GOVERNMENT EXPENDITURE AND POVERTY ALLEVIATION IN NIGERIA, 1970 – 2016

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ABSTRACT

This study examined the effect of government expenditure on poverty in Nigeria. Expenditure was disaggregated into recurrent and capital expenditures. The Auto-regressive Distributed Lag (ADL) technique was adopted to estimate their impact on poverty rate. The results showed a negative relationship between government recurrent expenditure on administration and poverty; a positive relationship between recurrent government expenditures on social and community services and poverty rate. Also, on the results of the effect of capital government expenditure on poverty rate in Nigeria, there was a positive relationship between government capital expenditure on administration and poverty; the relationship between capital expenditure on economic, social and community services and poverty was negative; Government's capital expenditure on transfers positively affected the rate of poverty. The Toda Yamamoto procedures causality results indicated a unidirectional causality from poverty incidence to recurrent expenditures on social and community services, economic services, and transfers respectively; and a bi-directional causality relationship between capital expenditure and poverty rate in Nigeria. It was recommended that capital expenditures of the Nigerian government should be effectively implemented as stipulated in the budget; Funds generated by the government should be geared into productive sectors; and government should minimize recurrent spending.

Keywords: Poverty, Expenditure, Recurrent, Capital, ADL, Toda Yamamoto.

1. INTRODUCTION

Government programmes towards poverty reduction is described as its intention regarding the activities to be undertaken and the resources to be committed as well as the result expected to be achieved. These programmes can be seen as the setting of expenditure priorities and the weighting of alternatives to address areas of activities

in relation to the credibility of government's stated intention which suggests the existence of the short-term vision for the economy.

Musgrave (1956) advances the traditional functions of government activities as allocation of resources, redistribution and macro-economic stabilization. Its role is therefore significant in the functioning of an economy at all levels of development (Ekpo, 2003) and forms an integral part of the answers to the vital microeconomics questions of 'what' and 'for whom' to produce and even to 'how' questions as well. Issues arising from size, structure and growth presumably reflecting the varying needs of the economy across time can be examined from the allocative and distributive functions of the public budget.

According to Agiobenebo, Onuchuku and Ajie (2000), government's traditional macroeconomics role is to stabilize the economy along with other policy instruments in a package approach. Government expenditure can therefore be referred to as the expenses, which the government incurs for its own maintenance and as also for the society and the economy as a whole and hence be seen as the absorption of resource by the public sector (Anyanwu, 1997). The public sector being defined as that portion of the national economy whereby economic and non-economic activities are under the control of and general direction of state (federal, states and local governments) from the private sector. The programming of these expenditures involves a comprehensive set of expenditure policy measures that is designed to achieve some given set of macroeconomics objectives. The role of the government in poverty reduction is therefore viewed on how social policy directs public expenditure. The direction of expenditure patterns do have a mitigating effect on poverty by creating the conditions that will enhance the ability of the poor to accumulate assets; facilitate the creation of institutions that will reduce the incidence of risk facing the poor; reduce the impact of negative shocks through the provision of safety nets and through the provision of infrastructure and services to the poor while considering also the incidence of the tax burden on different layers of the population as these indicates how the government considers poverty in its fiscal policies (Perotti 1993).

Much of the impact of the expenditure can then be viewed as establishing infrastructures and proper institutional framework that would impact positively on living conditions. For the economy to operate smoothly to create these conditions these facilities are usually seen to be provided by the government – here lies the crucial link between public expenditure and poverty reduction. Poverty reduction emerges as a problem of allocating scarce resources by government, to produce goods that are required by poor households and individuals although the resources can also be redistributed either through transfers and subsidies to the poor (Spicker 1999) or by ensuring that the richer strata of the population do not benefit more from government expenditure.

The World Bank in the 1990s emphasised the strengthening of capabilities of the poor and an increased focus on the non-income dimensions of poverty. Public intervention as suggested needed to follow a two-fold strategy: promoting labor-intensive growth and investment in human capital via primary health care, primary education and targeted social spending to reduce poverty, thus, avoiding a trade-off between growth and poverty reduction. The experience of the East Asian economies with high investment in human capital resonated well with this view (World Bank, 1996). Other policy initiatives such as Highly Indebted Poor Countries (HIPC) and Poverty Reduction Strategy Papers (PRSPs) were also introduced to encourage countries to identify and track expenditures that were pro-poor and which could lead to a focus on social sector spending (Williamson, 2003).

