American International Journal of Economics and Finance Research
Vol. 1, No. 1; 2019
Published by American Center of Science and Education, USA

Revenue Mobilization and Investment on Basic Amenities of Local Governments in Nigeria

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Abstract
This paper examined the effects of revenue mobilization and investment on basic amenities of local government in Nigeria. Secondary data were collected from the Central Bank of Nigeria Annual Statistical Bulletin from 1993-2017. Investment in basic amenities was proxy by monetary value of basic amenities while revenue mobilization was proxy by federal government allocation, state government allocation, value added tax, internally generated revenue and grants to local governments in Nigeria. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The empirical findings based on the models found that value added tax, internally generated revenue and grant have negative and significant effect on investment on basic amenities while federal allocation and state allocation have positive effect on the value of basic amenities. The unit root result (ADF) showed that the variables were stationary at the first difference of Order 1 (1). The co-integration tests revealed a long run dynamic relationship between the dependent and independent variables in the models. The parsimonious model summary shows that accounting bases explains a strong and positive significant relationship between the dependent and independent variables. However, the direction of causality between the accounting bases treasury management is mixed indicating uni and bi-directional causality. The study concludes that local government revenue has significant effect on investment of basic amenities of Nigeria local governments.

Keywords: Revenue Mobilization, Investment on Basic Amenities, Local Governments Nigeria, Federal Allocation

INTRODUCTION

Local government is the third tier of government and empowered by the constitution to undertake certain development functions at the local level. The 1976 Nigerian Local Government Reform stated that the aim of local government is to make appropriate services and development activities responsible to local wishes and initiatives by developing or delegating them to local representatives bodies, facilitate the exercise of democratic self government close to the local levels of our society, and to encourage initiative and leadership potential; mobilize human and material resources through the involvement of members of the public in their local development and provide a two-way channel of communication between local communities and government (both state and federal). This implies that the major reasons for creating local government are to provide services using human and financial resources at its disposal to facilitate development at the grassroots (Umar, 2015).

Local government finance is one of the aspects of public finance. It deals with the generation of revenue, expenditure and utilization of financial resources in order to bring the impact of government closer to the people at the grassroots. Put differently, finance is essential at enabling local governments transform the lives of the rural dwellers through the provision of social services and rural infrastructures like the construction and maintenance of rural roads, markets, schools, health centers. The mobilization of the financial resources or revenue to meet the diverse welfare needs of the people has in effect become an important responsibility which governmental authorities have to shoulder. This responsibility not only includes the generation of revenue but also its allocation among competing needs of the local governments. For local government to perform these enumerated functions, it has a history of revenue allocation in Nigeria. Prior to 1979 constitution local governments were given occasional grants

for the funding of health and primary education (Umar, 2015). Over the years, the percentage allocation of local government revenue to capital expenditure which is meant for the provision of services is very low.

Local government, which is statutorily established to be the closest tier of government to the people, is not doing its bidding coupled with the fact that resident population in the local government has no significant access to the benefits of its existence. The failure of the local governments in the area of service delivery has made the citizens to lose their trust in government as an institution. In some areas, council officials are better known for the harassment of citizens than service delivery (Ajibulu, 2011). It is common knowledge that local government has the weakest capacity to initiate and manage rural development programme. Most of the officials are performing their functions without the relevant qualification to perform effectively. As a result, the available resources for accelerated and sustainable rural development are inefficiently utilized for the purpose intended (Ocheni. et al. 2012).

Furthermore, Corruption and poor treasury management has remained an issue militating against local governments' performance. Oviasuyi, et al (2010) observed that as in all levels of government in Nigeria, corruption is predominately widespread, undiluted an unambiguous in the local government. It is a statement of fact that in the local government system, corruption has become all pervading, unabashed uncontrolled and persistent. This perhaps explains the inefficiency and ineffectiveness in local government administration in Nigeria. The system has virtually become superfluous and redundant (Oviasuyi, et al, 2016). Some of the areas where corruption thrives in local government to include the following: a. Inflation of prices of bought items; b. Over estimation of cost of projects; c. The ghost worker syndrome; d. Award of contracts and subsequent abandonment ; and e. Outright payment of huge sums of money to political godfathers (Oviasuyi, et al, 2014). From the above problems, this study examined the effect of local government finance on the provision of basic amenities of local governments in Nigeria.

LITERATURE REVIEW

Basic Amenities Provision

Basic amenities are necessity commodities which every human being needs to live in life. Access to basic amenities like drinking water, sanitation, electricity, housing, drainage and others are crucial for the overall well-being of a household. Nigeria like many other developing nations, has also suffered from wide-spread deprivation in access to basic amenities and services. Its importance for human development has been highlighted in the international arena ever since it was included in the Millennium Development Goals.

The disparities in delivery of basic amenities leading to a stunted growth of the nation indicate a preponderance of inequitable policies and administrative efforts, supplemented by a cavalier attitude and tolerance for market-led provisions of basic amenities. They also indicate that the government and parastatal institutions have not exhibited sensitivity towards backward states, small and medium towns and the poor (Kundu et al, 1999). Privatization, partnership arrangements and promotion of community-based projects have emerged as the only options for undertaking investments in basic amenities due to resource crunch in the government. This changed perspective and a consequent decline in public investment, however, is likely to accentuate the disparity in the levels of amenities across the size class of urban settlements (Kumar, 2013). The nature of the links between basic amenities, achievement in other capabilities such as health and education, and the role of public policy, lack of basic amenities has important implications for the quality of life and increasingly, it is being realized that key dependencies exist between water supply and sanitation and improvements in health, education, population stabilization and overall human development (Dreze and Murthi, 2001; Gupta and Mitra, 2002; Human Development Report, 2006).

Theoretical Framework

Public Choice and Public Budget Efficiency Theory

The Public Choice Theory is a branch of economics, which emerged in the fifties and received widespread public attention in 1986 when its founder, James Buchanan, was awarded the Nobel Prize in economics. Public Choice Theory utilizes principles of economic to analyze people's actions in the marketplace and applies them to people's actions in collective decision- making. The theory is based on four basic assumptions (Ostrom and Ostrom, 1971).

In other words, politicians and government bureaucrats (administrators) basically pursue their own rather than the public interest such as career security, better jobs, higher salaries and entrenchment of power through the budget decision-making processes (Ostrom and Ostrom, 1971). Public Choice Theory posits that self-interest behaviour among the actors can result in accounting information being used for self-promotion, legitimating, and distortion to meet their position, priorities and preferences in budget decision-making processes. This means decision relevant use of accounting information can be applied by actors, as long as it can result positively to their own interest and priorities through budget decision-making processes.

