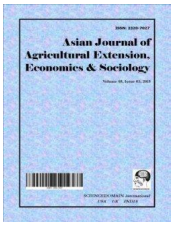

Asian Journal of Agricultural Extension, Economics & Sociology

28(4): 1-9, 2018; Article no.AJAEES.45782
ISSN: 2320-7027

Impact of National Recurrent Expenditure on Nigeria Agricultural Growth from 1990-2017

J. C. Mgbanya[1*], J. C. Onwumere[1], A. V. Eze[2], A. V. Nwokenekwu[3] and E. O. Igwe[3]

[1]Department of Agribusiness and Management, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.
[2]Department of Agribusiness Management and Trade, Kenyatta University, Nairobi, Kenya.
[3]Department of Agricultural Economics, Management and Extension, Ebonyi State University, Ebonyi State, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author JCM designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors JCO and AVE managed the analyses of the study. Authors AVN and EOI managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJAEES/2018/45782
Editor(s):
(1) Dr. Ian McFarlane, School of Agriculture Policy and Development, University of Reading, UK.
(2) Dr. Hasan Vural, Department of Agricultural Economics, Faculty of Agriculture, Uludag University, Bursa, Turkey.
Reviewers:
(1) Labintan Adeniyi Constant, University of Cape-Town, South Africa.
(2) R. Shenbagavalli, India.
(3) Lawrence Okoye, University of Maiduguri, Nigeria.
Complete Peer review History: http://www.sciencedomain.org/review-history/27793

Original Research Article

Received 16 September 2018
Accepted 03 December 2018
Published 17 December 2018

ABSTRACT

The study evaluated the impact of the national recurrent expenditure on Nigeria's agricultural growth from 1990 to 2017.The study adopted ex-post-factor research design. Time series data obtained from the Central Bank of Nigeria publications, journals, bulletins and proceedings were used for the study. The data were analysed using percentage, mean ratio and error correction model regression analysis. The result showed that the mean ratio between recurrent expenditure on agriculture to other sectors of the economy is 0.070:0.930 respectively. The result of unit root test showed that the natural log function of agricultural share of GDP and it determinants were stationary at a mixed order of co-integration while the lag length is one (1). The error correction model regression analysis showed the R^2value was 0.999998, indicating that 99% changes in the agricultural share of the GDP

**Corresponding author: E-mail: jjude1551@gmail.com;*

was accounted or explained by the explanatory variables. The Durbin-Watson statistics value of 1.096920 indicates absent of autocorrelation. Wald test result showed that the F-statistics (23.126) was greater than the F-tabulated (4.32) at p-value < 5%, this implies that the recurrent expenditure on agriculture has a significant impact on the agricultural share of GDP from 1990 to 2017. Therefore, the study recommended that greater percentage of the recurrent expenditure should be allocated to agriculture so as to accelerate agricultural development in Nigeria.

Keywords: Impact; national recurrent expenditure; agricultural-GDP; ex-post-factor design; error correction model.

1. INTRODUCTION

Agriculture is a pillar to the growth of Nigeria economy. Prior to oil boom in 1960's, agriculture was providing food, employment, foreign exchange and as a mean of livelihood for the populace. According to Federal Government of Nigeria [1], agriculture is the bedrock of Nigeria's economy. Food and Agricultural Organization (FAO) [2], reported that Nigeria is endowed with large expanse of cultivatable land with high supply of labour that can sustain agricultural activities. According to Gemma [3], increase in the growth of agriculture will contribute to the growth of non-farm activities.

Literature has shown that government spending on agriculture and rural development contributes to the improvement of the standard of living of those residing and farming in the rural areas. This according to Eboh, et al. [4], will help to eradicate extreme poverty. Central Bank of Nigeria [5], acknowledged that within 1980 to 1998, federal government expenditure on agriculture rose from $9.45 to $20.16 billion which responded positively to the rise in gross domestic product from 12.8% to 19.79%.

