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EXAMINATION OF THE EFFECTIVENESS OF TAXPAYER IDENTIFICATION NUMBER (TIN) IN COMBATING TAX EVASION IN NIGERIA (CASE STUDY OF AKWA IBOM STATE BOARD OF INTERNAL REVENUE)

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Abstract: **The study was carried-out to examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue). The related literatures were reviewed. The population of study comprises the total revenue before TIN (TRBT), total revenue after TIN (TRAT), internally generated revenue before TIN (IGRBT) and internally generated revenue after TIN (IGRAT). A number of statistical tools including descriptive statistics, correlation analysis and Auto Regressive Distributed Lag (ARDL) Model were used to analyse the data and test the hypotheses formulated. The (ARDL) Model revealed that, the internally generated revenue (IGR) before the introduction of TIN within (1997-2007) was not significant. Also, it was revealed that the introduction of TIN within (2008-2018) has witnessed a tremendous increase of internally generated revenue in Akwa Ibom State, rejecting the null hypothesis that TIN does not militate against tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue). The study recommended that a holistic tax education should be carried out in order to keep the teeming taxpayers abreast of Taxpayer Identification Number programme in the state and also more registration centers should be created for ease of access and registration of taxpayers for the taxpayer identification number programme as oppose to one and only registration center in Uyo to consolidate the TIN programme in the State.**

Keywords: **tax identification number, tax evasion, internally generated revenue, board of internal revenue, total revenue.**

1. INTRODUCTION

1.1 Background to the Study

Taxpayer Identification Number (TIN) is a 10 (ten) digit number that is unique to each taxpayer in Nigeria, for every individual and corporate organization that is, taxable entities that earn a steady income. The Taxpayer Identification Number (TIN) is a platform which is meant to harmonize taxpayer identification and registration in Nigeria; it will create

closer linkage between the various tax authorities in Nigeria and, aid corporation, information sharing and increase revenue generation accruing to all tiers of the governments (Joint Tax Board, 2011).

Taxpayer Identification Number (TIN) is an initiative of the Joint Tax Board (JTB) in collaboration with the Federal Inland Revenue Service (FIRS) and the 36 State Boards of Internal Revenue (SBIR). It is an electronic system of taxpayers' registration, which uniquely identify all taxpayers and is available nation wide.

The TIN is aimed to have reliable and centralized data of information of all taxpayers in the country. It creates a national platform for the registration and allocation of an identification number to all taxpayers to aid effective tax administration process. And also to automate tax registration activities for all levels of government and therefore facilitate a sustainable platform for internally generated revenue in Akwa-ibom State.

Tax bases are expected to widen through the registration of all eligible taxpayers. This would enhance greater compliance and returns as the available information of each taxpayer would enable proper tracking and more collection processes. This would lead to an increase in internally generated revenue. It is a known fact that tax administration in Nigeria has been faced with issues and challenges ranging from non- identification, registration and compliance by taxpayers. This inherent problem is also associated with the implementation of Taxpayer Identification Number program in our tax system. Hence, the need to assess the application of the taxpayer identification number on internally generated revenue in Akwa-ibom State.

Internally generated revenue on the other hand connotes monies collected by the government through imposition of taxes and levies on facilities, incomes, and consumptions, transfer of properties and other domestic transactions as opposed to monies collected from duties imposed on import and other international transactions (JTB, 2011). To avoid or eliminate multiplicity of taxes across the country, the Taxes and Levies (approved list for collection) Decree No 21 of 1998 clearly defined which taxes are collectible by each tier of Government in Nigeria. The list has since been published and distributed by the exclusive list or concurrent list for collection.

1.2 Statement of the Problem

One of the problems of tax administration in the three tiers of government in Nigeria is the improper identification of tax bases by the three tiers of government which leads to tax evasion as those taxpayers not captured most likely evade relevant tax authorities. The constitution of the Federal Republic of Nigeria 1999 as amended, provides an approved list of taxes and levies accruable to the three ties of governments respectively, but there are several court cases in respect of some tax bases often between the Federal and some State governments. For instance, the case between the Federal and Lagos State government on consumption tax. The problem of improper tax identification has resulted to tax evasion and has caused some taxpayers to pay the same tax to two or more tax authorities; hence, leading to multiple taxations which have negative effects on the economy since tax evasion tends to reduce tax revenue collected by the relevant tax authorities.

The challenge of improper tax education in respect of TIN by the stakeholders has occasioned a low compliance from the taxpayers in respect of taxpayer's identification Number which has affected the internally generated revenue negatively.

1.3 Objectives of the Study

The broad objective of this study is to examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue).

