

THE NEXUS BETWEEN AGRICULTURAL SECTOR PERFORMANCE AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

This study is examined the relationship between agricultural sector performance and economic growth in Nigeria from the year 1990– 2021. To achieve the objectives of this study, multiple regression model was formulated and estimated, using Autoregressive Distributed Lag Model method, which assumes a long run relationship between variables. The research analysis result show that a positive and significant regression relationship exists between economic growth and agriculture in Nigeria. The study shows that agriculture contribute to economic growth significantly within the study period. The study concludes that developing the agricultural sector with its numerous potentials has the capacity to turn the Nigerian economy into a developed economy. The study recommends among other things that government at all level should formulate workable agricultural policies that is suitable for rural infrastructural transformation capable of developing the agricultural sector for greater productivity within the economy.

KEYWORDS: Agricultural sector, Economic Growth, ARDL and Nigeria.

1. INTRODUCTION

In emerging nations, agriculture serves as the cornerstone for economic expansion, progress, and the elimination of poverty. Another belief that agriculture is the key to economic success is that it is the cure-all. "The battle for long-term economic growth will be won or lost in the agricultural sector," stated Gunnar Myrdal. Nigeria's economy has focused on agriculture in recent decades. Early in the 1960s, the agricultural sector was seen to be the backbone of the economy. The agriculture industry is thought to be the main force behind development and progress. Indeed, to accentuate the crucial role the agriculture sector plays in the Nigerian economy, the sector is included in the MDG's (Millennium Development Goals) initiative to reduce poverty in Nigeria. The agricultural sector continues to be the main source of inputs, food, employment opportunities, raw materials for other industries, foreign earnings from the export of surpluses, and most importantly the significant benefit of the value added in the various production processes in the majority of developing countries (low- and middle-income countries) (Izuchukwu, 2019).

According to studies, the majority of developing nations worldwide are mostly rural and agrarian. Since a sizable section of Nigerians live in rural areas, policymakers and decision-makers have become more aware of the rural areas. (2020, Dim). From the Latin words "ager," which means "field," and "cultura," which means cultivation, comes the word agriculture. According to Are, Igbokwe, Asadu, and Bawa (2020), crop cultivation was likely the first type of agriculture to be produced in large quantities. Note that agriculture encompasses more than just growing crops. It also covers the raising of animals, main product processing (or value addition), and produce and product marketing. Agriculture is the art and science of tilling the land, preparing food for human use through crop and livestock processing, and marketing surplus crops and livestock, according to Izuchukwu (2019).

Following the discovery of oil (the so-called "oil boom"), there was a discernible decrease in the agricultural sector's percentage of the Real Gross Domestic Product (RGDP). According to empirical data, between 1970 and 1980, the agricultural sector's share of the GDP was 29.2 percent and 33.3 percent, respectively. According to Aigbokhan (2018), the agricultural sector contributed more than 63% and 54% of the RGDP, respectively, before the oil boom in the 1950s and 1960s. According to Ahungwa, G. T. et al. (2018), a substantial portion of Nigeria's massive unemployed population—which makes up more than 65 percent of the country's total population—are working in the agricultural sector. This significant proportion consists of subsistence farmers who cultivate fragmented farmlands as a means of sustenance using simple tools like hoes, cutlasses, and shovels, among others. In support of this assertion, Abdullahi (2019) and the World Bank (2007) concur that the agricultural sector supports the economy in four key ways: by supplying goods, by providing inputs, by participating in the market through marketing, and by earning foreign exchange.

Government negligence, inconsistent and poorly implemented regulations, years of bad management, and a lack of basic infrastructure have all hurt the agricultural industry. Olajide et al. (2018) claim that Nigeria is blessed with an abundance of arable land and a sizable deposit of agricultural resources for the purpose of cultivating crops and raising livestock. Throughout the 1960s and 1970s, more than 65% of all exports came from the agricultural sector. The export of cash crops, or agricultural products with export value, such as cocoa, rubber, hides and skins, groundnut palm, and a variety of other products, was a well-known feature of Nigeria's agricultural industry. There is a lot of room for expansion and economic development in the agriculture sector of the nation.

