The agricultural value chains and poverty reduction: Assessment of Nigeria

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Abstract

Development has phases and occurs not just through putting and pushing necessary policies and programmes. The agricultural value chains as a Century programme aims to rebrand farmers' access to the markets and resources they need to produce and sell their crops at a higher price. This helps to increase their income, which can then be used to improve their living conditions and reduce poverty. On this note, the study investigated the impact of the agricultural value chains on poverty reduction in Nigeria from 1990 to 2022. The study employed the Autoregressive Distributive Lag model (ARDL). The empirical findings revealed that the agricultural value chains have inversely impacted poverty reduction in Nigeria in the short and long run. As a stop-gap measure, the government should promote agricultural value chain development to achieve organisational and institutional innovations that will empower people. Providing more inputs, technical training, and financial service to the farmers to increase the production outlet should be encouraged.

Keywords: Agricultural value chain, ARDL model, Poverty

JEL Classification: C32, P36

1. Introduction

Serious issues, including crisis, restricted access to technology, persistent poverty, unemployment, inflation, high population growth, corruption, high transportation costs, and low agricultural production plague Sub-Saharan Africa. As a result, there are still several obstacles to forming and maintaining the capacity for advancement, including inadequately funded and managed vocational and technical training. As a result, Africa faces a skills gap and a deficit (Konde, 2014). Significant issues in Sub-Saharan Africa include persistent poverty and unemployment. The agriculture sector dominates the Sub-Saharan African nations' economies. Smallholder farmers are the industry's producers and rely heavily on the industry's earnings. Samkelisiwe and Mpandeli (2000) noted that smallholder farmers in sub-Saharan Africa produce 80% of the food, making them the major employers of the local labour force in these nations. Indirectly from production, these products are said to reach customers through various marketing

strategies, according to Wolfgang and Muluken (2016). How agricultural value chains are managed and coordinated will determine whether we succeed in fighting for enough food and wealth. However, Sub-Saharan Africa's agricultural value chains suffer a number of issues that have impact on smallholder farmers. These issues include product marketing, technology, and incapacity or lack of access to expansion or improvement due to their lack of vocational skills, which makes these farmers even more impoverished.

Additionally, a number of blueprint papers for reducing poverty emphasize that the agricultural sector's expansion contributes proportionally more to a decrease in poverty than any other economic sector (Konde, 2014). And by connecting agricultural production with the manufacturing, industrial, and service sectors and guaranteeing that people and other resources are used more effectively, agricultural value chains can contribute more significantly to economic growth. Agents, merchants, processors, and marketers are combined with agricultural growers. An analysis of a cocoa barometer provides a typical illustration, showing that only 6.6% of the value contributed to producing a bar of chocolate is added in the manufacturing process, with the remaining value-added being distributed throughout chain players such as processing, marketing, and retail (PwC, 2017). It is anticipated that this trend will apply to practically all agricultural products. In this manner, employment possibilities are produced through the division and specialization of labour which developed as a result of strengthening industrial sector production capacity and human capital due to increased agricultural output, which also increases the welfare of the populace. In this situation, the manufacturing sector heavily depends on agriculture for the raw materials needed to process those materials into finished goods. As a result, the agricultural value chain is a crucial path for the industrial sector to develop, which translates into economic growth, higher living standards, and decreased poverty. The increase in the industrial sector's contribution to GDP, is anticipated to be greater than that of agricultural sector, this is a significant perceived expectation from the agricultural value chain, which is due to the agricultural value chain's strong growing ties to the other economic sectors, made possible by the affordable food, raw material, and increased demand for the service and processing industries. According to Chebbi (2010), developing the industrial, transportation, and service industries is directly related to agricultural expansion. He said that poverty might be reduced by giving the rural poor an income through chains that boost production, which drives down food prices and raises real income for the poor. By lowering operating costs, increasing chain revenues, boosting negotiation and agreement power, and enhancing capital, information assimilation, and technical access, the agricultural value chain is connected to commercial stakeholders. This produces higher quality and quantity products for clients (Asian Development Bank, 2012).

