Agricultural Value Chain Determinants And Sustainable Economic Growth In Nigeria

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Abstract

Beyond agricultural productivity, economies all over are now focusing on the operational connectivity issues linking farmers with processors, retailers and other value chain syndicates. The hallmark is for sustainability in food production, distribution and containing the effects of climate change. This is in line with the United Nations' agenda towards the achievement of Sustainable Development Goals (SDG) 2 and 13. All these have consequences on Urban Regeneration and Sustainability on the global economy. Consequently, the study investigates Agricultural Value Chain Determinants and Sustainable Economic Growth in Nigeria. It garnered time series from World Development Index, Central Bank of Nigeria and National Bureau of Statistics on key variables of Sustainable Economic Growth, Small and Medium Scale Enterprises, Trade openness to Agricultural, Insurance to the Agricultural Sector, Road Transport Infrastructure, and Demand for Staple processed Food Products, Weather condition and Access to Digital Technology. It deployed the Autoregressive Distributed Lag (ARDL) Bounds Co-integration test model for estimation. Results reveal the following: there is a significant long run relationship existing between the dependent variable and the independent variables of the model; Insurance to the agricultural sector and access to digital technology in Nigeria were the most significant short run determinants of sustainable economic growth. The study concluded thus: a long run relationship existing between the dependent variable and the independent variables of the model implies good fortune for the economic prosperity of Nigeria. Demand for staple processed food products which exerted significant positive long run influences on sustainable economic growth in Nigeria is clear indication that growth trajectory with respect to agricultural value chain, can be enhanced through urban regeneration. It is therefore recommended that government fiscal policy with respect to the agricultural sector should be sustained.

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1 INTRODUCTION

The concept of "value chain" was described for the first time by Michael Porter in his 1985 best-seller entitled "Competitive Advantage: Creating and Sustaining Superior Performance". The concept at that time applied to the industrial production and designated all the activities that should work together amicably to produce and sell a product while making it possible for actors at all levels to obtain the highest possible profits (United Nations [1]). Thus, Pablo and Roberto [2] opinion of value chain is directly linked to the agricultural value creation, as they see value chain as a series of activities required for the conversion of commodities including the design, its transformation and the distribution up to the ultimate consumer. This definition of value chain, favours the development of the agricultural sector as Kaplinsky and Morris [3] reports. Frankly, agricultural value chains are at the centre of national and international efforts to unravel sustainable economic growth and ensure access to food for a growing world population. This is the reason for the global dimension it has become in coordinating production and consumption patterns across countries.

Modestly, there is a general belief that the economic development of any country depends on the quantity and quality of its resources, the state of technology and the efficient utilization of resources in both the production and consumption processes (Hao [4]). Undoubtedly, Nigeria's agricultural resources requires massive investments to increase production and to create value addition across the most profitable segments of the value chain. Consequently, strategies for upgrading the production and processing segments of the agricultural value chain becomes inevitable. It is evident that Africa (Nigeria inclusive) is presently poked with poverty, disease, food insecurity and famine, with a large external debt and continued mismanagement of human, material and physical resources (Iwuagwu [5]). It is not surprising, therefore, that 22 of the 36 poorest countries of the world are in Africa (World Bank [6]).

Obasanjo [7] admitted that the building blocks for the diversification of the Nigerian economy and the priority sources of growth for the economy are agriculture, manufacturing, solid minerals and construction. Agriculture employs two-thirds of the entire labour force (FAO [8]). Value chain in the agricultural sector therefore suffices the sustainable economic growth dynamics associated with diversification. To Abdul Kareem and Izuaka [9], contemporary figures show that Nigeria's agricultural sector over the last four years has experienced rising growth but within a declining band. They noted that, the CBN's Commercial Agricultural Credit Scheme (CACS) spent a vast N551.18 billion (for 547 projects) without sustained growth.

Oyedokun and Ezekiel [10] gathered that value addition, is done mostly by Small and Medium Scale Enterprises (SMEs) because they are the off-takers, taking the materials from the unusable form to the next intermediate stage. Sanusi, who participated at the AFDB meetings in Busan, pointed out that nine out of every 10 countries in Africa have huge trade deficits with, China (AFDB, [11]). He said Asia developed mostly on domestic investments and resources, noting that this underscored the need for Nigeria and other African governments to invest in and promote creativity and indigenous enterprise. Expectedly, revenue generation will help in growing of the economy and get Nigeria out of the current slump, if areas such as Agriculture and manufacturing are concentrated on (Ufiobor, [12]).