According to Federal Office of Statistics report on the national savings and investment from 1990 to 1999 showed that investment to gross domestic product ratio in Nigeria decreased from 6.33% in 1990 to 5.40% in 1999, although savings to investment ratio increased from 8.5 billion naira in 1990 to 10.57 billion naira in 1999 [6]. This increasing ratio of savings to investment, if reflected in agricultural sector is capable of increasing; farm output, income, the standard of living of farmers, food security and attainment of the target level of millennium development goal (www.developmentgoals.org). Central Bank of Nigeria [5] reported that despite increase funding allocation and investment by the federal government to the agricultural sector, the output from agriculture and its percentage share of the gross domestic product is very low.

As a result of important of recurrent expenditure on agricultural growth in Nigeria, this study produces current information on the relationship between the recurrent expenditure and agricultural growth in Nigeria. However, this study deems it fit to evaluate the impact of national recurrent expenditure on Nigeria agricultural growth from 1990 to 2017. Specifically, the study determined the difference in the recurrent expenditure on agriculture and other selected sectors of the economy (transport and communication, health, education, road/ construction and pension/gratuity) in Nigeria within the period under study, and evaluated the impact of recurrent expenditure in agriculture on agricultural share of gross domestic product in Nigeria. The two null hypotheses tested were:

i. There is no significant difference between the recurrent expenditure in agriculture and other selected sectors of the economy within the period under study.
ii. Recurrent expenditure in agriculture and non-agricultural sectors have no significant impact on agricultural share of GDP within the period under study.

2. LITERATURE REVIEW

According to Onwumere et al. [7], several scholars have debated on the nature of impact of public expenditure and economic growth. The nature of impact has remained indecisive since Akpan [8], reported that government expenditure on economic growth is negative and non-significant while other scholars reported that government expenditure has a positive and significant impact on economic growth [9]. Also, Onwumere et al. [7], discovered that recurrent expenditure of the government has a positive and no-significant impact on economic growth while Aigheyisi [10] discovered that recurrent expenditure has a negative and strong significant impact on economic growth in Nigeria.

2.1 National Recurrent Expenditure

National recurrent expenditure is defined as government expenditure on purchases of goods and services, payment of wages and salaries, consumption of fixed capital which does not result in the creation of fixed assets. A recurrent expenditure or budget tracks ongoing revenues and expenses that occur on a regular basis, be they monthly, quarterly, semiannually, or annually. Also known as an operational budget, a recurrent expenditure includes line items such as wages, utilities, rent or lease payments, and taxes.

2.2 Agricultural Growth

Agricultural growth is an increase per capital income earned from agricultural sector. Agricultural growth has contributed over the years in the process of economic development in the developed and developing economies. Its impact is felt on poverty reduction, hunger conquest, food security, employment, gross domestic product, export earning, raw material for agro-processing industries and non-agricultural growth such as manufacturing, transportation, etc [11]. Pingali [11] further stated that rapid agricultural growth is the cause for sustainability of demand and supply of commodities at the market places. In a society that is endowed with agricultural opportunities but exploits few opportunities from the agricultural sector is seen to devote most of it resources to the provision of food. Then, as national income rise, the demand for food increases slowly more than the demand for other goods and services. The value added from the farm factor of production will in turn cause a fall in agricultural output over time [11]. Therefore growth of agricultural sector should result from the agricultural research and development recommendations. According to Food and Agricultural Organisation (FAO) [12] agricultural growth in West Africa requires a policy environment that is advanced with private sector actors, public sector investment in risk management and strong policy implementation with long term targeted goals. They further stated that unprecedented opportunities for agricultural growth stems from: an increase change in West African food market; an increasing diverse food demand which is propelled by socio-economic differentiation, need for convenience and globalisation; rapid urbanisation and rural urban linkages; an expanding global demand for agricultural products; an improved agricultural policy and incentive environment and the emergence of more independent, dynamic stakeholder organisations which enhance growth prospects.

3. THEORETICAL FRAMEWORK

This study reviews the thought of neo-classical, Keynesian and contemporary schools of thought. As neo-classical economists see that use of government expenditure to cause economic growth is ineffective. Neo-classical growth theory such as Solow-Swan model states that at all things being equal, savings/investment and population growth rates are important determinants of economic growth (agricultural growth in particular). While Keynesians is on the opinion that government expenditure on agricultural sector accelerates economic growth (agricultural growth in particular) positively through full-employment, profitability, increase output depending on the government expenditure multiplier, etc. Keynes further stated that recurrent expenditure is an independent factor that is capable of promoting economic growth (agricultural growth in particular). Musgrave theory of public expenditure growth argued that effectiveness of government expenditure matters most in the economy with the view that if the government expenditure on productive sector (agricultural sector) is not effective, it will cause a negative impact on the growth of that sector (agricultural sector) [13].

