

**Article Arrival Date****06.05.2025****Article Published Date****20.06.2025****COVID-19: REPOSITIONING NIGERIA'S ECONOMY FOR THE NOW AND THE TOMORROW****Chinedu THADDEUS AYOJU**

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**Abstract**

The failure of past and present administrations to diversify Nigeria's economy evident in the dependence on oil exploration and export is one among the factors responsible for the economic challenges affecting the country. The economic situation of Nigeria has since worsened at the instance of the outbreak of the coronavirus and its attendant ramifications on international trade; manifest in the fall price of crude oil, low foreign and domestic investments, heightened level of unemployment and poverty etc. Interestingly, the agricultural and information communication technology (ICT) sectors have since the outbreak of the coronavirus pandemic proven to be among the thriving sectors in Nigeria despite the seeming neglect of the sectors by the government. This paper examines the extent to which the potentials in the agricultural and information communication technology (ICT) sectors may be utilized to drive sustainable development in Nigeria, Post COVID-19. The study adopts qualitative data method. Purposively selected respondents with expertise on the subject were interviewed. They include economists, agricultural-economists, farmers, software consultants and developers, personnel of Lagos Chamber of Commerce and Industry and Nigerian National Petroleum Corporation (NNPC). Further, the study adopted comparative advantage and structuralism theory as a means of advancing the exigency of diversifying Nigeria's economy. The study concludes that for Nigeria's economy to thrive, post covid-19, there is an urgent need to harness the potentials inherent in the agricultural and information communication technology (ICT) sectors of the country's economy.

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**Keywords:** Agriculture, Information Communication Technology, Nigeria, Post COVID-19 Sustainable Development

**I. INTRODUCTION**

The position that the world is gradually becoming a 'global village' came to fore following the outbreak of the novel coronavirus. Some of the ramifications associated with the virus are traceable to the varying degree of lock down measures adopted by governments of nations aimed at checking the spread of the virus to include the closure of states' borders. Other measures include compulsory use of face masks and the observance of social distancing in public places as well as the partial or total shut-down of businesses, recreational centres and institutions of learning. The impact of the global lock down measures are manifest in the fall in international trade. While some businesses and organisations have shut down operations due to low patronage, some others engage in skeletal and/or remote operations. As a result, the rate of unemployment across the world has persistently been on the rise (Emily, 2020). The impact of the coronavirus on the world economy is projected to have more dire impacts on developing countries with growth rate pegged at 0.5% for countries in East Asia, 2.8% in sub-Saharan Africa, and 4.2% for countries in the Middle Eastern (World Bank, 2020).

As it concerns Africa, the Organisation for Economic Co-operation and Development Report (2020) reports that though the impact in terms of infection and mortality rates are minimal in Africa, the coronavirus has opened up the Continent to dire economic implications. This is because the economies of most countries in the Continent are dependent are arguably less industrialised.

Nigeria's economy reflects some of the challenges associated with the coronavirus manifest in the increase of unemployment and poverty rates. While the country's economy has witnessed massive downturns due to the fall in the price of crude oil in the international market prior to and more evident due to the outbreak of the coronavirus, lock down measures adopted by the government have further pushed the country's economy into recession. The near total dependency on foreign exchange earnings from crude oil sale is associated with her dwindling economy (Chukwuma & Mma, 2020). Also, poor economic policies such as the dependence on loans and aids from monetary institutions and donor countries; misappropriation of funds by public office holders are other factors in this regard (Chukwuma & Mma, 2020). Furthermore, the Nigerian government had been contending with a weak economy as a result of the 2014 and 2016 fall in oil price. This pegged her GDP growth to about 2.3 percent in 2019. Similarly, the country's debt profile as well as its debt service-to-revenue ratio estimated at 60% makes economic recovery at the instance of the coronavirus nearly impossible (Chukwuma & Mma, 2020).

The African Post (2020), reports that prior to the outbreak of the coronavirus, unemployment rate in Nigeria was 23.1% high with the Minister of Labour and Employment, Dr. Chris Ngige, projecting an increase to 33.5% by the end of the 2020 due to the outbreak of the coronavirus. With an estimated 86.9 million Nigerians currently living in extreme poverty, it is estimated that about 5 million more Nigerians may slide into the poverty line as a result of the coronavirus pandemic. This is based on the projection that economic growth may fluctuate between 3.2% and 7.4% in 2020 (World Bank, 2020).

At the instance of the vast human and natural resources at its disposal, the Nigerian state arguably belongs among the league of countries with enormous wealth. However, the failure of past and present administrations to diversify its economy manifest in the neglect of some sectors such as the agricultural and information communication technology (ICT), and the total dependence on crude oil exploration has relegated her among the comity of dependent nations. In the 1960s, for instance, agricultural production was the mainstay of the Nigeria's economy; contributing over 50% to its Gross Domestic Product (GDP), and employing a high percentage of its citizens (Effoduh, 2015). Further, despite being among the highest users of ICT in Africa, investment and support for technology by the government is not impressive. The outbreak of the coronavirus has further expanded the country's dependence on technology especially in the conduct of business. Kashifu Inuwa, the Director-General, National Information Technology Development Agency (NITDA) notes that the Information and Technology (ICT) sector's contribution to Gross Domestic Product (GDP) in Nigeria was 14% in first quarter of 2020 despite the economic challenges associated with coronavirus. As at the last quarter of 2019 initial growth stood at 13.12 per cent (Adewumi, 2020); the foregoing speaks to the need to diversify Nigeria's economy.