In the public sector, it involves making the best use of the resources available for the provision of public services by reducing numbers of inputs such as people or assets, whilst maintaining the same level of service provision; additional outputs, such as enhanced quality or quantity of service, for the same level of inputs; improved ratios of

output per unit cost of input; changing the balance between different outputs aimed at delivering a similar overall objective in a way which achieves a greater overall output for the same inputs.

Empirical Review

Ehule (2015) studied the relationship between internally generated revenue and performance of a public sector. Data were collected using questionnaires with a five point likert response scale from 125 staff of Obio/Akpor Local Government Council drawn from a random sample. The Pearson product moment was used to determine the nature of relationship. The results show that permits and rates have a positive significant relationship with performance of Obio/Akpor Local Government Council.

Edogbonya et al (2013) studied the impact of revenue generation on government developmental efforts. Data were collected from three local government councils using the stratified sampling method. The ordinary least square (OLS) and the regression analysis were used to determine the nature of the relationship and its statistical significance respectively. Findings reveal a positive relationship between internally generated revenue and government capital projects.

Isaac (2015) studied the impact of indirect taxes on the economic growth of Nigeria. Data were collected from a sample of value added tax, import duties and GDP from 2009-2013 drawn from a systematic random sampling technique. The ordinary least squares and the t-test statistics were used to determine the nature of the relationship and its statistical significance respectively. The result shows that value added tax, import duties and excise duties have positive significant impact on gross domestic product. Export duties were found to have a negative impact on gross domestic product.

Essien (2015) studied the impact of tax revenue on economic growth in Nigeria. Secondary data from the CBN, financial statements, reports from the Federal Inland revenue service and other sources were obtained. The ordinary least square method of multiple regressions was used to establish relationship of tax revenue and economic growth. The results show that petroleum profit tax and company income tax are positively related to economic growth. That is a rise in petroleum profit tax and company income tax will cause a proportional growth in the economy.

Ironkwe and Ndah (2016) investigated the impact of Internally Generated Revenue on the Performance of Local Governments in Rivers State. Two Research questions and Two Hypotheses were formulated to guide the study. The ex-Post Facto Research Design or Causal Comparative design was adopted for the study. Ogba/Egbema/Ndoni Local Government Council was purposefully selected for the study. Statistical analysis was performed using data from the financial statement of the Council from 2006 to 2013 sourced from the office of the Auditor General for Local Government. The t-statistics analysis was employed in testing the hypotheses. A major finding of the study was that Tax revenue displayed a positive but insignificant influence on road construction and maintenance. Notwithstanding the insignificant influence of Tax revenue on road construction and maintenance, the study concluded that Tax revenue and Non Tax revenue are vital ingredients in improving the Performance of Local Government Councils in Rivers State. Some recommendations were therefore offered in this regard.

Dada, Adebayo and Adeduro (2017) assessed the prospects and problems of revenue mobilization in Nigerian Local Governments. It specifically determined the significant impact of development on internally generated revenue of local government in Nigeria; assessed the impact of financial misappropriations on internally generated revenue in the local government in Nigeria. The study employed the use of closed ended and likert scale ranked, well-structured questionnaire as the source of data collection. The responses of the questionnaire were coded and later analyzed with the use of inferential (multiple regression) statistics. The study revealed that development has significant impact of 21.9% ($t= 3.575$ and $p< 0.05$) on internally generated revenue of local government in Nigeria, while financial misappropriation has significant impact of 26.5% ($t= 4.668$ and $p<0.05$) on internally generated revenue of local government in Nigeria. The study concluded that the level of development (human and infrastructural) and the rate of financial misappropriation are determinants to the revenue base of Nigerian local governments. It is recommended that Nigerian local government authorities should ensure both human and infrastructural development in their respective constituencies as this is influential on the level of revenue derivation. In addition, local government authorities should ensure a carrot and stick approach whereby members of staff are rewarded on performance and strictly punished for perpetrating financial misappropriations in other to curb the menace of the anathema on the fabric of the society

Amin (2018) examined the sources of revenue generation, the capacity of Asa Local Government in generating revenues for developmental programmes and the extent to which the generated revenues have been used for community development in Asa Local Government. The study relied on both primary and secondary data. 218 questionnaires were received and analyzed using Statistical Package for Social Sciences (SPSS) software. Finding from the study showed that: Asa Local Government generates revenues from internal and external sources. External sources are the statutory allocation from Federal account and borrowed money from the State government. The local government generated huge amounts of revenue from market rates and levies and permit fee on land and

establishment. Tax enforcement is not efficient and majority of the respondents agreed that local government officers are more efficient than consultants. 3. Majority of the respondents agreed that generated revenue supports availability of borehole and well water but disagreed that grading of roads is executed on quarterly basis through internally generated revenue. Majority of the respondents also disagreed that the level of development has encouraged people to pay taxes and strongly disagreed that Asa is ahead of other local government in the provision of basic amenities and disagreed that Internal generated revenue in Asa is used to build shopping complex and modern market in Asa local government area.

Vincent (2001) studies on tax and public revenue mobilization in Nigeria have shown a high degree of centralization. According to Emenuga (1993), the allocation of revenue to the tiers of government has not adhere strictly to the expenditure requirements of each tier, thus the federal government has become a surplus spending unit while other functions, proposes the determination of a tier's share through the aggregation of its basic expenditure needs. To reduce the gap between tax power and responsibilities, two types of revenue sources are allocated to each tier. These are independent revenue sources and direct allocation from the federation to which centrally collectable revenues are paid. Local government also receives allocations from State Internal Revenues. An agreed formula for vertical revenue sharing is used in sharing funds from the federation account. Another key issue in the practice of public revenue mobilization in Nigeria is how to distribute the bloc share from the federation account among the constituent units of each tier i.e. among the 36 states and the 774 local governments. This is called horizontal revenue sharing. In Nigeria, there are four categories in the vertical allocation list federal, state, local governments, and the special fund. The allocation to the Federal Capital Territory (FCT) is accounted for under the special fund which is administered by the federal government. Public revenue mobilization is one of the most keenly contested issues in Nigeria.

Okolie and Eze (2006) x-rayed the external and internal sources of revenue to the local government. They identified statutory allocation, state governments' mandatory contributions to the local government from her internally generated revenue, borrowing, and grants-in aids from NGO's, Community Development Association (CDA'S) and government, as the external sources of revenue to the local government. They viewed internal sources of revenue to local government as being necessitated by the quest to expand the revenue base of the local government, hence they stated thus; In order to expand its revenue base and to local government's generated revenues internally through a variety of sources (Okolie and Eze, 2006). They further enumerated the internal sources of revenue to local government as storage fee, development rates/capitation rates, advertisements, obstruction levies/fines, liquor license fees, small-scale fees/levies, and sanitary levies and cattle rates.