4. METHODOLOGY

The research designed adopted for this study was ex-post-factor research design. The study was conducted in Nigeria. Nigeria is the largest populated country in Africa with an estimated population of 190,886,311 people in 2017. Nigeria ranks 7th most populated nations among196 countries (https://countryeconomy.com/demography/population/nigeria).The country lies between latitude 4° and 14°N of the equator and longitude 3° and 15° east of the Greenwich with 98.3 million hectares of land [14]. Manyong, et al. [15], opined that small holder farmers cultivate most of the arable land in Nigeria. The study used secondary data, spanning from 1990 to 2017. Annual time series data on recurrent expenditure in agriculture, other selected sectors of the economy and agricultural share of GDP (Billion Naira) were obtained from the Central bank of Nigeria publications, journals, bulletins and

proceedings. Other data were obtained from National Bureau of Statistics. Time series data obtained were analysed using descriptive statistics such as percentage, mean ratio and inferential statistics such as error correction model regression analysis. The error correction model regression analysis is represented below:

$\ln Y = F(\ln X_{t-i})$…….. Implicit form

$\ln Y = \beta_0 + \beta_i \ln X_{t-i.....} + \beta_4 D(\ln X_{t-4}) + ECT(-1) + Vt$……Explicit form

Where:

lnY= Ordinary order difference level of Log of agricultural output value of the GDP (Billion naira)

$\ln X_{t-1}$ = Ordinary order difference level of Log of output in forestry sub-sector from 1990 to 2017 (Naira Billions)

$\ln X_{t-2}$ = Ordinary order difference level of Log of output in crop production sub-sector from 1990 to 2017 (Naira Billions)

$\ln X_{t-3}$= Ordinary order level of Log of output in livestock production sub-sector from 1990 to 2017 (Naira Billions)

$D(\ln X_{t-4})$= First order difference level of Log of output in fishery sub-sector from 1990 to 2017 (Naira Billions)

β_0 - βi= Estimators

ECT(-1) = Error corrected test lag

Vt = vector error term

5. RESULTS AND DISCUSSION

5.1 Difference in Recurrent Expenditure on Agriculture and Other Selected Sector of the Economy within the Time Series

The descriptive result presented in Table 1 shows the difference in the recurrent expenditure on agriculture and other selected sectors of the economy from 1990 to 2017. The fund allocation ratio result in Table 1 shows the rate of the difference between the recurrent expenditure of the national funding and investment on agriculture and other economic sector of the nation. The result shows that the mean ratio between recurrent expenditure on agriculture to other selected sectors of the economy is 0.070**:**0.930 respectively. Since the mean ratio are not equal and the mean ratio of recurrent expenditure on other economic sectors is greater than the mean ratio of recurrent expenditure on the agricultural sector, we conclude that there are difference in funding allocation between the agricultural sector and other economic sectors of the economy. The result further shows that across the years, there is decrease and increased in recurrent expenditure on agriculture and other economic sectors of the economy. In 2014 the amount of recurrent expenditure on agriculture to other economic sectors was 36.70:857.14 billion naira respectively, while in 2015 they increased to 41.27:930.01 billion naira respectively and in 2016, they decreased to 36.58:831.63 billion naira respectively and in 2017, it increased to 43.5:1,023.6 billion naira respectively. This indicate that there is no static increasing rate of funding to both agricultural and other economic sector of the economy across the years, within 2014 to 2017.

The result also shows that the two periods that recurrent expenditure on agriculture has maintain increasing rate of funding was periods between 1995 to 1999 (five years) and 2001 to 2008 (eight years). While in the other economic sectors, three periods that the sectors have recorded increasing rate of recurrent expenditure is within 1997 to 2002(six years), 2004 to 2009(six years), and 2011 to 2015 (five years). This implies that other economic sectors receives and maintain increasing rate of funding from the national investment than the agricultural sector. This result was further confirmed by null hypothesis test of difference between the two sectors as presented in the Table 2.