The study therefore examines the extent to which the potentials in the agricultural and information communication technology (ICT) sectors may be utilized to drive sustainable development in Nigeria, Post COVID-19.

## II. OBJECTIVES OF THE STUDY

The objectives of the study are to:

- i. To examine the extent to which the agricultural and information communication technology (ICT) sectors may be utilized to drive economic sustainability in Nigeria at the instance COVID-19; and
- ii. To identify the roles of the government at harnessing the potentials in the agricultural and information communication technology (ICT) sectors in Nigeria.

## III. LITERATURE AND THEORETICAL DISCOURSE

### **Nature and Impact of Nigeria's Economic Policies and Programmes: 1999-2019.**

This section examines the nature and impact of the economic policies adopted by the Nigerian government following the return to civil rule in 1999. This was with the objectives of reviving Nigeria's dwindling economy. It should be noted that the year 1999 signalled the successful transition of government from military to civil rule.

### **National Economic Empowerment and Development Strategy (NEEDS): Olusegun Obasanjo Administration (1990-2007)**

Prior to the election of Olusegun Obasanjo as President in 1999, the Nigerian state under the autocratic regime of General Sanni Abacha contended with myriads economic challenges. This is associated with the poor human rights records and economic policies characteristic of the regime- actions that attracted sanctions to the country from the international community especially the Commonwealth. Notable among the repressive stance of General Sanni Abacha was the execution on the 10<sup>th</sup> of November, 1995 of Ken Saro-Wiwa and some chieftains from Ogoni land, a region in south-south region of Nigeria who protested the spate of environmental degradation in the region due to oil exploration (British Broadcasting Corporation, 2016).

Following the election of Olusegun Obasanjo as President in 1999, and in fulfilment of his campaign promises which hinged on re-branding Nigeria's image and economy stagnated by economic sanctions, the government introduced the National Economic Empowerment and Development Strategy (NEEDS) in 2003. This was accompanied by the State Economic Empowerment and Development Strategies (SEEDS) which was implemented in the 36 states of the federation (Okonjo-Iweala & Osafo-Kwaako, 2007). The NEEDS policy aimed at increasing private sector participation and development, vis-à-vis macroeconomic reform, structural reform, public sector reforms, and institutional and governance reform. The overall objectives aimed at reducing the rate of poverty in the country (Okonjo-Iweala & Osafo-Kwaako, 2007). Some of the policies that followed the NEEDS policy included the deregulation of key economic sectors to encourage private sector participation, notably the telecommunications, power, and downstream petroleum sectors (Okonjo-Iweala & Osafo-Kwaako, 2007).

While reforms in the telecommunication sector attracted over US\$1 billion in investments with over 32 million users switching to the Global System for Mobile Communications (GSM) from land line during the first four years of the adoption of the policy, the Central Bank of Nigeria (CBN) requested banks to raise their minimum capital base from US\$15 million to US\$192 million by the end of 2005 (Central Bank of Nigeria, 2006). The policy adopted in the banking in industry aimed at restoring the confidence of shareholders and potential investors in the banking sector. Due to the merger of some banks, the number of deposit banks in the country was reduced from 89 to 25 (Central Bank of Nigeria, 2006).

Other policy associated with the NEEDS was the reforms that took place in the country's civil service. This led to the retrenchment of over thirty thousand officials, including eight thousand 'ghost-workers'. Similarly, one thousand competent university graduates were recruited into the civil service. Further, while the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and other related Offence Commission (ICPC) was established to address the spate of corrupt practices, the Niger Delta Development Commission (NDDC) was established to look into the plight of the Niger Delta people whose communities have been negatively impacted by oil exploration. Equally important, the country received the debt relief package of \$18 billion owed the Paris and London Clubs respectively (Okafor, 2014).

As highlighted, the overall objective of NEEDS aimed at reducing the spate of poverty in Nigeria while improving the economy through foreign and domestic investments. Despite the reforms and foreign direct investments (FDIs) the policy attracted to the country, the NEEDS policy failed to achieve its objectives. Poverty levels rose from 54.4 percent in 2004; 60.9 percent in 2010, and 61.9 percent in 2011 (Okafor, 2014).

Accordingly, Bello (2016), notes the country has over the years developed good economic policies. However, the challenge lies in the position that the policies are not people-centred but drafted to suit the wills and purposes of a few elites in the country.

Further, the NEEDS programme was constrained by the poor statistics on poverty rate in Nigeria. As at 2004, 54% of Nigerians lived below poverty line while 22 percent lived in extreme poverty (Bello, 2016). Also, despite the increase in the country's Gross Domestic Product (GDP) from 2003-2007 from 6.59 percent to 7.35%, the impact did not reflect in the socio-economic well-being of the Nigerians, rather, the spate of corrupt practices among public office holders doubled during the period under review (Bello, 2016). It is at this instance that the NEEDS policy failed to address the needs of the masses and by extension, the country (International Development Association and the International Monetary Fund, 2005).