Nigeria's agriculture sector needs to see an increase in productive investment to build successful value chains. Nigeria's agricultural sector contributed 26.21% to GDP in 2020 (NBS, 2022). The agricultural value chains in Nigeria are also notable for

focusing more on production than enhancing value addition across value chain segments and are made up of 80% smallholder farmers and a small number of commercial processors who struggle with insufficient inputs, out-of-date technology, and inadequate financing, indicating that the sector contributed significantly to GDP. In addition, farmers in practically every region of the nation—but especially in Northern Nigeria—face in security issues like kidnapping, farmer-herdsmen conflicts, and communal upheavals. A strong agricultural value chain is anticipated to raise GDP from agricultural input and its value chains to other sectors, increasing the input of those sectors in GDP. Agribusiness in Brazil created 16 million new jobs in 2012 due to the country's improved agricultural value chain, which was responsible for 46.3% of exports in 2016 (Marin, 2016). Additionally, Brazil has emerged as a major producer of a wide range of agriculturally processed goods, including ethanol, sugar, and orange juice (PwC, 2013). The availability of better seeds, increasing soil fertility, increased technological adaption, and the backing of local and foreign research institutes have all contributed to Brazil's agricultural value chain (Santana and Nascimento, 2012).

Several policies, such as the Nigeria Agricultural Insurance Corporation (NAIC), established between 2007 and 2010 to provide insurance coverage to farmers, have contributed to the sector's strengthening. In 2012, NAIC insured an average of 35,000 food crops and 100,000 Hectares and paid N193 million and N687 million in claims to farmers. The past and present administrations have also been focusing on agriculture as a way to diversify the economy. In Nigeria, the Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL), funded by CBN to the tune of US$500 million between 2011 and 2015, 225 Credit Risk Guarantees (CRG) were granted to value chain actors valued at N21.7 billion (CBN, 2015). This program aims to provide actors in the agricultural value chain with affordable financing. According to Ajani and Igbokwe (2014), the Agricultural Transformation Agenda (ATA) 2012 was created to boost farmers' income, increase food security, create jobs, and transform the nation into a major food market. Between 2011 and 2014, the program increased agricultural output by 11%, increased commercial banks' lending by 5% and decreased food import costs by N466 billion (Akinwunmi, 2015). The Economic Recovery and Growth Plan (ERGP) prioritized food security and self-sufficiency in tomato paste, rice, and wheat by 2017, 2018, and 2019/2020, with a target increase in agriculture of 31% shortly after the Agricultural Promotion Policy (APP) was introduced and structured to address food production shortages and improve output quality.

Despite the involvement, policy changes, and significant financial investments made in agricultural value chains by various government or CBN projects and programs, More specifically, earlier research (see Christiaensen et al., 2006; Lyatuu et al., 2015; Kadir and Rizki, 2016; Cervantes-Godoy et al., 2016) concentrates on the importance of agriculture in alleviating poverty. This study aims to investigate how agricultural value chains reduce poverty. The Autoregressive Distributive Lag model (ARDL) estimate techniques were used to close gaps in the literature, and pre-test and diagnostic tests were also carried out.

The study sought to empirically examine how agricultural value chains increase welfare in light of their growing significance. So, this study aims to determine how the agricultural value chain affects Nigeria's efforts to reduce poverty. The study also demonstrates how policymakers might use agricultural value chains to plan diverse activities within value chains to implement fiscal-growth strategies. These value chains give farmers a choice other than selling their goods at the neighbourhood market, enabling them to reach broader markets and profit more from them, contributing to economic growth. The rest of the study is structured after the introduction, as literature review in section two, methodology, and discussion of the results in sections three and four respectively, while section five is the conclusion and recommendations.

