Full Length Research Paper

Effect of tax identification number on revenue generation in Southwest Nigeria

Gideon Tayo Akinleye, Festus Oladipupo Olaoye and Adeduro Adesola Ogunmakin*

Department of Accounting, Faculty of Management Sciences, Ekiti State University, Ado Ekiti, Ekiti State, Nigeria.

Received 16 September, 2019; Accepted 4 November, 2019

This paper examined the effect of tax identification number on revenue generation in south-west, Nigeria. The ex-post facto research design was adopted and the population covered all the states in the Southwest geopolitical zone of Nigeria, out of which three states namely Ekiti, Osun and Ondo States were selected as the study elements using simple random sampling technique. Quantitative secondary data were sourced from the State Board of Internal Revenue of the sampled states spanning from 2008-2017 for a period of 10 years segregated into Pre-TIN (2008-2012) and post-TIN (2013-2017). The analysis used mean and sampled paired t-test to reveal that there was a positive and significant difference between internally generated revenue of the sampled states before and after the introduction of TIN. The paper concluded that TIN has improved revenue generation in Southwest, Nigeria. The study recommended that intermittent checks of all the platform related to TIN should be carried out so as to detect and prevent abuse and other fraudulent activities. It was equally recommended that regulatory agencies of the government should enlighten taxpayers on the benefit of Tax Identification Number (TIN) to improve revenue generation.

Key words: Tax identification number, revenue generation, taxpayers.

INTRODUCTION

Universally, the growth and development of any nation are based on revenue generation through which government improves the infrastructural base and the living standard of people. This informs that a nation with high revenue generation might perform better in the form of payment of salary and wages, infrastructural development, development of small and medium scales among others (Abiola and Asiweh, 2012). Revenue is that income needed by the government to finance its growing expenditure (Azubuike, 2009).

Taxation is a major contributor to the revenue pool of nations as well as a drive for economic development and growth. However, in most developing countries, it appears that governments are yet to fully enhance the generation of tax revenue owing to system dysfunctions in terms of social, economic and political interplay; over-dependence on foreign grants and aids; poor registration of taxpayers; corrupt practices and unorganized administration process of the tax system (Akintoye and Tashie, 2014). This, undoubtedly, speaks volume of the

*Corresponding author. E-mail: adeduro.ogunmakin@eksu.edu.ng.

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total number of tax avoiders and evaders in Nigeria, particularly in the Southwest part of the country. The imperfections of the tax structures could be attributed to the lack of electronic means to record basic information of the taxpayers accurately so as to collect taxes from them as at when due without any problem (Aderinto, 2005; Jocet, 2014). In the time past, the government has rolled out policies to combat these imperfections however; this appears not to be productive. Olaoye and Awe (2018) noted that despite the government effort to checkmate the activities of tax evaders and avoiders, a lot of them are still being recorded every year. This necessitated the various tax reforms in Nigeria of which Taxpayer’s Identification Number (TIN) is one of them.

TIN is a system, producing special index numbers, issued and assigned to each person registered in its database. TIN which became effective in Nigeria from February 2008 is a 10(ten) digit number, that is given exclusively to only a taxpayer and taxable companies that earn a consistent income (Ezugwu and Agbaji, 2014). Evidence reveals that there was a geometric increase of taxpayers from 6001 in 1991 to 21,724 in 2003 in Montenegro when the registration process of taxpayers was simplified (USAID, 2005). The same report that simplification of the registration process of taxpayers stimulates revenue base was given in Colombia and Sri Lanka (Oviedo, 2009).

In the South-western States of Nigeria, it seems that tax administration is faced with the problem managing the unsystematic design and clashes of interest in tax collection from the informal sector resulting to low revenue generation. The introduction of Tax Identification Number (TIN) is expected to engender increase in the tax revenue since it electronically captures more enterprises, individuals, and companies thereby reducing the wide gap between individuals and companies registered in Nigeria with the Corporate Affairs Commission (CAC) and those already in the tax net (Omesi and Nzor, 2015).

