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Agro -Allied Small and Medium Scale Business and Economic Growth of Nigeria (1976-2021)

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Abstract: Agro-allied industries rely on agriculture for raw materials in order to produce finished goods that are helpful to livestock and people. The study examined the impact of agro allied small and medium scale business on economic growth of Nigeria between 1976 and 2020. The data was sourced from CBN Statistical Bulletin and analysed using econometric techniques such as ordinary least square, error correction model etc with the aid of EViews software. The Regression result showed that a positive and significant relationship exist between agro allied SMEs has a significant impact on real gross domestic product (R^2 =0.586, Adjusted R^2 = 0.577, p value= 0.02). The study concluded that agro allied small and medium scale business has moderate positive impact on economic growth of Nigeria. This study therefore recommends that the emphasis should be on modern technology to improve agro allied business to make economy more functional, relevant and growth driven.

Keywords: Small and Medium Scale; Agro allied Business; Real Gross Domestic Product

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1. Introduction

Economic growth of Nigeria is dwindling as a result of poor management of internal sources of revenue through the activities that can generate returns to the economy. The records revealed that economic growth in 2018 was 1.92% with RGDP$397.19 billion. In 2020, the growth level has decreased drastically to -1.79% and RGDP to $432.29billion. (World Bank National accounts data, 2020). Small and medium scale business has its major role to play in boosting the economic growth of any nation, mostly agricultural business as it remains the main stay of Nigeria economy. The state of the economic condition of the country is at distressing stage that require urgent attention to resuscitate from been total crumbled.

Agricultural activity which is one of the major ways to generate revenue has been neglected. "*The agriculture industry contributes 21.8 percent to Nigeria's gross domestic product*," as asserted by Central Bank of Nigeria (2020). Agriculture's auxiliary industry is referred to as agro-allied, its advancement brings about stabilisation and profitability to economy, resulting in job possibilities at both the manufacturing and services organisation (NPCS, 2000).

The main source of income for majority of resident in rural areas is agriculture and it also a major source of national revenue for most country in Africa, hence boosting agribusiness is one of the ways to develop local regions (Mahmood, 2011). The establishment of agro-allied companies in rural regions provide certain benefits to rural residents and bring about economic development to the nation.

Agriculture's relevance spans further than the supply of human's food and animal feeds to the production of fundamental raw materials for commercial production, allowing for the transformation of non-use items into usable resources. Agro-allied businesses, according to (Ajila, 2014), expand and commercialise agri-business, including providing food supplies and increasing farmer revenue. Agri-business is an essential and significant element of the industrial sector in emerging nations in this regard (NPCS, 2000).

Agro-allied industries are those that depend on agricultural for raw materials to produce finished commodities that are beneficial to people and the economy. Pesticides, fertilisers, vaccinations, and herbicides are examples of agro-chemicals produced by industries for agricultural purposes. Agriculture ensures the availability of food for humans, animals, and also raw materials for agro-allied businesses (Oji-Okoro, 2011). Agro-allied SMEs are driver to economic growth (Dada et al, 2021). The operations bring about generation of employment opportunities, stimulation of indigenous entrepreneurship, and facilitation of effective deployment of agricultural resources (Adeyipo, 2019).

The main catalyst of industrial progress is the small and medium scale business (SMEs) that brings about rapid development to the country. The enormous

capabilities of SMEs for assuring industrial expansion, expansion, and also achieving fundamental objectives. Even though few governments developed regulations intended to facilitate and empower SMEs' business expansion, others focused on supporting SMEs in increasing, over financial support and lots of government subsidies in an attempt to boost socio - economic growth, like poverty reduction, creating jobs, human evolution, and welfare programmes (Akingunola, 2011).

Agriculture Small-scale enterprises play a critical part in any economy's ability to achieve projected growth, meaningful employment (Jelilov & Bahago, 2017; Dada et al, 2021). SMEs have shown to be an important strategy adopted by industrialised countries to achieve socioeconomic growth. In recent years, the small-scale manufacturing sector has been regarded as the backbone of the contemporary economy. Small and medium businesses have fueled a plethora of economic activity in countries across the world, attracting international or global commerce. Before the nineteenth century, small businesses dominated Europe's economy (Opafunso & Adepoju, 2014).