2. Literature Review

By bringing together the participants in a value chain to boost competitiveness through innovation, value chains streamline the connections between some groups of producers, traders, processors, and service providers (including non-governmental organizations) that collaborate to improve productivity and the value added from their activities. The value of the final product is frequently more than the total of the individual value additions in a value chain that has been well managed (ADB, 2013). By creating synergies and governance guidelines, the constraints of each chain participant are removed to provide better value. The value chain, according to Hoeffler (2008), is a network of interconnected institutional arrangements that links and coordinates producers, processors, traders, and distributors of a particular product from the provision of specific inputs for a particular product through primary production, transformation, and marketing to final consumption.

According to Kaplinsky (2000), the value chain constitutes the full range of activities and services required to bring a product or service through the various product and delivery phases to the final consumer. The value chain is a network of businesses working vertically to exploit better market opportunities. One of the fundamental elements of a value chain is market-focused collaboration, which involves many businesses collaborating and promoting their products to create effective and efficient services geared toward the high-income generation. Additionally, connecting production, agents, processing, and marketing activities to market demands enables businesses to react to the commercial environment. Vertical coordination of the value chain refers to the linking or connectivity of businesses from the initial production stage through processing and then possibly into the final marketing stage, where consumers complete their product purchases. Since they share objectives and cooperate to accomplish them, the manufacturing sectors or the businesses in value chains are primarily and legally independent operators (Barnes, 2004). According to Proctor and Lucchesi (2012), referenced by Konde (2014), the agricultural value chain refers to the process of enhancing the value of agricultural goods by integrating them with other resources such as tools, human resources, knowledge, skills, other raw materials, or other preparatory products. According to de Ruijter, Elliot, and Hitchins (2006), referenced by Konde (2014), one of the important contributions of agricultural value

chain analysis is upgrading and acquiring technological, institutional, and market capabilities for increased competitiveness or transition into higher-value industries. Konde (2014) asserts that horizontal and vertical coordination mechanisms are a part of agricultural value chains. The horizontal alignment implies the greater organization with a collective structure, often a production group. Vertical coordination, on the other hand, entails long-term ties between chains like producers and processors. The emphasis is on the relationships between networks of input suppliers, producers, traders, processors, and distributors. An agricultural value chain can be considered an economic unit of a specific commodity or group of commodities that encompasses a meaningful grouping of economic activities linked vertically by market relationships (UNCTAD, 2000). Due to the perception of rural areas as a key agricultural hub links both urban and rural areas in terms of consumption and production as a result of an expanding urban population, known as urbanization, new trends in international trade and modern consumer habits emerge, which have an impact on rural marketing and production systems. This relationship between rural and urban areas presents difficulties and opportunities for both producers and consumers, and it might serve as an appropriate starting point for development initiatives (Hoffer and Maingi, 2006).

Grewal, Grunfed, and Sheehan (2012) define poverty as the denial of possibilities for a happy, healthy, and productive existence in a number of different ways. The report further outlined the major ills, including lack of access to housing, food insecurity, hunger, malnutrition, gender bias, social inclusion, and income poverty. Hunger, a lack of shelter, illness, illiteracy and write, unemployment, dread for the future, and a high infant and child mortality rate are all considered forms of poverty, according to the World Bank (2012). It is described as "personal and physical deprivation experienced as a result of health, nutrition, literacy as a result of educational disability and lack of self-confidence, Economic dispossession due to lack of access to the labour market" (Aku, Ibrahim, & Bulus, 1997), as referenced by (Sanya& Olumide, 2017).