The Millennium Development Goals later adopted in 2000 to encourage social sector spending by broadening poverty objectives included non-income dimensions. This was to be achieved by encouraging countries to focus on individual targets rather than pursuing integrated cross-sectoral policies - taking into account the impact of interventions on other targets. Hence, the policy called for a better understanding of multi-sectoral nature of interventions and development goals. Poverty on the other hand, can be described as a multi-faceted concept which manifest in different forms depending on the nature and extent of human deprivation. In absolute terms, it refers to insufficient or total lack of basic necessities like food, housing and medical cares. It also include the inadequacy of education and environmental services, consumer goods, recreational opportunities, neighbourhood amenities and transport facilities (NEEDS, 2004) whereas in relative terms, poverty manifests when peoples' lives fall radically below the community average, thus implying that poverty stricken people are the deprived from what the larger society regards as the minimum necessity for decent living. Within this framework, poverty as a relative phenomenon may be defined as follows:

i.   Individuals and households lacking access to basic services, political contacts and other forms of supports;

ii.   Households whose nutritional needs are not being met adequately;

iii.   Ethnic minorities who are marginalized, deprived and persecuted economically, socially, morally and politically; and

iv.   Individuals and households below the poverty line whose incomes are not sufficient to provide their basic needs.

The poor face severe constraints in their ability to undertake income generating activities that would yield income levels that allow them attain the minimum desired standard of living. They are handicapped in taking advantage of perceived opportunities. In addition, they have a limited capacity to protect themselves from risk and to reduce the impact of shocks that they may experience. Ekpo and Uwatt (2005) acknowledged that several poverty

studies in different parts of the world have been embarked upon or supported by multi-national agencies like the World Bank and its affiliates with a view to establishing the nature, depth and severity of poverty, causes of poverty and the possible intervention policies and strategies that could be used to reduce it yet not much has so far been achieved in establishing a general palliative.

From the poverty reduction outlook, the concern is not dependent on the quantum of public expenditure but with the components or structure of such spending. It is quite possible therefore that if poverty reduction is not an objective, the patterns of public expenditure may be different and the maximum growth rate could be high yet not reflected in the living standard of the people. Some scholars have postulated that rising public expenditure may have a negative effect on economic growth but it is recognised that it may also have a "crowding-in" effect that encourages and indeed facilitates the expansion of private sector investment and therefore growth. Government activities that lead towards economic growth, creation of employment and improving wages play a crucial role in reducing poverty because if the economy is not growing especially with reasonable welfare provisions, the essence and the ability to increase public spending for poverty reduction purposes will be severely defeated and constrained.

Public expenditure programmes for poverty reduction must nevertheless include a strategy on how finances will be generated to fund the programme. This is to prevent the emergence of large budget deficits that will create economic instability and dampen economic growth hence there is the need to ensure that the total expenditure is consistent with macroeconomic targets while identifying the sources of funding for the expenditures and be able to allocate the resources so as to have the maximum impact on poverty reduction given the budget constraint but the issues lies in finding out 'what needs to be done in order that national policy and expenditure priorities should take a more pro-poor direction'. Other issues involved relates to:

   i.   the quality of diagnosis of the poverty situation;

   ii.   the consistency of the budget allocation and implementing processes and the proposed policies, with this diagnosis; and

  iii.   the degree of commitment of the authorities to mechanisms opened up to influence on behalf of the poor and hold themselves accountable to the domestic constituencies for actual performance.

The phenomenon, dimensions and the consequences of poverty in underdeveloped countries have elicited global efforts towards reducing its effects. Consequently, the past few years have witnessed an increased effort to identify effective mechanisms for steering poverty-reduction efforts. The broad agreement around the Millennium

Development Goals (MDGs), and the introduction of Poverty Reduction Strategy Papers (PRSPs) as country-driven policy documents that guide development efforts, are two of the principal initiatives. One of the main problems faced by developing countries like Nigeria and policy makers alike relates to the translation of broad development goals into more specific policies and programmes that can deliver reductions in poverty levels. Despite Nigeria's oil wealth and vast resources, poverty is widespread in the country. The 2010 Rural Poverty Portal for Nigeria revealed that the country had been considered as one of the 20 poorest countries in the world. The 2011 Central Bank of Nigeria (CBN) economic and financial review and the National Bureau of Statistics (NBS, 2012) report depicts that about seventy (70) per cent of the population is classified as poor with about forty (40) per cent living in absolute poverty.

Due to increasing poverty level in the country, many people suffer from deprivations, insufficient food, illiteracy, distress, inadequate shelter, diseases, lack of remunerative employment, exploitation and insecurity of lives and property. The urban poor have to contend with overcrowding, contaminated water and poor sanitation facilities. This could add to the number of criminal activities such as official corruption, robbery, prostitution, kidnapping, assassinations and dealing in illegal goods and services and suicide.

In the last decade, government expenditure has increased tremendously; the expectations had been that if government expenditure rises, there would be commensurate rise in government provision – recurrent and capital. Drawing from Wagner (1917), it is expected that increased spending would have led to increased infrastructure provision by government as well as improvement in other economic indicators including social amenities and citizens welfare. This indicates that something is definitely wrong either with the way government expands budget or there is outright misappropriation or in the ways and manners it has always been computed or implemented. Hence, the specific objectives to guide this study are: to examine the effect of capital government expenditures on poverty incidence in Nigeria; to examine the effect of recurrent government expenditures on poverty incidence in Nigeria; and to determine the direction of causality between both government expenditures and the rate of poverty in Nigeria.