Test of Null Hypothesis I: The Table 2 shows the t-test result of the analysis on the difference in the recurrent expenditure on agriculture and other selected sector of the economy from 1990 to 2017.

Decision Rule: The t-test statistics value of 4.962490 is greater than t-tabulated value of 1.706, we reject the null hypothesis and accept the alternative hypothesis. This implies that there is a significant difference between the recurrent expenditure in agriculture and other selected sector of the economy within the time series.

5.2 Stationarity Tests for Agricultural GDP and its Determinants in Nigeria

Granger *et al.,* [16] stated that most economic variables including agricultural time series tend to be non-stationary. That is to say, that their first two moments, means and variance are not constant. Using OLS with non-stationary variables may result in spurious regressions. Tables 3 present the results of stationarity tests on the ordinary-level and first difference series of the agricultural GDP values, crop production subsector value, fish production subsector value and livestock production subsector value. The stationarity tests were conducted using Augmented Dickey-Fuller (ADF) tests. The ADF tests were conducted at 5% level of significance in order not to accept a false null hypothesis.

Table 1. Percentage distribution analysis on the difference between the recurrent expenditure on agriculture and other selected sector of the economy from 1990 to 2017

Years	Recurrent funding to agriculture (Billion naira)	Mean ratio	Recurrent funding on other economic Sector (Billion naira)	Mean ratio
1990	0.26(0.054)	0.070	4.57(0.946)	0.930
1991	0.21(0.059)		3.31(0.940)	
1992	0.46(0.021)		21.18(0.979)	
1993	1.80(0.083)		19.76(0.917)	
1994	1.18(0.084)		12.79(0.915)	
1995	1.51(0.078)		17.84(0.922)	
1996	1.59(0.091)		17.52(0.917)	
1997	2.06(0.085)		22.13(0.915)	
1998	2.89(0.100)		25.89(0.899)	
1999	**59.32(0.403)**		**88.01(0.597)**	
2000	6.34(0.061)		98.24(0.939)	
2001	7.06(0.049)		135.59(0.950)	
2002	9.99(0.044)		215.07(0.956)	
2003	7.54(0.042)		171.84(0.958)	
2004	11.26(0.052)		205.90(0.948)	
2005	16.33(0.062)		248.47(0.938)	
2006	17.92(0.054)		312.31(0.946)	
2007	32.48(0.068)		442.35(0.932)	
2008	**65.40(0.104)**		**561.95(0.896)**	
2009	22.44(0.036)		593.68(0.964)	
2010	28.22(0.048)		552.88(0.951)	
2011	41.20(0.043)		908.12(0.957)	
2012	33.30(0.040)		799.90(0.960)	
2013	39.43(0.046)		811.95(0.954)	
2014	36.70(0.041)		857.14(0.959)	
2015	41.27(0.042)		930.01(0.957)	
2016	36.58(0.042)		831.63(0.958)	
2017	43.50(0.041)		1,023.60(0.959)	

Source: CBN, 2018

Table 2. T-test analysis on the difference in the recurrent expenditure on agriculture and other selected sector of the economy in Nigeria from 1990 to 2017

Method	Df	Value
t-test	54	4.962490***
Satterthwaite-Welch t-test*	27.16154	4.962490***
Anova F-test	(1, 54)	24.62630***
Welch F-test*	(1, 27.1615)	24.62630***

Source: Authors computation using eviews version 9.0
*Df = degree of freedom, *** refers to 1% statistical significant*

Table 3. Unit root test for agricultural GDP and its determinants

	Augmented dickey fuller results at I(0)		Augmented dickey fuller result at I(1)	
	5% critical value	Computed ADF value	5% critical value	Computed ADF value
AGDP	-2.297626	5.955637 ^{NS}	-2.981038	-1.960339 ^{NS}
CRP	-2.976263	5.219583 ^{NS}	-2.981038	-2.211071 ^{NS}
FP	-2.986225	-5.510193 ^{NS}	-2.991878	3.489203 ^{NS}
FOP	-2.981038	1.801887 ^{NS}	-2.991878	-0.714101 ^{NS}
LP	-2.981038	-0.263799 ^{NS}	-2.981038	-1.361767 ^{NS}