Development theories consider a nation's many stages to raise the residents' living level. According to Rostow's (1960) growth theory, nations go through various stages on their way to becoming developed. Traditional civilization is the first place to start because it is necessary to launch into self-sustaining growth (Todaro & Smith 2011). The majority of emerging countries have agro-based economies, which are typical of traditional communities. Nigeria's economy is still based on agriculture. According to the NBS, 2016), the main economic sector in Nigeria is agriculture, which contributes 24.4% of the country's gross domestic product (GDP). Both male and female agricultural workers comprise about 62% of the population. The ILO (2008) emphasized that the agricultural sector has historically been a driving force behind economic growth by supplying food, raw materials, employment, fiber, and fuel to other sectors to increase the variety and diversify their offerings regarding goods and services. According to Konde (2014), more than 63% of the Sub-Saharan African population lives in rural areas, where agriculture remains the main source of employment and income. Konde believes that transforming subsistence agriculture and pursuing an agricultural value chain will

promote economic growth while increasing employment opportunities and improving the standard of living for poor people. An agribusiness development path is a component of a socially inclusive development plan that has the potential to make a significant contribution to the reduction of poverty and improve social outcomes. Depending on the situation, agriculture's path to reducing poverty may take numerous forms. According to Dunga (2014) study, maize production and input subsidy availability are two factors that link agricultural productivity with poverty in Malawi. This suggests that agriculture must be considered for poverty reduction to be successful. A study by Coxhead and Warr, quoted by Dunga (2014), revealed a direct link between agricultural production and poverty eradication. Similarly, DFID (2005) cited evidence that rising agricultural production has helped millions by raising their incomes and providing them with affordable, plentiful food. This has led to a remarkable development that is employment-intensive and advantageous to rural and urban areas.

Additionally, according to NEPAD (2003; referenced in ILO, 2008), an improvement in agricultural performance can boost many people's purchasing power and earnings in rural areas. This means that more than any other industry, agriculture can raise the standard of living for people in general, especially in developing nations like Nigeria, where agriculture employs most of the population. ILO (2008) states that improving agriculture results in a positive feedback loop of less hunger, increased productivity, higher incomes, and long-term poverty reduction. Smallholder farmers can thus escape poverty through agricultural productivity (Dunga, 2014). Arthur Lewis first theorized the relationship between agricultural and sectoral growth in his idea of the excess labour supply. According to Lewis (1954), the agriculture sector contributes to labour, inputs, and savings that other sectors require to improve the economy's overall performance by promoting the expansion of industries through the supply of raw materials and employment possibilities. Therefore, agriculture offers more opportunities for generating money and foreign currency. The growth of the non-farm sector, which includes the services sector, the manufacturing sector, the industrial sector, and others, is accelerated by the increasing income because it results in capital formation. Exporting farm products will increase foreign exchange profits, which will hasten the growth of other economic sectors and guarantee a favourable balance of payments and trade. In addition, industrial growth, a by-product of capital formation, works as a stimulus for the creation of new industries and an increase in employment opportunities for the populace in both the agricultural and non-agricultural sectors. To increase efficiency and effectiveness, this promotes the development of related industries, including banking, insurance, and service sectors. These would have a multiplier effect in achieving greater integration, blending, and linkage in different economic sectors, resulting in further employment expansion and income generation opportunities for the masses, at the same time reducing poverty, and raising living standards (Ogen, 2007). Henneberry et al. (2000) asserted that industry benefits more from agricultural growth in Pakistan.

Hye (2009) discovered a long-term bidirectional link between agriculture and industrial output in Pakistan. Chebbi (2010) discovered a long-term link between the expansion of the agricultural sector and other economic sectors. In the case of North Cyprus, Katircioglu (2006) found a bidirectional association between agricultural output increase and economic growth.

3. Methodology

In line with the two objectives of the study stated in section one. The data are sourced from the World Bank indicator report on Nigeria (2022), the National Bureau of Statistics (2021), and the Central Bank of Nigeria Statistical Bulletin (2022). The study, therefore, develops a functional relationship between the agricultural value chains and poverty, following the studies of (Hye, 2009; Chebbi, 2010; Dunga, 2014; Chang, Caprio & Sahara, 2015),

POV = f(AGVC, MAN, IND, SER, GDP)……………………………………….. …1

Where POV denotes poverty, AGVC denotes agricultural value chains, MAN denotes manufacturing rate, IND denotes industrial rate, SER denotes services rate, and GDP denotes economic growth. The human development index (HDI) were used to proxy poverty since the HDI comprises of all component of poverty indexes such as income, food, social amenities, etc., and agricultural value-added is used to proxy agricultural value chains.