Following from the introduction, section II analyses the literature review. Section III discusses the methodology and section four and five discuss the data analysis and conclusion.

2. LITERATURE REVIEW

The views of authors and notable economics will be discussed in a line the concept of public expenditure and poverty reduction in Nigeria.

Wagner's Law of Increasing State Activities

The earliest known work on the long run tendency of public expenditure is that of German economist, Adolph Wagner (1835 – 1917). According to this theory, there are inherent tendencies for the activities of different tiers of government (for instance, in Nigeria, we have the Federal, State, and Local government arms) to continually rise, over time, both intensively and extensively. These increases in state activities necessitate increase in government expenditure. In this vein, a functional relationship is postulated to exist between the growth of an economy and growth of the government activities especially in social and community infrastructural projects. A number of reasons can be advanced as to why all types of governments manifest the tendency for increasing public expenditure. These include:

i.   The expanding nature of traditional functions of the state, with various complexities of social and economic nature springing up to make an effective running of the state to be rather complex and expensive.

ii. State activities continue to grow in scope over time beyond the confines of defense, justice, law and order, maintenance of state increasing welfare activities.

iii. Increased recognition by government of the need to provide and expand the spheres of public goods and those necessitating increase in public investments and enterprises.

iv. The need to increase and harmonize the scale of various public services with the growing population etc.

It is as a result of these and other reasons, public expenditure, especially public expenditure on social infrastructural development, reserves the tendency to increase over time.

According to the UNDP [1998], there are three perspectives to the definition of poverty. The first is income perspectives which views poverty as a situation where a person is poor if the income level is below the defined poverty line. Second, is the basic need which views poverty as deprivation of material requirements for minimal acceptable fulfillment of human needs, including foods, basic health, education, essential service, employment and participation. The third is lack of capacity which represent the absence some basic capabilities to function. This view was complemented by the 2004 world development report. They agreed that poverty has many

dimensions, in addition low income [living on less than 1dolla per-day], illiteracy, ill health, gender inequality and environmental degradation are all aspects of being poor [World Bank, 2004].

In general as explain by Obadan [1997], poverty has both income and non-income dimensions, which are usually, intertwined this definition boarded on income and consumption. He stated that people are regarded as poor when measured by standard of living interns of income or consumption is below the poverty line. Poverty is referred to lack of physical necessities, assets and income which is a sub-set of the general condition of deprivation which include poverty, social inferiority, isolation, physical weakness, vulnerability, powerless and humiliation.

The Nigerian economy characterized by large rural, mostly agricultural based, three- fourth of the poor, and by a small urban capital intensive sector, which has benefited most by exploitation of the countries resources and from the provision of services that successive government have provided. This duality arose in large measures from domestic policies that steered most investment, physical, human and technological into a few already capital intensive sectors of the economy. A fundamental problem with Nigeria's past pattern of development has been that the incentives regimes that prevailed for most of the last two decades have tended to favour the urban modern sector to the detriment of the traditional rural sector. Nevertheless, the poor in Nigeria are not a homogeneous group. They can be found among several or occupational groups and can be differentiated by nature of their poverty assessment in Nigeria using 1992/1993 household survey data, shows that the nature of the following characteristics: Sector, education, age, gender and employment status of the head of the household.

Public expenditure theory, until recently received a scanty attention because of the philosophy of laissez-faire and belief in the efficacy of free market mechanism. With the advent of Keynesian economics, the role of the state expanded especially in the area of infrastructural provision and the theory of public expenditure attracted increasing attention. This tendency has been reinforced by the widening interest in the problems of economic growth, planning, regional disparities, distributive justice and the like (Bhagwati, 2012). The role of the government in economic management is performed through the formulation and implementation of economic policy generally and fiscal policy in particular. As recognized by the new growth theory, public spending is an important factor for self – sustaining productivity gains and long term growth.

The real significance of government development lies in the fact that it imparts a greater amount of "trickle-down" benefits for the poor in the growth process. The mechanism in which government spending on public infrastructure is expected to affect the pace of economic growth depend largely upon the precise form and size of total public expenditure allocated to economic and social development projects in the economy. When public

expenditure is incurred, by itself it may be directed to particular investments or may be able to bring about re-allocation of the investible resources in the private sector of the economy. This effect, therefore, is basically in the nature of re-allocation of resources from less to more desirable lines of investment.

An important way in which public expenditure can accelerate the pace of economic growth and reduce poverty is by narrowing down the difference between social and private marginal productivity of certain investments. Here, public expenditure on social and economic infrastructural like education, health, transport, communication, water disposal, electricity, water and sanitation etc., has the potential of contributing to the performance of the economy based on Promotion of infant industries in the economy; Reduction in the unemployment rate; Stabilization of the general prices in the economy; Reduction in the poverty rate and increase the standard of living of the people; Promotes economic growth by attracting foreign investment; and Promotes higher productivity.