It is anticipated that agricultural value chain determinants ; digital technology, number of entrepreneurs, demand for processed staple food products, insurance schemes, trade openness, road transport infrastructures, and climate change (weather conditions) if properly addressed will impact on the economy positively.

1.1 Statement of the Problem.

The Nigerian economy was at the same level of development as countries such as Brazil, Indonesia, Malaysia and Pakistan in the 1950's - 60's, but currently it is far behind all of them in terms of its overall level of economic development (Egbochuku [13]). In standards, Nigeria has lagged behind other oil producing countries in terms of development, especially as most of these countries are now emerging as Newly Industrialized Countries (NICs). The problem is that the different development planning objectives and efforts put in place by the various past governments aimed at sustainable economic growth and general economic development, have not achieved the desired objectives.

The agricultural policy objectives are not well articulated, such that the realization of economic development in the country, as the percentage of Nigerians living in extreme poverty could increase by 2030 (Jasmin et al, [14]). This is as a result of the neglected backward integration of the agricultural sector and the linkage it should provide. In spite of the fact that Nigeria has a lot of cultivable land, a large percentage of it is being converted to other uses than agriculture (Mgbenka & Mbah [15]).

Nigeria is facing two key policy gaps in agriculture today: an inability to meet domestic food requirements and an inability to export at quality levels required for market success (FMARD [16]). The former problem is a productivity challenge driven by an input system that is largely inefficient. The latter challenge is dogged by an equally inefficient system for setting and enforcing food quality standards. Nigeria now found itself in a cross road where its food security and poverty issues, are getting even more complex to solve with an increasing population growth rate, global warming and other related environmental issues. Putting Nigeria's agricultural sector on a path of growth will require actions to solve these two gaps. It is expected that the potentials of value addition in the agricultural sector will help drive aggregate productivity and diversification policy of the Nigerian economy which has been the bane of the economy. This will be achieved if and only if the Agricultural value chain determinants challenges; scale of operations constrained by digital technology, poor coordination of entrepreneurship, institutional failure in research initiatives, technical constraints to Small and Medium Enterprises, inadequate demand for processed food, inadequate insurance systems, trade deficits, poor road network, and severe climate change impacts are addressed (Khan et al [17], Fukase & Martin [18]).

1. 3 Objective of the study.

The objective of this study is to explore the agricultural value chain determinants on sustainable economic growth in Nigeria. It is believed that the agricultural sector is critical on the economic growth dynamics of transiting economy like Nigeria.

2 LITERATURE REVIEW.

Conceptually, economic growth implies an annual increase of material production expressed in value. Economic growth include changes in material production during a relative short period of time, usually one year (Ahmed & Habiba [19]). Economic growth is the process by which a nation's wealth increases over time. Sustainable economic growth is therefore the economic development that endeavours to satisfy the desires of humans but in a manner that is environmentally friendly and sustaining natural resources for future generations (Brad et al [20]).

Agricultural Value Chain describes the interactions of firms and processes that are needed to deliver products to end users, and they all aim to identify opportunities for and constraints against increasing productivity (World Bank [6]). Thus, the value chain incorporates all the actors involved in selling, up to the final consumer, at all levels, following: Input Dealers; Producers; Processors; Traders; and Consumers (Evbuomwan [21]).

Trade openness in agriculture is considered as an important determinant of economic growth and a well debated issue in the growth literature. Initially, the developing nations of the world followed restrictive trade policies but with passage of time and emergence of globalization, all the nations realized the need to liberalize their economies in terms of trade openness (Shahjahan et al. [22]).On Nigeria road transport system, Arima [23] reports that an efficient transport infrastructure facility acts a as catalyst for the development of agriculture and other sectors.

To Fashagba [24] insurance is a social contract that manages the transfer of risk between two or more parties. The emergence of modern insurance has played important role not only to economy as a whole but also to specific sectors with enormous positive effect on the agricultural sector.

Staple Crop Production: Nigeria is by far the largest agricultural producer of staple crops in ECOWAS. The most important crops for Nigeria are root crops and tubers on the one hand, and grains on the other.