$POV_t = a_0 - b_1 AGVCt - b_2 MAN_t - b_3 IND_t - b_4 SER_t - b_5 GDP_t + \mu_t$ ……………..…… 2

Where a_0 = constant, b= coefficient, and u_t= Error term. The coefficient (b_1- b_5<0) is expected to be less than zero, I.e., an inverse relationship between poverty, agricultural value chains, manufacturing growth, industrial growth, growth in the service sector, and economic growth in Nigeria.

In addition, the ARDL model was used to estimate Equation (3.2). Estimating the ARDL model involves ordinary least squares (OLS) regression, and the coefficients can be used to determine the long-run relationships between the variables of interest. Additionally, error correction models can be derived from the ARDL model to examine short-run dynamics and adjust for deviations from the long-run equilibrium. The ARDL model has gained popularity due to its flexibility and applicability in situations where variables have different orders of integration (Pesaran, Shin & Smith, 2001). However, before estimating the ARDL model, statistics descriptions are used to summarize and describe the main features of a dataset. They provide a way to organize, summarize, and present data meaningfully and interpretably. This was followed up with the Augmented Dickey-Fuller test of unit root. The Augmented Dickey-Fuller (ADF) unit root is a valuable tool for analyzing time series data and determining whether a series is stationary or non-stationary, which has implications for modeling and forecasting purposes. The ADF test is widely used but has certain assumptions and limitations. These include the assumption of no serial correlation, heteroscedasticity, and structural breaks in the data. Violations of these assumptions can affect the validity of the test

results (see Enders, 1995). The last part presented the model's diagnostics results while including tests for the model's normality, serial correlation, heteroscedasticity, CUSUM, and CUSUMQ.

4. Discussion of results

According to the summary statistics in Table 1, the mean value of poverty POV is 49.518, with a maximum of 104.200 and a minimum value of 26.390. The agricultural value chain (AGVC) ranged from 3347.364 to 16242.11. GDP, however, had the lowest mean, followed by IND and MAN.

Table 1: Summary of Descriptive Statistics

	POV	AGVC	SER	MAN	GDP	IND
Mean	49.518	3347.364	5068.209	18.066	3.220	3.302
Maximum	104.200	16242.11	20124.34	72.840	4.210	4.300
Minimum	26.390	298.610	84.090	5.390	2.480	1.920
Std. Dev.	15.450	4339.017	6002.650	16.108	0.517	0.680
Observations	32	32	32	32	32	32

Source: Authors' Computation

The ADF- statistics test of a unit root is shown in Table 2. The series AGVC, IND, and GDP are stationary at a level, whilst POV, MAN, and SER are stationary at a 5% significance level after the first difference, indicating that the series is integrated of order I(0) and I(1). None of the study's variables were integrated into the order I(2). As a result, the study's use of ARDL co-integration methodologies is justified. After determining the stationary status of the variables, the next step is to run a co-integration test to see if there is a long-run link between poverty and its putative determinants.

Table 2: Unit root test

Variables	ADF-Statistic	Order of integration
AGVC	-4.747911	Level
	(0.0042)	
POV	-7.564868	First difference
	(0.0000)	
GDP	-4.255396	Level
	(0.0125)	
MAN	-5.846856	First difference
	(0.0004)	
IND	-5.895508	Level
	(0.0003)	
SER	-5.492632	First difference
	(0.0009)	

Source: Authors' Computation

The co-integration result is shown in Table 3. The bound F-statistics are 4.21339, greater than the 10% and 5% upper critical bounds (3.35) and (3.79), respectively. As a result, it determined a long-run equilibrium link between poverty, agriculture value chain, manufacturing, industry, services, and economic growth in Nigeria over the study period. Overall, the ARDL limits test demonstrated that the poverty component in

Nigeria is co-integrated with the identified factors. Even though their relationship is distorted in the short run, long-term equilibrium is achieved.