Nwosa (2014) examines the impact of government expenditure on unemployment and poverty rates in Nigeria for the period 1981 to 2011. Using an Ordinary Least square (OLS) estimation technique, the study observes that government expenditure has positive and significant impact on unemployment rate while it has a negative and insignificant impact on poverty rate. Thus, this study recommends that urgent attention should be accorded to rising unemployment and high poverty rates in order to achieve the objective of being among the 20 economies of the world by 2020 and of achieving her MDG goal of halving poverty rate by 2015.

Ozoana (2013) examined the impact of public spending on poverty eradication in Nigeria from (1980-2011). Multiple regression analysis was used and five variables were used in the empirical analysis. They were government expenditure on agriculture and water resources (AGWR), health (HTH) education (EDU) transportation and communication (TRCM) and Housing and environment. The data used in this research was collected from secondary data obtained from National Bureau of Statistics (2008) (MBS), and CBN statistical bulletin. The major findings shows that government expenditure on health, education and transport and communication are insignificant and increase of government expenditure in these sectors will reduce poverty level. While that of agriculture and water resources, and housing and environment are significant and a unit increase will increase poverty level. Recommendations were proffered based on the findings of this research. That the government at all level should ensure that its expenditure are channeled towards projects that will reduce poverty level in Nigeria.

Mehmood and Sadiq (2010) studied the long run as well as short run relationship between the fiscal deficits, which is outcome of high government expenditure over the level of tax revenue collection, and poverty. The

results revealed a negative relationship between government expenditure and poverty based on time series data from 1976 to 2010. The short run and long run relationships between poverty and other variables were identified by ECM model and Johnson Cointegration test respectively. The results show that there existed short run as well as long run relation between the poverty and government expenditure.

Odior (2014) examined the likely impact of government expenditure policy on education and poverty reduction in Nigeria. The specific objective of the study is to explore or simulate how government expenditure on education would help to meet the Millennium Development Goals (MDG) of the United Nations in terms of improving education service and reduce poverty in Nigeria. An integrated sequential dynamic computable general equilibrium (CGE) model was used to simulate the potential impact of increase in government expenditure on education in Nigeria. The model was simulated with a 2004 social accounting matrix (SAM) data of the Nigerian economy. The result of experiment indicated that it will be extremely difficult for Nigeria to achieve the MDG target, in terms of education and poverty reduction by the year 2015, because this policy measure in the analysis was unable to meet this goal. The MDG target for Nigeria in terms of poverty reduction is to reduce the percentage of population living in relative poverty from 54.4% in 2004 to 21.4% by 2015. It was found that the re-allocation of government expenditure to education sector is important in determine economic growth and the reduction of poverty in Nigeria. It was recommended that in order to achieve the MDG in both education and poverty reduction poverty, investment in education service should receive the highest priority in the public investment portfolio. The study concluded that if government policy is going to substantially reduce poverty, then future economic growth has to be pro-poor. Investing in education is one of the pro-poor policies for improving human capital and reducing poverty.

Numerous studies had been conducted to analyze the impact of public spending – especially that on poverty reduction and there are evidences in the literature that countries which are successful in achieving poverty reduction were also successful in achieving sustained high growth although growth alone is by itself insufficient – countries with much better record of reducing poverty had much higher intensity of economic growth.

Similar study by Fan, Zhang and Rao (2003) used district level data for 1992, 1995 and 1999, and estimated the effects of different types of government expenditure on agricultural growth and rural poverty in Uganda. They found that government expenditures on agricultural research and extension services and that on rural roads have impacts on poverty reduction. These studies along with some others suggest that public investment must play even greater role in fostering future economic growth and poverty reduction. It is nonetheless, acknowledged that different types of expenditure have differential effects on growth and poverty reduction in different countries.

This study seeks to contribute to knowledge by analyzing the effect of disaggregating government expenditure – capital and recurrent – on the rate of poverty in Nigeria. This will go a long way in assisting the government on the appropriate steps to take in planning for its expenditures.

3.   METHODOLOGY

Research Design

The research design adopted for the study was quasi experimental. The choice of this type of design will allow the researcher the privilege of observing variables over a long period of time. Data collected was analyzed and the research questions of this study tested. The Autoregressive Distributed Lag bounds test (ARDL) approach was used to examine the effects of capital and recurrent government expenditures on poverty rates in the Nigerian economy.

Data

The data, which is used to estimate the models, consist of annual observations for Nigeria for the period 1970 to 2014. The most important data source was obtained from World Bank Development Indicators (2014) and the CBN Bulletin (2014). Components of Nigeria's recurrent and capital expenditures such as administration, social and community services, economic services, and transfers were used as independent variables. Poverty incidence was used as dependent variable.

Model Specification

In order to analyse the effects of capital and recurrent government expenditures on poverty rates in the Nigerian economy, two models were specified. The functional relationship of the effects of recurrent government expenditure on poverty incidence of the model is captured as:

POV = f (ADMINREC, COMMREC, ECONSREC, TRFsREC)

Where POV = Poverty Incidence, ADMINREC = Recurrent expenditure on Administration, COMMREC = Recurrent expenditure on Social and Community services, ECONSREC = Recurrent expenditure on Economic services, and TRFs = Recurrent expenditures on Transfers.

