

# PRODUCTIVITY IMPROVEMENT: A PIVOTAL NEED FOR CONTINUOUS ECONOMIC DEVELOPMENT IN NIGERIA

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**Abstract:** Nigeria is extremely lucky as it is endowed with vast natural resources, resourcefulness, active and youthful human capital and innovation, the best all-year-round weather and all that a nation needs to become a big economic success. Despite these endowments, however, the present state of productivity and economic development in the nation cannot be gauged and positively assessed to be proportional to these great attributes. Where did Nigeria miss it? This study aimed to point out the need for productivity improvement for continuous economic development in Nigeria, examine the causes of the trend and analyze the most current productivity trend. The study applied a secondary method of data collection to analyze the most current trends of labour productivity in Nigeria. It discovered that the performance of the main drivers of the economy (manufacturing sector) has been unimpressive in terms of value in the year 2021. There is less labour demand in these industries coal mining, metal ores, electricity and gas. And also, wages in Nigeria were \$8 per hour for the most the recent year 2021 which is considered extremely low when compared to other comparators countries in this study. The paper recommends possible ways and actions for raising national productivity in an emerging country like Nigeria

**Keywords:** Productivity, development, economic growth, labour productivity, Nigeria.

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## 1. INTRODUCTION

Since 2010, Nigeria's economic growth has slowed down, making it more difficult for the nation to address its numerous development difficulties. Growth, which was 6.54 per cent on average from 1999 to 2009, fell to 1.52 per cent from 2010 to 2020. The fragile situation of the economy was made even more hazardous by a drop in productivity growth, which posed a significant obstacle to economic expansion. Although not sufficient, continuous economic growth is required for the development. Therefore, if the slowdown in economic growth is not addressed, it will be more challenging to accomplish development. Furthermore, unsustainable economic expansion could impede long-term national development.

An alarm has been raised in the nation over the nation's expanding debt profile in recent years, which has negative implications for continuous economic growth. Rising debt levels were supporting the expansion of aggregate demand. Debt buildup makes inequality worse and has detrimental effects on long-term progress. However, economic growth that is based on consistent real wage increases and is connected to productivity growth is a preferable alternative.

Early in 2020, Nigeria had just begun to emerge from the 2016 recession when it was hit by the simultaneous crises of the COVID-19 epidemic and shocks in oil prices. The crises emphasize the country's increased susceptibility to external shocks and the necessity to switch to an alternative, inherently more stable and sustainable growth model. This is the ideal impetus made possible by the twin crises that are currently in play.

A key component of this change and of making growth more resilient and sustainable is improving productivity. The country has enormous excess labour pools that are not being utilized, so increasing productivity development and employment are essential to boosting domestic demand.

For continuous economic growth, increasing labour's share of income and boosting productivity are especially crucial. High-efficiency gains and continuous economic growth are therefore driven by greater productivity brought about by better innovation capabilities and technology, robust institutions and markets, as well as the development of human capital. For example, the Nigerian government's 2021–2025 Medium Term National Development Plan (MTNDP) aims to create a strong and sustainable economy as a tool for long-term development. This objective can only be attained in large part with increased economic production in every sector of Nigeria.

The need for productivity improvement for continuous economic development in Nigeria is covered in this paper. It examines the causes of the trend and analyzes the most current productivity trend. The study ends with suggestions for raising national productivity in an emerging country Nigeria.

## 2. NIGERIA'S PRODUCTIVITY TREND

Growth in output results from either using more capital, more labour, or a mix of the two. Output growth could potentially be brought on by applying current inputs more productively. It is possible to analyze productivity in terms of levels and growth in this way. Analysis of productivity at the sectoral level is also an option. Comparatively speaking, a nation with comparable resources but better productivity is more competitive than one with lower resources but lower productivity. The relative increases in output in nations with higher productivity growth rates are also greater than those in countries with lower productivity advancement rates.

Due to technical advancements, economies of scale and other factors, the productivity of the industrial sector often increases more quickly than that of the agricultural sector. Furthermore, as more workers move from the relatively less productive sector of agriculture to the more productive sector of manufacturing, total productivity growth is linked to an increase in manufacturing's proportion of GDP (Junankar, 2014).

The three primary output growth drivers should be considered while analyzing output growth (physical capital accumulation, total factor productivity and labour productivity). However, for a variety of reasons, the examination of output growth in this paper is restricted to labour productivity. First, there is a labour shortage in Nigeria. Second, analyzing physical capital accumulation is impossible in the absence of trustworthy data on capital stock. Third, there is a severe lack of data on total factor productivity. As a result, this degree of production will only be briefly mentioned.

