REGIONAL ECONOMIC DEVELOPMENT: HOW RELEVANT IS TAX REVENUE? THE CASE OF SOUTH-SOUTH REGION OF NIGERIA

Callistar K. Obi

Department of Economics, Delta State University, Abraka, Nigeria
Email: obicallistar@yahoo.com

ABSTRACT: Economic development of regions in developing countries especially Nigeria, is hinged on lasting infrastructural development. The growing need for infrastructure and the clamour for economic development had made tax revenue as a means of financing the infrastructure to be in the lime light. Tax is seen as a fiscal policy tool, and government uses it in redistributing its resources, financing its infrastructural projects for economic development, and ensuring equity. For the South-south region, shortage of physical infrastructure had been identified as a major challenge hindering the development of the region. Key infrastructures like power, roads, railways, airways, portable water, health facilities, are deficient in the region and this had hindered the economic development of the region. Since tax is seen as a means of financing infrastructure for development, this study aimed at determining how relevant tax revenue is in the economic development of the region. Using a panel model in analysing the cross-sectional time series data, sourced from the various states budget, the result from the analysis affirmed that states internally generated tax revenue is relevant in enhancing regional economic development, specifically, the South-south region of Nigeria. It was recommended that regional governments expand their tax base, reduce tax revenue linkages caused mostly by corrupt and sharp practices, and reduce tax evasion, in order to generate more revenue for financing their fiscal responsibilities for economic development of the regions

Keywords: *Developing Countries, Infrastructure, Internally Generated Tax, Regional Economic Development, Value Added Tax.*

JEL Classification: H25, 018.

INTRODUCTION

Economic development is seen as the problem of less developed countries (Jhingan, 2013). One of the challenges faced by developing countries is how to achieve their countries' growth objectives which in the long-run culminates into economic development. The economic development of a country is hinged on the infrastructure development of that country. Provision of basic infrastructures and its sustainability is core in every development plan of a country. Kim (2006) identified lack of infrastructure as a major factor hindering economic growth and development in developing countries. Financing of these infrastructure is sometimes constrained by competing fiscal expenditures thereby limiting the available funds for infrastructure development (Estache, Serebrisky and Wren-Lewis, 2015) which in the long-run affects

economic development. The need to achieve the economic development objectives of the regions in Nigeria had made governments within the regions to diversify into other sources of revenue and this projected tax revenue as a suitable source of revenue generation.

Taxation, a fiscal policy tool, is very relevant in the generation of revenue both in developed and developing economies of the world. It is a tool for promoting growth and development of an economy, stabilizing growth, amongst others (Desislava, 2017; Petru-Ovidiu, 2015; Ehigiamusoe, 2014; Jhingan, 2013). As a fiscal policy tool, government uses tax in redistributing its resources, financing its infrastructural projects, and ensuring equity. Its importance can never be overemphasized. Although economic theory postulates that high tax on labour and capital income acts as disincentive to labour productivity, thereby retarding economic growth over time, its relevance as a source of revenue for government cannot be neglected. Countries have developed tax policies, restructured their tax system and even embarked on major tax reforms in a bid to enhance and maximize revenue generation of which one of their major aims is to enhance infrastructural development in order to achieve their growth and development objectives. Recent studies in Nigeria revealed that the economy needs to diversify away from crude oil revenue generation given its unstable nature due to incessant fall of oil prices in the world oil market. This gives taxation more relevance (Obi, 2018). In the absence of tax evasion, tax payment is one of the most stable and reliable sources of revenue generation for government at various levels, which government can use to finance its development.

Statement of Problem

The growing need for infrastructure in most developing countries of the world and meeting this need has been a global challenge. Inadequate infrastructure in most developing countries is a major factor constraining economic development as infrastructure is synonymous with development of a country. The functions of government at various levels (Federal, State and Local) are on the increase as government tries to provide the basic and necessary infrastructure for its citizens. Provision of public and social goods and services is one of the major responsibilities of the government as the private sector does not venture into such goods especially public goods due to its nature (non-excludability).The decision to provide the public goods and services rests on the availability of finance or revenue as revenue plays a significant role in the execution of the fiscal functions of government. This brings tax revenue to mind as a means of financing infrastructure cum development.