METHODOLOGY

This study employs the ex-post facto research design. This is the type of research involving events that have already taken place (Onwumere, 2009). The data already exist as no attempt would be made to control or manipulate relevant one variable and another or the impact of one variable on another.

Nature and Source of Data

Annual secondary data of the variables are used and they include capital expenditure, total capital expenditure, federal allocation to local government, state allocation to local government, value added tax, internally generated revenue and grant and other source of revenue.

Specification of Models

In this study, the researcher followed (Lucky and Uzah, 2017) but in a modified version. The study employs a "multiple regression model to estimate the relationship between treasury management and accounting bases." The estimates models used for analysis by some of the researchers are as follows:

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$$VBA = f(FA, SA, VAT, IGR, GO) \quad (1)$$

$$VBA = \beta_0 + \beta_1 FA + \beta_2 SA + \beta_3 VAT + \beta_4 IGR + \beta_5 GO + \varepsilon_I \quad (2)$$

Where

VBA = Value of basic amenities measured by recurrent expenditure
FA = Federal Allocation to Local Government
SA = State Allocation to Local Government
VAT = Value Added Tax
IGR = Internally Generated Revenue
GO = Grant and Others
ε_I = Error Term

DATA ANALYSIS TECHNIQUES

Econometric Analysis

Ordinary least squares (OLS) are a method for estimating unknown parameters in a linear regression model. Hutcheson (2011) defined the ordinary least squares (OLS) regression as a general linear modeling technique that can be used to model one response variable stored on at least one interval scale. This method minimizes the square vertical distances between the responses observed in the data set and the linear predicted responses.

The OLS technique can be implemented with one or more explanatory variables as well as categorically explanatory variables that are properly encoded. In the individual explanatory variables, the relationship between the continuous response variable (Y) and the continuous explanatory variable (X) can be represented by the most appropriate line where Y is predicted and to some extent X. the relationship is linear, it can be mathematically represented by a linear equation 'Y = α + βx

For the multiple explanatory variables additional variables are added to the equation. The form of the model is the same as in a single response variable (Y), but this time Y is predicted by multiple explanatory variables (X_1 to X_5).

$$Y= \beta_0 + \beta_1X_1 + \beta_2X_2 + ß_3X_3 + \beta_4X4 + \beta_5X_5 \quad 3$$

The interpretation of the previous model parameters (α and β) is basically the same as for a simple regression model, but the relationship cannot be drawn from one scatter scheme. a shows the value of Y if all values of the explanatory variables are zero. Each parameter ß shows the average change in Y related to unit change in X, while controlling other explanatory variables in the model. Model correction is available when comparing the deviation measurements of the entered models.

Unit Root Test/Stationarity Test

"A unit root test is a statistical test for the proposition that in a autoregressive statistical model of a time series, the autoregressive parameter is one." Econtermsy (t), where t a whole number, modeled by:

y(t+1) = ay(t) + other terms

If an unknown constant, the unit would be tested for the hypothesis of a = 1, usually for an alternative that | a | is less than 1. Variables such as inflation, interest rates, exchange rate and unemployment rate appear to be persistent and are often modeled as root units. The unit root technique is generally used to investigate whether a series for two variables is stationary or not. Macro-economic time series are usually not fixed. In most of these series, the series becomes stationary when calculating logarithms or calculating the first or second difference. Several tests are used to determine the stationary position, but in this study, the root test of the Dickey-Fuller unit is tested using stationary variables. The Augmented Dickey Fuller (ADF) unit root test is used to test the stationarity property of a time series data in order to avoid the spurious regression problem. The ADF unit root test is specified as

$$\Delta V_t = \eta V_{t-1} + \eta \sum_{i=1}^{n} \Delta V_{t-j} + \varepsilon_i \quad 4$$

5

$$\Delta V_t = \alpha_0 + \lambda V_{t-1} + \eta \sum_{i=1}^{n} \Delta V_{t-j} + \varepsilon_i \qquad \Delta V_t = \alpha_0 + \lambda_{1i} + \eta V_{t-1} + \eta \sum_{i=1}^{n} \Delta V_{t-j} + \varepsilon_i$$

Note: The null hypothesis is rejected on the ground that the absolute value of the calculated ADF test statistic is larger than the absolute value of the Mackinnon critical value.

Cointegration Test

Cointegration is a "statistical property of time series variables; in a situation where two or more series are individually integrated (in the time series sense) but some linear combination of them has a lower order of integration, then the series are said to be cointegrated." Cointegration refers to a scenario where linear combination of non stationary variables is stationary. For these non-stationary time series variables, there is a possibility of estimation by differencing in cases where the differences are stationary. "For estimation of the co-integrating relationship to be undertaken, it requires that all the time series variables in the model be integrated of order one 1(1); the next step after recognizing the order of integration of the variables as I (1) or above is to test whether the variables in question can co-integrate or not."

The "three main methods for testing for cointegration are: The Engle-Granger two-step method (null: no cointegration, so residual is a random walk), The Johansen procedure, Phillips-Ouliaris Cointegration Test available with R (null: no cointegration)."

The VECM is more useful in Multivariate framework. To test for the presence of long-run equilibrium relationship, the Johansen's and Juselius (1990) and Johansen (1991) multivariate co-integration technique is employed. The co-integration test is based on the following equation.

$$\Delta Y_t = \alpha + \eta_1 \Delta Y_{t-1} + \eta_2 \Delta Y_{t-2} + \eta_3 \Delta Y_{t-3} + \eta_4 \Delta Y_{t-4} - - \eta_{k-1} \Delta Y_{t-k+1} + \eta\ Y_{t-k} + \mu_t \quad 6$$

Where n and n are 4 x 4 matrices and k is the lag length. The tests used here involved co-integration with linear deterministic trend in the vector auto regression (VAR).