Source: Author's computation using Eviews version 9.0

Note:, ** and NS refers 5% and Non-significant at statistical significance level*

Where: lnAGDP= log of agricultural share of GDP, lnCRP = log of crop production subsector value, lnFP = log of fish production subsector value, lnFOP = log of forestry production subsector value, lnLP = log of livestock production subsector value

Table 3 shows that the agricultural GDP and its determinants indicators series are not stationary at their ordinary and first difference levels since the critical values of the coefficients were less than the Computed ADF value at Non significance level. This implies that the variables data are non-stationary data and if used to run analysis using OLS (ordinary least square) method, we end up getting spurious result. Therefore there is need to transform the data of the variables into the natural log form and test the unit root test. The result is presented in the Table 4.

Now, the critical values, as computed by Augmented Dickey Fuller were -3.292797 (5%), -3.185384 (5%), -4.214113 (5%), -3.774104(5%) at ordinary level for agricultural GDP, crop production output value, forestry production output value and livestock production output respectively which exceeded their respective critical values. The -2.96693(5%) ADF computed value for fish production subsector value exceeds the critical value at first order difference. This means that the lnFP is stationary at I (1), therefore, there is need for ECM test. This test will help to know if there will be long run relationship between the value realised from fish subsector and the agricultural share of GDP and other determinants. Also, since the absolute series are mixed order of co-integration, we use Error correction model in running the analysis. This is in line with the Granger et al. representation theorem which states that if a set of variables are co-integrated at different levels of co-integration and residual is of order of 1(0) then there exist co-integration and Error Correction Model will be used to describe the relationship.

The result in Table 5shows that the error correction model at I(O) is stationary at 5% level of significance. This indicates the presence of co-integration and the best model that will reveal the impacts of recurrent expenditure in agriculture on agricultural share of GDP within the time series is error correction model (ECM) regression analysis.

Table 4. Unit root test for natural log of agricultural GDP and its determinants

Variables	5% critical value I(O)	Computed-ADF value	5% critical value I(1)	Computed ADF value
lnAGDP	-2.976263	-3.292797**		
lnCRP	-2.976263	-3.185384**		
lnFP	-2.976263	-2.870343*	-2.98103	-2.966930**
lnFOP	-2.976263	-4.214113**		
lnLP	-2.976263	-3.774104**		

Source: Author's computation using Eviews version 9.0

Table 5. Unit root test for natural log of agricultural GDP, fish sub-sector and ECT

Variable	5% critical value I(0)	Computed ADF value
ECT(-1)	-2.981038	-5.088330**

Source: Authors Computation using Eviews version 9.0

Table 6. Lag length structure for the included variables using Akaike information criteria (AIC)

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-33.69453	NA	0.053400	2.745733	2.842510	2.773601
1	44.48379	138.3155*	0.000178*	-2.960291*	-2.669961*	-2.876687*
2	47.61860	5.063932	0.000192	-2.893739	-2.409855	-2.754398

** indicates lag order selected by the criterion*
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error; AIC: Akaike information criterion
SC: Schwarz information criterion; HQ: Hannan-Quinn information criterion
Source: Authors Computation using Eviews version 9.0

The result of the analysis presented in Table 6 shows that the lag length for the error correction test is lag 1sincelag 1 is significant at 5% level of significant using Akaike information criterion.

5.3 Impacts of Recurrent Expenditure in Agriculture on Agricultural Share of Gross Domestic Product in Nigeria within the Time Series

In this section, the result of the ECM analysis on the impacts of recurrent expenditure in agriculture on agricultural share of gross domestic product in Nigeria within the time series is shown in Table 7.

$$lnAGDP = 0.444165 + 0.020206(lnforestry) + 0.883337(lnqcrop) + 0.095983(lnqlivestock) + 0.002193D(lnqfish) - 0.010581_{e-4} + Vt$$
$$(0.013277^{***})(0.004202^{***}) \quad (0.003519^{***}) \quad (0.003508^{***}) \quad (0.005385^{NS}) \quad (0.003494^{**})$$

The result as presented in Table 7 indicates that there is co-integration among the variables. The coefficient value of crop production subsector (0.883337) is positively sign and statistically significant (1%). This reveals that at every unit increase in the output value of crop production subsector, there will be 0.883337 increase in the agricultural share of GDP if all other agricultural production subsectors are held constant. This further indicates that there is a significant national funding and investment in crop production subsector of agriculture.