For the South-south region, shortage of physical infrastructure has been identified as a major challenge hindering the development of the region. It poses a challenge to foreign investors and dwellers of the region. Key infrastructures like power, roads, railways, airways, portable water, health facilities, are deficient in the region. Situated in the Niger-Delta region domiciled in the southern part of Nigeria, the region lacks the basic infrastructure and its environment is bedevilled by oil spillage. Despite the fact that it is seen as the power house of the Nigerian economy, given that the region contains oil and gas reserves, and over 85% of revenue generated by federal government is from the sales of crude oil (Nwankwo, 2015:390; Ebegbulem, Ekpe & Adejumo, 2015), its dwellers lack portable water, good roads, health facilities and a serene environment. The economic crunch of the recession witnessed in Nigeria in 2016 was felt more

in the South-south region and this affected some fiscal responsibilities of the state governments which would have helped in the development of the region economically. In the process of economic recovery, the clamour for other means of revenue generation rose, of which this study intends to X-ray the importance or how relevant taxation could be.

Objectives of the Study

In the light of the above, the main objective of this study therefore, is to find out how relevant tax revenue [States' Internally Generated Tax Revenue (IGTR)] is, in economic development of regions in Nigeria. Specifically; it tends to;

i. ascertain how relevant tax revenue is, in the drive for economic development and growth of the South-south region of Nigeria.

Research Questions

The question this study intends to provide answer to is;

i. how relevant is tax revenue in financing economic development of Regions in Nigeria, specifically, the South-south region of Nigeria?

Empirical Review of Related Literature on Tax Revenue and Economic Development

Literature abounds in the nexus between taxation and economic growth and development. Several studies have been done in relation to tax as a revenue source and its implication on growth and development of an economy. Okoli, Njoku and Kika (2014) affirmed that taxation improves the growth of a country. Also, Afuberoh and Okoye (2014) noted that tax contributes to growth and development. This statement was confirmed by Ihenyen and Mieseigha (2014) as they see tax as instrument of growth and development of an economy. In line with this idea is the study carried out by Dike (2014) who also sees tax as a national development instrument. Ibadin and Oladipupo (2015) affirmed that tax, a revenue source, if properly dispensed, can culminate in economic development. Babatunde, Ibukun and Oyeyemi (2017) noted that tax influences growth positively. This conclusion was reached based on a study carried out on Africa, using panel data.

Petru-Ovidiu (2015) opined that direct tax constraint growth while indirect tax augment growth in Eastern Europe. Conversely, Umoru and Anyiwe (2013) stated that in Nigeria, direct tax enhance growth while indirect tax retards growth. Atif, Shabab and Mahmood (2012) noted that in Pakistan, taxes don't influence growth directly but through investment and its influence is negative.

Ehigiamusoe (2014) noted that tax system in Nigeria does not impact on growth due to the challenges confronting it. Arin, Berleman, Koray and Kuhlenkasper (2011) opined that MTR(marginal tax rate) impacts on growth negatively.

Tax Composition of States in South-South Region

Tax is seen as a levy imposed on households' income, wealth, profit of corporate organisations, sales, etc. by the government of a country. Tax revenue is that payment made compulsorily by households and corporate organisations to government as a source of revenue to the government. It is an obligation that must be fulfilled by citizens of a country to their government. Economic theories posited that tax is a disincentive to growth especially when it affects labour productivity negatively. Workers tend to lower their productivity rate given a rise in tax rate. High tax rate on corporate organisations acts as deterrent to their level of productivity, thereby discouraging further investment. They shift the tax burden to consumers in order to remain in business and this increases the prices of goods and services. Although tax is seen as a source of financing government spending, its effect on household income will be negative if government tends to increase the tax rate to acquire more revenue for infrastructure and economic development.

Generally, the composition of IGTR in the different states of Nigeria is a function of the nature of the economic activities that takes place within the state and this also influences the states' internally generated revenue (SIGR). For the states in South-south region of the country, the tax structure is composed of income tax paid by public and civil servants (PAYE), self-employed individuals, corporate organisations (Oil companies), withholding tax, capital gain tax, pool betting tax, property tax, entertainment/cinema tax, etc. In recent times, due to the activities of herdsmen in south-south states, cattle tax has been included into the tax structure of some of the states. The table below shows the tax composition of some states in South-South region.

Table 1: Tax composition of some states in south-south region of Nigeria

Delta State	**Rivers State**	**Edo State**
Income Tax (PAYE)	Income Tax (PAYE)	Income Tax (PAYE)
Income tax (Self-employed)	Income tax (Corporate)	Income tax (Self-employed)
Withholding tax	Withholding tax	Withholding tax
Lottery tax	Lottery tax (Gambling)	Lottery tax
Capital gain tax	Capital gain tax	Capital gain tax
Pool betting tax	Pool betting	Pool betting tax
Entertainment tax	Entertainment tax	Consumption tax
Property tax	Property tax	
Cattle tax	Road tax	

Source: Author's compilation from various states budget(2010-2017).