The functional relationship of the effects of capital government expenditure on poverty incidence of the model is captured as:

POV = f (ADMINCAP, COMMCAP, ECONSCAP, TRFsCAP)

Where POV = Poverty Incidence, ADMINCAP = Capital expenditure on Administration, COMMCAP = Capital expenditure on Social and Community services, ECONSCAP = Capital expenditure on Economic services, and TRFs = Capital expenditure on Transfers.

For econometric analysis, the functional equations will be transformed into double log equations as:

POV = β0 + β1InADMINREC + β2InCOMMREC + β3ECONSREC + β4TRFsREC + U

POV = β0 + β1InADMINCAP + β2InCOMMCAP + β3ECONSCAP + β4TRFsCAP + U

It is expected that a negative relationship exist between poverty and these components.

On the other hand, the components of capital expenditure are productive government expenditures. It is expected that a positive relationship exist between poverty and these components.

Toda Yamamoto Causality

Toda and Yamamoto causality technique was applied in the level of Vector Autoregressive irrespective of whether the variables are cointegrated, integrated or not. Toda and Yamamoto disagreed that the F-statistic test used for traditional Granger causality may not be valid as the test does not have a yardstick allocation when the time-series data integrated or cointegrated. Toda-Yamamoto technique is fundamentally engaged the evaluation of an augmented VAR (k +dmax) model. k is the best lag criteria in the original VAR system, and dmax is the maximum order of integrations of the variables in the Vector Autoregressive system. Toda-Yamamoto causality test applies an adapted Wald test (MWALD) statistic to test zero restrictions on the parameters of the original VAR (k) model.

4.   DISCUSSION OF RESULTS

The first step was to determine if the independent variables correlate with the dependent variable. The scatter plot revealed that the variables used for the study are correlated. Correlation relationships between the dependent variable (POV) and independent variables are displayed in figure 1 and 2.

Figure 1: Scatter Diagram of Poverty Incidence and Unproductive Government Expenditures
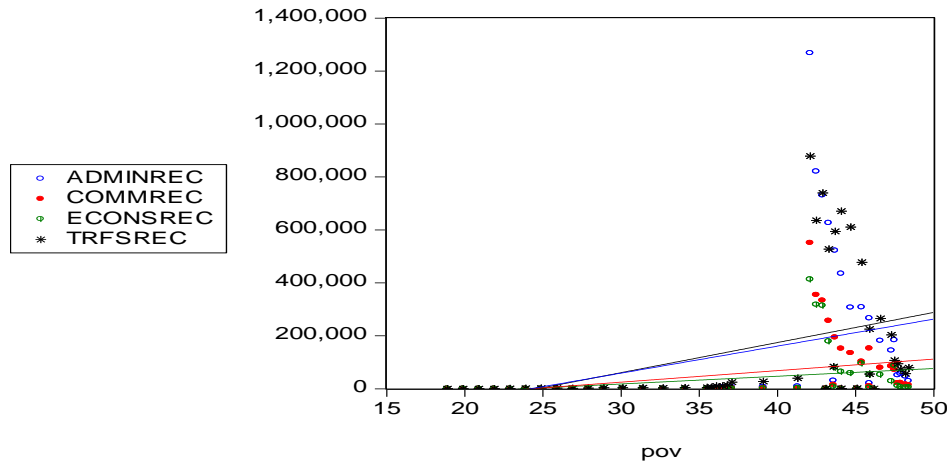

Figure 2: Scatter Diagram of Poverty Incidence and Productive Government Expenditures
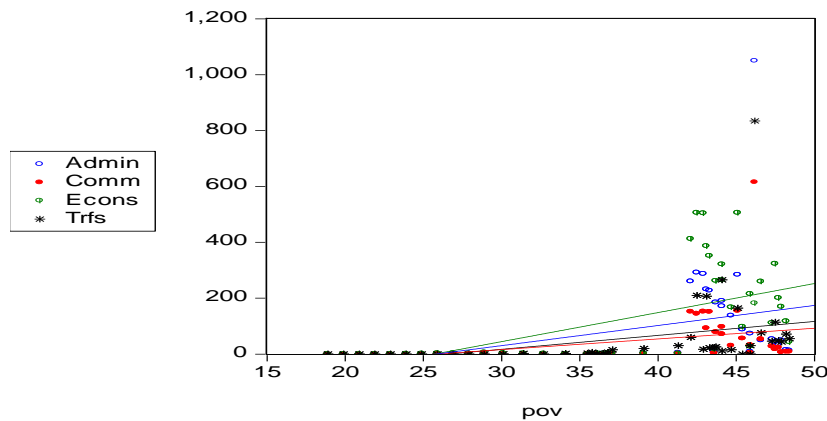
4.1 Unit Root Tests

After plotting the scatter diagram, the next step is to have a visual analysis of data. They showed varying degrees of fluctuations. The variables seemed to fluctuate upwards. The diagrams are displayed in the appendix.