Technology in Agriculture: Africa with all its potentials in agriculture still has low yields. According to Debisi Araba, Regional Director for Africa at the international center for tropical agriculture (CIAT) he stated that "Africa is facing the triple burden of malnutrition, we should focus on technologies that can make the entire value chain sensitive.

Climate Change: To Ayindea et al. [25] climate change affects food and water resources that are critical for livelihood in Africa where much of the population especially the poor, rely on local supply system that are sensitive to climate variation. Disruptions of existing food and water systems will have devastating implications for development and livelihood. These are expected to add to the challenges climate change already poses for poverty eradication (De Wit and Stankiewicz [26]).

2.2 Theoretical Literature.

Rostow's Stages of Growth Theory: This theory argues that any economy experiencing growth must pass through five common stages. Oji-Okoro [27] borrowing from Rostow's Stages of Growth Theory, argued that in the process of economic development, nations pass through several stages namely: traditional stage, the precondition for take-off, the take off stage, drive to maturity and the high mass consumption stage. Consequently, agriculture played crucial roles in the first three stages. Agriculture and the value added (which is enhanced by value chain) is key and a fundamental driving force to the sustainable growth of an economy (Babatunde et al [28]).

Agriculture Plus Plus Theory: The Agriculture++ (Agriculture plus Plus) model is based on Michael Porter's value chain analysis and cluster development (Rillo & Nugroho, [29]). This marks a conscious attempt to encourage involvement and investments in the economic activities in the upstream (research and development, certified seeds, high-value varieties, farming systems), midstream (processing, high value end uses), and downstream (packaging, food safety, traceability, branding, targeted markets) segments of the value chain (Wong [30]).

Hirschman's theory of unbalanced growth: Hirschman's theory of unbalanced growth accounts for the forward and backward linkages that are associated with agriculture and industry relationship. The Hirschman [31] theory postulates an unbalanced growth theory, arising from specific common characteristics exhibited by developing countries, such as low levels of gross national income (GNI) per capita, slow growth of GNI per capita, inequality, technological backwardness, and existence of both the traditional and modern sectors (dualism).

2.3 Empirical Literature.

Udemezue et al. [32] studied cassava value chain as instrument for economic growth and food security in Nigeria. Amegnaglo et al. [33] evaluated the Determinants of Graduates Students' Participation in Agricultural Value Chain in Benin. Adesoye et al. [34] studied how enhancing the agricultural value chain can contribute to rapid economic diversification in Nigeria. Vroegindewey and Hodbod [35] studied resilience of agricultural value chains in developing country contexts. Kumar and Sharma [36] studied agricultural value chains in India. Elijah and Musa [37] investigated the dynamic impact of trade openness on the economic growth in Nigerian economy. Bakari et al. [38] using the Tunisian data on the relationship among exports, imports and economic growth in Tunisia. Osabohien et al. [39] examined the impact of agricultural export on Nigeria's economic growth.

Manap and Ismail [40] estimated the impact of food security on the economic growth of dry-land developing countries. However, Desai and Rudra [41] are of the opinion that most developing countries are transitioning from traditional agriculture and moving up the value-added chain toward processed food.

3. METHODOLOGY

The data for this study is exclusively secondary data. They are actual data for Nigeria as published by World Development Index (WDI) 2020 and Central Bank of Nigerian (CBN) Statistical Bulletin 2020. The study deployed the following tests; Unit Root test, Autoregressive Distributed Lag Model (ARDL), Bounds test to Co-integration and Error Correction Model for estimation. Annual time series were collected on the following variables of agricultural value chain determinants; weather conditions, Small and Medium Scale Enterprises, insurance to agricultural sector, trade openness to agricultural sector, road transport infrastructure, demand for staple processed food product (e.g cassava, palm oil, rice, livestock) and access to digital technology. They all served as the independent variables while Gross Domestic Product (GDP) served as the dependent variable (proxy for Sustainable Economic Growth).

3.1 Model Specification

The agricultural value chain determinants are well acknowledged. Analytically, output growth is driven by the determinants of agricultural value chain performance.

This model is to a large extent consistent with the theory of production function that underlies specification of the supply side of agricultural potential output (Doll &Orazem, [42], Pauly, [43]). The linkage between sustainable economic growth and the value chain determinants in agriculture can be captured within the framework of a production function, expressed under the neutrality assumption as follows:

$Y_T = F\,(A)$ ………………………………………….. (1)

Where Y_T is the economic growth, A is a vector of variables that are the determinants of agricultural value chain.