Income tax (PAYE, self-employed and corporate organisations), withholding tax, capital gain tax, lottery tax and pool betting tax are common among these states. Entertainment and property taxes are composed of Delta and Rivers state tax structure while Edo state adopted consumption tax. Also, cattle tax is paid in Delta state while Rivers state collects road tax.

Theoretical Conception

The study anchored on Rostow's economic growth stages, precisely on pre-conditions for take-off. The theory encouraged reasoning, new discoveries, inventions, changes in structure and values. Rostow's further stated that economic progress or development is possible with the provision of basic infrastructures; education, transportation, communication, banking, etc, all necessary for take-off (Jhingan, 2013). The implication of the above is that for a country to attain the level of economic development, especially developing countries, its government must invest in or provide the basic infrastructures as it is a pre-requisite for development. Traditionally, economic development is a rise in per capita income (economic growth) augmented with needed basic infrastructures. Feldman, Hadjimicheal, Kemeny and Lanahan (2015) defined economic development as *quality improvements, introduction of new goods and services………….. It is a product of long-term investment in the generation of new ideas, knowledge transfers and infrastructure…….* In other words, economic development is hinged on infrastructure development, among others, which can be financed with tax revenue.

RESEARCH METHODS

The research design adopted is ex-post facto. Secondary data sourced from various states' budgets were used. Four states (Bayelsa State, Delta State, Edo State and Rivers State) served as case study. The explanatory variables used include states' IGTR, and value added tax (VAT) received from federal government as part of federal allocation to states. States' total government expenditure (Explained/dependent variable) was used as a proxy for economic development of states. Cross sectional time series data ranging from 2010- 2017 were used for analysis. Pre-estimation analysis (descriptive statistics and correlation matrix) was done to ascertain the nature of data, using their mean values skewness values and Jarque-Bera values. The main estimation focused on Panel Least Square (PLS) analysis, Fixed Effect (FE), Random Effect (RE), and Hausman test, used to select either fixed effect or random effect.

Model Specification

The model for this study is thus specified;

SSGDP =f(IGTAX, VAT). This is further specified as

$SSGDPit = a_0 + a_1IGTAXit + a_2VAT + Ui$

where;

SSGDP = Economic Development of the South-South Region

IGTAX = States' Internally GeneratedTax Revenue

VAT = Value Added Tax

RESULT

Pre-estimation Analysis

The first pre-estimation analysis done is the descriptive statistics, to be followed by correlation Matrix, as shown below.

Table 1: Descriptive Statistics

	SSGDP	IGTAX	VAT
Mean	166.4542	29.99241	10.56438
Median	155.1060	16.74400	8.475000
Maximum	314.8710	114.0000	67.07500
Minimum	0.000000	0.000000	0.000000
Std. Deviation	95.51255	32.78789	11.14911
Skewness	-0.126190	1.186276	4.224655
Kurtosis	2.174459	3.402528	22.05497
Jarque-Bera	0.993617	7.721372	579.3101
Probability	0.60	0.021054	0.000
Observation	32	32	32

Source: Author's Regression Analysis (2018).

From table 1, the average value of SSGDP is 166.45, IGTAX average value is 29.99 while that of VAT is 10.6. The skewness result shows that SSGDP is negatively skewed (-0.126) and is platykurtic since the kurtosis value (2.174) < 3. This implies that it the data used for the analysis has lower value than the sample mean, signifying a flat curve. For IGTAX, the skewness value of 1.186 implies positive skewness and is leptokurtic, affirmed from the kurtosis value of 3.40 (> 3), implying that the data has higher value than the sample mean value. VAT is positively skewed (4.224) and also leptokurtic i.e. the kurtosis value (22.05) > 3. Both IGTAX and VAT have a peak curve. Jarque-Bera test for SSGDP shows a normal distribution since the prob. value is 60% (< 5%). For IGTAX and VAT, they are not normally distributed since their prob. values are less than 5%. This can be attributed to the heterogeneous nature of the states' IGTAX and VAT components. Given the heterogenous nature of the data used for the analysis, pooled OLS is not recommended for use, rather, FE and RE will give a robust result.