The specific objectives of this study include the followings:

1. To investigate the effect of internally generated revenue on total revenue of Akwa-ibom State before the introduction of TIN programme.

2. To evaluate the effect of internally generated revenue on total revenue of Akwa-ibom State after the introduction of TIN programme.

1.4 Research Questions

1. What is the contribution of internally generated revenue to total revenue of Akwa-ibom State before the introduction of TIN programme?

2. What is the contribution of internally generated revenue to total revenue of Akwa-ibom State after the introduction of TIN programme?

1.5 Statement of Hypotheses

HO_1: Taxpayer Identification Number does not have significant effect on total revenue of Akwa-ibom State before the introduction of TIN programme.

HO_2: Taxpayer Identification Number does not have significant effect on total revenue of Akwa-ibom State after the introduction of TIN programme.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Concept of the Unique Taxpayer Identification Number

As an effort and commitment of Nigerian tax authorities to increase the revenue generation and eliminate the leakage of the taxes through evasion, the Federal Inland Revenue Services (FIRS) introduce a program called Unique Taxpayer Identification Number (U-TIN). The program is one of the basic steps set in the tax administration process to have a data base of all registered taxpayers in the country. The program was recorded as one of the mechanism toward having a pool of taxpayers' registration and proper unique identification.

Nevertheless, in order to certify the effective application of this scheme of registration, there is a need for clear thoughtful of the concept and idea behind its introduction.

The main and paramount contextual to the institution of U-TIN in Nigerian tax system was the necessity to change the registration of taxpayers in the country from a manual process which is uncoordinated to an electronic or computerized, structured, harmonised and coordinated system. The former (which is manual) system was unreliable, boring, cumbersome and posed a main challenge to tax authorities as well as taxpayers.

Thus, there was a need from the authorities to substitute that old system with a new modernizes and more effective system which is additionally taxpayer friendly.

The basic idea of U-TIN is to provide harmonized and coordinated taxpayer identification system that is based on computerized system and easily accessible to all relevant stakeholders' perspective (Ayodeji, 2014). It is a collective and integrated system for taxpayer's identification throughout the country and would incorporate a database meant for all registered taxpayers at both the Federal and State level (local governments are under state registration). This program would generate proper linkages within tax authorities (Federal and State) and yield cooperation and information dissemination about taxpayers thus, led to better compliance by taxpayers (Ayodeji, 2014). The followings are some of the benefits of the U-TIN system in Nigeria such as:

• Minimizing the cost and time needed for tax compliance from taxpayer by tax authorities.

• Having a single and effective taxpayer's data base for federal and state level.

• Expansion of tax system which is useful for national security and social planning purposes.

• A friendly tax system that is well coordinated and accessible to all stakeholders.

• Modernizes and efficient way of assessing and detecting taxpayer defaulters.

• Increase voluntary compliance and discourage tax evasion.

It is anticipated that with the introduction of the program Governments and tax authorities at all levels (both federal and state) shall collaborate to ensure the positive implementation and the evenly establishment of U-TIN system in Nigeria, in relations to funding, platforms and personnel for the organization of the system, nationwide.

2.2 Theoretical Review

Various tax policies have been put in place by the government to increase the internally generated revenue for the State. Given the chance, a lot of taxpayers may not pay taxes unless there is a motivation or coercion to do so. Tax policy theories can be broadly classified into two. These are: Economic based theory; and Psychological based theory. Both

theories are examined below however; this study is guided by the "Economic Based Theory". However, this study is hinged on the economic based theory.

2.2.1 Economic Based Theory

This is also known as deterrent theory and they place emphasis on incentives. The theory suggests that taxpayers are amoral utility maximizers- they are influenced by economic motives such as profit maximization and probability of detection. As such they analyzed alternative compliance paths for instance, whether or not to evade tax. The likelihood of been detected and the resulting repercussions and then select the alternative that maximizes their expectations after tax returns after adjusting for risk (Smatrakalev, 2006). Therefore, according to this theory, in other to improve internally generated revenue, audit and penalties for non- compliance should be increased.

2.2.2 Psychological Theory

Psychological theory on the other hand postulates that taxpayers are influenced to comply with their tax obligations by psychological factors. The theory suggests that a taxpayer may comply even when the probability of detection is low. As opposed to the economic theory that emphasize increased audit and penalties as solutions to compliance issues, psychological theory placed emphasis on changing individual attitudes towards tax systems.

2.3 Empirical Review

Several studies have investigated the effects of tax evasion and tax avoidance on revenue of government. The outcome of the investigations, however, showed that, effect of tax evasion and tax avoidance is loss of revenue to the government.