Granger Causality Test

When conducting an econometric study, the direction of the casualty relationship between the variables is determined according to the information obtained from the theory. In this study, a Granger casualty relationship test was used to test hypotheses regarding the existence of a causal link and the direction of asset quality and deposit money between banks' profitability. In this sense, the ratio of causal variables is determined and the Granger casualty relationship test has three different directions, they include the following:

The main objective of this study is to investigate the causality between the independent and the dependent variables. Granger (1996) proposed the concept of causality and erogeneity: a variable Yt is said to cause Xt, if the predicted value of Xt is ameliorated when information related to Yt is incorporated in the analysis. The test is based on the following equation below

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \alpha_1 Y_{t-1} + \sum_{i=1}^{n} \beta_1 X_{t-1} + \mu_{1t} \quad 7$$

and

$$X_t = \alpha_0 + \sum_{i=1}^{n} \alpha_1 X_{t-1} + \sum_{i=1}^{n} \beta_1 Y_{t-1} + \mu_{2t} \quad 8$$

Where X_t and Y_t are the variables to be tested while $\mu 1_t$ and $\mu 2_t$ are white noise disturbance terms and n is maximum number of lags. The null hypothesis $\propto_1 = \beta_1 = 0$ for all 1's is tested against the alternative hypothesis $\propto_1 0$ and β 0, if the coefficient of $\propto_1$ are statistically significant, that of β_1 are not, then X causes Y, If the reversal is true than Y causes X. However, where both coefficient of $\propto_1$ and β_1 are significant then causality is bi-directional.

Diagnostic Test

This study will conduct important diagnostic tests, namely, autocorrelation, heteroskedasticity and normality test as well as the stability test.

Multico linearity Test

To ascertain the independence of the predictor variables (explanatory variables), we employ the used of correlation matrix. The problem of multicollinearity usually occurs when some predictor variables are highly correlated. Hair et al (2006) opined that "correlation coefficient below 0.9 may not cause serious multicollinearity problem." While Kennedy (2008) argued that any correlation coefficient above 0.7 could cause serious problem of multicollinearity which might lead to inefficient estimation and less reliable result. This work adopted the guideline of Hair et al (2006) for the purpose of solving multicollinearity problem. This is because the scholar is the most famous references in multivariate analysis all over the world.

Autocorrelation Test

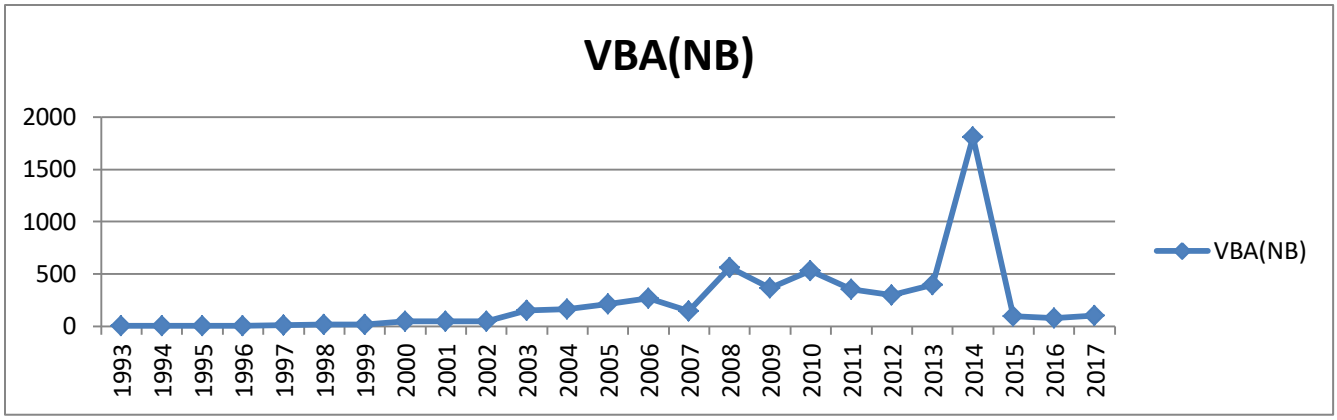
The assumption that the errors are uncorrelated with one another is the reason for the test for autocorrelation. But if the errors are correlated with one another it would be said that they are auto correlated. For the purpose of testing the existence the work employed the used of the famous Durbin-Watson test.

RESULTS AND DISCUSSION OF FINDINGS

Descriptive Analyses of the Variables

From the time series data presented in the above tables, we plot the line graph to illustrate the level of variation in the variables over the period covered in this study.

Line graph showing variation in the value of basic amenities



Source: Author's Computation from Excel, 2018

Figure i illustrate the fluctuation of value of basic amenities of local government in Nigeria. The value shows that value of basic amenities of Nigeria local government was below 500 million naira from 1993 to 2007. The value moved slightly above 5oo million in 2008 and reduces below the figure in 2009. However, the value was highest in 2014 with over 150 million. The increase in the value in 2014 can be traced to increase in oil price and increase in local government allocations. The decrease is due to variation in local government finance in Nigeria.

Line graph showing variation in the value of federal allocation to local government in Nigeria

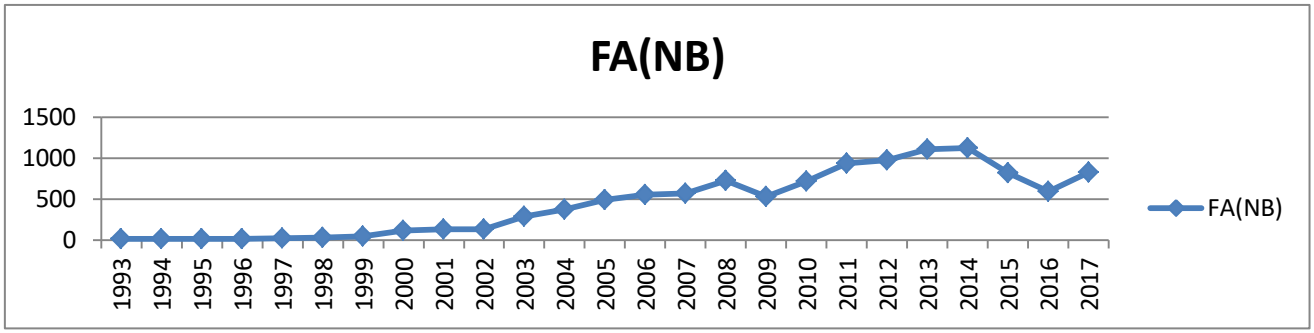
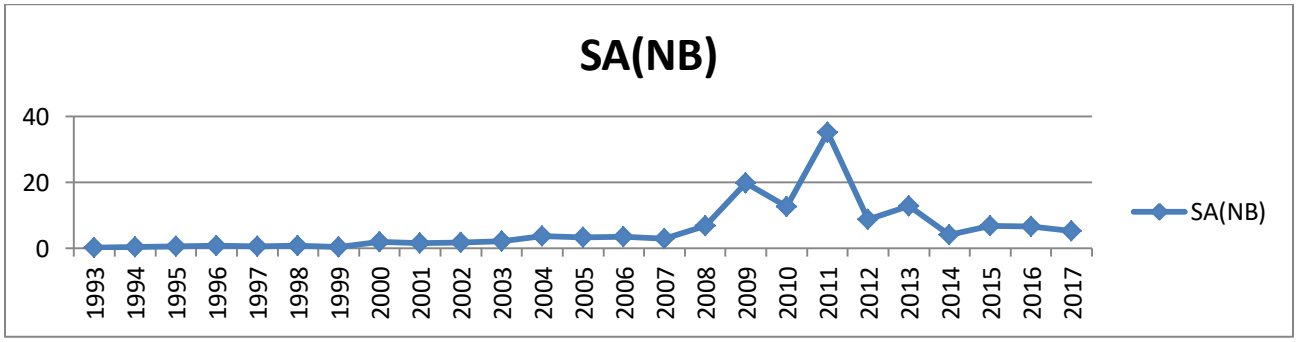