The maximum values of IGTAX (114.00) and VAT (67.07) shows that there are outliers. The implication is that most figures in the budget (IGTR and VAT values are more of estimated than actual figures.

Table 2: Correlation Matrix

	SSGDP	TAX	VAT
SSGDP	1.000000	0.295977	0.418767
TAX	0.295977	1.000000	0.101428
VAT	0.418767	0.101428	1.000000

Source: Author's Regression Analysis, (2018)

The correlation matrix analysis reveals that the independent variables are uncorrelated since their values (0.3, 0.4 and 0.1) are below the threshold of 0.8 (Gujarati, 2009). This implies the absence of multicollinearity in the model.

FE Model

Dependent Variable: LSSGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.422029	1.210574	2.000728	0.0560
LIGTAX	0.352675	0.228986	1.540161	0.1356
LVAT	0.604961	0.438501	1.379611	0.1795

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.368973	Mean dependent var	4.601196
Adjusted R-squared	0.247621	S.D. dependent var	1.607368
S.E. of regression	1.394227	Akaike info criterion	3.669918
Sum squared resid	50.54060	Schwarz criterion	3.944744
Log likelihood	-52.71869	Hannan-Quinn criter.	3.761015
F-statistic	3.040529	Durbin-Watson stat	1.065128
Prob(F-statistic)	0.027211		

Source: Author's Regression Analysis (2018)

RE Model

Dependent Variable: LSSGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.934375	0.824068	2.347349	0.0259
LIGTAX	0.479899	0.163513	2.934932	0.0065
LVAT	0.680575	0.344994	1.972714	0.0581

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	1.394227	1.0000

Weighted Statistics

R-squared	0.347546	Mean dependent var	4.601196
Adjusted R-squared	0.302549	S.D. dependent var	1.607368
S.E. of regression	1.342370	Sum squared resid	52.25674
F-statistic	7.723775	Durbin-Watson stat	1.148384
Prob(F-statistic)	0.002046		

Source: Author's regression analysis, (2018)

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.705926	2	0.7026

Source: Author's Regression Analysis (2018)

The Hausman test affirms that the RE model is the best model for this study. This conclusion was reached based on the prob. Value of the Chi-Sq Statistic of 70% which is greater than 5%. From the RE model, LIGTAX and VAT are statistically significant in explaining SSGDP judging from the Prob. value of their t-statistics. Their influence on SSGDP is positive implying that IGTAX and VAT boost SSGDP given the positive sign of their coefficients. This finding is

in line with the studies of Okoli, Njoku and Kika (2014); Afuberoh and Okoye (2014); Ihenyen and Mieseigha (2014); Dike (2014) Babatunde, Ibukun and Oyeyemi (2017), among others.

Discussion of Findings

The results above showed that IGTR for the four states used for analysis is very relevant in the development of South-south region. This is applicable to other regions in Nigeria. Taxation has an important role to play in the economic development of the regions in Nigeria if properly administered, and tax avoidance/evasion reduced. Even the VAT received from federal government accounts for about 6.8% of the South-South development if it increases by 10%. With an increase in IGTR by 10%, South-south economic development will be enhanced by 4.7%. The contribution of VAT is more significant than that of IGTR. This shows that states within the South-south are yet to completely harness the potentials in IGTR. Regions in Nigeria can finance their infrastructure projects and attain economic development by anchoring on the tax revenue potentials available within the regions and ensuring a drastic reduction in tax evasion.

The descriptive statistics revealed that some figures from the states' budget are not updated to capture the actual revenues generated through tax and that of expenditure. Estimated values/figures abound in the budget.

Conclusion

As mentioned earlier, the growing need for infrastructure and the clamour for economic development had made tax revenue as a means of financing the infrastructure to be at the front burner. Economic development of regions in developing countries especially Nigeria is hinged on lasting infrastructural development. The study had shown that regional economic development can be enhanced through tax revenue, which from the results impacts positively on the economic development of the regions especially the South-south region. Regional governments still anchor on more on allocations from federal government as reflected in the significance and contribution of VAT to the regions. Fewer emphases are placed on some salient components of tax revenue within the states with more efforts geared towards income tax (PAYE). Regional governments need to diversify their tax revenue base away from PAYE in order to generate more revenues for economic development.

Based on the result findings, it is recommended that regional governments expand their tax base, reduce tax revenue linkages caused mostly by corrupt and sharp practices, and reduce tax evasion, in order to generate more revenue for financing their fiscal responsibilities for economic development of the regions

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