The expiration of the tenure of President Olusegun Obasanjo in 2007 marked the end of the NEEDS policy. While the policy recorded some landmark achievements in Nigeria's macroeconomics, it was unsuccessful in its quest to reduce the challenge of unemployment and poverty in Nigeria. Hence, while the NEEDS policy attracted foreign direct investment (FDIs), and expanded oil exploration and export, sectors such as agriculture and technology among others were neglected.

### **7-Point Agenda-Umaru Musa Yar'Adua (2007-2010)**

Following the 2007 General Elections, Umaru Musa Yar'Adua was elected President of Nigeria. In a bid to fulfil its campaign promises which hinged on turning around the fortunes of the country through the improvement of the sectors that were neglected by his predecessor, the President anchored his economic policies on the 7-Point Agenda. The economic programme identified seven key objectives as its area of focus. The sectors include in no particular order:

1. Critical Infrastructure
2. Food Security
3. Wealth Creation
4. Niger Delta Development
5. Land Reform and Home Ownership
6. National Security and Intelligence
7. Human Capital Development

Under the aegis of critical infrastructure, the policy sought to revamp core sectors such as the power supply and transportation system like rail, road, water and air. As it pertains food security, the President, possibly noticed the decline in agriculture in the country, and as such included the need to attain food sufficiency as an integral part of his administration's economic policies. While wealth creation had the objectives of supporting small and medium scale enterprises (SMEs) so as to reduce the challenge of unemployment, Niger Delta development concerned the need to ameliorate the plight of the Niger-Delta people whose region is plagued by environmental degradation due to oil exploration (Okorontah & Odionye, 2015). Youth restiveness in the South-South region of the country gave rise to militia groups who engaged in the destruction of oil facilities, kidnap of oil personnel, and demand the control of the resources (crude oil) in the region (Ayogu & Ogunmodede, 2020).

While land reforms and home ownership, on the one hand sought to improve land assets for socio-economic development as well as provide mortgage facilities, national security and intelligence, on the other hand sought to improve the security system of the country. Finally, human capital development aimed at advancing the educational sector (Federal Ministry of Information and Communications, 2007).

While assessing the 7-Point Agenda, Dode (2010 p.6) argued that although the policy objectives were laudable, they were not properly implemented. As it pertains the drive towards food security, farmers were not given the needed support to improve agricultural production in the country. The use of crude farming implements, absence of subsidies for farmers on basic farm implements like fertilizers as well as inaccessibility to credit facilities flawed the objective of advancing food production in the country. Similarly, Ezeibe (2009) note that:

The 7-Point Agenda was shrouded in ambiguities. Hence, its poor implementation allowed some political elites and the technocrats the avenue to amass wealth through the sale and purchase of some government's assets. Suffice to say that the policy was shrouded in myths for a better Nigeria.

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The above positions were corroborated by Ola (2009) who noted that the 7-Point Agenda only resettled wealth in the hands of some individuals within the circle of the government evident in the far from impressive implementation of the policy. According to him:

While power generation and supply was poor, agitations and violence still existed in the Niger Delta region over the demand for resource control despite granting amnesty to militia groups in the region. Also, the country is far from achieving food sufficiency due to the continued usage of crude farming implements by most farmers. Further, the education sector also lacks adequate facilities to improve learning for students.

It may be argued that the failure of the 7-Point Agenda is traceable to the ill-health suffered by the President which led to his demise. Further, the President before his death failed to hand over the helms to the Vice President, Goodluck Jonathan. This may also account for the failure of the policy hinged on the lack of policy actions/directives and monitoring of the policy occasioned by the President Umaru Musa Yar'Adua's absence.

Following the demise of President Umaru Musa Yar'Adua on the 5<sup>th</sup> of May, 2010, the Vice-President, Goodluck Ebele Jonathan took over the helms as President. He replaced the 7-Point Agenda policy with the 'Transformation Agenda' otherwise referred to as Vision 20:2020.

### **Transformation Agenda-Goodluck Ebele Jonathan (2011-2015)**

The 2011 General Election led to the emergence of Goodluck Ebele Jonathan as President. It is noteworthy that the President during the election campaign appealed to the emotions of many Nigerians under the slogan of 'I Have No Shoes' depicting his humble background, and the

quest to meet the needs of the common Nigerian if elected President (Ola, 2009). In a bid to fulfill the mandate of reviving the country's economy, the 'Transformation Agenda' policy was birthed. To this end, a 28-member team was set up to actualise the objectives of the policy. They comprised the President and his Deputy as the Chairman and Vice Chairman and the Minister of Finance, Dr. Ngozi Okonjo-Iweala who doubled as the Coordinator among other imminent personalities with expertise on economics and politics (Gyong, 2012).

While the Transformation Agenda had the overall mandate of promoting economic growth and development in the country, it had three core mandates:

- a) Support for large-scale industries, small and medium scale enterprises (SMEs) and promotion of agriculture and information communication technology (ICT) sectors;
- b) Human capacity development, youth employment and poverty alleviation; and
- c) Good governance (Federal Government of Nigeria, 2011).