Studies in this context are few in Nigeria and the available ones are reduced to just one state such as Asaolu et al. (2015), Ezugwu and Agbaji (2014), Ngozi and Obioma (2018), Ofurum et al. (2018), and Olaoye and Awe (2018). One thing that stands out from the studies reviewed is that TIN has the capacity to improve revenue generation. Although the studies were different in terms of geographical location, method of analysis and time, the findings were not disaggregated. This connotes that TIN has an inbuilt mechanism through which individuals and firms are brought to the tax net. To carry out a more elaborate study thereby pushing forward the frontier of knowledge on how TIN could engender increase in revenue generation; this study was designed to examine the impact of Tax Identification Number (TIN) on revenue generation in Southwest, Nigeria.

The timeliness of this study is found on the ground that state governments will know the indispensability of sensitizing and educating the people through radio and television programmes and jingles the need of TIN for prompt and adequate payment of taxes, since the reduction in the price of crude oil has necessitated the unavoidable reduction in federal allocation. The rest of the paper is divided into 4 sections. Section 2 covers the review of the literature, section 3 centers on the research methodology, section 4 presents and discusses the results of the analysis, and section 5 covers the conclusion, recommendations and suggestions for further studies.

LITERATURE REVIEW

Conceptual issues

Tax identification number (TIN)

According to Ebifuro et al. (2016), TIN helps to accelerate the processing of information of taxpayers and also fosters enforcement, awareness and increase revenue generation. This is supported by Jocet (2014), who deduced that TIN promotes agreement and coordination of taxpayers’ identification system that is based on a mechanized system. TIN connects the space between the information of taxpayers and the history of their payments thereby increasing their obedience level. Taxpayer identification number (TIN) is a system that aids taxpayer identification and registration, thereby minimizing mistakes and errors accompanied by registering manually and strengthening existing weaknesses in the tax system of the country. TIN is an idea developed by the Joint Tax Board (JTB), Federal Inland Revenue Service (FIRS) and State Boards of Internal Revenue (SBIR) for the 36 states of Nigeria (Joint Tax Board Handbook, cited in Olaoye and Awe (2018). TIN is an electronic system for taxpayers’ registration and it permits easy identification of taxpayers and is available for everybody (Olaoye and Awe, 2018). As cited in Olaoye and Awe (2018), the following are regulations for obtaining TIN:

Regulations to be noted for coming into possession of TIN by a company or business registered with the Corporate Affairs Commission (CAC)

(1). A properly completed application form of TIN
(2). Certificate of incorporation clearly indicating the registered number in each situation

The document includes the following essential details:

(i). Address of the company or business
(ii). The principal location of the business
(iii). Date of commencement of the business.

Regulations for obtaining TIN by an individual or business

...
that is not registered with the CAC
(1). A properly completed application form of TIN
(2). Any of the following legitimate identification documents
(i). International passport
(ii). National identity card
(iii). Staff identity card (employed persons)
(iv). National driver’s license

Tax revenue

Tax is a mandatory levy enforced by the government which includes federal, state and local government, on the assets, goods, services, and incomes of taxpayers (Chigbu et al., 2012). Payment of taxes is a legal obligation and a necessary duty, imposed by the government on individuals and corporations to fund its operations, run public utilities and perform other social responsibilities. This makes tax to be the primary source of revenue for the government. Tax is a method of enforcing necessary levies on all assets, goods, services, and incomes of individuals, firms, businesses, companies, corporations, etc. by the government (Smatrankalev, 2006; Ojo, 2008).

Tax revenue does not just make up the major means of revenue for the government but is in fact the vital part of an effort to build societies, economies and even nations. In view of this, Mckerchar and Evans (2009) stated that taxes make it possible to provide securities, provide the major needs or promotes economic development as well as validity and agreement (aiding to improve democratic, accountable and representative government). It is the major focus of every good citizen to improve and increase the image of his society; therefore, tax compliance should not be forced. However, it has been noticed over the years, that willful disobedience in paying tax has been a main issue in every society around the world (Bhatia, 2009; Stephen, 2010).

Taxes can be classified majorly into two: direct and indirect taxes. Direct taxes are a form of taxes collected basically on the wealth and income of individuals and companies. These include Personal Income Tax (PIT), Company Income Tax (CIT), Petroleum Profit Tax (PPT) and Capital Gain Tax (GTA). Indirect tax is a form of tax collected on goods and services payable only when such goods and services are bought e.g. Customs and Excise Duties (CED) and Value Added Tax (VAT) (Omotosho, 2001; Arowomole and Oluwakayode, 2006).