Lack of storage facilities in Nigerian agriculture has resulted in excessive waste and expensive storage. As a result, agricultural development is hampered by the year-round lack of source perishable agricultural produce. Dependency on the weather, which has an impact on the rise in agricultural produce, is another detrimental factor. Nigerian farmers and agriculturists still rely solely on rainfall for their crops rather than using irrigation, which provides water year-round. Nigeria's agriculture industry receives inadequate funding. They have difficulty obtaining credit from financial organizations such as commercial banks. Financing capital-intensive projects presents a challenge for farmers. Due to low produce and profit margins that lead to loan default, small-scale farmers are difficult for commercial banks to lend money to. Furthermore, the reliance on imported food deters people from investing in regional agriculture.

2. LITERATURE REVIEW

The term "agricultural sector" describes the range of endeavors that culminate in the cultivation of crops and the raising of animals for human use (Ibe & Ndubuisi, 2019). Agriculture, according to Suberu et al. (2015), is the process of cultivating land, breeding, and rearing animals to produce food for human use, industrial raw materials, and animal feed. It is made up of farming, raising livestock, fishing, and forestry. Over time, agriculture has continued to play a significant role in the Nigerian economy. Over 70% of the workforce in Nigeria was employed in the primarily rural Nigerian economy prior to the oil boom. The average Nigerian worker was able to afford a good level of living since the wages were competitive with international norms, indeed, enabling average Nigerian worker to afford good standard of living.

A country's economic development can be aided by agricultural development in a number of ways, including by increasing the amount of food available for domestic consumption, freeing up labor for industrial jobs, expanding the domestic market for manufacturing, increasing the amount of domestic savings, and generating foreign exchange profits from agricultural exports. It is significant to remember that agriculture boosts a nation's GDP, expanding the economy and improving citizen wellbeing.

Nigeria's Agriculture Sector

As a major contributor to employment and a means of subsistence for the country's growing population, agriculture has been the backbone of Nigeria's economy since the country's independence in 1960. (Adamgbe., Belonwu., Ochu & Okafor 2020). But because the crude oil industry now dominates the economy, its contribution to the nation's regional and economic development has waned over time. Nigeria has the natural resources and capacity to increase agricultural production in order to fulfill the food and nutritional needs of the fast growing population and ensure food security in the nation, given the country's rising food demand. Therefore, the source of national wealth is essentially agriculture.

Nigeria needed to return its attention to agriculture after decades of sluggish economic growth and a change in focus to oil exports in the 1970s. Given the pressure to meet the MGDs, it's critical to look into how the industry has impacted Nigeria's economic expansion. In Nigeria, the agricultural sector employs over 70% of the

working population and generates 40% of the country's GDP. Nearly half of the population lives in rural areas, where agriculture is the main economic activity. According to Aderibibigbe and Manson (2018), the industry has made a substantial contribution to the nation's GDP growth, food security, job creation, and encouragement of primary commodity exports. Additionally, the industry is recognized for drawing a sizable amount of imports, which serves as a stimulant for global trade. Due to its historical ties, this industry is primarily regarded as a dependable supply of raw resources for industrialization (Akpan & John, 2020).

From the country's independence, the agriculture industry has supported the majority of the economy and, in spite of various obstacles, continues to be a strong force behind the population. Nigeria was the world's top exporter of groundnuts in the 1960s, ranking second in terms of cocoa and palm produce exports, and a significant exporter of cotton and rubber. More recently, agriculture has provided a huge amount of non-oil profits, employed almost two-thirds of Nigeria's labor force, and contributed significantly to the country's GDP (CIA, 2013, Sekunmade, 2009).

The industry has a lot of unrealized potential for expansion due to the abundance of labor, land, water, and its substantial domestic markets. Only around 40% of Nigeria's total land area is now under cultivation, despite the country's estimated 84 million hectares having the potential for agriculture (FMARD, 2012). Due to tiny agricultural holdings and antiquated farming practices, productivity in the cultivated lands is also low. As a result, Nigeria now depends mostly on food imports. Apart from having a rich and varied vegetation that can sustain a large number of cattle, the area also has the potential to be used for irrigation, since there is approximately 267.7 billion cubic meters of surface and subsurface water, respectively. Nigeria has a sizable and expanding population, which offers the possibility of a thriving domestic market for higher agricultural output.