Table 3: Bound test or co-integration test

Level of significance	Bound I(0)	Bound I(1)	F-statistics
10%	2.26	3.35	4.21339
5%	2.62	3.79	

Source: Authors' Computation

Table 4 shows the short-run estimate. In the short run, the agricultural value chain (AGVC) negatively and significantly impacts poverty in Nigeria. A 1% shift in agricultural value chains results in a 0.05% reduction in poverty. This is consistent with the study's a priori expectation and contradicts the finding of Coxhead and Warr (1995), quoted in Dunga (2014), who discovered a direct association between agricultural productivity and poverty reduction. Economic growth (GDP), industrial (IND), and services (SER) all have a detrimental impact on poverty but are statistically negligible. A 1% increase in GDP, IND, and SER reduces poverty by 0.08%, 0.11%, and 0.04%, respectively. Manufacturing, on the other hand, has a beneficial and considerable impact on poverty.

Table 4: Short-run estimates

Variables	Coefficient	T-statistics	Prob.
D(POV(-1))	-0.940585	-4.855380	0.0013
D(POV(-2))	-0.518005	-2.657211	0.0289
D(AGVC)	-0.053176	-1.914545	0.0919
D(AGVC(-1))	-0.114316	-1.022570	0.3364
D(GDP)	-0.086065	-0.389465	0.7071
D(GDP(-1))	-0.185467	-2.980327	0.0176
D(IND)	-0.106070	-1.711127	0.1254
D(MAN)	0.108571	2.873679	0.0207
D(SER)	-0.036487	-0.311366	0.7635
D(SER(-1))	0.221651	2.352915	0.0465
ECM(-1)	-0.291906	-2.156086	0.0318

Source: Authors' Computation

The error correction term coefficients have corrected negative signs, less than one and are statistically significant. This discovery has three significant implications. First, it validates the existence of a steady or strong long-run link between poverty and the determinants, as indicated by the bound test results in Table 2. Secondly, the figure (-29) means that approximately 29% of the short-run disequilibrium caused by last year's agricultural value chain shocks which will be addressed this year. Finally, the negative sign indicates the presence of long-run unidirectional causality from explanatory variables to poverty.

The long-run equation in Table 5 demonstrates that agricultural value chains (AGVC) influence poverty in Nigeria in the long run in an inverse and tangible way. This is consistent with our theoretical predictions. A 1% increase in agricultural value chain

results in a 2.05% reduction in poverty. Similarly, except for GDP, economic growth (GDP), the manufacturing sector (MAN), and the service sector (SER) have diminishing effects on poverty reduction (POV) and statistical significance. A 1% increase in GDP, MAN, and SER resulted in a 1.02%, 3%, and 3.4% decrease in POV, respectively. This is consistent with our theoretical predictions.

Table 5: Long-run Estimates

Variables	Coefficient	T-statistics	Prob.
AGVC	-2.051836	-3.120312	0.0051
GDP	-1.017950	-0.367282	0.7229
IND	1.154112	2.612306	0.0456
MAN	-3.000627	-2.274997	0.0525
SER	-3.449136	-2.492284	0.0374

Source: Authors' Computation

On the other hand, the industrial sector (IND) has a large and positive impact on poverty. A 1% rise in IND results in a 1.15% increase in POV. This contradicts the study's previous expectations. In the long run, the positive impact of the industrial sector on poverty reduction might be attributed to a lack of new technology in the industry to increase production quality and generate more revenue at a lower cost of production. As a result, the sector's income contributions to GDP will decline, reducing the sector's ability to boost people's well-being.

