Tax Innovation, Administration and Revenue Generation in Nigeria: Case of Cross River State

Ifere, Eugene Okoi, Eko, Eko Omini

Abstract—Taxation as a potent fiscal policy instrument through which infrastructures and social services that drive the development process of any society has been ineffective in Nigeria. The adoption of appropriate measures is, however, a requirement for the generation of adequate tax revenue. This study set out to investigates efficiency and effectiveness in the administration of tax in Nigeria, using Cross River State as a case-study. The methodology to achieve this objective is a qualitative technique using structured questionnaires to survey the three senatorial districts in the state; the central limit theory is adopted as our analytical technique. Result showed a significant degree of inefficiency in the administration of taxes. It is recommended that periodic review and update of tax policy will bring innovation and effectiveness in the administration of taxes. Also proper appropriation of tax revenue will drive development in needed infrastructural and social services.

Keywords—Administration, Efficiency, Effectiveness, Taxation.

I. INTRODUCTION

THE development and growth of any society is tied to the ability of government to provide basic infrastructure. This perhaps explains why government show great concern for a medium through which funds can be made available to achieve their set goals for the society [6]. Government needs money to execute their social obligations which include provision of infrastructure and social services. Reference [11] observed that meeting the needs of the society calls for huge and e-vision by taxing units, connivance of taxing officials benefits of taxation, corruption of tax officials, tax avoidance and evasion by taxing units, connivance of taxing officials with taxing population, high rate of tax, poor method of tax collection etc.

Taxation unarguably could be taken to be one of the most potent fiscal instruments which reduce private consumption, increases investment and income inequality. It enhances the transfers of resources to the government for needed economic development. Reference [16] view taxation to be the process or machinery by which communities or groups of persons are made to contribute some agreed amount of money for the purpose of administration and development of the society.

Reference [9] opines that a country yearning for development is required to collect tax revenue of an amount greater than 10%-15%. However, a country’s revenue generation primarily depends on its capacity to tax more in both economic and administrative terms. It is also a fact that developing countries receive a very low amount of revenue from taxation because these countries face quite a number of institutional problems, one of which is poor administration of the tax system.

Nigeria operates a federal system of government and hence, its fiscal operations also adhere to the same principle. This has serious implications on how the tax system is managed in the country; the government’s fiscal power is based on a three-tiered tax structure divided between the federal, state and local governments, each of which has different tax jurisdictions. The majority of tax powers are under the control of the federal government while the lower tiers are responsible for less buoyant ones. However, for the past four decades, oil has continued to account for at least 70% of Nigeria’s tax revenue which indicates that traditional tax revenues does not assume a strong role in the management of fiscal policy in the country. The need to address these problems led to the enactment of several tax policy reforms aimed at providing effective administration of tax system in Nigeria.

In Cross River State, the problem of tax administration is worrisome; the role of taxation in promoting economic growth is not felt, primarily because of its poor administration. The major challenges facing tax administration in Cross River State include frontiers of professionalism, poor accountability, lack of awareness of the general public on the imperatives and benefits of taxation, corruption of tax officials, tax avoidance and evasion by taxing units, connivance of taxing officials with taxing population, high rate of tax, poor method of tax collection etc.

The quest to resolve these problems and also foster development in the state has led to the adoption of various reform policies in order to restructure the state’s tax system. Partly in response to external financial challenges and in recognition of the need to raise its internal revenue curve, the automated revenue generation process has been instituted, which engaged consultants to strengthen the tax administration system [23].

Following a report captured in [23], need has been stressed for the state and local governments to embrace innovations in the area of tax administration and revenue generation in order to avoid the peril of financial inadequacy in carrying out development agenda within their jurisdiction. In realization of the need to imbibe spirit of innovation and apply same to the internally generated revenue programme, Cross River State has introduced the direct bank lodgment system, e-payment, and automation of tax activities, e-tickets and registration of
tax payers which collectively produced results within a short time frame.

However, reports have shown that not much have been achieved, prompting questions of poor administration of the tax system as one of the noticeable problems affecting the efficiency of the tax system in Cross River State. The thrust of this paper therefore is to examine the impact of efficient tax administration in Cross River State. In doing this, effort is made to investigate the level of efficiency and effectiveness of tax administration, the socio-economic impact of tax revenue, problems of efficient tax administration and measures to reposition tax administration in the state.

II. THEORETICAL AND EMPIRICAL LITERATURE

Taxation as defined by [16] is the process or machinery by which communities or groups are made to contribute in some agreed quantum and method for the purpose of administration and development of the society. It can be inferred that the payment of tax will in turn be beneficial to the entire citizenry.