Despite these chances, Nigeria's agriculture industry is still in a weak and mostly undeveloped state. Without making an attempt to provide value, the industry still depends on antiquated techniques to support a population that is expanding. This has had a detrimental impact on the industry's productivity, ability to fulfill its historical function as a source of food, and contributions to economic growth, among other things. The oil glut and its effects have been repeatedly blamed for the current status of the industry. Petroleum made up 0.6% of the GDP in 1960, compared to 67% from agriculture. But by 1974, petroleum's proportion had risen to 45.5%, nearly twice as high as agriculture's share, which had dropped to 23.4% (Yakub, 2008). It should be made clear that low production as a result of the agriculture sector's carelessness caused this trend, not higher productivity in the non-agricultural sectors as was anticipated of the industrialization process.

Agricultural Sector Policies and Programmes

Nigerian agricultural policy has undergone revisions over time. Since petroleum became a significant source of income for supporting programs, the features of policy have reflected the roles expected of the sector and the relative resources available throughout each review phase. This implies that agricultural output is no longer as valuable as it once was. Despite this, agricultural policy has changed throughout time (Oguwuike, 2018). The Federal Government of Nigeria has implemented several agricultural policies and programme. While some of the programme were abandoned or restructured, some are still in place. These policies are (i) Farm Settlement Scheme, (ii) National Accelerated Food Production Programme (NAFPP), (iii) Agricultural Development Projects (ADPs), (iv) River Basin Development Authorities (RBDAs) (v) Nigerian Agricultural, cooperation and Rural Development Bank (NACRDB), (vi) Operation Feed the Nation (OFN), (vii) Green Revolution Programme (viii) Directorate of Foods, Roads and Rural Infrastructures (DFRFRI) (ix) Agricultural Credit Guarantee Scheme Fund (ACGSF), (x) National Empowerment and Development Strategies (NEEDS) (Sunday., Samuel and Inimfon, 2021).

Economic Growth

The only goal of economic growth is to improve the financial and economic welfare of the populace by a consistent increase in the output of commodities, services, and employment opportunities [Ogbulu & Torbira, 2012]. According to Hardwick, Khan, and Langmead (1994), economic growth is the steady increase in real national income that indicates a country's increased capacity for production. The primary goal of economic policy is to improve societal welfare, and one of the prerequisites for achieving this goal is economic development, which is a significant topic in economics. As such, it is a necessary component of sustainable development. Gross Domestic Product (GDP) serves as a stand-in for economic growth in a nation. Therefore, it is defined in this study as the total monetary value of all goods and services generated in an economy over a given time frame, often a year.

Contributions of Agriculture to Economic Development in Nigeria

Notwithstanding the oil boom, Nigeria's agricultural sector has been and continues to be a vital part of the country's economy. In essence, it creates jobs for the country's enormous population, fights poverty, and boosts economic expansion (Okuduwor., Amadi and Udi, 2023). According to Olajide, Akinlabi, and Tijani (2012), a nation's ability to feed its expanding population, create jobs, earn foreign exchange, and supply raw materials for businesses would all be facilitated by a robust and effective agricultural sector. Due to its significant role in national development, agriculture serves as the backbone of many economies and is essential to a country's socioeconomic progress. Looking back at the agricultural sector's role in the growth of the Nigerian economy in the 1960s, it can be seen that the sector produced well over 80% of the country's export earnings and employment, 65% of its GDP (gross domestic product), and 50% of its government revenue (Okuduwor., Amadi and Udi, 2023).

When it comes to creating jobs and generating national output, Nigeria's economy is primarily based on agriculture. With cereals accounting for 80%, forestry for 3%, and fisheries for 4%, it is the largest contributor to GDP (average 38% during the last 8 years). In addition to meeting the demands of a sizable and growing population for food and fiber, it employs over 65% of the adult labor force. Agro-industrial businesses rely on this industry for its raw materials, and it generates 88% of all non-oil export revenue. The industry makes a significant contribution to the growth of the economy in a number of ways.

Despite contributing one-third of the GDP, the sector continues to dominate economic activities in terms of employment. With two-thirds of the labor force employed, it continues to be the primary industry for the great majority of Nigerians. In Nigeria, the majority of adult workers still get their income from farming, and this industry's productivity has the most impact on both rural and urban areas' standards of life. For most of Africa's vulnerable and resource-poor people, agriculture remains a primary source of income (Akpan et al., 2019a, Akpan et al., 2019b and Dawd et al., 2019). Consequently, it is evident that agricultural growth has historically been a significant factor in the process of economic development; data from both industrialized and rapidly developing nations today suggests that the sector has been the main driver of economic growth overall. Due to its historical ties, this industry is primarily seen as a dependable supply of raw resources for industrialization (Akpan and John, 2020).