Conceptual framework of state government revenue composition

The three main sources that constitute the revenue profile of state governments could be vividly seen from the framework above. The first source is the federal allocation. The second source is Internally Generated Revenue (IGR) which comprises revenues from taxes and non-tax sources. The third source is other financial arrangements such as excess crude oil, other statutory receipts, grants, internal and external loan, ecological fund, etc (Figure 1). The economic resources from the diverse bases are directed to the outflow responsibilities in the form of recurrent capital expenditure. This is typically founded on the State primacies and requests that are echoed in the medium-term plans. Based on the above conceptual context, this study gives prominence on appraising the impact of taxpayer identification number on revenue generation in Southwest states in Nigeria.

Theoretical paradigm

Theoretically, this study was anchored on the Laffer theory of Taxation and Ability to pay to theory. Laffer theory of taxation propounded by Laffer in 1979 and popularly called the “Laffer curve” is -a hypothetical drawing of the correlation between tax revenue created by the government and all possible rates of taxation. It considers that at extreme tax rates, no revenue would be created (Laffer, 1979). This is due to the fact that, at extreme tax rates, taxpayers have no reason to earn an income again. Likewise, a very low tax rate will bring absurd tax revenue and the main reason for tax revenue would be far-fetched. It, therefore, informs that without a reasonable tax rate, the importance of any tax policy or reform to improve the revenue base of the government might be a mirage as taxpayers might find it burdensome to pay higher tax rate, especially small businesses (Laffer, 1979).

Ability to pay theory, developed by Slade Kendrick in 1939, is the most common developed principle of equity or justice in taxation. Individuals should pay taxes to the government in line with their ability to pay (Kendrick, 1939). It seems fair and reasonable that taxes should be imposed on an individual, based on his/her taxable ability. The establishment of TIN to promote the registration of taxpayers and tax administration without a functioning principle of equity and justice in taxation will minimize the efficiency of the reform. This is because citizens earning meager income will find the tax burden uneasy. Therefore, tax avoidance and evasion will be inevitable (Aguolu, 2001).

Empirical literature

With the aim of assessing the essence of tax reforms in Nigeria, Oriakhi and Ahuru (2014) conducted a study on the impact of tax reforms on federal revenue generation in Nigeria. The analysis carried out through Johansen co-integration revealed that there exists a long-run
relationship between tax reform and federally collected revenue in Nigeria. Findings revealed that by reducing tax avoidance and evasion, improving the tax system and reducing tax burden may have enhanced government ability to produce more revenue through taxation. It was concluded that tax reforms have the capacity to stimulate increase in revenue generation.

Corroborating the findings of Oriakhi and Ahuru (2014), Olaoye and Awe (2018) looked closely at the impact of taxpayer identification number on revenue generation in Ekiti State. Their study revealed that full adoption of taxpayer identification number exerts a significant impact on internally generated revenue of the state. Data collected were analyzed using correlation and regression analysis, the study makes use of a single equation model in which revenue generation was proxied using internally generated revenue (IGR) in Ekiti State. It was concluded in the study that full adoption of taxpayer identification number in Ekiti State has the ability to spur revenue generation within the state.

A similar study by Ngozi and Obioma (2018) on the effect of TIN on non-oil tax revenue through a comparative analysis of pre and post TIN years of 2000 to 2015 revealed that there has been a significant increase in total non-oil tax revenue with the introduction of TIN. Data were collected from the Central Bank of Nigeria (CBN) Statistical Bulletin (2010). The study employed both descriptive and pairwise t-test statistical techniques for analyses with total non-oil tax revenue as the dependent variable while CIT, VAT, and TET were the independent variables. The study concluded that TIN could engender increase in revenue generation.

Ezugwu and Agbaji (2014) assessed the application of Taxpayer Identification Number (TIN) on Internally Generated Revenue in Kogi State. The analysis carried out using tables and regressions revealed that TIN has improved revenue generation in that state. It was discovered that before the introduction of TIN, Internally Generated Revenue (Tax and non-tax revenue)
Generated Revenue (IGR) was significant and that its introduction causes a greater increase in the revenue generated. The conclusion made was that revenue generation could be greatly enhanced through TIN.