Thereafter, the researcher sought to find out the order of integration of the variables. For this purpose, the analysis applied the unit root test for both models to test for stationarity of data. Table 1 show the Augmented Dickey-Fuller and Phillips-Perron unit root tests of the data series.

Table 1: ADF and Phillips Perron Unit Root Tests

VARIABLES	ADF TEST		PP TEST	
	PROB.	ORDER	PROB.	ORDER
POV	0.0000	I(2)	0.0000	I(2)
ADMINREC	0.0107	I(1)	0.0000	I(1)
COMMREC	0.0112	I(1)	0.0000	I(1)
ECONSREC	0.0341	I(0)	0.0000	I(1)
TRFsREC	0.0134	I(1)	0.0000	I(1)
ADMINCAP	0.0012	I(2)	0.0001	I(1)
COMMCAP	0.0000	I(2)	0.0231	I(2)
ECONSCAP	0.0001	I(1)	0.0000	I(1)
TRFsCAP	0.0245	I(1)	0.0000	I(1)

Source: E-Views 10.0

The dependent variable (POV) was stationary at second difference in both the ADF and PP tests. Other independent variables were stationary at first differences in both the ADF and PP test. However, ECONREC was stationary at levels in the ADF test.

4.2 Diagnostic Tests

The Diagnostic tests for serial correlation, and heteroscedasticity were conducted, and the results are presented in Table 2. The results also showed that there is no evidence of serial correlation and heteroscedasticity among variables.

Table 2: Summary of Diagnostic Tests

Models	Serial correlation	Remark	Heteroscedasticity
Model 1	0.532303 (0.7663)	No Serial Correlation	9.725856 (0.7819)
Model 2	0.316032 (0.8538)	No Serial Correlation	13.20515 (0.5104)

Source: E-Views 10.0

4.3 ARDL Estimation Results

The researcher applied the ARDL method to estimate the long run coefficients for the models. Table 3 and 4 report the regressions of both models. The overall goodness of fit of the estimated equation was high; the F-statistic measuring the joint significance was statistically significant.

Table 3:   ARDL Estimation Results for Model 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(POV(-1))	1.602090	0.142006	11.28183	0.0000
LOG(POV(-2))	-0.615756	0.142572	-4.318901	0.0002
LOG(ADMINREC)	-0.023411	0.010340	-2.264115	0.0315
LOG(ADMINREC(-1))	0.004901	0.011100	0.441566	0.6622
LOG(ADMINREC(-2))	-0.006022	0.009457	-0.636746	0.5295
LOG(COMMREC)	0.000906	0.005044	0.179530	0.8588
LOG(COMMREC(-1))	-0.005224	0.005355	-0.975612	0.3376
LOG(COMMREC(-2))	0.003084	0.004442	0.694261	0.4932
LOG(ECONSREC)	0.011740	0.006913	1.698423	0.1005
LOG(ECONSREC(-1))	0.001223	0.007430	0.164582	0.8705
LOG(ECONSREC(-2))	0.002799	0.007172	0.390235	0.6993
LOG(TRFSREC)	0.005812	0.006113	0.950778	0.3499
LOG(TRFSREC(-1))	0.001553	0.006578	0.236118	0.8151
LOG(TRFSREC(-2))	0.001307	0.005799	0.225316	0.8234
C	0.086727	0.064155	1.351825	0.1873

Source: E-Views 10.0

The results of the ARDL estimation for model one show how recurrent government expenditure affects poverty in Nigeria. The negative sign of government recurrent expenditure on administration shows that a negative relationship exists between recurrent expenditure on administration and poverty. The relationship is significant at the 5 percent level. This indicates that recurrent expenditure on administration has been unproductive in tackling the issue of poverty.

Unlike the relationship between recurrent expenditure on administration and poverty, the relationship between recurrent expenditure on social and community services and poverty is not significant. The positive relationship shows that unproductive government expenditures on social and community services have affected poverty in a positive manner.

Government's recurrent expenditures on economic services and transfers positively affected the rate of poverty. This means an increase in government's spending on economic services and transfers from previous years have increased the rate of poverty during the period under study.

Table 4:   ARDL Estimation Results for Model 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(POV(-1))	1.688158	0.135910	12.42116	0.0000
LOG(POV(-2))	-0.720755	0.131540	-5.479371	0.0000
LOG(ADMIN)	0.004312	0.005479	0.786997	0.4379
LOG(ADMIN(-1))	0.000928	0.005976	0.155380	0.8776
LOG(ADMIN(-2))	0.003907	0.006040	0.646868	0.5230
LOG(COMM)	-0.004033	0.004470	-0.902192	0.3747
LOG(COMM(-1))	-0.001208	0.004007	-0.301613	0.7652
LOG(COMM(-2))	0.001454	0.004067	0.357485	0.7234
LOG(ECONS)	-0.007859	0.004435	-1.772123	0.0873
LOG(ECONS(-1))	0.000432	0.005607	0.077061	0.9391
LOG(ECONS(-2))	0.001282	0.004644	0.275977	0.7846
LOG(TRFS)	0.000385	0.001262	0.304740	0.7628
LOG(TRFS(-1))	0.000525	0.001425	0.368339	0.7154
LOG(TRFS(-2))	0.000853	0.001239	0.688860	0.4966
C	0.127412	0.067434	1.889435	0.0692

Source: E-Views 10.0

The results of the ARDL estimation for model two show how productive government expenditure affects poverty in Nigeria. The relationship between government's capital expenditure on administration and poverty is positive.