Challenges to Attainment of Agricultural Sustainable Development in Nigeria

Food security, increased foreign revenue from agricultural activities, the creation of jobs, a decrease in excessive reliance on oil, and a decrease in imports—particularly those related to agriculture—will all result from the growth of agriculture. As wonderful as this may seem, achieving these objectives will not be easy. The agricultural sector's and exporters' contribution to Nigeria's economic growth has been decreasing. Because oil extraction generates such large amounts of revenue, the export of products made from cocoa, groundnuts, rubber, and palm oil has significantly decreased. A major contributing factor to the fall in agricultural exports and production was the increase in oil shipments.

The underdevelopment of Nigeria's agriculture industry is not the only result of the country's reliance on oil. Poor storage facilities, which have resulted in a great deal of waste, and excessive storage costs are further culprits. This makes it more difficult to find a source of perishable agricultural products, and it makes irrigation facilities inadequate and unavailable to deal with adverse weather (i.e. the dry seasons). Because of this, farmers cease growing during the dry season due to a lack of water and insufficient financial support from governmental and cooperative organizations. Credit from financial organizations, such as commercial banks, is difficult for farmers to obtain. Because of this, they have trouble funding capital-intensive projects, and their reliance on imported food has made it harder for them to encourage investment in local farming (Okuduwor., Amadi and Udi, 2023).

Technological regression in agricultural productivity: There is a deficiency of modern agricultural machinery like tractors, harvesters, and threshers. Nigerian farmers produce less agricultural output because they primarily use antiquated, primitive techniques. In Nigeria, small-scale farmers, who employ between 60 and 70 percent of the labor population, primarily work in fragmented land areas with antiquated machinery (Akpan & Udom 2018). The minimal budgetary allocations for agriculture, which are 10% and 25% respectively, as specified by the FAO and the Maputo declaration, are not being met by the Nigerian government. Almost all other issues can be directly linked to this one, as funding the industry plays a major role in personnel training, research and development, and the purchase of agricultural supplies. This could be due to the hazardous nature of farming operations or high interest rates, which deter farmers from taking out loans. Instability in the economy and politics: Nigeria is an unstable nation both politically and economically. Along with the emergence of new

governments come new economic policies and initiatives, usually without much thought beyond rebranding. To ensure agricultural sustainability in Nigeria, this technique cannot be translated into higher agricultural productivity.

Today, less than 5% of Nigeria's GDP comes from the agriculture sector. The agriculture sector contributed 2.95 percent of Nigeria's GDP in the 1990s to 2000, and it continued to rise from 3.88 percent in 2001 to 4.25 percent in 2002 and 7.40 percent in 2006. The output of the agriculture sector increased from 3.06 percent in 2016 to 4.23 percent in 2017 (NBS, 2017). The sector's GDP contribution was erratic and highly unpredictable, and it did not adequately account for the vast resources and numerous interventions that were allocated and carried out, respectively, by all levels of government. The nation imports between \$5 and \$10 billion worth of food yearly, which has a disastrous impact on both the external reserve and the internal food economy (National Bureau of Statistics, 2021).

Theoretical Framework

Endogenous Growth Theory:

According to the notion, investments in information, innovation, and human capital are necessary for any nation to see economic growth. The approach highlights the need of encouraging innovation in both the public and commercial sectors. According to the hypothesis, appropriately diversifying an economy outside the oil sector will likely have an impact on economic growth in three ways: through the performance of the manufacturing, solid mineral, and agricultural sectors.

Input-Output Theory:

The idea clarified how different industries interact with one another within an economy as an industry's input is considered its product by another. The theory's development was centered on assessing and quantifying the connections between the main economic sectors. According to the theory, every economic sector depends on every other sector because the input of one sector in an economy is made up of the output of another. For example, the product of the agriculture sector, such as maize, is used as a raw material input in the manufacturing sector to make starch, flour, and cornflakes, among other products. Greater economic growth requires an understanding of and application of the input-output theory's guidance regarding the interdependence of various sectors.

