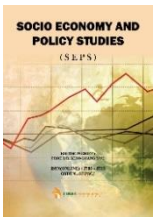
ZIBELINE INTERNATIONAL™ PUBLISHING

ISSN: 2785-8715 (Online)
CODEN: SEPSCJ

Socio Economy and Policy Studies (SEPS)

DOI: http://doi.org/10.26480/seps.01.2025.17.27



REVIEW ARTICLE

REIMAGINING NIGERIA'S PRODUCTIVE ECONOMY: A POLICY REVIEW OF INDUSTRIALIZATION, AGRICULTURAL TRANSFORMATION, AND INNOVATION PATHWAYS

Augustine Okon Jacob[a,b*] and Okon Joseph Umoh[b]

[a] Department of Business Administration, School of Management Science, Heritage Polytechnic, Ikot Udota, Nigeria.
[b] Department of Economics, Faculty of Social Science, University of Uyo, Uyo, Nigeria.
**Corresponding Author Email: drjacob.ao@gmail.com*

ARTICLE DETAILS

Article History:

Received 16 March 2025
Revised 22 April 2025
Accepted 18 May 2025
Available online 03 June 2025

ABSTRACT

Structural imbalances, overreliance on crude oil, and underperformance in key productive sectors have long hindered Nigeria's economic development. This review critically examines Nigeria's efforts to transform its economy through industrialization, agricultural development, and innovation-driven growth. Drawing on historical analysis and policy evaluations, the study assesses the effectiveness of key national frameworks, including the Nigeria Industrial Revolution Plan, Agricultural Transformation Agenda, Anchor Borrowers' Programme, and the Nigeria Startup Act. It also situates Nigeria's potential within the context of the African Continental Free Trade Area (AfCFTA). It highlights cross-cutting enablers such as infrastructure, access to finance, regulatory quality, and human capital development. The review finds that while targeted interventions have yielded localized successes, particularly in agritech, fintech, and input distribution, implementation inconsistencies, weak institutional coordination, and systemic capacity constraints have limited their broader impact. Nigeria's digital economy shows significant promise, yet its growth is uneven and often disconnected from traditional sectors. The paper recommends a more coherent and inclusive approach to economic transformation, emphasizing sectoral linkages, youth and gender inclusion, scalable innovation ecosystems, and regional trade integration. With the right policy mix and disciplined implementation, Nigeria can harness its demographic advantage, diversify its economic base, and reposition itself as a productive hub in Africa. The findings offer actionable insights for policymakers, development practitioners, and stakeholders committed to reimagining Nigeria's economic future.

KEYWORDS

AfCFTA, Agricultural development, Digital innovation, Economic transformation, Industrial policy

1. INTRODUCTION

A productive economy is one characterized by the sustained and efficient generation of value-added goods and services across key sectors such as manufacturing, agriculture, and innovation-driven industries. These sectors are typically associated with high employment absorption potential, inter-sectoral linkages, and multiplier effects that stimulate inclusive and sustainable economic development (Shah et al., 2024). In the context of developing countries, a productive economy is not merely defined by GDP growth but by the structural transformation that moves resources from low-productivity to high-productivity sectors, thereby raising overall living standards and resilience to shocks. For Nigeria, this concept remains both an urgent necessity and a long-standing developmental aspiration (Jacob and Umoh, 2017).

Nigeria, Africa's most populous country and largest economy by GDP, remains structurally imbalanced and vulnerable due to its historical overreliance on crude oil exports. Despite successive national development plans and reform programs, the economy continues to exhibit features of a mono-product economy with a narrow export base, under-industrialization, and a dominant informal sector (Olawunmi et al., 2021). Agriculture employs a significant proportion of the population but remains largely subsistence-based and under-mechanized. Manufacturing, which should serve as the engine of structural transformation, contributes less than 10% to GDP and is constrained by infrastructure bottlenecks, policy inconsistency, and limited access to finance (Jacob, 2018a, 2018b). The services sector has grown in relative terms but is concentrated in low-productivity and informal activities.

This paradox of being a "rich country with poor people" is reflected in multiple socioeconomic indicators. Nigeria ranks low in human development, with high rates of youth unemployment, regional inequality, and poverty. The formal economy is weakly integrated with the broader society, and the benefits of growth, when present, rarely translate into improved livelihoods or productive job creation. Notably, the country has experienced jobless growth in many instances, where GDP expansion is not matched by labor market absorption, particularly for young and educated populations (Jacob and Umoh, 2023).