It is noteworthy that while the policy had a 4-year short term (2011-2015) mandate to achieve the aforementioned objectives, the long term objective sought to drive Nigeria's economy among the comity of 20 largest economies of the world (Osuagwu, 2013).

The agricultural sector inarguably received a major boost under the leadership of the then Minister of Agriculture, now President of the African Development Bank (AfDB), Dr Akinwumi Adesina whose reforms in the sector made Nigeria attain self-sufficiency in rice and cassava production (Osuagwu, 2013). Other reforms in the agricultural sector include the introduction of the E-Wallet system which made credit facilities available to farmers; made fertilizer distribution more efficient and accessible to farmers especially in rural communities. As a result, food production increased by 21 million metric tonnes during that period. The feat achieved in the sector attracted private sector investments amounting to about \$5.6 billion (Premium Times, 2012). On Information Communication Technology (ICT) development another core part of the Transformation Agenda, a Ministry of Communication Technology was created. Also, mobile phones subscription increased to 92.75% from 8.5%. Further, access to the internet increased to 38% from 34% (Osuagwu, 2013).

At the instance of the seeming achievements recorded in the Agricultural and ICT sectors, the country's dependence on crude oil exploration and export persisted. This was manifest in the economic challenges that plagued the country due to the fall in crude oil price in the international market in 2014 (Financial Times, 2016). Nigeria's economy recessed thereby driving inflation rate to 17.1% (Osuagwu, 2013). It may be argued, therefore that the mandate of the 'Transformation Agenda' policy did little to achieve its objectives. This was evident in the persistent rise in corrupt practices by public office holders, insecurity, poor living standard and heightened level of unemployment that characterized the country (Osuagwu, 2013).

### **The Economic Recovery and Growth Plan (ERGP)-Muhammadu Buhari (2015 till Date)**

The year 2015 witnessed a new turn of event in Nigeria's political space. This is so, in that, for the first in the history of Nigeria's politics at the instance of the return to civil rule, an incumbent President was defeated. Muhammadu Buhari of the All Progressives Congress (APC) defeated the incumbent President, Goodluck Ebele Jonathan of the Peoples Democratic Party (PDP) during the 2015 general elections. It is noteworthy that the country was faced with varying socio-economic crises prior to the elections. While the spate of terrorism orchestrated by Boko Haram, armed robbery and kidnapping was on the rise, youth unemployment, and poverty was also on the increase. Nigerians, it may be argued voted out the incumbent President in protest for the myriad challenges facing the country during that period.

In the bid to address the concerns of the masses, President Muhammadu Buhari adopted the 'The Economic Recovery and Growth Plan (ERGP) as the theme for his administration. The objectives of the ERGP include:

- i. Sustained growth to consolidate national cohesion via structural economic transformation;
- ii. Efficiency in the public and private sectors and increased national productivity;
- iii. Sustainable diversification of production to significantly grow the economy; and
- iv. Maximum welfare for the citizens by ensuring food, energy and security (Federal Republic of Nigeria, 2017).

While the policy intended to use science and technology as tools to achieve its set objectives, GDP growth was projected at 4.62% (average annual growth between) between 2017 and 2020. To reduce the rate of unemployment as well as boost small scale enterprises (SMEs), the N-Power and Trader-Moni schemes were introduced. While the N-Power policy had the objectives of employing about 500,000 graduate and non-graduate youths on agro-business, educational among other sectors, the Trader-Moni sought to grant non-collateral loans of Ten Thousand Naira to traders (Federal Republic of Nigeria, 2017).

Although the present administration is still ongoing with President Muhammadu Buhari serving his second term, the objectives of the ERGP seems unachievable. This is due to the impact of COVID-19 on Nigeria's economy. The continued dependence on oil exploration and export has further exposed the economy plunging it into recession (Aljazeera, 2020).

From the foregoing, it will be observed that since 1999, efforts of past and present administrations towards resuscitating the country's economy led to the development of different economic policies. While the policies had good objectives, the drawbacks are traceable to poor policy implementation, absence of policy continuity as well as the continued dependence on oil exploration and export. To this end, Onuche (2018) argues that:

Absence of policy continuity since the transition to civil rule is a major challenge affecting Nigeria's economy. Hence, for Nigeria to forge forward there is an urgent need for the President Muhammadu Buhari-led government to reconcile the principal objectives of the ERGP with those of past policies like the Transformation Agenda as well as the 7-Point Agenda (p.15).

#### **a. Technology Innovation and Adoption in Nigeria**

The level of technology adoption remains one of the pointers with which to measure the level of development of a country. This is so given the many benefits and ease technology brings to the fore in the conduct of everyday life. In the past six years, global tech-brands like Amazon, Apple, Facebook, and Goggle are among the big earners in terms of revenue generation. For instance, Amazon has since 2017 till the first quarter of 2020 witnessed increasing annual revenue. While the annual revenue for 2017 was \$177.866 billion, a 30.8% increase from 2016, revenue for 2018 stood at \$232.887 billion, a 30.93% increase from 2017 (Macrotrends, 2020). In the year 2019, annual revenue was estimated at \$280.522 billion, with an increase of 20.45% from 2018. For the first twelve months ending June 30<sup>th</sup>, 2020, revenue stood at about \$321.7828 billion, suggesting an increase of 27.66% year-over-year (Macrotrends, 2020). Further, the annual revenue of Facebook is reported to have grown from \$7.87 billion in 2013 to \$70.7 billion in 2018. As at 2019, annual Facebook revenue was reported to be about \$70,697 million (Statista, 2020).