Onyeka, *et al* (2016) examined the effect of tax evasion and avoidance on Nigeria's economic Growth. They discovered that, tax evasion and avoidance had negative significant impact on growth of the Nigerian economy. Fagbemi, *et al* (2010) investigated the ethics of tax evasion; perceptual evidence from Nigeria. They found that, tax evasion is ethical sometimes is not accepted, and the level of tax evasion when government is corrupt is significantly higher than when it relates to other views expressed on government discrimination, unjust treatment and tax affordability.

Mehrara & Farahani (2016) wrote on the effects of tax evasion and government tax revenues on economic stability in OECD countries using data from 1990- 2013.They found that, tax evasion lead to economic instability and more tax revenues will be beneficial to a better economic condition. Adebisi *et al* (2013) investigated the effect of tax avoidance and tax evasion on personal income tax administration in Nigeria. They disclosed that, enlightenment and adequate utilization of tax revenue on public goods will discourage tax avoidance and tax evasion, high tax rates encourage tax avoidance and tax evasion, personal income tax generation has not being impressive and personal income tax rates are too high.

Akinyele and Ogunmakin (2016) examined the effects of tax avoidance on government budget implementation in Southwest Nigeria for the period 1999-2014. The outcome of their results pointed that, 61 percent of the expected revenue of the states was hampered by avoidable consequence of tax avoidance through non compliance with collection and remittances, and the level of tax avoidance through implementation of tax laws and policies in Southwest Nigeria revealed negative performance of government budget implementation and as such affected the development of the economies of sampled states.

Ibadin and Eiya (2013) examined tax evasion and tax avoidance behavior of the self – employed, using some selected states in Nigerian geo-political zone. The results revealed that, respondents are of the opinion that tax evasion is ethical sometimes, and there is significant relationship exists between the ethical view, mode of tax administration and cultural practices of the self employed and tax evasion and avoidance.

Obafemi (2014) conducted study on the effects of tax avoidance and tax evasion on Nigeria economic development. He adopted survey research design and responses were obtained through a well structured questionnaire administered to 150 Nigerians, out of which are tax payer and tax evader. He found that, tax evasion and avoidance have adversely affected economic growth and development in Nigeria.

Modugu et al (2014) appraised the evasion of personal income tax in Nigeria and obtained primary data through administration of 160 questionnaires to some selected self-employed individuals in Edo State They found that, the tax payers' relationship with tax authority and weak penalties have a significant influence on tax evasion in Nigeria.

Olabisi (2010) investigated the causes and effects of tax evasion and tax avoidance in Lagos state, and he obtained primary data from the total number of 127 questionnaires administered to personal income tax payers in Lagos state. He used chi-square method in analysed the data. His results revealed that, the tax administration in Lagos state is very inefficient and ineffective and there is no adequate information on the tax payers in the state. In addition, Uadiale, *et al* (2010) examined the relationship between culture (represented by legal enforcement, trust in government and religiosity) and personal income tax evasion in Nigeria. They discovered that, legal enforcement and trust in government have positive impact on personal income tax evasion in Nigeria.

Tax evasion can be drawn back to the pioneer's study of Allingham and Sandmo (1972) in his work printed as income tax evasion. The study observed a positive connection between tax rates and evasion. This finding is additionally consistent with the discoveries of Soyode (2006) which distinguished causes of tax evasion. Firstly, he noted that the rates at which taxpayers are generally taxed effects on tax evasion. He observed that the higher the rate, the higher will be the probability for the taxpayers to evade, as this expands their tax load and subsequently brings down their disposable income. Besides, the likelihood of being detected in the wake of dodging taxes likewise has impacts on the choice of a taxpayer as whether to evade or not. This is straightforwardly connected to the level of how strict tax laws are generally implemented (Allingham & Sandmo, 1972; Soyode, 2006). Literature likewise gives a connection between tax evasion and defilement.

Morale (1998) further takes a shot at a model, which attempted to distinguish the ideal pay at which tax officers ought to be compensated. He argue that Governments confront the difficulty of distinguishing, a pay level which will guarantee that its tax officers are not tempted to pay off, as there is a connection between tax evasion and the pay level of tax officers through defilement (Morale, 1998).