This shows that an increase in government's capital expenditure increase the incidence of poverty during the period under study. However, the relationship was not significant at the 5 percent level.

The relationship between capital expenditure on economic, social and community services and poverty is negative. The negative relationship shows that productive government expenditures on social and community services reduced the incidence of poverty during the period under study. However, the relationship is not significant at the 5 percent level.

Government's capital expenditure on transfers positively affected the rate of poverty. This means an increase in government's spending on transfers from previous years have increased the rate of poverty during the period under study. However, the relationship was not significant.

4.4 Toda Yamamoto Granger Causality

The study employed the Toda-Yamamoto (1995) procedure to examine the causal relationship between recurrent government expenditure and poverty in Nigeria; and the causal relationship between productive government expenditure and poverty in Nigeria. The results are presented in Table 5. A unidirectional causality flows from poverty incidence to recurrent expenditure on administration at the 5 percent level of significance. In like manner, a unidirectional causality runs from poverty incidence to recurrent expenditures on social and community services, economic services, and transfers respectively at the 5 percent level of significance. In other words, poverty incidence causes unproductive spending by the government.

Table 5: Model 1 (Toda Yamamoto Granger Causality)

Variables	POV	ADMINREC	COMMREC	ECONSREC	TRFSREC
POV	-	0.899316 (0.6378)	1.033895 (0.5963)	0.497788 (0.7797)	0.351467 (0.8388)
ADMINREC	29.45220 (0.0000)	-	58.12013 (0.0000)	15.08197 (0.0005)	104.0490 (0.0000)
COMMREC	43.04584 (0.0000)	147.2704 (0.0000)	-	17.07132 (0.0002)	121.5607 (0.0000)

ECONS REC	24.60019 (0.0000)	71.45090 (0.0000)	56.83177 (0.0000)	-	63.12202 (0.0000)
TRFSREC	8.309743 (0.0157)	28.43879 (0.0000)	16.59970 (0.0002)	2.345364 (0.3095)	-

Source: E-Views 10.0

Table 6 shows the causal relationship between capital government spending and poverty incidence in Nigeria during the period under study.

Table 6: Model 2 (Toda Yamamoto Granger Causality)

Variables	POV	ADMINCAP	COMMCAP	ECONSCAP	TRFSCAP
POV	-	2.009227 (0.3662)	2.983896 (0.2249)	4.607051 (0.0999)	5.869437 (0.0531)
ADMIN CAP	0.158293 (0.9239)	-	25.72376 (0.0000)	2.515445 (0.2843)	11.14623 (0.0038)
COMM CAP	0.995811 (0.6078)	80.43726 (0.0000)	-	1.425109 (0.4904)	8.295308 (0.0158)
ECONS CAP	1.762576 (0.4142)	10.81128 (0.0045)	2.546220 (0.2800)	-	4.369120 (0.1125)
TRFSCAP	5.302926 (0.0705)	68.89347 (0.0000)	2.461678 (0.2920)	9.255332 (0.0098)	-

Source: E-Views 10.0

The findings show that there is a virtually a bi-directional relationship between capital expenditure on transfers and poverty incidence in Nigeria at the 5 percent level of significance. At 10 percent level of significance, there is

a unidirectional causality relationship flowing from capital expenditure on economic services and poverty incidence.

5.0   SUMMARY AND CONCLUSION

Summary

This paper examines the effects of government expenditure on poverty rate in Nigeria. The objectives of the study were to examine the effects of capital government expenditure on poverty rate in Nigeria; to examine the effects of recurrent government expenditure on poverty rate in Nigeria; and to determine the direction of causality among the variables. Related literatures were reviewed. The method adopted for this study was the ARDL (Autoregressive Distributed Lag) to estimate the relationship between the dependent and independent variables.

The results for model one show how recurrent government expenditure affects poverty in Nigeria. There was a negative relationship between government recurrent expenditure on administration and poverty. The relationship was significant at the 5 percent level. This indicates that recurrent expenditure on administration has been productive in tackling the issue of poverty. In contrast, the relationship between recurrent expenditure on social and community services and poverty was not significant. The positive relationship shows that recurrent government expenditures on social and community services have affected poverty in a positive manner. Government's spending on economic services and transfers from previous years have increased the rate of poverty during the period under study.