Despite being the second largest economy in Africa with a number of reputable firms and small and medium scale enterprises (SMEs), Nigeria is largely deficient in technology innovation and

adoption. Okundaye, Susan and Dwyer (2019) note that adoptive technology instruments and usage is at its lowest ebb in Nigeria. This according to study is manifest on the dependence of most businesses in Nigeria on human efforts rather than on technology which drives efficient service delivery.

Popoola (2018) notes that the level of technological adoption and innovation in Nigeria is far from impressive. He furthers that the deficiency in the sector is attributable to the low level of support for the technology development manifest in the government's failure to key into the benefits associated with technology. Also, technology education, according to him needs to be encouraged in schools. Similarly, businesses should also be encouraged to adopt innovative technologies (Popoola, 2018). Further, Adim (2019) suggest that one of the challenges confronting technology development in Nigeria lies in the cost of running a technology-driven company, distrust for technology usage by some entrepreneurs as well as the government's failure to support technological innovations.

Oodee and Dickson (2017) submit that while businesses across the world have evolved technologically, businesses and organizations in Nigeria still depends on obsolete technologies. The downside in this regard lies in the inability of some Nigerian brands to cope compete with global brands. Similarly, Onipede (2017) while examining technology and industrialisation in Nigeria aver that the decline in the level of industrialization in Nigeria is associated with poor technological innovation and adoption. The challenge lies in the absence of institutional support for technology development in the country The study further suggests the need for the development of indigenous technologies that would act as a catalyst for industrialization.

While a few indigenous ICT firms like Zinox Technologies, Omatek, Interswitch Nigeria among other tech brands in Nigeria are striving to bridge the gap in terms of providing ICT solutions in Nigeria, little or no support are accorded them by the government in terms of patronage and tax waivers.

## **b. AGRICULTURAL DEVELOPMENT IN NIGERIA**

During the earliest days of Nigeria's independence, agriculture was averred to be the pillar of Nigeria's economy. The sector arguably employed a large percentage of Nigerian youths, guaranteed food sufficiency leading to export. It is often argued that revenue from agricultural exports played a key role at establishment some infrastructural facilities and government establishments that have endured till date. Institutions like the University of Ibadan, University of Ife now Obafemi Awolowo University, Ile-Ife, Ahmadu Bello University, Zaria and University of Nigeria, Nsukka established in 1948, 1962, and 1955 respectively were arguably established with revenue generated from agricultural export (Nnabuife, 2014). The regional system in practice at that time allowed the three disparate regions to development at their own pace while royalties were paid to the government. The massive agricultural produce such as the cocoa in the west, oil palm and rubber in the east and mid-west, and groundnut production in the north were a force to reckon with in Africa. The massive groundnut pyramids in the North was a testament to the massive agricultural production that took place in the region at that time. Nnabuife (2014) argues that the groundnut pyramids in the northern city of Kano is a reflection of the extent to which agricultural production played a key role to Nigeria's economy in the 1960s. The pyramids doubled as both a tourist attraction and a source of wealth for the northern region.

The discovery of crude oil as well as military involvement in Nigeria's politics distorted the near perfect economic structure of the country, leaving the country dependent on petrol-dollar,

while agriculture was relegated to the background. The Council on Foreign Relations (2019) contends that:

Nigeria is largely oil dependent and not oil rich. The vigorous exploration of oil in the 1970s distorted the fiscal and economic policy of the country. The implication is evident in the position that oil sucked-up domestic and foreign investment at the expense of other sectors of the economy. The Military government further set the country's economy on the path of woes through unstable policies (p.2).

While accessing the state of agriculture in Nigeria, Ogbalubi and Wokocha (2013) opines that in the 1960s, agriculture employed about 70% of Nigeria's active population. However, the discovery of crude oil and the failure of the government to utilize the potentials in the sector despite the adoption of various agro-based policies like the Green Revolution of the 1970s have undeniably made Nigeria become an importer rather than an exporter of agricultural produce. The poor level of technological adoption contributed to the decline in agricultural production, especially as the use of crude implements by farmers only guaranteed subsistence farming (Ogbalubi & Wokocha, 2013).

Similarly, Salihu et al. (2012) in their study states that the desire of the government to attain sustainability in the agricultural sector led to adoption of agro-based policies like the National Accelerated Food Production Programme (NAFPP), Operation Feed the Nation (OFN), Green Revolution among others policies. However, the government's indifference to exploring the potentials in the sector has seemingly made it unattractive especially to the Nigerian Youths.

Taking into account the failure the Operation Feed the Nation programme initiated by General Olusegun Obasanjo in 1976, it may be argued that the policy was orchestrated to fail, and devised as a reward to then military administrator (General Olusegun Obasanjo) who allowed for the successful transition to civil rule. It is noteworthy that what is today referred to as 'Obasanjo Farm Nigeria Limited' situated at Otta, Ogun State was established in 1979, three years after the seeming failure of the Operation Feed the Nation programme.