Having established the theoretical linkage between economic growth and the determinants of value chain in agriculture. We evaluate the efficacy in the production process i.e to ascertain the level of sustainable economic growth over time with respect to the agriculture value chain determinants.

Therefore,
Sustainable Economic growth (Y) =f (Agricultural Value Chain Determinants (a_1, a_2, a_3, a_4, a_5, a_6, a_7) …………………………………….. (2)

Where
Y = Sustainable Economic growth (ECG)
a_1 = Weather condition (WCN)
a_2 = Insurance to agricultural sector (INS)
a_3 = Trade openness to agricultural sector (ATO)
a_4 = Road transport infrastructure (RTI)
a_5 = Demand for processed staple food products (DSF)
a_6 = Access to functional digital technology (ADT)
a_7 = Small and Medium Scale Enterprises (SME)

$$\text{Log (ECG)} = \alpha_0 + \alpha_1 \log(a_1) + \alpha_2 \log(a_2) + \alpha_3 \log(a_3) + \alpha_4 \log(a_4) + \alpha_5 \log(a_5) + \alpha_6 \log(a_6) + \alpha_7 \log(a_7) \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

4. DATA ANALYSIS AND DISCUSSION

4.1 Unit Root Test of Stationarity

The first and foremost step in almost all time series econometric analysis is testing stationary or non-stationary of the data. Here, we employed the Augmented Dickey Fuller (ADF) tests which is commonly used in most empirical works. The results of ADF unit root tests of all the variable showed that ECG, ATO, INS, RTI and DSF were stationary at levels. That means that, they are integrated of order zero .However, WCN, SME and ADT attained stationary at first differencing. The meaning is that they are integrated of order one. Based on the time series property shown by the unit root test, the condition to apply the ARDL approach is satisfied.

4.2 Estimation Result of Autoregressive Distributed Lag Model (ARDL)

The condition for ARDL estimation is that the pre-test of stationary will have different orders of integration amongst the variable. Consequently, the unit root test indicates the combination of I (1) and I (0) variables. Taking ECG as dependent variable and WCN, SME, ATO RTI, ADT, INS, DSF as independent variables, the ARDL test result is as shown below in table 1. Note, all the results presented are in their Log forms.

Table1: Autoregressive Distributed Lag Model (ARDL) Result

Dependent Variable: ECG
Method: ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
ECG(-1)	-0.001382	0.160512	-0.008608	0.9932
WCN	0.170648	0.446266	0.382390	0.7066
ATO	-0.012146	0.010872	-1.117237	0.2786
DSF	0.801039	0.448778	1.784933	0.0911
DSF(-1)	0.994887	0.578672	1.719257	0.1027
DSF(-2)	1.401414	0.612765	2.287035	0.0345
INS	0.007789	0.012421	0.627123	0.5385
INS(-1)	0.017563	0.012951	1.356101	0.1918
INS(-2)	0.061576	0.012841	4.795471	0.0001
RTI	0.470901	0.350543	1.343346	0.1959
RTI(-1)	0.555795	0.371794	1.494901	0.1523
RTI(-2)	0.418203	0.358375	1.166944	0.2585
SME	0.244077	0.223998	1.089640	0.2902
SME(-1)	0.376928	0.265356	1.420464	0.1726
SME(-2)	-0.299696	0.248053	-1.208194	0.2426
ADT	-0.027081	0.039311	-0.688892	0.4997
ADT(-1)	-0.047633	0.039602	-1.202800	0.2446
ADT(-2)	0.108877	0.039612	2.748563	0.0132
C	-31.10743	17.67802	-1.759667	0.0954

R-squared	0.761791	Mean dependent var	28.35361
Adjusted R-squared	0.523583	S.D. dependent var	29.66160
S.E. of regression	20.47332	Akaike info criterion	9.182603
Sum squared resid	7544.823	Schwarz criterion	10.00983
Log likelihood	-150.8782	Hannan-Quinn criter.	9.474240
F-statistic	3.198002	Durbin-Watson stat	2.686250
Prob(F-statistic)	0.008911		

*Note: p-values and any subsequent tests do not account for model selection.

Source: E -views 10 Output of the study.