### 2.1 Labor Productivity Trend

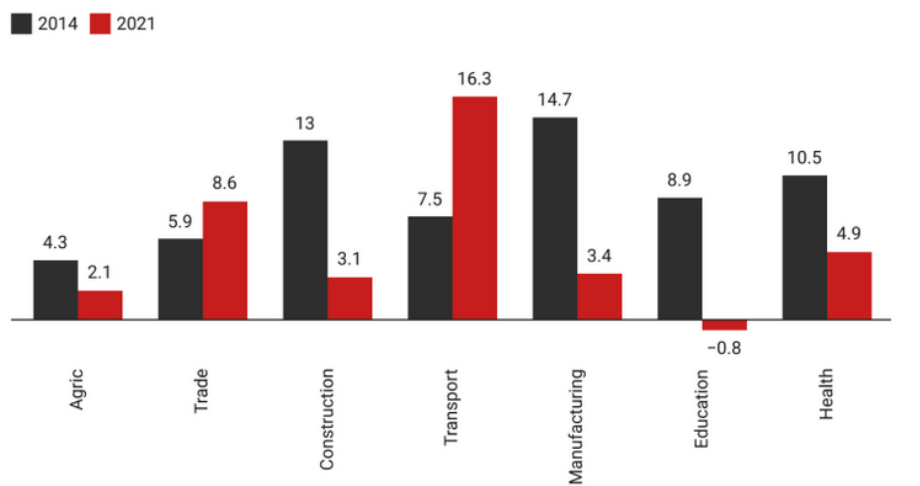


*Sources: Author C.B Nzenwata*

The most significant factor in determining a nation's income level is labour productivity, slow productivity development restricts the rate of real income growth and raises the possibility of competing demands for income distribution. (Englander and Gurney, 1994).

Labour productivity is measured in a variety of ways. Gross Domestic Product (GDP) per hour worked can be used to measure labour productivity. In certain nations, it is measured as the proportion of real GDP to the labour force size (NPC, 2017). The trend of this variable in the nation is projected in this study using numerous definitions or metrics of labour productivity.

**Figure 1: Labour Productivity in Some Sectors**

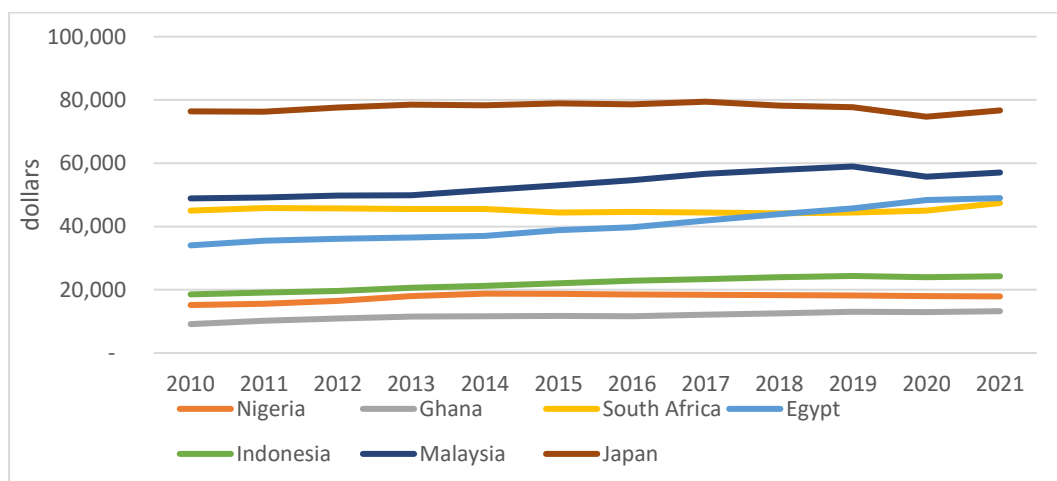


**Sources:** Business Day Nigeria

According to a full-year 2021 report from the National Bureau of Statistics (NBS), agriculture, manufacturing, and construction had risen to 4.3 per cent, 14.7 per cent, and 13.03 per cent, respectively, in 2014 but declines of 2.13 per cent, 3.35 per cent, and 3 per cent in 2021. While industries including coal mining, steam and conditioning supply, metal ores, electricity, gas, and ores recorded some of the largest growth in 2021 with increases of 34%, 27%, and 20%, respectively. There is less labour demand in these industries than in manufacturing, agriculture, or construction. Although the growth rates for industries like trade and transportation increased from 5.88 per cent and 7.5 per cent, respectively, in 2014 to 8.6 per cent and 16.26 per cent, in 2021.

When compared to 2014, the performance of these sectors has similarly been unimpressive in terms of value without showing much growth. In 2021, the manufacturing sector, which had increased by N6.7 trillion in 2014, will have shrunk to N6.5 trillion. While the agriculture sector climbed to N18.7 trillion in 2021 compared to N15.4 trillion in 2014, trade increased marginally to N11.4 trillion in 2021 from N11 trillion in 2014.