Figure ii illustrate the monetary value of feral allocation to local government within the period covered in this study, the trend reveals that federal allocation to local government was on steady increase from 1993 to 2008 but slightly reduce in 2009 but rose in 2010. The decreeing 2014 t0 2016 can be traced to economic recession and other fiscal challenges faced by the local government, for instance local internal generated revenue and state allocations.

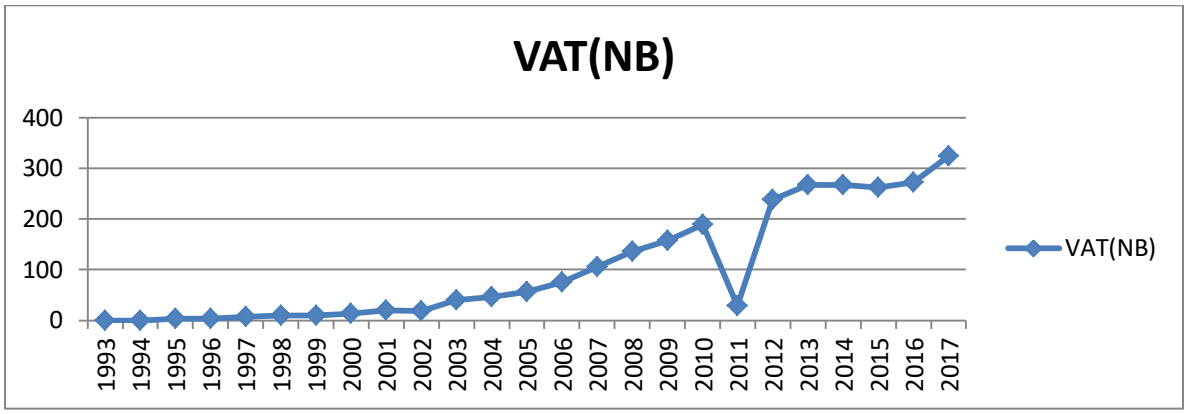
Line graph showing variation in the value of state allocation to local government in Nigeria



Source: Author's Computation from Excel, 2018

Figure iii illustrate the monetary value of state allocation to local government within the period covered in this study, the trend reveals that state allocation to local government was below 5 million between 1993 to 2008; the value rose to the highest over the period in 2011 and reduce to 5 million in 2017. This could also be traced to financial challenges of local government from the state.

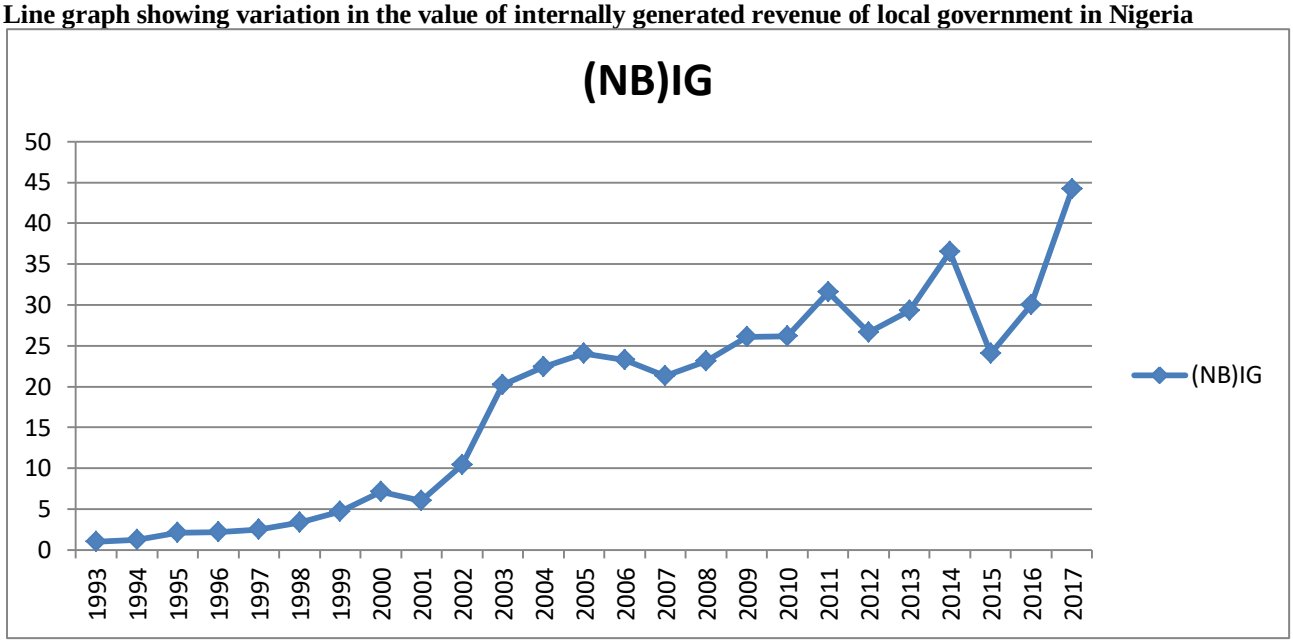
Line graph showing variation in the value of value added tax to local government in Nigeria



Source: Author's Computation from Excel, 2018

Figure iv illustrate the monetary value of value added tax to local government within the period covered in this study, the trend reveals that value added tax to local government was on steady increase from 1993 to 2010 but fall below 50 million in 2011 and rose to the highest in 2017. The rise from 2015 can be traced to the treasury single account and measures formulated to stop tax leakage.