Asaolu et al. (2015) examined the impact of tax reforms on revenue generation in Lagos State. Using Time Series quarterly data between the period of 1999 and 2012, the ordinary least square (OLS) regression technique was used to analyze the secondary data collected from the Lagos State Internal Revenue Service (LIRS) in the form of taxpayer statistics and revenue status report. Findings showed that there is a long run relationship between tax reforms and revenue generation in Lagos State. Findings further revealed that the State depended on tax reforms more than other sources of revenue generation. It was therefore concluded that the states should work out modalities through other sources of revenue could be enhanced.

One thing that stands out from the studies reviewed is that TIN has the capacity to improve revenue generation. Although the studies were different in terms of geographical location, method of analysis and time, yet the findings were not disaggregated. This connotes that TIN has an inbuilt mechanism through which individuals and firms are brought to the tax net. The significance of this study lies in its coverage, South-west Nigeria.

METHODOLOGY

Research design

Ex-post facto research design was adopted because the examination was based on already existing data.

Population and sample

The population covered all the states in the South-west geopolitical zone of Nigeria (Ekiti, Ogun, Ondo, Osun, Oyo and Lagos), out of which three states namely Ekiti, Osun, and Ondo States were selected as the study elements using simple random sampling techniques.

Sources of data

Secondary data were sourced from the State Board of Internal Revenue of the sampled states.

Scope and method of data collection

Data were collected on Internally Generated Revenue for the period of 10 years segregated into Pre-TIN (2008-2012) and post-TIN (2013-2017).

Variable description, model specification and estimation technique

Revenue generation is captured by Internally Generated Revenue (IGR) of the sampled States. The data collected were analyzed using descriptive and inferential statistics. Descriptively, mean was made used of to explain the differences in the internally generated revenue before and after the introduction of the TIN while inferential statistics of paired sampled t-test was used to test if there was any important difference in the internally generated revenue before and after the introduction of TIN. The basic hull hypothesis for the paired sampled t-test is that the population means difference is equal to a hypothesized value,

\[ H_0: \mu_{diff} = \text{Hypothesized value} \]

With three common alternative hypotheses

\[ H_a: \mu_{diff} \neq \text{Hypothesized value} \]
\[ H_a: \mu_{diff} < \text{Hypothesized value} \]
\[ H_a: \mu_{diff} > \text{Hypothesized value} \]

In the most common paired t-test scenario, the hypothesized value is 0, in which the null hypothesis becomes

\[ H_0: \mu_{diff} = 0 \]

With alternative hypotheses options of,

\[ H_a: \mu_{diff} \neq 0 \]
\[ H_a: \mu_{diff} < 0 \]
\[ H_a: \mu_{diff} > 0 \]

RESULTS AND DISCUSSION

Data presentation

The section covers the presentation of data that was divided into two parts, reflecting internally generated revenue before and after the introduction of the Tax Identification Number (TIN) (Table 1).

Data analysis

Depicted in Figure 2 is the trend analysis of the internally generated revenue of Osun, Ondo and Ekiti State for the period of 10 years segregated into Pre-TIN (2008-2012) and post-TIN (2013-2017). Overview of the trend analysis reveals that the introduction of Tax Identification Number (TIN) produces increase in the internally generated revenue of the South-Western States in Nigeria. The corollary of these findings is that TIN has the capability to develop the revenue pool of the state government in Nigeria in that it has an inbuilt mechanism to curb tax evaders and avoiders. It could be deduced from Table 2 that pair 1 has a mean value of -4.316 billion and a standard deviation of 1.889. Based on the subtraction method, it implies that the value of post internally generated revenue after the introduction of TIN was 4.316 billion higher than internally generated revenue before the introduction of internally generated revenue for the periods covered. The t-statistics and p-value reported being 5.110 and 0.007 respectively imply that there is a significant effect of Tax Identification Number on revenue...
Table 1: Data on Internally Generated Revenue before Tax Identification Number (TIN)