Small enterprises are a powerful tool for achieving national economic goals such as job creation, higher productivity, and the development of entrepreneurial skills (Iheneje, Okafor, Adeleke, Kingsley & Zwingina, 2020). The entrepreneurial activities of a state, including the state's high Gross Domestic Product (GDP), determine the economic growth and development of the state. Fast economic expansion, according to Danjuma et al (2014), is accompanied with growing GDP (GDP). In the literature, agro-allied (SMEs) in Nigeria are not directly connected to the country's economic progress aforetime. Countless research has been undertaken examining the influence of all small-scale company operations on economic growth (Akingunola, 2011; Imoisi & Ephraim, 2015). Despite the development of several agricultural programmes such as OFN (1976), which provided farmers with soft agricultural loans (2018). Researchers (Akingunola, 2011; Imoisi & Ephraim, 2015) have conducted several studies on the issue, but this study seeks to broaden the scope of the previous authors' work by defining the extent of agro-allied business influence on the economic growth of Nigeria from 1976 to 2020. The study's specific goal is as follows:

i. determine the relationship between agro allied SMEs and real gross domestic product (RGDP) (1976-2020)

2. Literature Review

Agro-allied industries depends on agriculture for raw materials to produce finished items that are helpful to animals and people. Agricultural machinery and equipment are manufactured by industries. For labour, agriculture and industry compete. Rural

people (mainly farmers) desire to acquire a wide range of items, which industries give. Pesticides, fertilisers, vaccinations, and herbicides are examples of agro-chemicals produced by industries for agricultural purposes. Agriculture provides food for human consumption, animal feed, and raw materials for agro-allied businesses (Edoumiekumo & Audu, 2009; Oji-Okoro, 2011).

The agrobusiness influences up to 24.18 percent of the gross domestic product of Nigeria, as stated by Central Bank of Nigeria (2016). Rural agriculture accounted for more than 70% of the employment produced in Nigeria's informal economy. Ibrahim (1997) also believes that most business sectors will collapse if agriculture is not practiced. This is consistent with the notion that it is the primary source of raw materials for those industries. Agriculture's agro-allied business is seen as an extension of it. Its advancement might aid in the stabilisation and profitability of agriculture, resulting in job possibilities at both the manufacturing and sales stages (NPCS, 2000).

Agriculture's relevance is more than the production of humans' food and animal feeds to the delivery of fundamental raw materials for industrial purposes, allowing for the transformation of otherwise unusable items into useable resources. According to Ajila (2014), agro-allied enterprises assist diversification and commercialisation of agriculture, also enhancing farmers' income and provide food efficiently.

SMIEIS (2020), projected SMEs with an overall value, not less than 1.5 million dollars and not more than 200 million dollars, comprising invested capital but excluding cost of land, and a staff of not less than ten and not more than 300. The criteria used by SMEDAN (2005) to define SMEs are as follows: small businesses employ ten to fourty-nine people and generate annual sales of five to fourty-nine million Naira, whereas medium businesses employ fifty to one hundred and ninety-nine people and generate annual revenue of fifty to four hundred and ninety-nine million Naira.

Positive improvements in output levels and economic indicators are explained by economic growth. The majority of growth models use the degree to which people save more as a key factor in long-term growth. In the Harrod-Domar Model, saving and growth are essentially linearly related. Government has a fundamental role to play by increasing productivity related to import replacement and exports expansion; improving foreign exchange earnings, which increases per capita consumption (Jelilo and Bahago, 2017).

2.1. Nigeria's Agriculture Sector and Gross Domestic Product

Nigeria, which was once reliant on agricultural, moved its attention to exportation of oil in the 1970s, after years of economic downturn, the agricultural sector was revisited. The burden to meet the MGDs, triggered the revisiting and examining of

the impact of sector on Economic development in Nigeria. Agriculture accounts for forty percent of Nigeria's GDP and hires over seventy percent of the total working population. Agriculture is perhaps the most crucial sector of the economy in the rural region, accounting for majority of the population. Nigeria is beset with a resource curse (Aluko, 2004). The economy's performance has been significantly below expectations, despite the vast resource endowment in both intellectual capital and natural resources.

The most populous country in Africa is Nigeria with the total population estimated at 206.14 million people and a working population of 53.83 million people in 2020 (https://www.worldbank.org/en/home). It is endowed with a plentiful workforce to drive economic growth. Nigeria has the sixth greatest gas reserves in the world and the eighth world's largest oil reserve in the world, in addition to being Africa's top oil producer (Sanusi, 2010). A sum of 31 million acres of land is being cultivated, and the diverse environment enables for the creation of a diverse range of tropical and semitropical products from around the globe (Chauvin, Mulangu & Porto, 2012). Notwithstanding these benefits, the country's economy is among the worst in the world.