**Figure 2: Labour Productivity in Selected Countries**

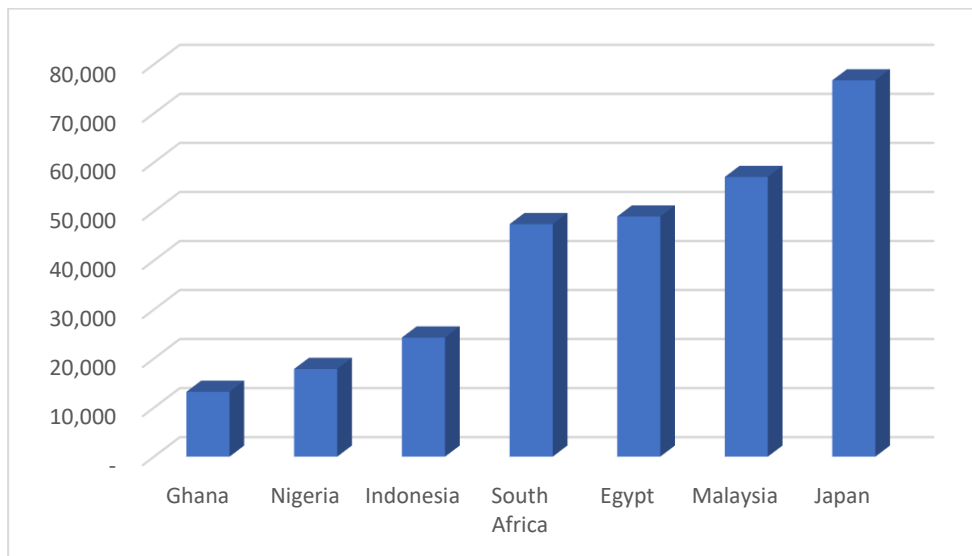


**Source:** ILOSTAT, 2021

Nigeria's labour productivity, however, is lower than that of all the other countries, as seen in Figure 2. except Ghana. Another country that exports oil, Indonesia, has been outpacing Nigeria in terms of labour productivity since 2014 when Nigeria's was slowly dropping. On the African continent, South Africa and Egypt both have extraordinarily high labour productivity; their output is more than twice as high as Nigeria's. Among the countries under comparison, Japan has the highest worker productivity. The most productive country in Africa (Egypt) has seen a two-fold boost in productivity.

According to ILO (2015), to increase domestic demand, governments must also pass on productivity gains to their workforce and increase investment in human resources, which will increase productivity and competitiveness.

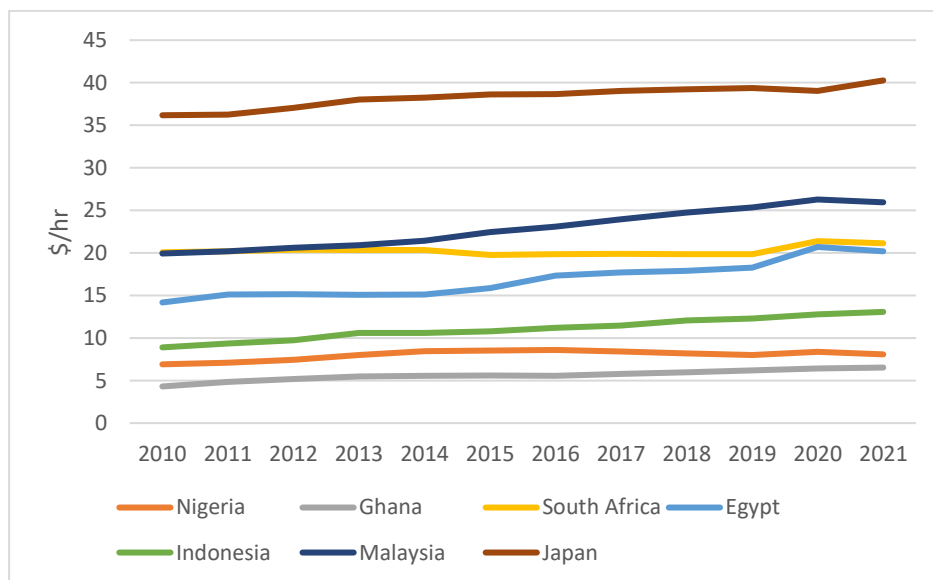
**Figure 3: Labour Productivity in Selected Countries in 2021 (\$)**



Source: ILOSTAT, 2021

Figure 3, indicates that in the most recent year (i.e., 2021), output per worker in Nigeria remains comparatively low at \$17,884 compared with Japan's labour productivity of \$76,726. Labour productivity in Malaysia, Indonesia and South Africa surpassed that of Nigeria in 2021.