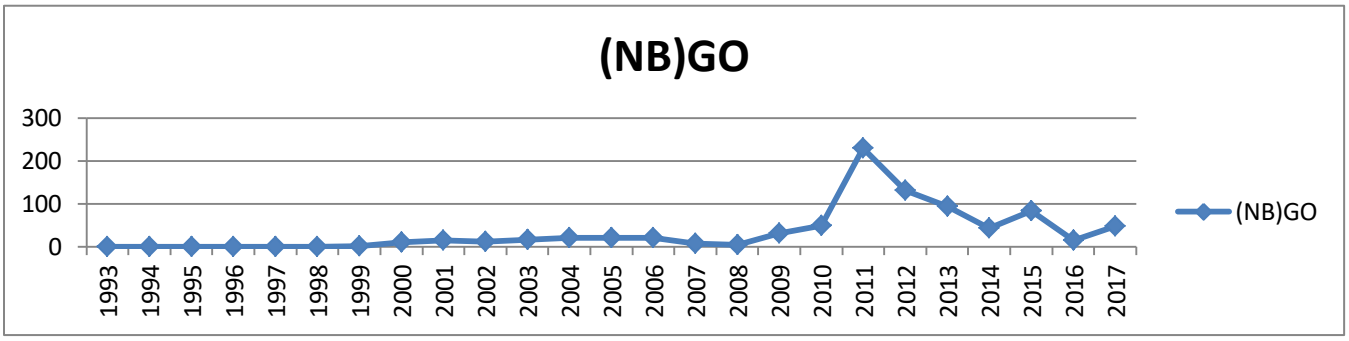
Line graph showing variation in the value of internally generated revenue of local government in Nigeria



Source: Author's Computation from Excel, 2018

Figure v illustrate the monetary value of local government internally generated revenue within the period covered in this study, the trend reveals that value internally generated revenue of local government fluctuate to the highest in 2017 with 45 million.

Line graph showing variation in the value grants and other revenues of local government in Nigeria



Source: Author's Computation from Excel, 2018

Figure vi illustrate the monetary value of local government grants and other sources of revenue over the periods covered in this study.

Presentation of Results

The following tables explain the dynamic relationship between local government finance and development of local governments in Nigeria.

Table i: Presentation of Short Run Dynamic Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
VAT_NB_	-0.978473	0.327578	-2.986998	0.0079
SA_NB_	15.12074	4.085684	3.700906	0.0016
FA_NB_	0.910775	0.158841	5.733869	0.0000
_NB_IG	-5.851790	3.344701	-1.749570	0.0972
_NB_GO	-3.409509	0.685423	-4.974310	0.0001
C	3.735897	28.47493	0.131200	0.8971
R-squared	0.841681	Mean dependent var		163.5425
Adjusted R-squared	0.797704	S.D. dependent var		171.8708
S.E. of regression	77.30289	Akaike info criterion		11.74566
Sum squared resid	107563.2	Schwarz criterion		12.04017
Log likelihood	-134.9479	Hannan-Quinn criter.		11.82379
F-statistic	19.13895	Durbin-Watson stat		2.212841
Prob(F-statistic)	0.000001			

Source: Source: Extract from E-View 9.0 (2018)

The model investigated the effect of revenue mobilization on the investment on basic amenities. An examination of the OLS regression estimate shows the effects of accounting bases on the value of basic amenities as formulated in the regression model are presented in table 4.4 R^2 is 0.841(84.1%) while adjustment R^2 is 0.797 showing a total of 79.7% of the variations in percentage of investment on basic amenities "can be explained by the changes in the explanatory variables; all the explanatory variables are statistically significant at 5 percent level of significant, however, with respect to the signs and sizes of the parameters estimates", VAT, IG and GO have negative effect on the value basic amenities while FA and SA have positive effect on the value of basic amenities. Furthermore, the overall fit of model is good given an F-statistic of 19.13895, (P-value = 0.000000). However, the Durbin Watson statistic is found to d* = 2.312841 does not lies between D-Watson critical values of dL 1.50; du = 1.84 and suggesting test inconclusive in the level series result. "This indicates that there may be some degree of time dependence in the level series result which could lead to spurious regression results, suggesting the need for more rigorous analysis of the stationarity properties of the level series Data."

Table ii: Presentation of Autocorrelation Test

Model	D.W Coefficient	Critical Value	Relationship	Nature of Relationship	Decision
i.	2.312841	1.83 < 2.50	Presence	Negative relationship	Reject H_0

Source: Source: Extract from E-View 9.0 (2018)

E-views provide an overview of Durbin-Watson (DW) statistics as part of the standard regression output. Durbin-Watson statistics is a first-order sequence correlation test. More formally, the DW statistic measures the linear relationship between adjacent residues in the regression model. If no series correlates, DW statistics are approx. DW statistics fall if the worst case is a positive series correlation, it is close to zero. In the case of a negative correlation, the statistician is somewhere between 2 and 4. Positive series correlation is the most frequently observed form of dependence. Generally, DW statistics with 50 or more observations and only a few independent variables are below 1.5 is a definite reference to a positive first order series correlation.

Table iii: Variance Inflation Factor

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
VAT_NB_	0.107307	8.628125	4.725977
SA_NB_	16.69282	6.294525	4.047313
FA_NB_	0.025231	30.58795	12.78236
_NB_IG	11.18703	19.89109	6.588749
_NB_GO	0.469805	7.358256	5.184586
C	810.8217	3.256456	NA

Source: Source: Extract from E-View 9.0 (2018)

The tolerance level is the amount of variability of the selected independent variable not explained by the other independent variable while the variance inflation factor indicates how the variance is inflated. A large VIF value, threshold of 10.0 corresponds with .10 of tolerance. Conventionally, VIF is not expected to be less than 4 and more than 10 (Gujurati and Deporta, 2005).

Table iv: Unit Root Test at Level

VARIABLE	ADF STATISTICS	MACKINNON			PROB.	ORDER OF INTR.
		1%	5%	10%		
VBA	-2.558010	-3.831511	-3.029970	-2.655194	0.9999	1(0)
VAT	2.398459	-3.831511	-3.029970	-2.655194	0.9999	1(0)
SA	-1.490258	-3.752946	-2.998064	-2.638752	0.5205	1(0)
FA	0.279609	-3.769597	-3.004861	-2.642242	0.9715	1(0)
IG	-0.729591	-3.808546	-3.020686	-2.650413	0.8171	1(0)
GO	-2.448852	-3.737853	-2.991878	-2.635542	0.1399	1(0)

Source: Extract from E-View 9.0 (2018)

Weak stationarity requires that the mean (first moment) and variance/covariance (second moments) are independent of time. To confirm these informal checks, formal unit root tests are applied. However, the unit root results above proved that all the variables are stationary at first difference. This means the rejection of null hypotheses of non stationarity and acceptance of null hypotheses of null stationarity.