The coefficient value of fish production subsector (0.002193) is positively signed and statistically non-significant at short run. This implies that at all things being equal, every unit increase in the output value of fish production subsector, there will be 0.002193 increase in the agricultural share of GDP in the long run at a speed of 1.0581% at 5% level of significant.

The coefficient value of forestry production subsector (0.020206) is positively sign and statistically significant (1%). This discloses that, at every unit increase in the output value of forestry production subsector, there will be 0.020206 increase in the agricultural share of GDP if all other agricultural production subsectors are held constant. This further indicates that there is a significant national funding and investment in forestry production subsector of agriculture. This implies that there is a significant relationship between the agricultural share of GDP and the output value from forestry production subsector.

The coefficient value of livestock production subsector (0.095983) is positively sign and statistically significant (1%). This implies that at every unit increase in the output value of livestock production subsector, there will be 0.095983 increase in the agricultural share of GDP if all other agricultural production subsectors are held constant. This further indicates that there is a significant national funding and investment in livestock production subsector of agriculture. This implies that there is a significant relationship between the agricultural share of GDP and the output value from livestock production subsector.

The return to scale parameter which is obtained from the total coefficient values of the parameters (0.9999526 at short run and 1.001719 at long run) are less and greater than 1 in short run and long run, we conclude that the output from the agricultural subsectors have a decreasing rate of return on the agricultural share of GDP in the short run but on the long run, the output from the agricultural subsectors will lead to increasing return on the agricultural share on the GDP. This idea has been applied by Osuala [17] in his econometrics textbook, titled econometrics theory and problems. According to Adegbite [18], Iyoha established a positive relationship between investment and economic growth in Nigeria, using investment – income ratio as the explanatory variable. Using data from 1970 –

Table 7. Error correction model analysis on the impacts of recurrent expenditure in agriculture on agricultural share of gross domestic product in Nigeria within the time series

Variable	Coefficient	Std. error	t-statistic
C	0.444165	0.013277	33.45306***
LNFORESTRY	0.020206	0.004202	4.808968***
LNQCROP	0.883337	0.003519	251.0456***
LNQLIVESTOCK	0.095983	0.003508	27.36381***
D(LNQFISH)	0.002193	0.005385	0.407317^{NS}
ECTFISH(-1)	-0.010581	0.003494	-3.028654**
R^2 = 0.999998			
Durbin –Watson stat = 1.096920			
F-statistic = 2469209***			
** and ***= 5% and 1% significance level respectively,			
NS = Non significance			

Source: Author's computation using eviews version 9.0

Table 8. Wald test on the overall impacts of recurrent expenditure in agriculture on Nigeria agricultural share of GDP from 1990 to 2017

Test statistic	Value	df	Probability
t-statistic	4.808968	21	0.0001
F-statistic	23.12617	(1, 21)	0.0001
Chi-square	23.12617	1	0.0000

Authors Computation using eviews version 9.0

1994 period, Iyoha found that a 10 percent rise in investment income ratio will trigger a percent increase in short run and 26 percent in the long run in per capita gross national product (GNP) respectively.

The R^2 value of 0.999998 shows that about 99% level of changes in the agricultural share of the GDP is accounted or explained by the co-integrated crop, fish, forestry and livestock production values.

Using the Durbin-Watson test of no autocorrelation, therefore, the Durbin-Watson statistics (1.096920) is greater than the Durbin-Watson lower limit value (1.03) and less than the Durbin-Watson upper limit (4 -1.85), we conclude that there is no autocorrelation(absence of serial correlation) among the variables included in the Error Correction Model, therefore the diagnostic test shows that the model used for the analysis is reliable, valid and accurate in describing the impact of recurrent expenditure on agriculture in agricultural share of gross domestic product. The result can be used in policy formulation.

Test of Null Hypothesis II: The result in Table 8 shows the result of the F-statistics using Wald test of overall significant of the estimated coefficients in the model.