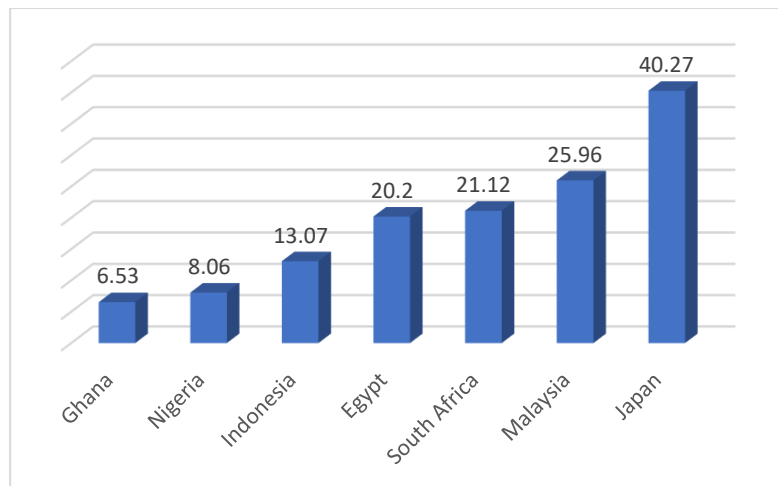
**Figure 4: Output Per Hour (\$/hr)**



Source: ILOSTAT, 2021

In contrast to the other chosen countries, Nigeria's productivity per hour is extremely low, as shown in Figure 4. Nigeria's productivity per hour was less than \$10 in comparison to the majority of comparator nations. Four of the comparator nations' output in the most recent years was higher than the \$15 per hour threshold. Productivity in Nigeria was \$8 per hour for the most recent year (i.e., 2021). (see Figure 5). The productivity levels of Egypt and South Africa (\$20.2 per hour and \$21.12 per hour, respectively) were greater than those of Nigeria. In 2021, Japan's productivity (\$40.27/hr) was five times higher than Nigeria's.

**Figure 5: Output Per Hour Worked in Selected Countries in 2021 (\$/hr)**

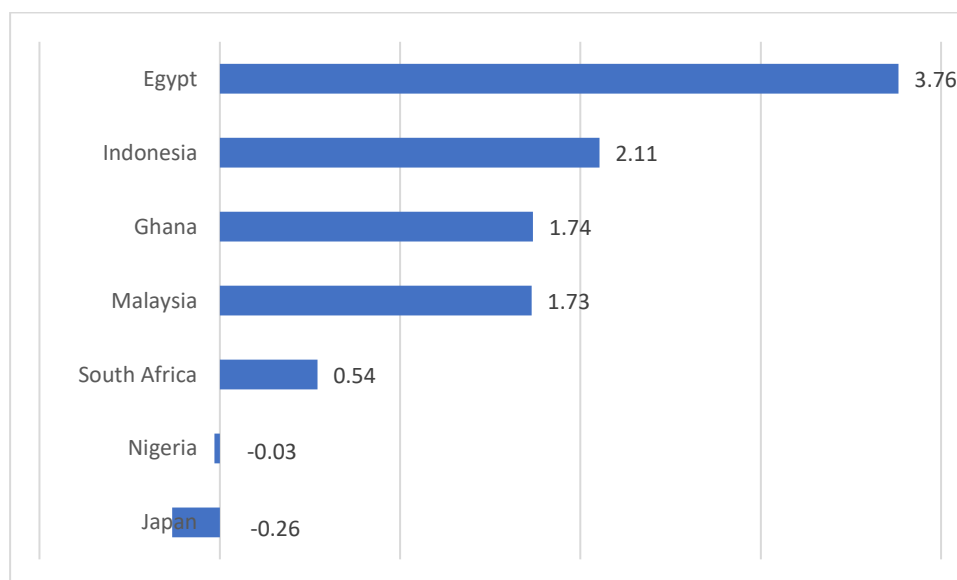


Source: ILOSTAT, 2021

## 2.2 Increasing Labor Productivity

In Nigeria, the increase in labour productivity was positive and quickened between 2011 and 2013. From 2013 to 2015, productivity growth did, however, slow down, although positive. After 2015, the growth of Nigeria's labour productivity began to decline. For Egypt and Indonesia, the growth of labour productivity was positive every year. Between 2013 and 2015, South Africa's productivity growth was negative, following a constructive trend of 2015 shown. The average growth in labour productivity was calculated for the years 2014 through 2021. According to the findings shown in Figure 6, Nigeria's labour productivity growth is extremely subpar, coming in at a negative 0.03 per cent. Even Ghana, which fared better than Nigeria in the other indicators, outperformed it. Ghana's productivity increased by 1.74 per cent on average. Paul Krugman (1992) emphasized that a country's capacity to improve output per worker over time completely rests on its capacity to raise the standard of living of its citizens. In his 1994 study, he also made the case that although production isn't everything in an era of declining expectations, it eventually becomes practically everything.