Table v: Unit Root Test at first difference

VARIABLE	ADF STATISTICS	MACKINNON			PROB.	ORDER OF INTR.
		1%	5%	10%		
VBA	-4.212786	-3.959148	-3.081002	-2.681330	0.0063	1(I)
VID	-4.739064	-3.886751	-3.052169	-2.666593	0.0000	1(I)
VAT	-7.426204	-3.752946	-2.998064	-2.638752	0.0000	1(I)
SA	-9.568767	-3.752946	-2.998064	-2.638752	0.0000	1(I)
FA	-6.701583	-3.808546	-3.020686	-2.650413	0.0000	1(I)
IG	-3.211415	-3.808546	-3.020686	-2.650413	0.0344	1(I)
GO	-6.099550	-3.752946	-2.998064	-2.638752	0.0000	1(I)

Source: Extract from E-View 9.0 (2018)

From table iv, the results of the unit root tests show that the null hypotheses of a unit root for time-dependent variables of a "non-stationary nature can be made stationary at the first difference." It also shows that all the

variables in the three models are integrated of order 1(1).This implies that the dependent variables and all our explanatory variables such became stationary at first differencing and it is integrated of 1(1). Having established the order of integration for the variables, the next step is to carry out a co-integration test to determine whether a long-run relationship exists between the variables. In this study we adopt co-integration test developed by Johansen (1988). The result of the co-integration test is presented in table 4.10). The low R^2 and the adjusted R^2 indicates that the variables are safe for the estimation processes in order to avoid spurious regression estimations that are plagued with the problems of serial correlation.

Table vi: Johansen Co-Integration Test Results: trace statistics

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.998245	373.1387	95.75366	0.0001
At most 1 *	0.993277	246.2352	69.81889	0.0000
At most 2 *	0.989551	146.1908	47.85613	0.0000
At most 3 *	0.845195	54.96538	29.79707	0.0000
At most 4 *	0.566032	17.65359	15.49471	0.0233
At most 5	0.046766	0.957904	3.841466	0.3277

Source: Extract from E-View 9.0 (2018)

From table v the results of the Johansen co-integration test shows that we adopt the alternative hypotheses of at most 4 co-integrating equation at the 5% level of significance from the model, therefore, we conclude the presence of long run relationship.

Table vii: Normalized Cointegration Test

Model i					
VBA_NB_	VAT_NB_	SA_NB_	FA_NB_	_NB_IG	_NB_GO
1.000000	0.639553	-91.64566	0.793528	-21.02617	13.01897
	(0.34105)	(5.00835)	(0.11132)	(1.62941)	(0.45090)

Source: Extract from E-View 9.0 (2018)

The cointegration test in table 4.8 failed to indicate the nature of long run effect; normalized co-integration test established the nature of long-run effect among the variables. As presented in the table vi. The model found that internal generated revenue and state allocation have negative long run effect on value of basic amenities while value added tax and grant and other revenues have positive effect on the value of basic amenities.

Table viii: Vector Error Correction Estimates

Error Correction:	D(VBA_NB_)	D(VAT_NB_)	D(SA_NB_)	D(_NB_GO)
CointEq1	-1.866971	0.148732	-0.013764	-0.057469
	(0.23620)	(0.03497)	(0.00470)	(0.02635)
	[-7.90406]	[4.25295]	[-2.92682]	[-2.18099]
C	-146.7761	19.55806	-2.225116	-7.326300
	(31.6657)	(4.68831)	(0.63045)	(3.53252)
	[-4.63518]	[4.17166]	[-3.52939]	[-2.07396]
R-squared	0.980934	0.969956	0.974204	0.976970
Adj. R-squared	0.963602	0.942644	0.950753	0.956033
Sum sq. resids	100581.6	2204.822	39.86994	1251.727
S.E. equation	95.62311	14.15763	1.903822	10.66740
F-statistic	56.59556	35.51344	41.54206	46.66326
Log likelihood	-123.9211	-81.89760	-37.75703	-75.67025
Akaike AIC	12.26556	8.445237	4.432457	7.879114
Schwarz SC	12.81108	8.990758	4.977978	8.424635
Mean dependent	4.378182	14.55091	0.206364	2.164545
S.D. dependent	501.2154	59.11546	8.578985	50.87399
Determinant resid covariance (dof adj.)		23373387		
Determinant resid covariance		1460837.		
Log likelihood		-281.0063		

Akaike information criterion	30.27330				
Schwarz criterion	32.85213				

Source: Extract from E-View 9.0 (2018

The estimated model found that value of basic amenities is negative and significant, value added tax is positive but insignificant, state allocation is negative and significant while grant is negative and insignificant. The R^2 and adjusted R^2 shows large explained variation from each of the variables.

Table ix: Parsimmons Error Correction Estimates

Variable	Coefficient		Std. Error	t-Statistic	Prob.
C	-37.42321		29.25577	-1.279174	0.2570
D(VBA_NB_(-1))	-1.934365		0.722657	-2.676740	0.0440
D(VBA_NB_(-2))	-2.022490		0.935686	-2.161505	0.0830
D(VBA_NB_(-3))	-2.662560		1.076647	-2.473011	0.0563
D(VAT_NB_(-1))	5.858051		2.245469	2.608832	0.0477
D(VAT_NB_(-2))	11.55037		4.159853	2.776630	0.0391
D(VAT_NB_(-3))	5.311146		6.055407	0.877092	0.4206
D(SA_NB_(-1))	-33.50025		16.21746	-2.065691	0.0938
D(SA_NB_(-2))	5.066066		12.31637	0.411328	0.6979
D(SA_NB_(-3))	-22.01932		30.51461	-0.721599	0.5029
D(_NB_IG(-1))	20.21735		7.095711	2.849235	0.0359
D(_NB_IG(-2))	-9.768613		12.52139	-0.780154	0.4706
D(_NB_IG(-3))	23.82379		11.63856	2.046971	0.0960
D(_NB_GO(-1))	4.432444		4.680584	0.946985	0.3871
ECM(-1)	-0.061048		0.912146	-0.066928	0.9492
R-squared	0.993402	Mean dependent var			90.58650
Adjusted R-squared	0.974929	S.D. dependent var			337.9117
S.E. of regression	53.50414	Akaike info criterion			10.91110
Sum squared resid	14313.46	Schwarz criterion			11.65790
Log likelihood	-94.11101	Hannan-Quinn criter.			11.05688
F-statistic	53.77524	Durbin-Watson stat			2.536837
Prob(F-statistic)	0.000171				

Source: Extract from E-View 9.0 (2018)

The "parsimonious error correction result indicates a good fit with an F-ratio of 53.77524, an R^2 of 99 % and an adjusted R^2 of 97% meaning that the model explains approximately 99% of the variations" in value of basic amenities in the model, the D-Watson statistic of 2.53 suggests absence of any autocorrelation. Also, five of the variables are stationary in the long-run which shows a long-run equilibrium relationship with a probability values of 0.000000, 0.0040, 0.0047 and 0.0033 respectively and ECM (-1) probability value of 0.0054 now significant. The coefficient of ECM proved the adjustment speed of 6 percent annually.