According to Pashev (2005), the disappointment of the Government to give fundamental bases which should be subsidized by the taxes being gathered may disturb tax evasion. Absence of straightforwardness and responsibility in the utilization of open trust has the impact of building open doubt both in the tax framework and additionally the Government. Thus, this is accepted to expand the level of tax evasion (Pashev, 2005). Some of the studies, Armstrong & Robison (1998), Olivia (1998), McGee (2006) and Smatrakalev (1998) have taken diverse opinions on tax evasion. All these studies have one or more opinion depicted in their studies. These opinions incorporate philosophical opinion, experts' opinion and religious opinion. A few studies additionally have two opinions joined together. In the investigation of Morale (1998), tax evasion was examined from a philosophical perspective by social affair proof from Mexican specialists. His study inferred that Mexican specialists have a more vital obligation to their family than to the state. This perspective is also accepted to have a religious underlining as it has a holding on for the Catholic religious literature as recognized by Crowe in 1944 (Armstrong & Robison, 1998; Olivia, 1998; McGee, 2006; Smatrakalev, 1998; McGee & A, 2006; Crowe, 1944).

3. METHODOLOGY

3.1 Research Design

According to Zikmund (1994), research design is the master plan specifying the method and procedures for collecting and analyzing the needed information. In this study therefore, an *ex-post facto* research design was employed. This design is suitable for this study as it deals with facts and matters that had already taken place and the data were readily available for use.

3.2 The Population of the Study

The population of the study consists of the draft estimates of Akwa Ibom State government of Nigeria with particular reference to the State Internally Generated Revenue behavior in the context of total revenue accruable to the State. Parameters like internally generated revenue before TIN (IGRBT), the internally generated revenue after TIN (IGRAT), total revenue before TIN (TRBT) and Total revenue after TIN (TRAT) for various years (1997-2018) respectively would be used to capture the contribution of TIN programme on total revenue of Akwa-ibom State, Nigeria.

3.3 Determination of Sample Size

Sampling is the act of selecting and observing only a specified subset of the population (Ugwu, 2003). The sample size (n) comprises of IGRBT and IGRAT data covering a period of 11 years, that is (n=11). When the sample size (n) is less than 30 this in statistical estimation is seen as a small sample size, necessitating t-test to be carried out on the data. The t-

test is a very popular test statistics developed by William Gosset in an attempt to solve the problem of hypothesis testing when the population standard deviation is unknown.

3.4 Sources and Method of Data Collection

Data were sourced from the secondary sources otherwise known as secondary data from the Budget estimates of Akwa-ibom State Government as published by the Akwa-ibom State Ministry of Budget and Planning Uyo (1997-2018) with specific focus on actual internally generated revenue, statutory allocation from federation account, excess crude oil account and VAT pool account.

3.5 Method of Data Analysis

E-views version 9 will be employed to analyze the data while t-test and its corresponding p-value shall be used to test the hypotheses. Correlation test was also conducted to examine the extent to which internally generated revenue before and after the introduction of Tax Identification Number (TIN) programme in Akwa-ibom State contribute to the total revenue.

3.6 Variable of the Study

For this study, internally generated revenue before TIN (IGRBT) and after TIN (IGRAT) are independent variables while total revenue (TR) is the dependent variable.

3.6.1 Independent variables: (proxy for tax payer identification number TIN), IGRBT and IGRAT are the parameters influencing the behavior of total revenue (TR) in the separate models respectively. IGRBT is internally generated revenue before Taxpayer Identification Number (1997- 2007) while IGRAT is internally generated revenue after Taxpayer Identification Number (2008-2018).

3.6.2 Dependent variable: this is the subjective variable of the study. In this study total revenue (TR) is subject to the interplay between various independent variables IGRBT and IGRAT parameter at a given period of time.

Total Revenue before TIN (TRBT) is the sum of all revenue within (1997-2007) while, total revenue after TIN (TRAT) is the sum of all the revenue within (2008-2018), this is meant to be as TRBT=IGRBT or TRAT=IGRAT as given respectively. By assuming linear relationship on account of the time series data involved in this research, effort shall be made to examine the independent variables i.e. IGRBT and IGRAT as regards their individual contribution on the dependent variable i.e. TR both distinctly.

3.7 Model Specification

To examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue), this study adopts and modifies the empirical model used by Ezugwu and Agbaji (2014). The model was used to analyze the Application of Taxpayer Identification Number (TIN) on Internally Generated Revenue in Kogi State for the Period of (2003-2012). The model is specified as;

$TR=f$ (IGRBT; IGRAT) ……..……. (eqn3.1)

$TRBT= \beta_0+ \beta_1 IGRBTi+ \mu i$ … [Internally Generated Revenue before TIN] (eqn 3.2)

$TRAT= \beta_0+ \beta_1 IGRATi+ \mu i$ …. [Internally Generated Revenue after TIN] (eqn 3.3)

Where:

TRAT = an indicator representing Total Revenue after TIN (Dependant Variable)

TRBT = an indicator representing Total Revenue before TIN (Dependant Variable)

β_0= Constant;

β_1IGRBTi= Co efficient of the Independent Variable;

IGRBTi = a predicator representing Independent Variable (Internally Generated Revenue before TIN);

β_1IGRATi= Co efficient of the Independent Variable;

IGRATi = a predicator representing Independent Variable (Internally Generated Revenue after TIN); and

μi = Stochastic error term.

