and Martina (1988) and Marrelli (1984) showed significant impact of tax penalty on corporate tax compliance.

5. Conclusion and Recommendation

In recent times, the revenue accruing to the federation account has been depleted owing to a fall in the price of crude oil at the international market. Nigeria being a mono-product country has been severely hit by this trend. This has, therefore, prompted alternative means of revenue generation (taxes). However, prior literature revealed that compliance has been an issue in realizing huge revenue through tax. The study, therefore, made an attempt to investigate whether tax audit determinants could improve corporate tax compliance in Nigeria. The study concludes that corporate tax compliance has been mostly determined by probability and frequency of tax audit. On the basis of these findings, the study recommends that tax audit exercise should be frequently carried out in order to discourage non-compliance. In addition, the government should empower significantly the relevant tax authorities to monitor and enforce regulations toward tax compliance in Nigeria.

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