**Figure 6: Average Labour Productivity Growth in Selected Countries in 2014-2021**



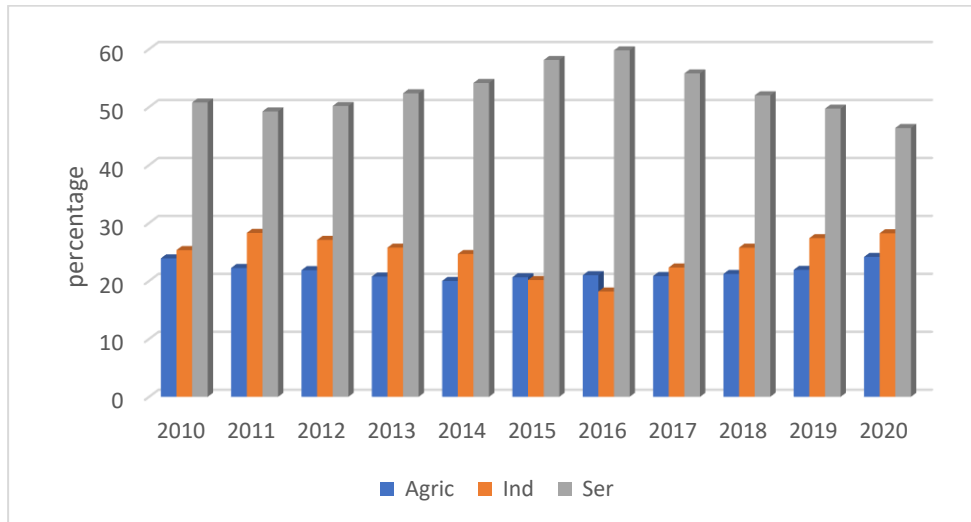
Source: ILOSTAT, 2021

## 2.3. Sectoral productivity and output

From \$82.15 billion in 2010 to \$115 billion in 2020, agriculture production expanded as a sector. In a similar vein, agriculture's contribution to GDP increased during that time. However, agriculture's proportion of total employment shrank.

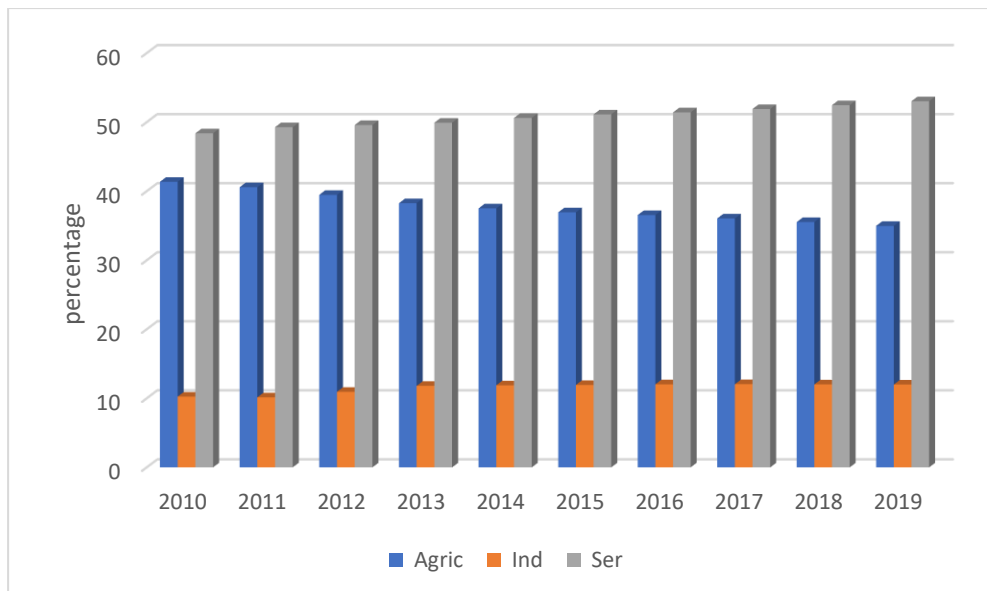
In particular, Figure 9 shows that the percentage of agricultural value added to GDP only increased by 1.04 per cent (from 23.89 per cent in 2010 to 24.14 per cent in 2020). However, Figure 10 shows that the proportion of farm employment in overall employment fell by nearly 18%. (From 41.36 per cent in 2010 to 34 per cent in 2020). Given that a bigger proportion of the population lives in rural areas where agriculture is the dominating economic activity, the slight improvement in the share of agricultural value added and the significant drop in the share of agriculture in total employment are key causes for concern.