The error term is captured because there are other factors that affect total tax revenue which are not included in the models.

The econometric model for this paper differs from the adopted model in the sense that the model adopted in this study is the Auto Regressive Distributed Lag ARDL Model and is given thus:

$\Delta TRBT_t = \beta_0 + \sum \beta_1 \Delta TRBT_{t-I} + \sum \beta_2 \Delta IGRBT_{t-I} + w_1 TRBT_{t-I} + w_2 IGRBT_{t-1} + \mu t$….eqn (3.4)

$\Delta TRAT_t = \beta_0 + \sum \beta_1 \Delta TRAT_{t-I} + \sum \beta_2 \Delta IGRAT_{t-I} + w_1 TRAT_{t-I} + w_2 IGRAT_{t-1} + \mu t$….eqn (3.5)

Where:

t = Time dimension.

Δ = Change

$\sum$ = Summation

w_1 to w_2 = The coefficient of the long – run component

3.8 Apriori Expectation

Tax payer identification number (TIN) is expected to have significant positive effect on total revenue in Akwa Ibom State.

Decision Rule for Acceptance or Rejection of Hypotheses

The decision rule is to reject the null hypothesis if the computed p-value is less than 5% significant level. On the contrary, accept the null hypothesis if the computed p-value is higher than 5% significant level.

4. DATA PRESENTATION AND INTERPRETATION

4.1 Data Presentation

Table 4.1 data on total revenue before and after the introduction of TIN and internally generated revenue before and after the introduction of TIN in billion naira.

YEAR	TRBT	IRBT	YEAR	TRAT	IRAT
1997	2.62	0.7396811	2008	79.32	11.92286
1998	3.87	0.7895649	2009	70.02	12.46553
1999	4.57	0.9218649	2010	85.47	20.48378
2000	9.70	1.0213108	2011	92.16	13.76486
2001	15.50	1.6058378	2012	96.55	14.81406
2002	18.10	2.4218081	2013	105.55	17.75717
2003	23.11	3.2095541	2014	99.24	21.65642
2004	30.11	3.6269	2015	77.27	20.4258
2005	38.37	3.3172378	2016	66.69	20.17078
2006	41.72	3.3845649	2017	80.88	20.67623
2007	55.82	8.2623328	2018	101.44	20.42432

Source: Akwa Ibom State board of internal revenue, 2018.

TRBT: Total revenue before the introduction of Tin

IRBT: Internally generated revenue before the introduction of Tin

TRAT: Total revenue after the introduction of Tin

IRAT: Internally generated revenue after the introduction of Tin

4.2 Descriptive Statistic

Table 4.2.1 Descriptive Statistics for Internally Generated Revenue before TIN and Total Revenue before TIN

	IRBT	**TRBT**
Mean	2.663696	22.13599
Median	2.421808	18.10318
Maximum	8.262333	55.82178
Minimum	0.739681	2.620611
Std. Dev.	2.182668	17.56229
Sum	29.30066	243.4959
Sum Sq. Dev.	47.64041	3084.339
Observations	11	11

The descriptive statistics which generally explore the characteristics of the data include: the mean, median, maximum, minimum, standard deviation as well as number of observations per each variable is shown in Table 4.2.1 above.

The result indicated a mean IRBT of N266.3 million and an average TRBT of N2.214 billion, when the minimum and maximum IRBT was N74 million and N826 million respectively, TRBT was recorded to be N262.1 million and N5.582 billion respectively. The standard deviations of N218.3 million and N1.756 billion for both IRBT and TRBT respectively showed that Akwa Ibom State board of internal revenue did not generate the same amount of internally generated revenue and total revenue within the period under review. The period under review is 11 years, hence the number of observation being 11.

Table 4.4.2 Descriptive Statistics for Internally Generated Revenue after TIN and Total Revenue after TIN

	IRAT	TRAT
Mean	17.68744	86.78299
Median	20.17078	85.47402
Maximum	21.65642	105.5508
Minimum	11.92286	66.69459
Std. Dev.	3.712248	13.09282
Sum	194.5618	954.6128
Sum Sq. Dev.	137.8078	1714.219
Observations	11	11

Source: Appendix

The result from Table 4.2.2 above, indicated a mean IRAT of N1.769 billion and an average TRAT of N8.678billion, when the minimum and maximum IRAT was N1.192 billion and N2.166 billion respectively, TRAT was recorded to be N6.669 billion and N10.55 billion respectively. The standard deviations of N371.22 million and N1.3092 billion for both IRAT and TRAT respectively showed that Akwa Ibom State board of internal revenue did not generate the same amount

of internally generated revenue and total revenue within the period under review. The period under review is 11 years, hence the number of observation being 11.