The result of table1 above appropriated two (2) lag length based on Schwarz information criterion. The best model using Schwarz information criterion is found to be ARDL (1, 0, 0, 2, 2, 2, 2, and 2).

4.2 Bounds Test

Bounds test is a necessary and sufficient on its own while ARDL is only necessary but not sufficient; hence we do not stop at ARDL but will proceed with bound test analysis.

Table 2: ARDL Bounds Test for Co -integration Analysis

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic : n=1000	
F-statistic	5.783101	10%	1.92	2.89
k	7	5%	2.17	3.21
		2.5%	2.43	3.51
		1%	2.73	3.9
			Finite Sample: n=40	
Actual Sample Size	37	10%	2.152	3.296
		5%	2.523	3.829
		1%	3.402	5.031
			Finite Sample: n=35	
		10%	2.196	3.37
		5%	2.597	3.907
		1%	3.599	5.23

Source: E -views 10 Output of the study.

From table 2, (the Bounds test result), the F-statistic is 5.783101 and this is greater than the upper bound of the chosen level of significance (3.21), therefore we proceed to estimating the short run and long run result of our model. The bounds test result also indicates a long run relationship existing between the dependent variable and the independent variables.

Table 3: ARDL Long Run Form Result

ARDL Long Run Form and Cointegration
Dependent Variable: D(ECG)
Sample: 1980 2020

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-31.10743	17.67802	-1.759667	0.0954
ECG(-1)*	-1.001382	0.160512	-6.238681	0.0000
WCN**	0.170648	0.446266	0.382390	0.7066
ATO**	-0.012146	0.010872	-1.117237	0.2786
DSF(-1)	3.197340	1.001204	3.193495	0.0050
INS(-1)	0.086929	0.023204	3.746332	0.0015
RTI(-1)	1.444900	0.699565	2.065426	0.0536
SME(-1)	0.321309	0.307956	1.043360	0.3106
ADT(-1)	0.034163	0.076662	0.445628	0.6612
D(DSF)	0.801039	0.448778	1.784933	0.0911
D(DSF(-1))	-1.401414	0.612765	-2.287035	0.0345
D(INS)	0.007789	0.012421	0.627123	0.5385
D(INS(-1))	-0.061576	0.012841	-4.795471	0.0001
D(RTI)	0.470901	0.350543	1.343346	0.1959
D(RTI(-1))	-0.418203	0.358375	-1.166944	0.2585
D(SME)	0.244077	0.223998	1.089640	0.2902
D(SME(-1))	0.299696	0.248053	1.208194	0.2426
D(ADT)	-0.027081	0.039311	-0.688892	0.4997
D(ADT(-1))	-0.108877	0.039612	-2.748563	0.0132

* p-value incompatible with t-Bounds distribution.
** Variable interpreted as Z = Z(-1) + D(Z).

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
WCN	0.170413	0.449476	0.379136	0.7090
ATO	-0.012130	0.010786	-1.124549	0.2756
DSF	3.192928	0.984209	3.244156	0.0045
INS	0.086809	0.023946	3.625129	0.0019
RTI	1.442906	0.734986	1.963174	0.0653
SME	0.320865	0.313672	1.022932	0.3199
ADT	0.034116	0.078562	0.434248	0.6693
C	-31.06450	18.96540	-1.637957	0.1188

EC = ECG - (0.1704*WCN -0.0121*ATO + 3.1929*DSF + 0.0868*INS + 1.4429 *RTI + 0.3209*SME + 0.0341*ADT -31.0645)

Source: E -views 10 Output of the study

From table 3 above INS DSF INS (-1), exerted significant positive long run influences on the sustainable economic growth (ECG) in Nigeria, over the period in review (1980-2020). The slope (coefficient) of DSF (3.192928) was positive and significant at the 5% level of significance. Insurance (INS) or access to insurance also exerted a positive effect on sustainable economic growth in Nigeria. With a slope coefficient of 0.086809 at the 5% level of significance, implying that one percent increase in access to insurance as a determinant of agricultural value chain would result in an increase in the growth of the Nigerian economy by 8.68 percent annually. This result underscores the state of the insurance industry with respect to the agricultural sector (Nigeria is losing a lot for not engaging the insurance sector effectively. Demand for processed staple food products and access to digital technology were not effective in Nigeria. However, the variables are still significant.