Rostow's Stages of Economic Growth Theory:

According to Rostow's (1960) thesis, the economic and development process is historically approached through five stages: traditional society; the take-off or transitional stage; the take-off itself; the drive to maturity; and the period of high mass consumption. When expansion becomes a society's regular state, Rostow contends that the take-off stage is the most crucial period in its history. The importance and core of the traditional society advance positively, and a variety of interests are incorporated into the social framework, with agriculture now playing a significant role. Both the state and the nobility derived their money from it. The theory makes it clear that agriculture is a force. The agricultural production has a significant impact on the industrial and economic structure throughout the first three phases of economic growth and development (traditional society, take-off conditions, and take-off stages), which are crucial for the nation's economic growth and development to commence. Therefore, in less developed nations where there is a compelling need for rural transformation, income redistribution, poverty reduction, and socioeconomic growth and development, agricultural productive activities are more concentrated, directed, and implemented.

Empirical Review

Without reaching a consensus, numerous academics have tried to use theoretical and/or empirical frameworks to address the aforementioned subject. An empirical study on the connection between agricultural output and the expansion of the Nigerian economy, with an emphasis on poverty alleviation, was conducted by Oyinbo & Rekwot (2014). The outcome showed that Nigeria's favorable trend of economic growth was significantly influenced by agricultural production. Similarly, Kenny (2019) conducted an empirical investigation into the impact of Nigeria's agriculture sector's performance on the country's economic growth. The results showed a strong long-term correlation between Nigeria's economic growth indices and the agriculture sector. Awoyemi et al. (2017) and Inusa et al. (2018) reported similar outcomes.

As has been established, agricultural exports have definitely contributed significantly to the economic expansion of Nigeria and other sub-Saharan nations, generating foreign exchange revenues that are then utilized to fund additional capital projects in Nigeria and the SSA. The study examined the relationship between Nigeria's economic expansion and its exports of agricultural commodities using the Ordinary Least Square (OLS)

regression model. Nigeria's GDP benefits from agricultural exports, according to OLS data. Between 1970 and 2010, the agriculture sector was estimated to have contributed roughly 34.4% to GDP growth. Exports of agricultural products accounted for about 75 percent of total annual exports in the 1960s, (Osabuohien., Obiekwe., Urhie & Osabohien, 2018).

Furthermore, prior to its independence, Nigeria was recognized as the world's leading producer and exporter of a number of important produce items. Nigeria ranked third in groundnut production, second to Ghana in cocoa production, and the top exporter of palm products (oil and International Conference on Energy and Sustainable Environment kernel). Additionally, it is said that Nigeria's economic expansion and agricultural exports are related over the long run. Similar to Osabohien, Afolabi, and Godwin (2018), the ARDL technique reveals the several elements that impact Nigeria's level of food production. Technical know-how was one among these; other aspects included savings, changes to infrastructure, technology, and so forth.

Using the propensity score matching method, Osabohien and Osuagwu (2017) conducted empirical research and observed that social protection legislation and regulations aimed at the agricultural sector will increase the sector's capacity for output and, thus, contribute to economic growth. This is due to the fact that the agricultural industry is the main engine of the economy, providing a means of subsistence and work possibilities for the burgeoning population, particularly in rural areas where around 85% of people are employed exclusively in the agricultural sector. Likewise, Okorie, Osabohien, and Osabuohien (2018). Through qualitative discourse, it was demonstrated that local communities' institutional quality has an impact on the production, distribution, and processing of agricultural commodities, particularly rice production, which accounts for the majority of food consumed by over 90% of Nigerian families.

These organizations and social protection initiatives may take the form of limiting greenhouse gas emissions, which have a detrimental impact on farmers' health and harm both animals and controls. In keeping with this, it's important to note that as of Nigeria's independence in 1960, the country's GDP was derived more than 50% from the agricultural sector. Nevertheless, because of the finding of crude oil, the sector's growth rate has been decreasing over time.

Previous research has demonstrated that the recent increase in greenhouse gas emissions and global warming have had an impact on farmers' health and agricultural commodity production, which has decreased the amount of food produced (Matthew, Ede, Osabohien, Ejemeyovwi, Fasina, and Akinpelumi, 2018). Fertile soils and fossil fuels are being indiscriminately depleted worldwide in an effort to meet the ever-increasing demands for food and non-food items brought on by population growth. Instead, ICTs and well-run institutions are being adopted to meet these demands (Ejemeyovwi, Osabuohien, and Osabohien 2018). According to Badiene (2008), ineffective public resource management, mismatched incentives, and more fundamental structural factors—particularly technology limitations—are to blame for the agricultural sector's and production's subpar performance. He also believed that mass migration has harmed agriculture. The productivity of agriculture is decreased in rural areas because there are fewer capable youths remaining to work in agriculture.