4.3 Correlation Matrix

Table 4.3.1 Correlation Matrix for Internally Generated Revenue before TIN and Total Revenue before TIN

	IRBT	TRBT
IRBT	1.000000	
TRBT	0.919123	1.000000

Source: Appendix

From the correlation matrix in Table 4.3.1 above, internally generated revenue before the introduction of TIN was positively correlated with total revenue before the introduction of TIN at 92%.

Table 4.3.2 Correlation Matrix for Internally Generated Revenue after TIN and Total Revenue after TIN

	IRAT	TRAT
IRAT	1.000000	
TRAT	0.154359	1.000000

Source: Appendix

From the correlation matrix in Table 4.3.2 above, internally generated revenue after the introduction of TIN was positively correlated with total revenue after the introduction of TIN at 15.4%.

4.4 Inferential Results

Table 4.4.1 ARDL Result of Internally Generated Revenue before the introduction of TIN and Total Revenue before TIN

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
TRBT(-1)	0.359407	0.382793	0.938908	0.5201
IRBT(-2)	14.93710	14.69433	1.016521	0.4948
R-squared	0.898661	Mean dependent var		29.05470
Adjusted R-squared	0.880627	S.D. dependent var		15.48385
S.E. of regression	1.499068	Akaike info criterion		3.318123
Sum squared resid	2.247206	Schwarz criterion		3.387634
Log likelihood	-6.272492	Hannan-Quinn criter.		2.849297
Durbin-Watson stat	3.086473			

Source: Extracted from appendix

From the Auto Regressive Distributed Lag (ARDL) Model result of internally generated revenue before the introduction of TIN and total revenue before TIN in table 4.4.1 above, R^2 of 89% as well as the adjusted R^2 of 88% is an indication that

the model is strongly represented. That is the independent variables explained 89% variations in the dependent variable while the remaining 11% may be explained by variables not included in the model.

The result also revealed that there existed a positive and insignificant relationship between internally generated revenue before the introduction of TIN and total revenue before TIN as shown by the p-value of 0.4948. This result reports about 49% significant level which is higher than the acceptable 5% level of significance; as such we conclude that there existed an insignificant relationship between internally generated revenue before the introduction of TIN and total revenue before TIN of Akwa Ibom State board of internal revenue.

Table 4.4.2 ARDL Result of Internally Generated Revenue after the introduction of TIN and Total Revenue after TIN

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
TRAT(-1)	1.848626	0.015255	121.1817	0.0053
IRAT(-2)	1.332111	0.044012	30.26698	0.0210 *
R-squared	0.919903	Mean dependent var		89.97509
Adjusted R-squared	0.909318	S.D. dependent var		13.59744
S.E. of regression	0.355045	Akaike info criterion		0.437415
Sum squared resid	0.126057	Schwarz criterion		0.506927
Log likelihood	5.250338	Hannan-Quinn criter.		-0.031411
Durbin-Watson stat	3.548336			

*** Significant at 1% and 5% significant levels**

Source: Extracted from appendix

From the Auto Regressive Distributed Lag (ARDL) Model result of internally generated revenue after the introduction of TIN and total revenue after TIN in table 4.4.2 above, R^2 of 91% as well as the adjusted R^2 of 90% is an indication that the model is strongly represented. That is the independent variables explained 91% variations in the dependent variable while the remaining 9% may be explained by variables not included in the model.

The result further revealed that there existed a positive and significant relationship between internally generated revenue after the introduction of TIN and total revenue after TIN as shown by the p-value of 0.0210. This result reports about 2% significant level which is lower than the acceptable 5% level of significance; as such we conclude that there existed a positive and significant relationship between internally generated revenue after the introduction of TIN and total revenue after TIN of Akwa Ibom State board of internal revenue.

4.5 Test of Research Hypotheses

In this section, the hypotheses earlier stated in chapter one of this study in their null form are tested using p-values. The percentage level of significance is used to test the p-values to decide whether to reject or accept a hypothesis. If the corresponding p-values are higher than 5% level of significance, we accept the null hypothesis, if on the other hand, the corresponding p-values are lower than 5% level of significance, we reject the null hypothesis.