**Figure 7: Sectoral Output Share in Total GDP (%)**



*Source: World Bank, World Development Indicators, 2021*

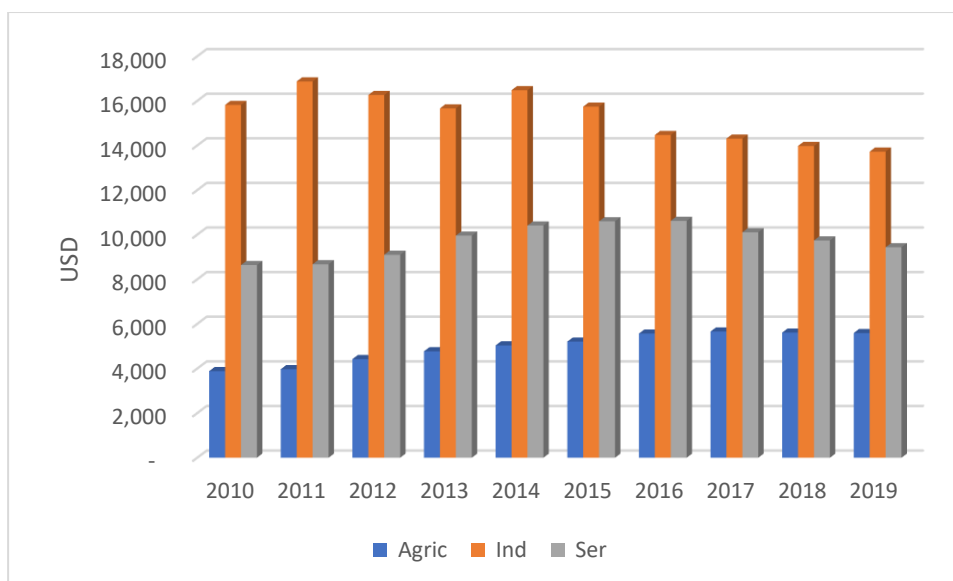
**Figure 8: Sectoral Employment Share in Total Employment**



*Source: ILOSTAT, 2021*

Agricultural value added per worker, which measures the relative position of agricultural revenues, is quite low even if it is increasing, rising from \$3,884 in 2010 to \$5,445 in 2020, a 44 per cent increase (Figure 9). Increasing labour productivity in agriculture is essential to increasing rural incomes. Additionally, accelerated productivity improvements are necessary since rural poverty rates are much greater than urban poverty rates. Accelerating productivity improvements in the rural sector may also have a greater impact on reducing poverty because rural poverty rates are much higher than urban poverty rates.

**Figure 9: Value Added Per Worker (in 2015 Constant USD)**



Source: World Bank, World Development Indicators, 2021

The industrial output increased by 8%, from \$83 billion in 2010 to \$90 billion in 2020. The sector's output as a percentage of GDP fluctuated over the period, dropping from 28.28% in 2011 to 18.17% in 2016, and then increasing to 27.38% in 2019. (Figure 7). Overall, throughout the period, the industry's contribution to total GDP decreased by -3.16 per cent. On the other hand, from 10.15 per cent in 2011 to 12 per cent in 2019, the industry's percentage of overall employment increased by 18.2 per cent (Figure 8). Growing employment in the industry and a decreasing GDP share point to decreased productivity. The output per worker in the sector did indeed decline, falling from \$15,817 in 2010 to \$13,724 in 2020. (Figure 9). Despite the reduction, the industrial sector continues to produce more per worker than agriculture. This finding can be attributable to the sector's better embrace of technology and innovation than the less inventive agriculture sector.

A rise in output from \$213 billion in 2010 to \$283 billion in 2020 was seen in the services sector. From 49.2 per cent in 2011 to 59.59 per cent in 2016, the sector's GDP share increased. However, in 2017 and 2020, these figures fell to 55.89 per cent and 46.39 per cent, respectively (Figure 7). In the aggregate, only 0.98 per cent more services were included in the overall GDP during the time. On the other hand, the proportion of services in total employment increased throughout that time, going from 48.39 per cent in 2010 to 53.03 per cent in 2019, a 7.63 per cent increase (Figure 8). The sector's output per worker increased slightly from \$8,640 in 2010 to \$9,483 in 2020. (Figure 9).