The result in Table 8 shows that the F-statistics (23.126) is greater than the F-tabulated (4.32) at 5% level of significant, we reject the null hypothesis and accept that the recurrent expenditure in agriculture have significant impacts on agriculture share of the GDP from 1990 to 2017.

6. CONCLUSION AND RECOMMENDATION

The purpose of this study is to evaluate the impacts of the national recurrent expenditure on Nigeria agricultural growth from 1990 to 2017. The underlying fact and from the result of the time series analyses are that there is a significant difference between the recurrent expenditure in agriculture and other selected sector of the economy within the time series, and the recurrent expenditure in agriculture have significant impacts on the agricultural share of GDP within the time series. However, the result on the stationarity of agricultural GDP and its determinants shows a result of non-stationarity and this lead to the use of error correction model regression analysis.

Therefore, the study strongly recommends that greater percentage of the recurrent expenditure should be allocated to agriculture. From the agricultural annual budget, there is need to invest more in fish (This will help to meet the long run relationship between the fish subsector and increasing rate of return to an agricultural share

of GDP), forestry and livestock subsectors just like in the crop subsector. Since small scale farmers contributes significantly in food, meat, fish and forest product, the Government should use the fiscal and monetary policy to encourage youth and farmers to produce more and create easier access to potential markets like export zones were this produce can be marketed.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Federal Government of Nigeria (FGN). National Economic Empowerment & Development Strategy. Abuja: National Planning Commission; 2004.
2. Food and Agricultural Organization (FAO). Fluid financing: New approach to investing in agriculture; 2003. Available:http://www.FAO.Org/English/Newsroom/News/2003/24559-En.Html;Ppl-2 (Accessed October. 13th 2018)
3. Gemma M. Public spending and agriculture rural development, Agriculture Economics Tokoyo: Waseda University; 2008
4. Eboh EC, Larsen B, Oji KO, Achike AI, Ujah OC, Oduh M, Amakom US, Nzeh CCP. Renewable natural resources, sustainable growth and poverty reduction in Nigeria. African Institute for Applied Economics Research; 2006.
5. Central Bank of Nigeria. Annual Report and Statement of Accounts. CBN Abuja Headquarter; 2006.
6. Nnadozie AKO. An evaluation of national funding and investment in the agricultural sector of Nigeria (1970-2008). PhD Dissertation submitted to the Department of Agricultural Economics, University of Nigeria, Nsukka; 2014.
7. Onwumere JUJ, Ibe IG. Impact of recurrent and capital expenditure on Nigeria's economic growth. European Journal of International Management. 2012;4(19):66-74.
8. Akpan, N. Government expenditure and economic growth in Nigeria: A disaggregated approach. CBN Economic Financial Review. 2005;43(1).
9. Koman J, Bratimasrene T. The relationship between government expenditure and economic growth in Thailand. Journal of Economic Education. 2007;11(4):234-246.
10. Aigheyisi OS. The relative impacts of federal capital and recurrent expenditures on Nigeria's Economy (1980-2011). American Journal of Economics. 2013; 3(5):210-221.
11. Pingali P. Agricultural growth and economic development: A view through the globalization lens. Presidential Address to the 26th International Conference of Agricultural Economists, Gold Coast, Australia; 2006.
12. FAO. Agricultural Growth in West Africa: Market and Policy drivers. 2015;1-406.
13. Ewubare DB, Eyitope JA. The effects of public expenditure on agricultural production output in Nigeria. Journal of Research in Humanities and Social Science. 2015; 3(11):07-23.
14. International Monetary Fund (IMF). World Economic Outlook; 2011.
15. Manyong VM, Ikpi A, Olayemi JK, Yusuf SA, Omonona R, Idachaba FS. Agriculture in Nigeria: Identifying opportunities for increased commercialization and investment in Nigeria, IITA, Ibadan, Nigeria. 2003;159.
16. Granger C, Newbold P. Spurious regression in economics. Journal of Econometrics. 1974;2(1):222-238.
17. Osuala AE. Econometrics theory and problems. Published by Toni Prints Services, Aba, Abia State, Nigeria. 2015; 155.
18. Adegbite EO, Adetiloye KA. Financial globalisation and domestic investment in developing countries: Evidence from Nigeria. Mediterranean Journal of Social Science. 2013;4(6):213.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history/27793