These realities raise critical questions about the effectiveness of Nigeria's productive sector transformation policies. While various policy instruments have been introduced to revive agriculture, stimulate industrialization, and support technological innovation, outcomes have often fallen short of expectations (Olomu et al., 2020). The country's manufacturing base remains shallow, agricultural productivity is low, and innovation ecosystems are underleveraged. Even the promising rise of digital technologies and entrepreneurship is threatened by infrastructure deficits and a fragile regulatory environment. Moreover, external pressures such as global commodity shocks, climate change, and regional trade dynamics further compound these structural weaknesses (Adebiyi et al., 2020).

Quick Response Code	Access this article online	
	Website: www.seps.com.my	**DOI:** 10.26480/seps.01.2025.17.27

Cite The Article: Augustine Okon Jacob and Okon Joseph Umoh (2025). Reimagining Nigeria's Productive Economy: A Policy Review of Industrialization, Agricultural Transformation, and Innovation Pathways. *Socio Economy and Policy Studies, 5(1): 17-27.*

Against this backdrop, this review paper seeks to critically examine the trajectory of Nigeria's productive economy by evaluating the policy frameworks, institutional arrangements, and implementation strategies adopted over the past two decades. The goal is not only to assess what has been done but to highlight why past efforts have yielded limited results and to propose more integrated, data-driven, and context-specific approaches.

The central questions guiding this review are:

- What has been the historical evolution of Nigeria's productive economy, particularly in agriculture, manufacturing, and innovation?
- How effective have national policy frameworks been in transforming these sectors?
- What institutional and structural constraints continue to hinder productivity, employment, and competitiveness?
- How can future policies be designed to accelerate inclusive economic transformation and resilience?

To address these questions, the paper is structured thematically. Section 2 provides a theoretical and conceptual grounding of what constitutes a productive economy and its relevance for structural transformation in developing contexts. Section 3 traces the historical evolution of Nigeria's economic policy landscape with a focus on macroeconomic and structural adjustment programs. Sections 4 and 5 delve into the agricultural and manufacturing sectors, respectively, reviewing policy initiatives such as the Agricultural Transformation Agenda and the Nigerian Industrial Revolution Plan. Section 6 examines the role of innovation and digital transformation, highlighting emerging sectors like fintech and digital entrepreneurship. Section 7 analyzes Nigeria's engagement with regional and global trade arrangements, particularly the African Continental Free Trade Area (AfCFTA), as a lever for productive capacity expansion. Section 8 synthesizes cross-cutting enablers and constraints such as infrastructure, financing, and human capital. Section 9 presents the key findings, and Section 10 offers forward-looking recommendations.

Ultimately, the paper argues that transforming Nigeria's productive economy requires a coordinated, inclusive, and future-oriented approach that bridges policy ambition with institutional capacity and market realities. This is essential not only for economic diversification but for building a more resilient, equitable, and opportunity-rich society.

2. Theoretical and Conceptual Framework

Understanding Nigeria's journey toward a productive economy requires a grounding in key economic development concepts and theories. This section defines central concepts such as economic transformation, structural change, and productivity. It draws on relevant theoretical frameworks to explain the pathways through which Nigeria can transition from a resource-dependent, low-productivity economy to a diversified and inclusive one.

2.1 Key Concepts

Economic transformation refers to the process through which a country transitions from low-value-added, subsistence economic activities to higher-value-added, diversified, and industrialized production (Tasneem and Khan, 2023). This transformation is marked by shifts in output and employment from agriculture and extractive sectors toward manufacturing and services, accompanied by rising productivity and improvements in income and living standards.

Structural change is a critical component of economic transformation. It involves reallocation of labor and capital across sectors—from traditional, informal, and low-productivity segments to modern, formal, and high-productivity activities. Structural change can be measured by the changing composition of GDP and employment by sector. Successful structural change leads to higher overall productivity, enhanced technological capabilities, and economic resilience.

Productivity, in this context, refers to the efficiency with which inputs (labor, capital, land) are converted into outputs (Rahman and Schmillen, 2023). Total Factor Productivity (TFP) is often used to capture gains arising from technological progress, innovation, and better institutional performance. High productivity growth is necessary to sustain economic growth, increase incomes, and support employment creation in the long term (Jacob and Umoh, 2018).

2.2 Economic Development Theories and Frameworks

Several development theories have attempted to explain how economies transform and why some succeed while others lag behind. These frameworks help interpret Nigeria's development experience and identify strategic gaps.