Furthermore, Adeola and Oluwafemi (2014) opine that Nigeria's vast and arable land supports in all its totality agriculture. Hence, the quest to achieve food sufficiency should not be a form of challenge for the country if the various policies adopted by the government to drive agricultural production had been properly implemented and utilized. Today, a country expected to be a major exporter of agricultural produce is experiencing food crisis, and tending towards famine; threat of hunger and poverty with a large proportion of the populace (70%) living on less than a Dollar per day.

#### IV. THEORETICAL FRAMEWORK

The study adopts comparative advantage theory and structuralism as the theoretical framework for the study.

The comparative advantage theory is attributed to David Ricardo in his book titled 'On the Principles of Economy and Taxation' published in 1817. Ricardo argued that a country can better attain economic growth by focusing on industry in which it has comparative advantage. The theory therefore suggests that countries in a bid to achieve their desired economic goals and objectives will produce more of goods which they have comparative advantage over, and less of others that they are deficient at (Kimberly, 2020). Hence, comparative advantage allows a country to produce goods or services with which it has a lower opportunity cost than other countries (James, 1884).

Structuralism is situated among the theory of development which explains the process of development a country is expected to go through to attain economic growth and development. Structuralism as a theory of development is associated with largely Latin America scholars like Raul Prebisch, Celso Furtado, Anibal Pinto, Osvaldo Sunkel among others (James, 1844).

The theory argues that for a country to attain sustainable development, it must transform its economy through the adoption of technology that would drive industrialization thereby increasing export over import of good and service. Hence to attain development, a country is expected to end its reliance on the export of primary goods. Further, the government, according to structuralists have a key role to play in the quest to attain a self-sustaining growth by the way of making informed economic policies like granting of tax waivers to small and medium scale enterprises (SMEs) (James, 1844).

At the instance of the fall in price of crude oil in the international market as well as the economic challenges associated with the coronavirus pandemic, utilizing the advantage Nigeria has in agriculture made possible by its vast and arable land may drive economic growth, and as such promote export over import of agricultural produce. Further, industrialization can also be achieved such that it drives economic sustainability if the government promotes the potentials inherent in information communication technology (ICT) at the instance of the seeming human restriction the coronavirus has brought to the fore.

## V. METHODOLOGY

The study adopted qualitative data method. Hence, purposively selected respondents with expertise on the subject were interviewed. They included economists, agricultural-economists, farmers, software consultants and developers, personnel of Lagos Chamber of Commerce and Industry and Nigerian National Petroleum Corporation (NNPC). The data gathered was analysed via discourse analysis.

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## VI. AGRICULTURAL AND INFORMATION COMMUNICATION TECHNOLOGY (ICT) AND SUSTAINABLE DEVELOPMENT IN NIGERIA

This section presents and analyses the views of the respondents on the above theme. While reacting to the extent to which agriculture and information communication technology may drive sustainable development in Nigeria, Respondent<sup>1</sup> argues that the agriculture remains the highest employer of labour in the Nigeria; made possible by the arable lands that country has at its disposal. He noted also that the potentials in the agricultural sector goes are beyond tools for survival but can serve as channels of investment and business opportunities. This is because one third of the country's land space has not being farmed. Furthermore, Information Communication Technology (ICT) may be likened as the 'New Gold' given the many opportunities it bears within it. He opined that:

Young Nigerians are fast catching up in the trend through the development of applications and drones bringing to bear the synergy between agriculture and ICT. Drones may be deployed to map large expanse of lands. Also, young farmers are taking advantage of the social media platforms to advertise their commodities aimed at expanding their network of clients.

On the extent to which agriculture may drive sustainable development in Nigeria; Respondent<sup>2</sup> noted that there seems to be too much emphasis by the government on certain crops like rice farming. He submits that:

Crops like Castor and Shea Butter which Nigeria has the arable land and advantage over in terms of production is currently in high demand in Europe due to its health benefits. Additionally, these crops are perennial crops, and do not need special care. Additionally, these crops do not harbor virus and parasites nor require any form of preservatives during export. Beans produced in Nigeria, for instance, are not accepted in Europe because of the nature of chemicals used in preserving them. Castor and Shea butter farming alone can generate millions in foreign exchange earnings for the country.

Respondent<sup>3</sup> states that in the 1960s, Nigeria had a viable agricultural sector, one which saw her farm in commercial quantities Cocoa, Groundnuts and Rubber for export. The economy was good, so much that, a Dollar was equivalent to one Naira. Poor policies implementation since led to the collapse of the sector. Furthermore, he stated that ‘there is need for genuine government support for agricultural production and not just the emphasis on rice production which led to the closure of the borders to curb the importation of rice. Support for Cocoa, Groundnut, Palm Oil among other agro-produce especially at the rural communities will act as a catalyst to advance the country’s economy in the face of the persistent fall in Crude Oil prices in the international market. Take the Nigerian rice as an instance, patronage is low because they are stony evident by poor processing facilities. It takes government’s sincere quest for attaining food sufficiency to make the agricultural sector work.’