Table x: Presentation of Granger Causality Test

Pair wise causality tests were run on the models with an optimal lag of 2. The results are presented in table x. The researcher's interest here is to establish the direction of causality between the dependent variables and the independent variables.

Null Hypothesis:	Obs	F-Statistic	Prob.
VAT_NB_ does not Granger Cause VBA_NB_	23	3.34699	0.0581
VBA_NB_ does not Granger Cause VAT_NB_		0.18330	0.8341
SA_NB_ does not Granger Cause VBA_NB_	23	1.46236	0.2579
VBA_NB_ does not Granger Cause SA_NB_		0.33633	0.7188
FA_NB_ does not Granger Cause VBA_NB_	20	0.45377	0.6437
VBA_NB_ does not Granger Cause FA_NB_		1.42085	0.2722
_NB_IG does not Granger Cause VBA_NB_	23	2.88687	0.0818
VBA_NB_ does not Granger Cause _NB_IG		6.61111	0.0070
_NB_GO does not Granger Cause VBA_NB_	23	2.16086	0.1442
VBA_NB_ does not Granger Cause _NB_GO		2.01152	0.1628

Source: Extract from E-View 9.0 (2018)

From table ix the results show that there is bi-directional causality from VAT to VBA, from VAB to IG and from GO to VBA while other variables have no causal relationship in the model.

DISCUSSION OF FINDINGS

To answer questions and test hypotheses on the effect of revenue on the value basic amenities of local governments in Nigeria, a regression model was formulated having recurrent expenditure of local governments in Nigeria. The result found that the independent variables examined in the study explained 84 percent variation on the value of basic amenities of the local governments while the remaining 16 percent can be explained by variables not captured in the model. Coefficient of the independent variables found that with the negative value of 0.978 as parameter for value added tax, the negative coefficient of 5.851 as parameter for internally generated revenue and the negative coefficient of 3.409 as parameter for grants and other source of local government revenue will reduce value of basic amenities of the local government by 0.9, 5.8 and 3.4 percent annually with an increase of 10 percent. This finding is contrary to the a-priori expectation of the results as the independent variables are expected to add positively to the dependent variable. The negative effect of the variables can be traced poor treasury management in the local governments within the periods covered in this study. the negative effect of the variables is contrary to the findings of Ironkwe & Muenee (2016) that a positive correlation exists between revenue mobilization proxy by cash management, revenue generation and government financial assets) and local government development proxy by primary health care infrastructure, educational facility and community development projects and the findings of Ijeoma and Oghoghomeh (2014 that adoption of IPSAS is expected to increase the level of accountability and transparency in public sector of Nigeria. It was found that the adoption of IPSAS will enhance comparability and international best practices. The negative effect of the variables "confirm the public choice theory which states that politicians and government bureaucrats (administrators) basically pursue their own rather than the public interest such as career security, better jobs, higher salaries and entrenchment of power" through the budget decision-making processes and that self-interest behaviour among the actors can result in accounting information being used for self-promotion, legitimating, and distortion to meet their position, priorities and preferences in budget decision-making processes.

However, the positive coefficient of 15.120 as parameter for state allocation and 0.910 as parameter for federal allocation proved that a unit increase on the variables will lead to 15 percent and 9 percent increase on value of basic amenities. This finding confirm the a-priori expectation of the results and validity various policies formulated by the government to strengthen local government finance such local government financial autonomy. This finding confirm the findings of Alshujairi (2014) that a large number of respondents think that the Iraqi government accounting system needs an important reform citing the main reason as corruption, the findings of Atuilik (2013) that the levels of perception of corruption for developed countries that have announced IPSAS adoption do not differ significantly from the levels of perceived corruption for the developed countries that have not announced IPSAS adoption.

CONCLUSION AND RECOMMENDATIONS

The model formulated in the study found R^2 is 0.841(84.1%) while adjustment R^2 is 0.797 showing a total of 79.7% of the variations in percentage of investment on basic amenities can be explained by the changes in the explanatory variables; all the explanatory variables are statistically significant at 5 percent level of significant." However, with regards to the sizes and signs of the parameters estimates, VAT,IG and GO have negative effect on the value basic amenities while FA and SA have positive effect on the value of basic amenities. Furthermore, the model 1overall fit is good given an F-statistic of 19.13895, (P-value = 0.000000). However, the Durbin Watson statistic is found to d* = 2.312841 does not lies between D-Watson critical values of dL 1.50; du = 1.84 and suggesting test inconclusive in the level series result. This indicates that there may be some degree of time dependence in the level series result which could lead to spurious regression results, suggesting the need for more rigorous analysis of the stationarity properties of the level series data.

It was established in this study that the revenue mobilization affect significantly development of Nigeria local government. The implication is that if those variables of revenue mobilization are neglected by the local government treasury authorities in their quest to enhance local government development as the function of local government authorities as contained in the constitution it might be difficult for local government to achieve development as the constitutional functions of local government.

Recommendations

Based on the findings from this study, the following recommendations are proffered:

i. There should be strict compliance to international public sector accounting standard as the result emphasized the need to improve the transparency, quality of accounting system and accountability of government to citizens. Within this context, Nigeria government, local government commission and other agents accounting should be reformed through revenue mobilization gives a better financial integrity that will enhance development of local governments in Nigeria.

ii. The negative effect of the independent variables on the dependent variables indicates there are challenges in revenue mobilization and management in Nigeria local government. Public sector committee of International Federation of Accountants developed IPSAS to guide government entities in the mobilization and management of revenues. IFAC should encourage "public sector entities to adopt public finance management for their general-purpose achieving development in Nigeria.

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