This view is similar to the definition of [20] who defined tax as a compulsory exaction of money by a public authority for public purposes.

There is therefore a unanimous conclusion in available literature that tax payers may not receive an equivalent of their contribution but that, they have the benefit of living in a relatively educated, healthy and safe society; the individual contributes in some measure to the fund available for use by government in providing necessary infrastructure for her citizens. [24]; [1]; [20]

However, it is observed that in developing countries such as Nigeria, the infrastructure which tax payers are supposed to enjoy is usually in a deplorable condition [5], educational system in disarray [14] and the health system is in a worrisome condition [10]. Thus, there has been a clamour by leaders that a huge sum of resources meant for infrastructural development find their way out of the economy via tax evasion, avoidance and inefficient administration of the tax system.

Reference [20] defined tax evasion as a deliberate and willful practice of not disclosing full taxable income in order to pay less tax. It is a violation of tax laws whereby the tax due by a taxable person is unpaid after the minimum specified period. Tax evasion is evident in situation where tax liability is fraudulently reduced or false claims filled on tax revenue form. Contrastingly, [8] views tax avoidance as a process where facts of the transaction are admitted but have been arranged or presented in such a way that the resulting tax treatment differs from that intended by the relevant legislation.

In essence, tax evasion is illegal while tax avoidance is not illegal under the ambience of the law [20], [8], [18], [4], [13], [3].

The quest to resolve the abnormalities surrounding inefficient administration of the tax system has prompted different empirical investigations and submissions. Reference [21] examined a sample of 86 developing countries, investigating how the share of tax revenue in GDP is related to the logarithm of per capita income, using natural logarithmic form equation. The study employed OLS econometric method. He found a positive and significant relationship between the two.

In a subsequent study, [22] extended his analysis to incorporate a sample of 83 developing countries over the period 1987-88 and found that the relationship between tax share and per capita income to be weakened. This implies that other factors such as macroeconomic instability, the need to service debt and the changing structure of the economy, have become more important determinants. He estimated an alternative specification that related tax share in GDP to agricultural share in GDP, and per capita income. His result showed that the share of agriculture in GDP is strongly inversely related to the tax share and its explanatory power is greater than per capita income. He also found that, import and debt share are important determinants of tax share.

Reference [17] examined the revenue productivity implications of tax reforms in Tanzania. Tax buoyancy was estimated using double log form equation and tax revenue elasticity using the proportional adjustment method. For the study period, elasticity was 0.76 with buoyancy of 1.06. The study concluded that, tax reforms in Tanzania had failed to raise tax revenues due to government granting numerous tax exemptions and poor tax administration.

Reference [19] investigated the relationship between corruption, tax evasion and laffer curve. The study explains that corrupt tax administration leads to laffer curve behavior (i.e. a higher tax rate leads to a smaller net revenue). This portrays net revenue earned from a truth revealing audit probability always exceeds net revenue through audits, taxes, and penalties.

Reference [7] used descriptive statistics to investigate the impact of tax administration on government revenue. They found that increasing tax revenue is a function of effective enforcement strategy, which is lacking in Nigeria. These enforcement strategies include; adequate manpower, computers, effective postal and communication system.

Reference [15] investigated the impact of tax reforms on economic growth of Nigeria from 1994 to 2009. They used both descriptive statistics and econometric models such as White test, Jacque Berra test, ADF test, Johansen test, Granjer causality and Breusch Godfrey test as analytic techniques. The results from the various tests show that tax reforms are positively and significantly related to economic.

Reference [12] used the ability to generate revenue and ability to influence consumption patterns as measurement parameters to appraise the tax system in Nigeria. Their major emphasis was on Value Added Tax (VAT). They found that VAT has been effective but not efficient. Hence, it was recommended that tax authorities should be record/proprietary conscious to enable them cover the cost of collection machinery and the target amount payable to the government.

Reference [2] used descriptive statistics and moderated multiple regression to investigate the moderating effect of
financial condition and risk preference on the relationship between tax payers attitude and compliance behavior. The result of the study indicates that taxpayers’ attitude towards tax evasion is positively related to compliance behavior.

III THEORIES OF TAXATION

A. Ability to Pay Theory

This theory is synonymous with the principle of equity or justice in taxation. It posits that citizens should pay taxes to the government in accordance with their ability to pay. In order words, people with higher incomes should pay more taxes than people with lower incomes. It appears more reasonable and just that taxes should be levied on the basis of the taxable capacity of an individual.

The major drawback inherent in this theory is the definition of one’s ability to pay. There is no generally accepted measure of a person’s ability to pay. However, the main viewpoints advanced in this connection are: ownership of property, taxing on the basis of expenditure and income.