**Figure 10: Nigeria Full Year growth rate for 2020 & Q1 - Q2 2021**

Real Year-on-year Growth Rates of Key Aggregates (percent, %)								
	2019	2020					2021	
	Annual	Q1	Q2	Q3	Q4	Annual	Q1	Q2
GDP (Basic price)	2.27	1.87	-6.1	-3.62	0.11	-1.92	0.51	5.01
GDP (Market price)	2.21	1.95	-6.04	-3.14	0.01	-1.79	0.41	5.36
Household Consumption	-1.06	-4.86	-17.95	7.07	18.26	1.56	43.72	48.16
Gov. Cons. Expenditures	8.78	6.8	148.29	99.18	12.13	61.58	-4.57	-53.56
Gross Fixed Capital Formation	8.29	4.46	-25.38	-6.57	-1.08	-7.55	3.62	8.21
Net Exports	7.64	20.02	3.12	-52.4	-74.29	-30	-110.5	-74.49
National Disposable Income	0.35	3.57	2.12	0.32	0.56	1.57	-2.25	-5.35
Compensation of Employees	8.99	6.7	-6.47	-2.32	6.36	0.96	9.26	19.44
Operating Surplus	1.48	0.25	-5.93	-4.17	-2.34	-3.07	-3.15	-4.45
Other Current Transfers from RoW Net	9.62	10.24	53.45	11.07	-20.73	11.65	-48	-47.15

Source: National Bureau of Statistics (NBS) Nigeria

According to Blanchard (2009), capital accumulation will continue to drive a rise in overall productivity until the economy reaches its steady state, where output per worker and capital per worker stops changing. In the case of underdeveloped countries, it tends to be below the steady state and thus there is acceptable latitude for increasing the level of capital to enhance productivity growth.

According to the table in figure 10, Nigeria's real GDP at basic prices increased by 0.51% year over year in the first quarter of 2021, up from 0.11% in the fourth quarter of 2020. With a positive GDP growth rate of 5.01% in the second quarter of 2021, however, growth improved much further. A recession was the result of the negative quarterly growth in Q2 and Q3 2020, which also resulted in a negative yearly growth rate. The performance in 2021 revealed a decline annual growth rate of -1.92% for 2020, compared to 2.27% in 2019, and 11.12% points higher. This was in contrast to the first and second quarters of 2020. The industrial sector has the highest labour productivity, albeit this has been dropping, according to the trend in productivity and productivity growth. How to boost sector productivity is a challenge, particularly in light of the growing labour migration to the industry. Agricultural productivity is the lowest, but it has been increasing. The difficulty lies in continuing to raise and sustain the agriculture sector's productivity.

### **3. FACTORS THAT AFFECT INFORMAL ECONOMY'S PRODUCTIVITY**

Given that it has been shown that labour productivity in the United States has been relatively low compared to that of other nations, it is important to pinpoint the factors that influence productivity, spot any gaps, and decide on the best course of action for accelerating productivity growth and raising productivity levels. Labour quality, which encompasses knowledge and skills as well as workforce health, innovation through increased openness (trade, foreign direct investment, and involvement in global value chains), appropriate infrastructure, and access to finance are a few of the factors that have a significant impact.

#### **3.1 Productivity and labour quality**

Productivity growth is based on the knowledge and skill level of the labour force. The literacy rate is essential in this regard. Increased literacy rates will increase productivity. The literacy rate in Nigeria increased from 51% in 2008 to 62% in 2018, which suggests that more than 25% of the population is illiterate. Productivity is also impacted by the net enrolment rate, particularly at the secondary school level. Less than 50% of Nigerian secondary school students are enrolled on a net basis. In 2013, the net enrolment rate was 56 per cent, up from 44 per cent in 2010. However, the enrollment rate decreased to 45% in 2014 and then to 42% in 2016, but it slightly increased to 43% in 2018. These dismal numbers are further compounded by the appallingly low and steadily falling level of education. In a world dominated by ICT, only 55.4 per cent of Nigerians have internet access in 2020.

#### **3.2 Infrastructure and output**

To increase output and technical efficacy, infrastructure is a crucial factor. In addition, better infrastructure boosts labour productivity by reducing commuting times, improving health and educational outcomes, and encouraging greater economies of scale (Straub and Terada-Hagiwara, 2010). Nigeria's infrastructure is described in general terms by the World Bank Infrastructure Index. The total infrastructure index for Nigeria, which goes from 1 (worst) to 7 (best), is low; it increased from 2.43 in 2010 to 3.23 in 2013 but dropped to 2.32 in 2018. The average Infrastructure Index was 2.65, and the various components of the infrastructure have all performed poorly, with rail transportation and electricity supplies performing the worst while roads (2.62) and air travel perform better in terms of overall quality. Since poor road and telecommunications networks raise the cost of transportation and logistics, and since better energy infrastructure is crucial to increasing industrial sector productivity, improved infrastructure would permit stronger market access.

#### **3.3 Degree of Openness:**

Productivity, especially total factor productivity, is determined by the degree of openness or trade openness. The ability to compete and benefit from technological dispersion through innovation is made possible by trade openness (Keller, 2010; Barro and Sala-i-Martin, 1995).