Furthermore, Respondent<sup>4</sup> was of the opinion that diversification is not only mandatory but urgently required for the constructive, innovative and sustainable development of Nigeria. Hence, for Nigeria to build a sustainable economy, the government must re-think and re-imagine her National Development Policy Strategies and implementation plans or perish poorly. While reacting to the extent to which ICT may advance sustainable development in Nigeria, the respondent argued that ‘to avoid emerging catastrophes in Nigeria’s and indeed Africa’s digital future, rethinking our national Science & Technology education and ICT strategy – beyond local content in Oil & Gas – has become a matter of critical urgency, for many cogent reasons. The first sustainable reason is that Software Applications, Solutions, and services will rule the world’s employment and economic development space and value-chain for an exceptionally long time aimed at guaranteeing not only the country’s survival but advancing sustainable development.

Accordingly, Abolade and Durosimi (2019) submits that Nigeria, like the rest of the world in a bid to enjoy the benefits globalization brings to the fore, should adopt information and communication technology (ICT) as a medium to meeting the everyday need of Nigerians whether in business or in the provision of basic essential services. Similarly, Adeola and Oluwafemi (2014) states that the agricultural sector has proven to be the most consistent and reliable sector in Nigeria, since independence. Hence, informed policies in the sector aimed at diversifying the economy remains the bedrock for Nigeria’s quest to attain economic sustainability

Respondent<sup>5</sup> notes that ‘ICT may drive sustainable development in Nigeria. This is premised on the position that the ICT sector in Nigeria is growing with a large number of experts thriving on the job. The challenge is that these experts tend to leave Nigeria in search of better working conditions abroad owing the economic situation of the country.’ Also, Respondent<sup>6</sup> states that before the commercialisation of oil and gas, the agricultural sector used to be the mainstay of the economy but the nation was wooed by the seeming benefits inherent in the Oil and Gas sector, and has abandoned the agricultural sector. He furthered that the kind of agricultural

system that is practised in Nigeria does not yield much value to the Nigerian's economy due to the primitive methods of farming largely adopted in the sector. Hence for agriculture to add value to Nigeria's economy, there is a need to promote commercialised and mechanised agriculture. On the other hand, the advent of Covid-19 has made us discover new ways of doing business, the government could leverage on ICT to add more value to the economy. Interestingly, the top largest companies in the world are ICT-driven (Amazon, Google, Facebook, Microsoft). This seems to suggest that the future of the world is knowledge-based and not on mineral resources which Nigeria has held on to for many years.

Respondent<sup>7</sup> opined that Nigeria's economy has been dependent on the fortunes from oil such that the economy shrinks with the slightest shrink in the price of oil in the international market. Hence, the urgency and essence of diversification to take place especially in the area of Agriculture, Information Communication Technology, Tourism, Solid minerals and others. The above position was supported by Respondent<sup>8</sup> and<sup>9</sup> who argued that Nigeria's economy has always been mono economic, in that there has never been a time when more than one industry has competed actively to sustain the economy. They furthered that: ICT and Agriculture by today's economic categorization are two stand-alone industries with unique and complementary potentials. One unique feature of these two sectors are the easy of entry for all levels of social class of and organizations, as well as the complementary aspect of enhancing usage and quality. Nigeria, at the instance of the volatility of the oil markets needs urgent intervention, post-COVID so as to enable her seamlessly adapt to global trends and as such, stimulate economic activities which can bring about meaningful national development

Additionally, Respondent<sup>10</sup> while reacting to the extent to which the agricultural sector may drive sustainable development in Nigeria noted that the agricultural sector does not only provide food but also acts as a major source of revenue generation for countries' that harness the potentials in the sector. Respondent<sup>11</sup> advanced that despite the decline in terms of support to the agricultural sector by the government, it still employs about 67% of the country's population. The potentials in agriculture, especially in Nigeria cannot be over emphasised. So far, the failure of the Oil and Gas sector to drive a sustainable development over the years is a call for the Nigerian government to diversify the economy using the ICT and agricultural sectors as tools.

## **VII. ROLES THE GOVERNMENT CAN PLAY AT UTILIZING THE POTENTIALS IN AGRICULTURE AND INFORMATION COMMUNICATION TECHNOLOGY (ICT) TO ADVANCE ECONOMIC SUSTAINABILITY POST CORVID-19**

In a bid to examine the above theme, different views were expressed by the respondents. Respondent<sup>12</sup> noted that the government has a major role at utilizing the potentials in the Agricultural sector. He notes that there is a need to invite investors to drive rice production, for instance, in Nigeria through a public-private partnership venture. According to him-there is a need for the agricultural research institutes in Nigeria to be revived and made more proactive in their responsibilities of supporting the agricultural sector in the country. Also, the government should adopt sound policies that would support agricultural production whether in rural or urban centres. The advantage this will afford the country and the agricultural sector would be manifest in an all-year round agricultural production. Further, value addition remains core to the agricultural sector. The continued export of raw agricultural produce in exchange for processed food has over the hindered the growth of the sector. Therefore, the government should invest heavily in commercial agriculture, such that Nigeria will have the capacity to

process what it produces. This will put an end to the lopsided terms of trade we have with countries abroad.