In spite of the challenges associated with the application of this theory, it still remains relevant and one of the most widely used theories of taxation.

B. Benefit Theory of Taxation

This theory holds that the state should levy taxes on individuals according to the benefit conferred on them. The more benefits a person derives from the activities of the state, the more he should pay to the government.

Although intuitively attractive, the benefits theory of taxation suffers from several major drawbacks. First, it would be impossible to implement precisely due to the difficulty of determining the amount of government benefits, including diffuse benefits such as military protection received by each resident and non-resident tax payer.

C. Diffusion Theory of Taxation

The theory holds that when a tax is levied under a perfect competitive market situation, it gets automatically equitably diffused or absorbed throughout the community. Every individual bears burden of tax according to his ability to bear it.

Diffusion theory of tax suffers from a serious drawback. It has never been seen that a tax gets automatically equitably distributed among people. Diffusion or absorption does take in some taxes but not in the entire community. Also, few taxes such as income tax, inheritance tax and toll tax have zero absorption.

IV. METHODOLOGY

The study was based on three hundred carefully structured questionnaires to respondents drawn from the different income strata within the three Senatorial districts of Cross Rivers State. Initially Three hundred and ninety copies of the questionnaire were administered: Sixty five copies (65 each) were administered randomly to the following groups: civil servants, businessmen, contractors, politicians, board of internal revenue staff and staff of commercial banks.

Three hundred questionnaires were properly completed and returned while a total of ninety copies were not properly completed and retrieved from the respondents. The study was eventually based on three hundred respondents. This number represents the sample size in the study. The above sample is a representative of the entire population of the state whose responses are used as a representation of a wider view.

The questionnaire was designed in such a manner as to solicit responses in the following areas:
a) The efficiency and effectiveness of tax administration
b) The socioeconomic benefits of tax administration
c) Problems of tax administration
d) Measures to reposition taxation

V. ANALYSIS AND DISCUSSION OF FINDINGS

Data collected were analyzed using percentages, the arithmetic mean and standard deviation. The standard deviation enabled us to determine with a great deal of accuracy where the values of a Frequency distributions are located in relation to the mean. The standard deviation and the mean of normal population density function help us to determine probabilities of events. As the sample size is sufficiently large (greater than 30) the central limit theorem was applied. According to the central limit theorem, even if the population is not normally distributed as the sample size increases, distribution of sample means approaches normality. Thus the application of this theorem enabled us to use the sample size in this study to draw inferences about the population of study without knowing much of the population other than what is gotten from the sample.

TABLE I

<table>
<thead>
<tr>
<th>S/N.O</th>
<th>Variable</th>
<th>Freq</th>
<th>Mean</th>
<th>(X-M)</th>
<th>(X-M)^2</th>
<th>Per (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Tax administration in Cross River State is very efficient</td>
<td>61 75</td>
<td>-14</td>
<td>196</td>
<td>20.3</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Tax administration in Cross River State is inefficient</td>
<td>113 75</td>
<td>38</td>
<td>1444</td>
<td>37.7</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Tax assessment and collection are usually undertaken by technocrats</td>
<td>48 75</td>
<td>-27</td>
<td>729</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Board of internal revenue is independent</td>
<td>78 75</td>
<td>3</td>
<td>9</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Effectiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Sufficient revenue is generated from taxes</td>
<td>170 75</td>
<td>95</td>
<td>9025</td>
<td>56.7</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Revenue generated from tax is effectively and judiciously used in Cross River State</td>
<td>30 75</td>
<td>-45</td>
<td>2025</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>There is regular review and innovation of tax policy leading to moderate taxation that encourages private investment</td>
<td>70 75</td>
<td>-5</td>
<td>25</td>
<td>23.3</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Tax officials are well paid which makes them more effective in the collection of taxes</td>
<td>30 75</td>
<td>-45</td>
<td>2025</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, August 2013
The result on efficiency and effectiveness of tax policy shows a negative value of -0.4772. This supports the fact that there is inefficiency and ineffectiveness in tax administration in Cross River State. Also, there is a probability that the mean will lie outside the standard deviation. In other words, it means that there is about 72% probability that all the variables listed to show ineffectiveness and inefficiency of taxes are correct. For the fact that the probability of its correctness is far greater than its non-acceptance; it is concluded that these is the extent or degree of efficiency/effectiveness of tax administration in Cross River State. From the table above, sufficient revenue of about 56.7% is generated from taxes but only 10% of the revenue is utilized. This and other factors such as; low remuneration of tax officials and absence of technocrats strongly buttresses inefficiency and ineffectiveness in the administration of taxes.