Using ordinary least squares (OLS) econometric approaches, Olajide et al. (2012) found a positive link between GDP and agricultural output in their study on agricultural resources and economic growth in Nigeria, which covered the years 1970 to 2010. According to his research, the agriculture sector accounted for roughly 35% of the GDP. Even so, when commercial quantities of crude oil are discovered, the agricultural sector receives less support. In a research on the effect of agricultural development on Nigerian growth over a 30-year period (1980–2010), Onunze (2012) looked at data. The study resolves the debate among development economists on whether or not the agricultural sector is essential to industrialization and national growth. The study investigated whether the agricultural sector serves as a primary driver of economic growth and development using OLS methodologies and factors including agricultural development, capital creation, inflation rate, and interest rate. An empirical investigation revealed that there is a positive correlation between economic growth and the agriculture sector. The Johansen Cointegration test and the Augmented Dickey-Fuller (ADF) test were used in an empirical study by Bekun (2015) that covered a 33-year period (1981 to 2013) and examined the impact of Nigeria's agriculture industry on economic growth. The dependent variable was real gross domestic product (RGDP) per capita, and the explanatory variables were oil rent and agricultural output. The study demonstrates the critical and significant role Nigeria's agriculture industry may play in the country's economic expansion if given proper consideration.

3. METHODOLOGY

The primary data collection strategy employed in this study is secondary. Secondary data come from a variety of sources, including government reports, publications, books, journals, unpublished works, and the internet. The secondary times series data set used in this analysis covers the year’s 1990–2021. The Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics (2015) are two of the main sources from which the statistics were gathered. The study’s data sources are of the quantitative variety. As previously mentioned, the numerical values of the variables are derived from several sources. Data were therefore sourced on Gross Domestic Product (GDP), Agricultural Value Added as percentage of GDP (AGVA), Unemployment (UNEMP) and Inflation Rate (INFL) in Nigeria from 1990 to 2021.

MODEL SPECIFICATION

Multiple regression was developed and estimated using the Ordinary Least Square approach, which makes the assumption that the variables have a linear relationship, in order to meet the study’s objectives. As a result, the study provides more accurate estimations based on the type of data used (Koutsoyannis 1997, Gujarati, 2006). The functional relationship between the variables is presented thus:

$$GDP = F (AGVA, UNEMP, INFL)$$

The functional relationship is translated into an econometric model for regression:

$$RGDP = \beta_0 + \beta_1 AGVA + \beta_2 UNEMP + \beta_3 INFL + \mu$$

Where:

GDP= Gross Domestic Product (proxy for Economic growth)

AGVA = Agricultural Value Added as a percentage of GDP

UNEMP= Unemployment Rate

INFL = Inflation Rate

μ = Error term at time

4. RESULTS AND DISCUSSION

Unit root test

Conventionally, the universal assumption in testing economic model is that the variables be stationary, but is not generally true. Therefore, before estimating the model of the research, we shall check for the time series properties of the data. The unit root was tested using Augmented Dickey-Fuller test at 5% level of significance. The choice of lag length was lag (4) which was used uniformly for all variables. The result is shown in the table below:

Table 1: Summary of the Augmented Dickey-Fuller Test

Variables	ADF Statistics	5% Critical value	Order of integration	Remark
AGVA	-6.364686	-2.967767	1(1)	Stationary
UNEMPR	-4.618091	-2.963972	1(1)	Stationary
LOGGDP	-5.062133	-2.960411	1(0)	Stationary
INF	-6.125550	-2.981038	1(1)	Stationary

Source: Author’s computation from Eview 10

The table above shows the results of the unit root test. The decision rule state that if the Augmented Dickey Fuller statistics is > than the critical value at 5% then there is no unit root in the data, but its stationary. The result shows that RGDP is stationary at level while AGVA, INF and UNEMP were stationary at 1st difference, hence the data stationary. Following Pesaran and Pesaran (1997) procedure. However, ADF unit root test for this study confirmed that only one of the variables in the research model is stationary at 1(0) and the remaining three are stationary at first difference 1(1). The result in table 1 above indicates that when the variables are tested at levels, only one variable is stationary, the rest are not stationary. Moving forward, differencing the respective variables and performing the unit root test on each of the resultant time series. The rationale behind this procedure is as Box and Jenkins (1976) have argued that differencing non-stationary time series will make it attain stationarity. The data of this nature warrant the use of Autoregressive Distributed Lag Model.