<table>
<thead>
<tr>
<th>Year</th>
<th>OSUN</th>
<th>ONDO</th>
<th>EKITI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3,376,735,645.43</td>
<td>3,984,678,519.91</td>
<td>1,434,955,465.56</td>
</tr>
<tr>
<td>2009</td>
<td>3,735,812,456.63</td>
<td>3,751,817,815.35</td>
<td>1,464,124,402.88</td>
</tr>
<tr>
<td>2010</td>
<td>3,376,735,645.43</td>
<td>6,480,372,918.69</td>
<td>1,554,020,325.64</td>
</tr>
<tr>
<td>2011</td>
<td>7,398,572,036.48</td>
<td>8,015,725,375.26</td>
<td>2,489,797,191.33</td>
</tr>
<tr>
<td>2012</td>
<td>5,020,250,633.94</td>
<td>8,684,406,578.63</td>
<td>2,991,041,855.48</td>
</tr>
<tr>
<td>2013</td>
<td>7,284,225,003.77</td>
<td>10,495,725,375.26</td>
<td>2,991,041,855.48</td>
</tr>
<tr>
<td>2014</td>
<td>8,513,274,186.67</td>
<td>11,718,741,502.49</td>
<td>3,462,341,448.32</td>
</tr>
<tr>
<td>2015</td>
<td>8,072,966,446.00</td>
<td>10,098,000,000.00</td>
<td>3,297,707,703.96</td>
</tr>
<tr>
<td>2016</td>
<td>8,884,756,040.35</td>
<td>8,684,406,578.63</td>
<td>2,991,041,855.48</td>
</tr>
<tr>
<td>2017</td>
<td>11,731,026,444.38</td>
<td>10,927,871,479.76</td>
<td>4,967,499,815.79</td>
</tr>
</tbody>
</table>

Source: State Boards of Internal Revenue

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**Figure 2.** Trend analysis of internally generated revenue, Osun, Ekiti and Ondo State before and after the introduction of tax identification number (TIN).

generated in Osun State. Put differently, it implies that TIN exerts a positive significant influence on revenue generation in the Osun States.

Reported in Table 3 is the paired t-test conducted to show the effect of Tax identification number on revenue generation in Ekiti State. There was a statistically
significant increase in the revenue generated after the introduction of TIN in Ekiti State to the tune of \(t(4) = 4.690, p(0.009)<0.005\). The mean and standard deviation values reported to be -1.276 and 6.084 respectively indicates that the introduction of TIN improved the revenue pool of Ekiti State by 1.276 billion for the period covered. It could, therefore, be said that there was a significant difference between the revenue generated in Ekiti State before and after the introduction of TIN.

It is gathered from Table 4 that pair 1 has a mean value of -5.264 billion and a standard deviation of 3.079. Based on the subtraction method, it implies that the value of post internally generated revenue after the introduction of TIN was 5.264 billion higher than internally generated revenue before the introduction of internally generated revenue for the periods covered. The t-statistics and p-value reported being 3.822 and 0.019 respectively imply that there is a significant effect of Tax Identification Number on revenue generated in Ondo State. Put differently, it implies that TIN exerts a significant influence on revenue generation in Ondo State.

An attempt has been made to reveal the effect of Tax Identification Number (TIN) on revenue generation in South-west, Nigeria. The analysis carried out on the sampled states using paired sampled t-test showed that there was a significant difference between internally generated revenue before and after the introduction of TIN, indicating that TIN has improved revenue generation in South-west Nigeria. This discovery credited the rapid increase in the internally generated revenue of the states to the effect of the taxpayer identification number. The consequence of this discovery is that tax identification number could stimulate increase in the revenue generation in South-west, Nigeria. This might be due to the fact the motivation behind the introduction of TIN is the need to simplify the registration process of taxpayers and bring more people to the tax net. The old system was unreliable, cumbersome and constitutes a major challenge to authorities and taxpayers. The outcome of this study was in congruence with the submission of Ezugwu and Agbaji (2014) and Oriakhi and Ahuru (2014) that tax reforms positively improved revenue generation in Nigeria.

### CONCLUSION AND RECOMMENDATIONS

Tax reforms are imperative since the endpoint is to
improve the revenue pool of the government. Based on the discoveries of this study, it was established that Tax Identification Number (TIN) stimulates increase in revenue generation in Southwest, Nigeria. It was therefore recommended that intermittent checks of all the platform related to TIN should be carried out so as to detect and prevent abuse and other fraudulent activities; regulatory agencies of the government should enlighten taxpayers on the benefit of the Tax Identification Number (TIN), and that the government of South-western states should develop a means of bringing more people to the tax net through Tax identification number. A similar study could be extended to other geopolitical zones of the country as this will give room for a broad generalization of the effect of tax identification number on revenue generation in Nigeria.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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