2.2.1 Structuralist Models

Rooted in the works of Arthur Lewis and other development economists, structuralist theory posits that developing economies are dualistic, characterized by a traditional agricultural sector and a modern industrial sector. Transformation involves transferring surplus labor from the traditional sector to the industrial sector, where productivity is higher (Zhang, 2021). Policies must therefore emphasize industrialization, capital accumulation, and import substitution.

In Nigeria's case, the structuralist approach has informed various policies aimed at fostering manufacturing and reducing import dependence. However, weak institutions, rent-seeking behavior, and policy inconsistency have often undermined these efforts.

2.2.2 Endogenous Growth Theory

Contrary to exogenous models like Solow's, endogenous growth theory emphasizes that growth is driven by internal factors such as innovation, human capital, and knowledge spillovers. According to Romer and Lucas, investments in education, research and development (RandD), and technological innovation are fundamental to sustaining long-term growth (Verba, 2020).

This framework is increasingly relevant for Nigeria, especially as the digital economy and startup ecosystems gain traction. However, without strategic investment in infrastructure, STEM education, and regulatory support, the country risks missing the potential dividends of innovation-led growth.

2.2.3 Industrial Policy Frameworks

Recent development literature has revived interest in targeted industrial policies—government interventions that support specific sectors through subsidies, tariffs, infrastructure, and public-private partnerships. Successful industrializers such as South Korea and China implemented dynamic industrial policies with clear performance benchmarks and export orientation (Lane, 2021).

Nigeria has attempted similar approaches, including the Nigeria Industrial Revolution Plan (NIRP) and Special Economic Zones (SEZs). However, the absence of coherent institutional support, energy supply challenges, and a fragmented value chain ecosystem have limited their impact.

2.2.4 Agricultural Development Models

Models such as Schultz's theory of transforming traditional agriculture and Johnston-Mellor's approach to agricultural-led growth emphasize the role of agriculture in the early stages of development. They argue that raising agricultural productivity is essential for food security, rural income growth, and raw material supply to industries (Alston, 2017).

This is critical for Nigeria, where agriculture still accounts for a substantial share of employment but suffers from low mechanization, weak access to finance, and climate vulnerability. Unlocking its potential requires reform in land tenure, irrigation, market access, and farmer education.

2.3 Application to Nigeria's Context

These frameworks collectively reveal that Nigeria's limited economic transformation is not due to the absence of planning or policy ambition, but rather due to weak institutional implementation, fragmented sectoral coordination, and low productivity traps. Despite abundant labor and natural resources, Nigeria has not sufficiently reallocated economic activity toward higher-productivity sectors (Jacob and Umoh, 2019). Industrial policies have been undermined by infrastructure gaps and rentier incentives, while endogenous growth strategies have been slowed by underinvestment in education, RandD, and digital infrastructure.

A successful transformation of Nigeria's productive economy thus requires an integrated application of these theoretical insights, prioritizing sector-specific industrial policies, strengthening innovation systems, and enabling structural change through infrastructure and human capital development (Nwokoye et al., 2023). In doing so, Nigeria can escape the structural stagnation and unlock its demographic and economic potential.

3. Historical Context and Macroeconomic Overview

Nigeria's journey toward economic transformation has been marked by a series of policy shifts, reform programs, and ambitious development plans, each reflecting the economic priorities and ideological underpinnings of its time (Jacob et al., 2019a). From independence in 1960 to the present,

the country has made repeated attempts to industrialize, diversify the economy, and reduce dependence on oil exports. However, these efforts have yielded mixed results due to both internal and external constraints, including political instability, weak institutions, and macroeconomic volatility (Mark et al., 2023).

3.1 The 1970s Industrialization Drive

The first serious attempt at transforming Nigeria's productive economy emerged in the 1970s, buoyed by the oil boom. The government embarked on a series of industrial plans, notably the Second National Development Plan (1970–1974) and Third Plan (1975–1980). These plans emphasized import substitution industrialization (ISI), with massive state-led investments in heavy industries, including steel, petrochemicals, and cement (Saka and Olanipekun, 2020). Public enterprises were established as vehicles for rapid industrial growth, funded by burgeoning oil revenues.

While these efforts created infrastructure and expanded the industrial base, they failed to establish competitive, self-sustaining industries. The strategy was overly reliant on oil earnings, neglected agriculture, and did not incentivize private sector participation or exports. The onset of the oil price collapse in the early 1980s exposed the fragility of this model and set the stage for more austere policy adjustments (Itaman and Awopegba, 2021).