The ARDL approach was adopted because its test statistics generally perform much better in small sample than the test statistics computed using the asymptotic formula that explicitly takes account of the fact that the regressors are I(1). It permits the combination of the different order of integration (I(1) and I(0)) among the variables in the model. The result of the ARDL for the models is represented below:

TABLE 2: showing the ARDL result

Dependent Variable: LOGGDP
 Method: ARDL
 Date: 09/30/23 Time: 04:54
 Sample: 1994 2021
 Included observations: 28
 Maximum dependent lags: 4 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (4 lags, automatic): AGVA INF UNEMP
 Fixed regressors: C
 Number of models evaluated: 500
 Selected Model: ARDL(3, 4, 4, 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGGDP(-1)	0.034729	0.239283	0.145139	0.8872
LOGGDP(-2)	0.351559	0.194671	1.805910	0.0983
LOGGDP(-3)	0.574815	0.213933	2.686897	0.0211
AGVA	0.008555	0.004239	2.018041	0.0686
AGVA(-1)	-0.002375	0.005018	-0.473371	0.6452
AGVA(-2)	0.013082	0.006053	2.161182	0.0536
AGVA(-3)	0.001556	0.004963	0.313602	0.7597
AGVA(-4)	0.010901	0.004255	2.562088	0.0264
INF	0.001417	0.001399	1.012870	0.3329
INF(-1)	0.006691	0.001564	4.278375	0.0013
INF(-2)	0.002872	0.001790	1.604243	0.1370
INF(-3)	-0.000752	0.001075	-0.699226	0.4989
INF(-4)	-0.003296	0.001255	-2.625170	0.0236
UNEMP	-0.014547	0.014663	-0.992108	0.3425
UNEMP(-1)	-0.005224	0.019771	-0.264225	0.7965
UNEMP(-2)	0.023840	0.016629	1.433671	0.1795
C	-0.062389	0.266061	-0.234491	0.8189
R-squared	0.999684	Mean dependent var		10.19622
Adjusted R-squared	0.999223	S.D. dependent var		1.397349
S.E. of regression	0.038944	Akaike info criterion		-3.373420
Sum squared resid	0.016683	Schwarz criterion		-2.564582
Log likelihood	64.22788	Hannan-Quinn criter.		-3.126150
F-statistic	2171.902	Durbin-Watson stat		2.417031
Prob(F-statistic)	0.000000			

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

The coefficient of the constant intercept β_0 is -0.062389 which show that if all the explanatory variables were held constant, the GDP will be negatively affected as -6, a decrease in economic growth in the economy. In relation to our apriori expectation, it is expected that there should be a direct positive relationship between Gross Domestic Product and the independent variables (AGVA, and INF) in Nigeria. The coefficient conforms to the apriori expectation. However, the coefficient of Agricultural Value Added as percentage of GDP (AGVA) conformed to the apriori expectation. The coefficient ($\beta_1=0.008555$, $P=0.0686$) shows a positive and an insignificant relationship between AGVA and economic growth in Nigeria. Its shows that a unit change in AGVA will lead to 1% change in economic growth in Nigeria.

Consequently, the coefficient of Unemployment Rate shows that it conformed to the apriori expectation of a negative relationship. This is proving by the coefficient of ($\beta_2 = -0.014547$, $P = 0.3425$). The result is negative and insignificant at 5%. This shows that a unit change in Unemployment Rate will lead to a reduction in GDP by 1% in the economy. There is an inverse relationship between unemployment and economic growth. A reduction in unemployment will lead to an increase in economic growth but an increase in unemployment will reduce the economic growth.

Lastly, the coefficient of Inflation rate also conformed to the apriori expectation of a positive relationship. This is shown by the coefficient ($\beta_3 = 0.001417$, $P = 0.0013$) which indicates that a unit increase in Inflation Rate will lead to a 1417 unit increase in economic growth.