2.2. Harrod-Domar Theory of Growth

The model was developed independently by Harrod in 1939, and Evsey Domar in 1946, as the precursor to the exogenous growth model. Investment, according to Harrod and Domar, plays a critical part in the economic growth process. They do, however, stress the dual nature of investing. It does two things: first, it generates income, and second, it increases the economy's productive potential by expanding its capital base. The first is referred to as the "demand effect", while the latter is referred to as the "supply effect" of investment. As a result, total earnings and production will keep rising as far as net investment continues. However, in order to sustain a full employment balance income level from yearly, both total earnings and production must increase at the same pace as the productive potential of the invested capital. Any difference between the two, on the other hand, will result in additional or indolent capacity, causing businesses to reduce their venture outflows.

It will eventually have a negative impact on the economy by decreasing their salaries and employment in following times, causing the economy to deviate from its equilibrium level of steady expansion. As a result, if high employment is to be achieved over time, net investment must continue to grow. This also need continual revenue growth at an adequate rate to assure complete capacity utilisation of a rising stock of capital. The justified growth rate, also known as "full capacity growth rate", is the needed rate of revenue increase.

2.3. Classical Growth Model

This model, as specified by Nellis and Parker (2004), sprang from the opinions of economists in the late 18century and early 19 century, and was primarily influenced by Thomas Malthus' vision and writings. The primary tenet of this theory is that technological advancements result in a temporary rise in the pace of development in terms of a country's production. According to this concept, as real GDP per worker rises, the subsistence level of salaries will rise. One by one, this will result in an increase in the overall labour supply as well as a manifestation of the country's total population.

With an increase in labour supply, falling real GDP per worker, and economic output per worker returning below the subsistence norm, the real wage will fall immediately. The basic premise of this model is that capital accumulation and technical progress are responsible for the influence on economic growth rate. This idea, on the other hand, fails to explain why modern technology and farming practises will result in an increase in agricultural production. Despite the fact that the world's population has risen to almost 7 billion people, there is now a sufficient supply of food. The study is underpinned by Harrod-Domar Theory of growth because of it ability that focus investment that bring about economic growth.

Dada and Alogwuja (2021) investigated the influence of agro-allied SMEs on the economy of Kogi State, as well as how business operations of agro-allied SMEs affect employment generation in the state. Purposive sampling was employed to choose 120 'agripreneurs' using a survey study approach. The hypotheses were tested using multiple regression analysis. The findings revealed that the impact of agro-allied SMEs' entrepreneurial activity on employment generation in Kogi State is minimal. In addition, the findings revealed that Nigeria's contribution to the agricultural sector had a favourable association with the country's Gross Domestic Product. According to the report, empowering agro-allied SMEs will result in a lower unemployment rate.

Resource mobilisation is critical for achieving a long-term rise in an organization's production. The study examined the impact of resource mobilisation capability on the long-term productivity growth of agro-allied small companies in South-South Nigeria. The study questions were organised in a closed-ended five-point Likert scale as the data collecting instrument. The OLS regression approach was employed to assess the connection between organisation productivity and factors of resource mobilisation practise. According to the findings, resource mobilisation capability has a positive and substantial effect on the long-term efficiency of agro-allied small firms in South-South Nigeria.

Atarere (2016) conducted a theoretical study on the impact of policies on the growth of Small and Medium Scale Enterprises in Nigeria. Nto, Mbanasor, and Osuala (2012) utilised Fully Modified Least Squares (FMOLS) to investigate the impact of

monetary policy factors on banks' loan supply to small and medium-sized companies (SMEs) in Nigeria from 1995 to 2010. In addition, Sertoglu, Ugural, and Bekun (2017) found that in the short term, the natural logarithm value of agricultural output and RGDP have a positive statistical association.

Using a correlation matrix, Anyanwu, Ibekwe, and Adesope (2010) discovered that, between 1990 and 2001, the production of main staples in Nigeria contributed considerably to GDP growth (excluding wheat). Timmer (1995) also assert that the agricultural sector helps economic growth by enhancing availability of food. This solitary position plays a vital role in realizing global food security and reducing hunger. Agriculture, according to FAO (2005), may help achieve all eight MDGs by providing direct or indirect links to food supply and poverty reduction.

According to Wang, Walker, and Redmond (2011), while petroleum oil is thought to contribute significantly to Nigeria's status, SMEs offer meaningful employment for around seventy percent of the population in Nigeria. According to available data, the agriculture industry contributes for between 35 percent to 40% of the Nigeria's GDP. Majority of agricultural actors are small-scale self-employed persons who participate in farming, crafts, fishing, agroforestry, and livestock husbandry. These SMEs initiatives help the government diversify its economic base.