Table 4: ARDL Short Run and Error Correction Regression

ARDL Error Correction Regression
Dependent Variable: D(ECG)

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DSF)	0.801039	0.265573	3.016267	0.0074
D(DSF(-1))	-1.401414	0.360660	-3.885695	0.0011
D(INS)	0.007789	0.009033	0.862368	0.3998
D(INS(-1))	-0.061576	0.007282	-8.456210	0.0000
D(RTI)	0.470901	0.214678	2.193519	0.0416
D(RTI(-1))	-0.418203	0.230202	-1.816681	0.0860
D(SME)	0.244077	0.157228	1.552373	0.1380
D(SME(-1))	0.299696	0.174891	1.713618	0.1038
D(ADT)	-0.027081	0.024598	-1.100950	0.2854
D(ADT(-1))	-0.108877	0.024581	-4.429234	0.0003
CointEq(-1)*	-1.001382	0.115491	-8.670658	0.0000

R-squared	0.876630	Mean dependent var	2.602019
Adjusted R-squared	0.829180	S.D. dependent var	41.21624
S.E. of regression	17.03483	Akaike info criterion	8.750171
Sum squared resid	7544.823	Schwarz criterion	9.229092
Log likelihood	-150.8782	Hannan-Quinn criter.	8.919013
Durbin-Watson stat	2.686250		

Source: E -views 10 Output of the study

The result of the short run form is presented in table 4 above returned marginal p-value for five variables which were all significant at the 5% levels. The results imply that Insurance to the agricultural sector, Demand for processed staple food product and access to digital technology in Nigeria were the most significant short run determinants of sustainable economic growth with respect to agricultural value chain. The negative significant effect also implies that appropriate insurance facilities, proper delivery of processed staple food product and adequate access to digital technology were not being used in the agricultural sector in Nigeria on the short run. Interestingly, the variables were significant implying that advancement in them will propel growth of the Nigerian economy through the agricultural value chain. The Error Correction term is negative and significant as expected. It shows that the speed of adjustment is (-1.00138) 100 percent. It indicates that, it corrects 100 percent of the deviations, the previous year deviation. Put differently, it takes about two years to fully correct for the deviation.

5. FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Findings

The findings are summarized thus: From the unit root test, the ADF showed that Sustainable Economic Growth Trade openness to agricultural ,Insurance to the Agricultural Sector ,Road Transport Infrastructure and Demand for Staple Food Products were stationary at levels,)) while Weather condition ,Small and Medium Scale Enterprises and Access to Digital Technology attained stationarity at first differencing.

The bounds test result also indicates a long run relationship existing between the dependent variable and the independent variables of our model. The error correction coefficient or term is negative and significant. It indicates that, it corrects 100 percent of the previous year's deviation. There is also significant long run relationship amongst the agricultural value chain determinants and sustainable economic growth in Nigeria.

5.2 Conclusion

Value chains are key framework for understanding how a product moves from the producer to the customer. The result of the bounds test implies good fortune for the economic prosperity of Nigeria with respect to the agricultural value chain determinants.

The Error Correction Coefficient (ECM) shows that the model is robust and capable of stabilizing sustainable economic growth in Nigeria. The significant long run relationship amongst the agricultural value chain determinants and sustainable economic growth in Nigeria reveals the efficacy of agricultural value chain and economic growth in Nigeria. However, both in the long run and short run, government agricultural policy in favour of agricultural value chain is growth enhancing.

5.3 Recommendations

Based on our findings and conclusions, the following recommendations were made:

(a) Government fiscal policy with respect to the agricultural sector should be sustained.
(b) Government at all levels should implement programmes that will redistribute income which will enhance disposable income.
(c) Government is expected to intensify effort in advancing insurance facility to the agricultural value chain programmes.
(d) Effort be intensified in advancing insurance facility to the agricultural value chain programmes.
(e) Government should sustain effort in transforming the agricultural value chain prospect because of its potentials of value creation.
(f) With respect to Small and Medium Scale Enterprises (SME), government reform agenda should be systematic and sustained in the sector.
(g) Government should support trade openness in the agricultural sector by engaging the regulatory agencies providing phytosanitary inspection and also encourage investments by the private sector in this regard.
(h) . On road transport infrastructure (RTI) government should support a coordinated mechanism for connecting infrastructure from the rural area to the urban centres.
(i) Nigerian government to focus on environmental protection policy, this will advance production along the value chain.

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