4.5.1 Test Results for Hypothesis 1

HO_1: Taxpayer Identification Number does not have significant effect on Internally Generated Revenue of Akwa-ibom State before the introduction of TIN programme.

Data was analysed using e-views nine (version 9.0) to test the hypothesis. The data for internally generated revenue was regressed against total revenue realized by Akwa-ibom State board of internal revenue before the introduction of TIN programme (see Appendices). This was aimed at examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue).

Since the p-value for internally generated revenue before tax payer identification number (TIN) of 0.4948 (49%) is higher than the acceptable significance level of 5%, we accept the null hypothesis that internally generated revenue did not have significant effect on total revenue of Akwa-ibom State before the introduction of TIN programme. This result implies that tax evasion was not curbed in Akwa Ibom State before the advent of tax payer identification number (TIN).

4.5.2 Test Results for Hypothesis 2

HO_2: Taxpayer Identification Number does not have significant effect on Internally Generated Revenue of Akwa-ibom State after the introduction of TIN programme.

Data was analysed using e-views nine (version 9.0) to test the hypothesis. The data for internally generated revenue was regressed against total revenue realized by Akwa-ibom State board of internal revenue after the introduction of TIN programme (see Appendices). This was aimed at examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue).

Since the p-value for internally generated revenue after tax payer identification number (TIN) of 0.0210 (2.1%) is lower than the acceptable significance level of 5%, we reject the null hypothesis that tax payer identification number (TIN) did not have significant effect on total revenue of Akwa-ibom State after the introduction of TIN programme. This result implies that tax payer identification number (TIN) was effective in curbing tax evasion in Akwa Ibom State after the advent of tax payer identification number (TIN).

4.6 Discussion of Findings

The result of the descriptive statistic revealed that both internally generated revenue and total revenue realized by Akwa Ibom State board of internal revenue after the introduction of tax payer identification number was higher than that realized before the advent of tax payer identification number.

The correlation result revealed a positive relationship between internally generated revenue and total revenue realized by Akwa Ibom State board of internal revenue both before and after the introduction of tax payer identification number.

The Auto Regressive Distributed Lag (ARDL) Model result suggested that the introduction of tax payer identification number (TIN) had a significant positive effect on total revenue realized by Akwa Ibom State board of internal revenue, while an insignificant relationship was recorded before the advent of tax payer identification number (TIN), suggesting that (TIN) has reduced tax evasion in Akwa Ibom State. Put differently, the result revealed that TIN had positive effect in combating tax evasion in Akwa Ibom State during the period under review.

This finding is in consonance with the works of Allingham and Sandmo (1972), Obafemi (2014) and Uadiale, *et al* (2010) who summarized that tax policies helps reduce tax evasion and increase internally generated revenue accrued to government.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The research was carried out to examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue). This has been proven theoretically and statistically or scientifically in chapter four and the results were consistent with apriori expectation, theories and canons of taxation and literature of past studies.

Empirically, internally generated revenue before and after the introduction of tax payer identification number (TIN) were employed as independent variables to ascertain the level of dependency of total revenue realized by Akwa Ibom State board of internal revenue which was used as proxy for tax evasion (dependent variable). From the empirical analysis, some findings were made. The findings are hereby summarized as follows:

1. The correlation result revealed a positive relationship between internally generated revenue and total revenue realized by Akwa Ibom State board of internal revenue both before and after the introduction of tax payer identification number.

2. The Auto Regressive Distributed Lag (ARDL) Model result suggested that the introduction of tax payer identification number (TIN) had a significant positive effect in combating tax evasion in Akwa Ibom State.

3. The result also revealed that before the advent of tax payer identification number, the total revenue realized by Akwa Ibom State board of internal revenue was very low when compared to what was realized after the introduction of tax payer identification number.

5.2 Conclusion

In examine the effectiveness of Taxpayer Identification Number (TIN) in combating tax evasion in Nigeria (case study of Akwa Ibom State board of internal revenue), this study adopted two different models, the first model showing the relationship between tax payer identification number and tax evasion in Akwa Ibom State before the introduction of (TIN) and the second model showed the relationship between tax payer identification number and tax evasion in Akwa Ibom State after the introduction of (TIN). From the empirical results obtained in chapter four, it is only suffices to conclude that tax payer identification number (TIN) has contributed to the curbing of tax evasion in Akwa Ibom State. The study revealed that the internally generated revenue (IGR) before the introduction of (TIN) within (1997-2007) was not significant. Also, it was revealed that the introduction of (TIN) within (2008-2018) has witnessed a tremendous increase of internally generated revenue in Akwa Ibom State. So, we reject the hypothesis that stated that tax identification number does not have a significant effect in curbing tax evasion in Akwa Ibom.