Autocorrelation, Normality, Heteroscedasticity, Durbin Watson, Cumulative Sum of Recursive Residuals (CUSUM) and Cumulative Sum of Recursive Residual squares (CUSUMQ) tests, and Coefficient of Determination (R^2) values are shown in Table 6. The diagnostic test was successful. This indicates that the model's residual is serially independent, homoscedastic, and normally distributed. It is concluded that the computed parameters are best linear, unbiased, and efficient by satisfying the stated classical regression analysis assumptions. This suggests that the findings of this investigation have implications. The coefficient of determination indicates the proportion of fluctuation in the dependent variable that the independent variables can explain. Explanatory factors account for 99% of the variation in poverty in this model.

Table 6: Diagnostic Tests

Test Statistics	Result
Autocorrelation	4.3662
	(0.1127)
Heteroscedasticity	11.2494
	(0.7347)
Normality	2.8831
	(0.2365)
Coefficient of determination (R^2)	0.99
Durbin Watson statistics	2
CUSUM and CUSUMQ	Stable

Source: Authors' Computation

Furthermore, the R^2 value is greater than 50%, demonstrating the model's overall goodness of fit. It also signifies that the model described is a good fit for the data and variables represented in the model. Durbin Watson's statistics also indicate no autocorrelation, confirming the validity of the previously discussed Breusch-Godfrey Serial Correlation LM Test. On the stability of the model's parameters across the sample period, CUSUM and CUSUMQ tests were performed. The findings are included in Figure 1. It was discovered that the estimated parameters of the models are stable over the research or sample period because the recursive residuals and their squares are within the 5% critical constraints. This result validated the diagnostic results.
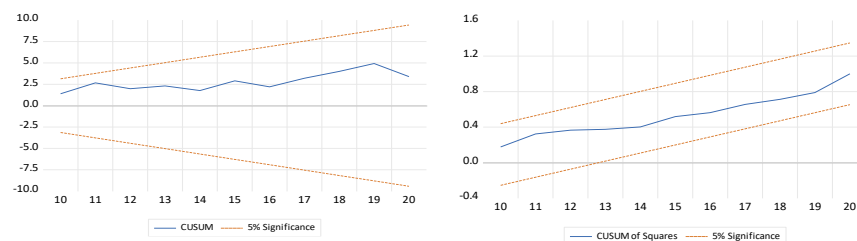

Figure 1: CUSUM and CUSUMQ

5. Conclusion and Recommendations

Local, international, and non-governmental organizations in Nigeria have launched a number of pertinent programs and initiatives over the years to support the agricultural value chain. Agricultural Transformation Agenda (ATA), National Agricultural Extension and Research Liaison Office (NAERLO), Agricultural Insurance Corporation (NAIC), Agricultural Promotion Policy (APP), Nigeria Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL), University of Agriculture, among others, are some of the programs to support agricultural production and development in the nation to address the problem of Agricultural in order to secure food availability and eliminate poverty. Using the ARDL bounds estimation technique, the study investigate how the agricultural value chain affects poverty in Nigeria between 1990 and 2022. A long-term link between agricultural value chains and poverty is possible with control variables using the ARDL-Bounds test for cointegration. According to the findings of the ARDL calculation, modifications to the agricultural value chains have a reducing impact on both short- and long-term poverty. This highlights how strengthening agricultural value chains encourages eradicating poverty in Nigeria by creating jobs and supplying raw materials to nearby industries.

The study's findings discovered that, during the study period, agricultural value chains were one of the primary forces behind poverty alleviation and vice versa. The study therefore suggest that the government should improve the structural and organizational

changes in the agricultural sector that will give people more power. Secondly, the government must support, oversee, and direct initiatives and programs related to the agricultural value chain at various levels. Thirdly, the government should create laws, alliances, networks, and learning opportunities to tie together the relationships between producers, processors, and marketers. The government should also offer farmers more inputs, technical assistance, and financial services to expand the number of markets for their products.

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