The coefficient of determination (R^2) showed the percentage of variations in the dependent variable that can be explained by the independent variables. The R^2 of 0.999684 or 99% showed that Economic growth can be explained by changes in the explanatory variables as shown in the model and the remaining 1% is explained by the dummy variable. The F-statistic which measures the overall significance of the model indicated that it is significant at 5%. This is indicated by the F-statistics and its probability (2171.902 and 0.000000) respectively. We therefore conclude that there is a significant relationship Agriculture and economic growth in Nigeria. The Durbin Watson statistics is approximately 2 which show that there is no serial correlation. This means that the value of the random term in any particular period is uncorrelated with its preceding values which indicate the absence of autocorrelation.

5. DISCUSSION OF FINDINGS

It was obvious that many Nigerians are into one form of agricultural activity or the other but operating at subsistence level. Consequently, the sector has not been able to impact significantly on the wealth of the Nigerian economy. Mass production of agricultural output, although capital intensive is yet to gain ground in Nigeria and this is supposed to help put food on the table of the masses, reduce poverty and encourage export. This must be addressed. Besides, the inability to revive the rural areas where a large proportion of the people live has not helped matters and so many youths who are supposed to delve into agriculture in the rural areas prefer living in slums in the urban areas, thereby defacing the urban areas and raising social vices in such areas.

Based on this result, the regression shows that a positive and an insignificant relationship existed between economic growth and Agricultural Output in Nigeria at 5%. It shows that a unit change in Agricultural Value added will lead to a 1% change in Economic Growth in Nigeria. This could be as a result of high rate of inflation which make the farm input to be costly to the farmers thereby making an insignificant increased to the GDP. The result is consistent with Olajide et.al (2012) who found a positive relationship between GDP and agricultural output in Nigeria. The result further shows that there exists a positive and insignificant relationship between Inflation Rate and economic growth in Nigeria. That a unit change in Inflation Rate will change the GDP by 0.14 per cent. This shows that Nigeria's public Inflation Rate has the tendency of stimulating economic growth, but several factors such as gross mismanagement of funds has hindered it stimulating influence and high cost of Agricultural inputs such as Fertilizers and Farm machineries such as Tractors discouraged farmers from large scale production thereby reducing the output in the economy. This is the reason why the coefficient of inflation rate is not significant. On the other hand, the Unemployment Rate shows that there exists a negative and significant relationship with GDP. This conforms to the apriori expectation, therefore, to improve the agricultural sector there is need to employ more workers to reduce the unemployment thereby increasing the GDP.

The regression result shows that there exist a positive and a significant relationship between Agriculture and economic growth in Nigeria. This is indicated by the goodness of fit of 99% growth in GDP which is as a result of a change in the independent variables and 1% is by the disturbance variables. The overall significance is measured by the value of the probability F-statistic which is 0.000000 and is less than 0.05 significant levels. We, therefore, reject the null hypothesis and conclude that there is a significant impact of Agriculture on economic growth in Nigeria.

6. CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The role of Agriculture in enhancing economic growth in Nigeria has been discussed in this study. The study showed that Agriculture can only contribute to growth significantly when properly manages. Otherwise, it will result to negative effect on the economy. Furthermore, the result of the study, showed the importance of both Employment Rate, and Inflation Rate in bringing about economic growth. This was portrayed by the positive

sign of Inflation Rate which is an indication that if properly and efficiently managed can lead to economic growth and the negative sign of unemployment, that shows that there is a need by the government to make agriculture attractive in which more teaming population of the youth will be engage in agriculture. Thus, the study conclude that the government should put more effort on the agricultural sector by increasing the allocation to the sector as suggested by mobuto declaration of 10% allocation of the budget to the agricultural sector.

RECOMMENDATIONS

Based on the result of this research study, the following recommendations were made:

Agricultural friendly government policies and policy orientation must be put in place. These policies should be channeled towards blocking the leakages in agricultural output in the economy so as to have inclusive growth in the sector. Such policies should include building storage facilities like Silos, to achieve all year round availability of agricultural products at stable rate etc.

Suitable rural infrastructure development should be made priority by the government. This basic infrastructure will help the local farmer that wants to commercialize it yields, to be able to access potential buyers, and markets where it can be sold. The government should subsidies farm inputs to encourage farmers

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