Nigeria has a 25.4 per cent trade openness as of 2020 (calculated as the share of exports and imports as a percentage of GDP). A major obstacle to trade flows is the nation's business environment. Over the past ten years, there hasn't been any discernible progress in the country's ease of doing business in comparison to the rest of the globe. According to the 2020 assessment of the ease of doing business, Nigeria is ranked 131st out of 190 nations. This comes after it received low marks and placed poorly in several areas, including registering real estate (183rd), dealing internationally (179th), and obtaining



electricity (169th). This reflects both the severe bottleneck in the country's commercial and contract execution processes as well as the long-standing infrastructure problem. Nigeria has a score of 157.2, which places it 116th overall and 14th in Africa in terms of economic freedom. This is due to a combination of a high tax burden, poor judicial effectiveness, weak government integrity, and weak property rights.

### **3.4 Third-party direct investment**

Through the creation of beneficial externalities and knowledge spillover into the domestic sector, foreign direct investment (FDI) serves as a channel for the transfer of technology. As new businesses are established by investors in the host nation, more jobs are created, increasing income, purchasing power, and the economy as a whole. From 1.67 per cent of GDP in 2010 to 0.55 per cent of GDP in 2020, FDI net inflows to Nigeria dramatically decreased. This may be related to persistently subpar education and infrastructure, ongoing political instability, and security concerns. FDI inflows to Nigeria are also being restricted by the nation's poor ranking in the ease of doing business. FDI inflows are also being hampered by bureaucracy, corruption, fluctuating foreign exchange rates, and the inability of international enterprises to acquire foreign exchange to transfer their profits to their home nations.

## **4. IMPROVING PRODUCTIVITY FOR CONTINUOUS ECONOMIC DEVELOPMENT**

Only the creation and execution of suitable sectoral, economic, and social policies will increase productivity for sustainable growth and development in Nigeria.

### **4.1 Sectoral and Economic Policies**

The large number of people living in rural enclaves shows that policy should be focused on boosting agriculture and industry, particularly through rural industrialization. Despite the significant role that services can play, enhancing productivity in industry and agriculture should be a priority.

#### **a. Improve productivity in agriculture**

Due to the large population that lives in rural areas, increasing productivity in this sector is essential to boosting domestic demand. The emphasis should be on increasing agricultural production because despite increased non-farm revenue, the sector still primarily depends on income from agriculture. The following reform initiatives can help with the improvement strategies.

The poorest sections of society, typically those in the agricultural and rural sectors, should be supported in the first place by any reform in the nation. Additionally, invest in rural infrastructures like roads, irrigation systems, and ICT; lower collateral requirements to improve access to financing to foster entrepreneurship; expand investment in research and development; and offer extension services to rural residents, particularly farmers.

#### **b. Boost industrial productivity**

The nation may be seeking to skip industrialization, as seen by a large amount of employment in services. This is virtually unattainable; productivity must increase quickly in the manufacturing sector if Nigeria wants to grow. This will increase the sector's profitability and wages, which will increase demand for the products made in other sectors and cause other sectors to see rapid growth in output, productivity, and wages. Additionally, the manufacturing sector's technology spillover effects might affect adjacent industries.

### **4.2 Social Policies**

To support domestic demand, social policies that raise the proportion of labour in the national income are crucial. In times of crisis, minimum wage, social protection, and social transfer programs will increase aggregate demand, together with governmental job guarantees.

#### **a. Social security and higher wages**

Increases in labour productivity should result in corresponding increases in wage levels. To ensure that wage levels are raised, minimum wages should be used as a policy tool. Although minimum wages are a crucial instrument for setting wages, they are particularly pertinent for lower-skilled individuals.

In contrast, it is typically preferable for companies and employees or labour unions to negotiate pay directly. Governments should improve the environment necessary for this to occur in this regard. The vulnerable will be protected in times of

crisis, and access to old-age pensions will be improved. This will help to lessen inequality. In the same vein, ensuring employment would not only form a crucial pillar in efforts to reduce poverty and boost domestic demand but would also encourage increased consumption.

#### **b. Reforming education**

To use new technology and capital effectively, workers must have the necessary skills and talents. This necessitates an enhancement in the accessibility and caliber of physical infrastructure as well as that for information and communication. Government spending on education should be increased, with a focus on raising standards and putting more of an emphasis on science, technology, and innovation. Technical and vocational education and training, which includes formal, nonformal, and informal learning for the workplace, should also receive attention from policymakers.

### **5. CONCLUSION**

Since the 2008 financial and economic crisis, Nigeria's economy has had modest productivity growth, which causes policy worry. This has detrimental effects on long-term economic growth and development. Priority must be given to increasing domestic demand through productivity enhancement achieved by economic and social reforms to support the nation's economic growth in light of the precarious global economic conditions. These changes should concentrate on raising agricultural productivity.

The improvement of agricultural and industrial production in rural areas, where the majority of the nation's population resides, should be the main goal of these changes. Proper investment in infrastructure, education, ICT, and other areas is essential for fostering productivity growth.

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