\[
\text{Variance(}\sigma^2\text{)} = \frac{\sum (X - \overline{M})^2}{n-1}
\]

\[
= 15478/7 = 2211.14
\]

\[
\therefore \sigma = \sqrt{2211.14} = 47.02
\]

\[
Z = X - \overline{M} / \sigma
\]

\[
n \geq 30, X = 300, \sigma = 47.02, \text{Mean}(m) = 75
\]

\[
\therefore \text{Pr}(X \geq 4.79) = 1 - \text{Pr}(Z \leq 4.79)
= 1 - \left( 0.5000 + 0.9772 \right)
= 0.5000 - 0.9772
= -0.4772
\]

\[
\therefore \text{Pr} (Z \geq 4.79) = 1 - \frac{1}{2} \Phi (4.79) = 1 - \left[ \frac{1}{2} \Phi (4.79) \right]
= 0.5 - 0.4772
= 0.0228
\]

\[
\therefore \text{Pr} (X \geq 79.4) = 1 - \left( 0.5000 + 0.9772 \right)
= 0.5000 - 0.9772
= -0.4772
\]
This result shows that there is 0.1131 probability that the mean will lie outside the standard deviation. In other words, it means that there is about 88% probability that all the variables listed to show the socio-economic benefits of taxes in Cross River State are correct. For the fact that the probability of its correctness is by far greater than its non-acceptance; it is concluded that these is the extent or degree of socio-economic benefits derived from taxes. The table also reveals that though the provision of medical and educational services has improved as a result of tax revenue, socio-economic benefits have been declining. This is supported by 93 responses from the field survey.

\[ \text{Variance} (\sigma^2) = \frac{\sum (X - M)^2}{n-1} \]

\[ = \frac{23938}{4} = 5984.5 \]

\[ \therefore \sigma = \sqrt{5984.5} = 77.40 \]

\[ Z = \frac{X - M}{\sigma} \]

\[ n \geq 30, X = 300, \sigma = 77.40, \text{Mean}(m) = 120 \]

\[ \text{then}, Z = \frac{300 - 120}{77.40} = 2.33 \]

\[ \Pr(X \geq 2.33) = 1 - \Pr(Z \leq 2.33) \]

\[ = 1 - (0.5000 + 0.4901) \]

\[ = 0.0099 \]

From the above computations the mean (M) = 120 the standard deviation (s) is 77.40 and the distribution = 0.0099. This shows that there is 0.0099 probability that the mean will lie outside the standard deviation. In other words, it means that there is about 99% probability that all the variables listed as problems of tax administration in Cross River State are correct. Since the probability of its correctness is by far greater than its non-acceptance, we can conclude that these reasons are actually the cause of low tax revenue in Cross River State. As could also be observed in the table, there are five identified problems of taxation in Cross River State. These are Improper tax assessment 78.3%, Lack of awareness by tax payers 21.7%, Corruption by tax officials 50%, Poor database of tax payers 12.7% and commitment to tax during elections and contracts 37.3%.

![Fig. 3 Socio-Economic benefits of taxes (%)](image1)

![Fig. 4 Problems of Efficient tax administration (%)](image2)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variable</th>
<th>Freq (X)</th>
<th>Mean (M)</th>
<th>(X-M)</th>
<th>(XM)^2</th>
<th>Per (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Improper tax assessment is the cause of tax evasion and avoidance</td>
<td>235</td>
<td>120</td>
<td>115</td>
<td>13225</td>
<td>78.3</td>
</tr>
<tr>
<td>2.</td>
<td>Lack of awareness on the part of tax payers can cause tax evasion and avoidance</td>
<td>65</td>
<td>120</td>
<td>-55</td>
<td>3025</td>
<td>21.7</td>
</tr>
<tr>
<td>3.</td>
<td>Corruption by tax officials is the cause of poor revenue generation</td>
<td>150</td>
<td>120</td>
<td>30</td>
<td>900</td>
<td>50</td>
</tr>
<tr>
<td>4.</td>
<td>Poor database of tax payers contributes to low tax base</td>
<td>38</td>
<td>120</td>
<td>-82</td>
<td>6724</td>
<td>12.7</td>
</tr>
<tr>
<td>5.</td>
<td>People are committed to tax clearance only when shortlisted for elections, appointment or contracts.</td>
<td>112</td>
<td>120</td>
<td>-8</td>
<td>64</td>
<td>37.3</td>
</tr>
</tbody>
</table>