According to Joseph & Micheal (2013), SMEs play a significant role in fostering job creation, technological innovation, the development of business capacity, the equitable circulation of revenue, the formation of more competitive industries, and an overall increase in people's living standards within a business region. Furthermore, an empirical study conducted by Ogbo and Nwanchukwu (2012) on "The role of Entrepreneurship in Economic Development: The Nigeria Perspective", in which 100 SMEs were chosen at random from a cross section of all SMEs in some state in Nigeria. Finding showed that SMEs play an important role in Nigeria's growth and development. This presents SMEs as a driving force or mechanism for economic development and progress.

3. Methodology

3.1. Research Design

This study used time series data which is secondary data obtained from world development index publication (WDI) for the period between 1976-2020. Data were obtained from the Statistical World Bank Development Index (WDI) publications. Ordinary least squares (OLS) regression, and an error correction model were used in this investigation. The model proposed by Imoisi and Ephraim is used in this investigation (2015). The functional connection between the study's dependent and independent variables is as follows:

RGDP = f(AGROMEC) (1)

In econometric form, the equation becomes:

$RGDP = \alpha_0 + \alpha_1 AGRSMEC + \varepsilon$ (2)

Specifying equation 2 in log form, the equation now becomes;

$logRGDP = log\alpha_0 + \alpha_1 logASGDP + \alpha_3 logFSH + \varepsilon$ (3)

Where: RGDP = Real Gross Domestic Product;

ASGDP = Agricultural Share of GDP;

FSH = Fishery Share of GDP;

AGRSMEC= Agro allied Small and Medium Scale Business Combined.

α_0, α_1, α_2, α_3 andα_4 = intercepts

ε = stochastic or error term

Results and Discussion

Hypothesis One: Agro-Allied SME does not have significant impact on Economic growth (Real Gross Domestic Product)

Table 1. Regression Analysis of the Training, Development and Capital Employed

R	0.765672		
R-squared	0.58614	Mean dependent var	56373460
Adjusted R-squared	0.577202	S.D. dependent var	40425865
Log likelihood	-253.8989	F-statistic	34.98150
Durbin-Watson stat	1.872690	Prob(F-statistic)	

Estimation Command: Real GDP = C(1) + C(2)* AGRSMEC + ε

The model summary Table 1 gives the R^2 (0.59) and adjusted R^2 (0.58). This shows that Agro allied business has positive impact on real gross domestic product in Nigeria within the specified years. Thus, this model is predicting 58% of the variance in the level of real GDP of the economy pooling all predictors together simultaneously.

Table 2. Error Correlation Method (ECM) Results of the

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4908875	26334877	1.161825	0.6099
Real GDP	12.9500	75.74474	0.384144	0.0204

Source: Author's Computation using E – View, (2020).

Table 2 explains that there exists a positive interaction (relationship) among variables measured. That is, Real GDP and contribution of Agro Allied SME in the country. However, the relationship is statistically significant ($P < 0.05$). Moreover, 1% increase in the number of SME Agro Allied business in the country will lead to about 12.9% increase in return on Real GDP of the economy in the immediate year.

The result of F-calculated is (34.98) is an indication that there is joint statistical significance between Agro Allied SMEs and Real Gross Domestic Product as shown with probability value at 5% level of significance. This implies there is goodness of fit in model. Since the Durbin Watson statistics is almost 2. that is (1.8). This is evidence that there is no presence of positive autocorrelation in the model as Durbin Watson value is 1.872690.

4. Findings

The purpose of the study was to look at the impact of agro-allied SMEs on Nigeria's economic growth (1976-2020). The study revealed that the economic growth and the Agro Allied SME variables have positive interaction (relationship). The level of relationship is proportionate to bring about increase in real gross domestic product of the country as also justify by positive r-square value of

5. Conclusion and Recommendations

It is concluded from the findings that agro-allied SMEs have a positive substantial impact on Nigeria's economic growth. This is consistent with Ogun and Anyanwu (1999); Jelilo et al, 2017; Dada et al, (2021) despite the fact the study used primary source of data collection, they concluded that the rapid growth of SMEs would significantly contribute to an extensive array of growth and development of an economy. The study recommends the following based on the findings:

The agro-allied SMEs must be expanded, making it more effective, relevant, and focus-driven. Modern technology, practical technological, and entrepreneurial education aimed at developing entrepreneurs should be encouraged by government. The government should also make sure that the Agro-allied SME Credit Guarantee Scheme is fully in operations without political bias to increase credit providers' vulnerability to small-business owners in all aspects of business plan development.

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