Therefore, authorities and governments at all levels should collaborate to ensure the successful application of taxpayer identification number system in Nigeria, in terms of funding, personnel and platforms for the deployment of the system nationwide.

5.3 Recommendations

As a result of the findings of this study, the study recommended the following:

1. A holistic tax education should be carried out in order to keep the teeming taxpayers abreast of Taxpayer Identification Number programme in the state. Such as the benefit they can derive from registration for the taxpayer identification programme.

2. More registration centers should be created for ease of access and registration of taxpayers for the taxpayer identification number programme as oppose to only one registration center in Uyo.

3. There should be incentives for the Tax officials that are involved in the implementation of the programme to boost their productivity.

4. The State Board of Internal Revenue should be properly equipped to be able to carry-out the Taxpayer identification programme in Akwa Ibom State.

5. The enforcement unit of the State Revenue Board should be properly empowered to monitor, enforce and prosecute any errant tax defaulters who fail to comply with the Taxpayer Identification Number programme in the State.

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APPENDIX - 1

YEAR	TRBT	IRBT	YEAR	TRAT	IRAT
1997	2.62	0.7396811	2008	79.32	11.92286
1998	3.87	0.7895649	2009	70.02	12.46553
1999	4.57	0.9218649	2010	85.47	20.48378
2000	9.70	1.0213108	2011	92.16	13.76486
2001	15.50	1.6058378	2012	96.55	14.81406
2002	18.10	2.4218081	2013	105.55	17.75717
2003	23.11	3.2095541	2014	99.24	21.65642
2004	30.11	3.6269	2015	77.27	20.4258
2005	38.37	3.3172378	2016	66.69	20.17078
2006	41.72	3.3845649	2017	80.88	20.67623
2007	55.82	8.2623328	2018	101.44	20.42432

APPENDIX - 2

ARDL Result of Internally Generated Revenue after the introduction of TIN and Total Revenue after TIN

Dependent Variable: TRAT

Method: ARDL

Date: 09/01/19 Time: 10:43

Sample (adjusted): 2011 2018

Included observations: 8 after adjustments

Maximum dependent lags: 3 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

Dynamic regressors (3 lags, automatic): IRAT

Fixed regressors:

Number of models evalulated: 12

Selected Model: ARDL(3, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
TRAT(-1)	1.848626	0.015255	121.1817	0.0053
TRAT(-2)	-1.541057	0.027724	-55.58626	0.0115
TRAT(-3)	0.844818	0.031936	26.45308	0.0241
IRAT	-1.490401	0.075890	-19.63885	0.0324
IRAT(-1)	-2.019770	0.076430	-26.42629	0.0241
IRAT(-2)	1.332111	0.044012	30.26698	0.0210
IRAT(-3)	1.706766	0.051405	33.20215	0.0192

R-squared	0.919903	Mean dependent var	89.97509
Adjusted R-squared	0.909318	S.D. dependent var	13.59744
S.E. of regression	0.355045	Akaike info criterion	0.437415
Sum squared resid	0.126057	Schwarz criterion	0.506927
Log likelihood	5.250338	Hannan-Quinn criter.	-0.031411
Durbin-Watson stat	3.548336		

**Note:* p-values and any subsequent tests do not account for model selection.

APPENDIX - 3

ARDL Result of Internally Generated Revenue before the introduction of TIN and Total Revenue before TIN

Date: 09/01/19 Time: 10:46

Sample (adjusted): 2000 2007

Included observations: 8 after adjustments

Dependent lags: 3 (Fixed)

Dynamic regressors (3 lags, fixed): IRBT

Fixed regressors:

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
TRBT(-1)	0.359407	0.382793	0.938908	0.5201
TRBT(-2)	-0.293619	0.613592	-0.478525	0.7159
TRBT(-3)	-0.504244	0.796012	-0.633463	0.6405
IRBT	4.882109	2.230768	2.188533	0.2729
IRBT(-1)	-4.819496	7.544532	-0.638807	0.6381
IRBT(-2)	14.93710	14.69433	1.016521	0.4948
IRBT(-3)	-1.781920	8.533811	-0.208807	0.8690

R-squared	0.898661	Mean dependent var	29.05470
Adjusted R-squared	0.880627	S.D. dependent var	15.48385
S.E. of regression	1.499068	Akaike info criterion	3.318123
Sum squared resid	2.247206	Schwarz criterion	3.387634
Log likelihood	-6.272492	Hannan-Quinn criter.	2.849297
Durbin-Watson stat	3.086473		

**Note:* p-values and any subsequent tests do not account for model selection