Total | 300 | 1598 |
TABLE IV
ANALYSIS OF MEASURES TO REPOSITIONING TAXATION

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variable</th>
<th>Freq. (X)</th>
<th>Mean (M)</th>
<th>(X-M)</th>
<th>(X-M)^2</th>
<th>Per. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Innovation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Periodic review and updating of tax policy</td>
<td>197</td>
<td>128.6</td>
<td>50.4</td>
<td>2540.16</td>
<td>59.2</td>
</tr>
<tr>
<td>2</td>
<td>Regular and Periodic review of tax policy</td>
<td>121</td>
<td>128.6</td>
<td>-7.6</td>
<td>57.76</td>
<td>40.3</td>
</tr>
<tr>
<td></td>
<td><strong>Tax Mechanism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Electronic means of assessment and payment of taxes will improve tax revenue generation.</td>
<td>125</td>
<td>128.6</td>
<td>-3.6</td>
<td>12.96</td>
<td>41.7</td>
</tr>
<tr>
<td>4</td>
<td>Over computerization of tax administration will discourage prompt tax payment by non IT compliant individuals</td>
<td>40</td>
<td>128.6</td>
<td>-88.6</td>
<td>7849.96</td>
<td>13.3</td>
</tr>
<tr>
<td>5</td>
<td>Independence of the Board of Internal Revenue will lead to Effectiveness and Efficiency in the administration of Taxes</td>
<td>135</td>
<td>128.6</td>
<td>6.4</td>
<td>40.96</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td><strong>Tax Revenue Utilization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Revenue generated from taxes should be judiciously used in the provision of infrastructural facilities to encourage tax payers.</td>
<td>271</td>
<td>128.6</td>
<td>142.4</td>
<td>202778</td>
<td>90.3</td>
</tr>
<tr>
<td>7</td>
<td>Revenue generated from Taxes should be used for administrative purposes.</td>
<td>29</td>
<td>128.6</td>
<td>-99.6</td>
<td>9920.16</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>900</td>
<td>40700</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, August 2013

\[
\text{Variance} \left( \sigma^2 \right) = \frac{\sum (X - M)^2}{n-1}
\]

\[
= \frac{40699.72}{6} = 6783.29
\]

\[
\therefore \sigma = \sqrt{6783.29} = 82.36
\]

\[
Z = X - M / \sigma
\]

\[
n \geq 30, X = 300, \sigma = 82.36, Mean(m) = 128.6
\]

\[
then, Z = 300 - 128.6 = 82.36 = 0.29
\]

\[
\Pr(X \geq 2.08) = 1 - \Pr(Z \leq 2.08)
\]

\[
= 1 - (0.5000 + 0.4901)
\]

\[
= 0.5000 - 0.4912
\]

\[
= 0.0088
\]

From the computation above, there is 0.0188 probability that the mean will lie outside the standard deviation. In other words, it means that there is about 98% probability that all the variables listed as measures to repositioning taxation in Cross River State are correct. For the fact that the probability of its correctness is by far greater than its non-acceptance; it is concluded that these are ways by which efficiency and effectiveness can be attained in the administration of taxes. As also observed in the table, there are four major ways of repositioning taxation in Cross River State. They are; utilization of tax revenue for the provision of more infrastructural facilities (90.3%), periodic review of tax policy (59.7%), electronic means of tax payment (41.7%) and independence of the board of internal revenue (45%).

![Fig. 5 Measures of repositioning taxation (%)](image)

**VI. CONCLUSION**

This study is undertaken primarily to determine the efficiency and effectiveness of tax administration in Nigeria using Cross River State as the case study and how revenue generated from tax is used for the provision of needed infrastructure and social services. Despite the identification of taxation as one of the most reliable sources from which any government could derive the necessary revenue for her various development functions, Cross River State has been performing low in terms of tax yield. This is due majorly to several problems beclouding the system of tax administration in the state. Some of the major problem responsible for this trend include: improper tax assessment (high tax rate), tax evasion and avoidance, poor remuneration of tax officials, untimely review and updating of tax policy and the practice of tax clearance only when shortlisted for public election or contracts. The result shows a clear deficit in infrastructural development and provision of social services which are supposed to be provided from tax revenue.

To reverse this trend, the formulation of a sound regulatory framework to ensure efficiency and effectiveness in the administration of taxes is imperative.

There is need for government to ensure that tax policies are reviewed and updated regularly. This has the effect of bringing innovation in tax administration and effective revenue generation.
Government should strive to ensure that tax rates are kept moderate in order to avoid tax evasion/avoidance.

Better mechanisms for assessments and collection of tax should be put in place to enable the tax authority function effectively.

Good wages/salaries should be paid to tax officials to bring about efficiency and effectiveness in the administration of tax in the state.

REFERENCES