Respondent<sup>13</sup> averred that the failure of the government to support rural farmers remains a major challenge affecting the agricultural sector. He noted that the challenge of insecurity in regions notable for agriculture like Benue, Adamawa, Bornu, Kaduna and other parts of Northern Nigeria due to the spate of farmers-herders' crisis and insurgency among major factors affects agricultural production in Nigeria. Further, the government should re-initiate the E-Wallet policy adopted by during the administration of President Goodluck Ebele Jonathan. The advantage the policy brought to the agricultural sector through direct contact with farmer was evident in the degree of development witnessed in the sector as well the amount generated during that period through the agricultural sector. Similarly, the government should promote the farming of crops like Castor and Shea-butter which we have massive advantage over and which in high demand in Europe given its health benefits. According to the report released by Cellulant (2019), the adoption of the E-Wallet scheme made agriculture financing easy in that it allowed the government of Nigeria direct access to farmers especially in rural communities. This has made the distribution of fertilizers, farm seedlings and access to loans for farmers available to farmers in the country.

Respondent<sup>14</sup> suggested the need for the government to adopt policies that will breed value addition in the agricultural sector. He further stated that:

The export of raw materials to Europe will continue to affect negatively agricultural produce in Nigeria unless the government invests heavily in processing plants. This way, we are able to process our raw materials rather than export them at cheap rates abroad. If that is achieved, the government may take advantage of the regional institutional arrangement under the aegis of African Union, ECOWAS among others to advance trade in the Continent.

Similarly, respondent<sup>15</sup> opined that while revenue in the IT Services market is projected to reach US\$930,028m in 2020 – a growth of 7.8%; revenue in the Software market is projected to reach US\$503,663m in 2020. Further, the market's largest segment is Enterprise Software with a projected market volume of US\$195,100m in 2020. Revenue is expected to show an annual growth rate (CAGR 2020-2025) of 9.1%, resulting in a market volume of US\$779,720m by 2025. According to him:

Policy Makers has a mandatory responsibility to deploy resources and facilitate Fiscal Strategies to empower the nation and her people to Innovate. This innovation process cannot be devoid of Science, Technology, Engineering and Mathematics (STEM). Government is defined as an institution of the people by the people for the people. Indeed, Nigeria should not be begging for what she already has in abundance; that is human resources. We the people of Nigeria owe it a duty to ourselves, families, the nation and the world to master the Tech-Biology of things for progress. Finally, the cumulative potentials of Software/ICT Solutions and services currently developed and supported by Nigerians all over the world, is worth over 200billion USD – including unaccounted Patents and IP missing in digital action (MIDA). Problem is, we currently don't have the commensurate data to proof this, due to the seeming neglect of critical Baseline studies and blatant appointments of unmerited hands to implement and deliver the IT-Innovation-of-Things at many critical and sensitive levels. That is where the world is heading. The following are glaring example of the economic power of Software around the world:

Similarly, respondent<sup>16</sup> remarked that:

The bulk lies with the government to provide a conducive environment for ICT in the country. There is no denying the fact that Nigeria boasts of young and talented personnel versed in ICT, who are contributing their quota to tech development. Adequate support in all perspectives will

reduce the impact of COVID-19 by creating virtual job opportunities with little or zero need for physical appearance and as such drive growth in E-commerce which would drive sustainable development in the country.

Furthermore, respondent <sup>17</sup> stated that:

The government needs to take a bold step and set the pace for the citizens. The Nigeria government can invest massively in agriculture. On the other hand, the bedrock of the ICT lies in education. The Nigerian government needs to invest on the educational sector such that attention is given to persons interested in agriculture and technology. On graduation, they should be accorded support like soft loans to help them stop up at small scale levels. Therefore, for us to develop, the Nigeria government has enormous role to play so that ICT and agriculture would add value to the economy we need to embrace knowledge economy and move away from oil and gas.

Furthermore, respondent <sup>18</sup>, in his opinion argued that the Nigerian government can build technological institutions and firms aimed at creating an enabling and conducive environment that would attract foreign investors in the agriculture and technology sectors in the country.

## VIII. CONCLUSION

The study found that the human and mineral resource the Nigerian state has at its disposal inarguably makes it one of the wealthiest countries in the world. However, the country's continued dependence on oil exploration and export since the 1970s has exposed her to many economic challenges, chief among is inflation which is responsible for the dwindling rates in the price of oil in the international market; a feat that has further expanded the rate of poverty in the country. Also, the failure of the government to adopt structurally sound policies that would ensure the effective diversification of (Nigeria's) economy by way of utilizing the potentials inherent in other sectors like agriculture and ICT has further exacerbated the country's economic woes at the instance of covid-19. T

Furthermore, the study established that Nigeria has comparative advantage in agriculture due to its vast and arable land. The study also revealed that ICT is one of the leading sectors driving revenue generation across the world post covid-19. The study therefore suggest the (urgent) need for the Nigerian government to tap into potentials available in the agriculture and ICT sectors by way of encouraging firms operating in the sector by way of offering them tax holiday, low interest loans, and subsidies for technology-driven farm implements.

The study therefore concludes that for Nigeria's economy to survive post-covid-19, there is an urgent need for the government and those at the helm to diversify her economy using the agriculture and information communication technology (ICT) as tools to advance sustainable development as this will drastically reduce the country's dependence on crude oil export.

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