The results for model two show how capital government expenditure affects poverty in Nigeria. There was a positive relationship between government's capital expenditure on administration and poverty. This shows that an increase in government's capital expenditure increase the incidence of poverty during the period under study. However, the relationship was not significant at the 5 percent level. The relationship between capital expenditure on economic, social and community services and poverty was negative. The negative relationship shows that productive government expenditures on social and community services reduced the incidence of poverty during the period under study. However, the relationship was not significant at the 5 percent level. Government's capital expenditure on transfers positively affected the rate of poverty. This means an increase in government's spending on transfers from previous years have increased the rate of poverty during the period under study. However, the relationship was not significant.

The Toda Yamamoto procedures for granger causality results for model 1 indicated a unidirectional causality relationship that flows from poverty incidence to recurrent expenditure on administration at the 5 percent level of significance. In like manner, a unidirectional causality runs from poverty incidence to recurrent expenditures on social and community services, economic services, and transfers respectively at the 5 percent level of significance.

The Toda Yamamoto procedures for granger causality for model 2 indicated a bi-directional causality relationship between capital expenditure and poverty rate in Nigeria.

Conclusion

Having analysed the effects of capital and recurrent government expenditures on poverty rate in Nigeria, it is imperative for the Nigeria government to be focused on achieving its expenditure framework. If effectively done, this would have profound effects on the living standards of its citizens.

Based on our results, the following were recommended:

1. The capital expenditures of the Nigerian government should be effectively implemented as stipulated in the budget. This would have positive effect on the lives of Nigerians, thereby, reducing poverty incidence.
2. Funds generated by the government should be geared into productive sectors. This would have a trickle-down effect on the economy.
3. The government should minimize waste in unproductive spending. Rather such spending should be used to create jobs to the teeming unemployed.

REFERENCES

1. Anyanwu, J. C. (1997). Poverty in Nigeria: Concepts, Measurement and Determinants in Poverty Alleviation in Nigeria. *Annual Conference of Nigerian Economic Society (NES).*
2. Bhagwati, J. (2012). Poverty and Public Policy. *World Development*, **36,** (5), 539-555.
3. CBN. (2011). *Nigeria's Development Prospects: Poverty Assessment and Alleviation Study.* Central Bank of Nigeria in collaboration with the World Bank.
4. Devarajan, S., Swaroop, V. and Zou, H. (1997). The Composition of Public Expenditure and Economic Growth. *Journal of Monetary Economics*, **37**, 313-44.
5. Ekpo. A. H. (2003). The Macroeconomic Framework: Issues and Challenges. *Central Bank of Nigeria 3rd Annual Monetary Policy Conference on Issues in Fiscal Management*, 1-10.

6. Ekpo. A. H. and U. B. Uwatt (2005). Akwa Ibom State of Nigeria: Poverty Profile and Economic Transformation, Uyo. *Foundation for Economic Research and Training (FERT).*

7. Mehmood, R., and Sadiq, S. (2010). The Relationship between Government Expenditure and Poverty: A Cointegration Analysis. *Romanian Journal of Fiscal Policy* **1**(**1**)**, pp. 29-37.**

8. Musgrave, R. A. (1959). *The Theory of Public Finance*. New York: Mc Graw-Hill.

9. National Bureau of Statistic (2012): Nigeria Poverty Profile Report, 2010. *Press Briefing by the Statistician-General of the Federation.*

10. NEEDS (2004), Federal Republic of Nigeria National Economic and Emancipation Development Programme.

11. Nwosa, P. I. (2014). Government Expenditure, Unemployment and Poverty Rates in Nigeria. *JORIND 12 (1).* **pp. 77 – 84.**

12. Obadan, M. (1997), Analytical Framework for Poverty Reduction: Issue of Economic Growth Versus Other Strategies. *Proceedings of the Annual Conference of the Nigeria Economic Society on Poverty Alleviation in Nigeria*, Kaduna, Nigeria, 150-157.

13. Odior, O. S. (2014). Government Expenditure on Education and Poverty Reduction: Implications for Achieving the MDGs in Nigeria: A Computable General Equilibrium Micro-Simulation Analysis. *Asian Economic and Financial Review 4(2),* **pp. 150-172**.

14. Ozoana, I. (2013). *The Impact of Public Spending on Poverty Reduction in Nigeria [1980-2011].* Retrieved from pubs.caritasuni.edu.ng/download.php?

15. Perotti, R. (1993). Political Equilibrium, Income Distribution and Growth. *Review of Economic Studies*, 60, 755-776.

16. Spicker, P. (1999). *Principles of Social*. Welfare. Routledge. New York and London.

17. United Nations Development Programme (1998). *The Role of Economic Policies in Poverty Reduction.* UNDP Practice Note, UNDP: New York.

18. Williamson, T. (2003). Targets and Results in Public Sector Management Uganda Case Study. *Working Paper No. 205*.

19. World Bank (1996). Nigeria: Poverty Assessment Report. *No. 14733 – UNI*

20. World Bank (2002). A Source book for poverty reduction strategies, Washington.

21. World Bank (2004). *World Development Report 2004: Making Services Work for Poor People.* Washington, D.C.