3.2 The Structural Adjustment Program (SAP)

In 1986, faced with deteriorating public finances, external debt, and a growing balance of payments crisis, Nigeria adopted the Structural Adjustment Program (SAP) under the guidance of the International Monetary Fund (IMF) and World Bank. SAP represented a significant shift toward market-oriented reforms, including trade liberalization, deregulation, privatization of state-owned enterprises, and the adoption of a managed floating exchange rate (Isiani et al., 2021).

SAP aimed to diversify the economy, promote private investment, and reduce the role of government in economic management. However, the program's implementation was controversial and socially disruptive. The abrupt removal of subsidies, sharp devaluation of the naira, and inflationary pressures eroded living standards and disproportionately affected the poor. While SAP partially succeeded in liberalizing the economy and introducing a more market-friendly orientation, it failed to produce the promised industrial revival or reduce import dependency (Iliyasu et al., 2024). Moreover, inadequate safety nets and institutional capacity undermined its long-term effectiveness.

3.3 Vision 2010 and the National Economic Empowerment and Development Strategy (NEEDS)

By the late 1990s, the Nigerian government sought to regain ownership of the reform agenda through homegrown development frameworks. The Vision 2010 Report, launched under the Abacha administration in 1997, articulated a long-term strategy to transform Nigeria into a globally competitive economy by 2010 (Jacob et al., 2019b). While comprehensive in scope, Vision 2010 lacked the institutional backing and continuity required for implementation.

In 2004, the National Economic Empowerment and Development Strategy (NEEDS) was introduced as part of a broader economic reform initiative under President Olusegun Obasanjo. NEEDS focused on macroeconomic stability, private sector-led growth, infrastructure development, and public service reform (Raut, 2024). It marked a renewed effort to tackle poverty, reduce corruption, and encourage sectoral diversification.

NEEDS achieved some success in stabilizing the macroeconomy and improving policy coordination, especially through fiscal and monetary alignment. It also laid the groundwork for banking sector consolidation and pension reform. However, the benefits were uneven, and structural bottlenecks in agriculture, manufacturing, and energy persisted.

3.4 Economic Recovery and Growth Plan (ERGP)

In response to the 2016 recession triggered by a collapse in oil prices and declining foreign reserves, the Nigerian government launched the Economic Recovery and Growth Plan (ERGP) 2017–2020. ERGP aimed to restore growth, invest in people, and build a globally competitive economy. Priority sectors included agriculture, manufacturing, energy, and transportation (Utuk et al., 2024). The plan emphasized macroeconomic stability, economic diversification, and improved ease of doing business.

While the ERGP helped pull the economy out of recession and brought modest improvements in capital inflows and non-oil exports, its implementation was hampered by weak institutional capacity, policy inconsistency, and external shocks (Kalagbor and Harry, 2021). Structural transformation remained elusive, and productivity in the real sectors showed limited gains.

3.5 Macroeconomic Challenges

Despite repeated reform efforts, Nigeria continues to grapple with persistent macroeconomic vulnerabilities that inhibit productive sector growth:

- Inflation: Inflation remains chronically high, often driven by food prices, exchange rate pass-through, and supply-side constraints. Double-digit inflation erodes purchasing power and creates uncertainty for investment planning.
- Exchange Rate Volatility: The naira has experienced sustained depreciation, multiple exchange rate regimes, and foreign exchange shortages. These distort pricing, increase transaction costs, and discourage foreign direct investment (FDI) (Umoh and Jacob, 2020).
- Fiscal Policy Inconsistencies: Nigeria's fiscal policy is constrained by limited non-oil revenue, high debt servicing costs, and dependency on oil revenue, which is volatile and susceptible to external shocks. Despite efforts to expand the tax base, revenue-to-GDP remains low (below 10%), hindering public investment in infrastructure and social services (Jacob et al., 2021).
- Debt Sustainability: The increasing reliance on domestic and external borrowing, especially for recurrent expenditure, raises concerns about fiscal sustainability and crowding out of productive investment (Jacob and Umoh, 2021).
- Policy Uncertainty and Weak Coordination: Frequent changes in economic policy direction, lack of transparency, and weak inter-agency coordination have diminished investor confidence and undermined long-term planning.

In summary, while Nigeria's economic history reflects a continuous aspiration for transformation, results have been mixed due to recurring structural and macroeconomic challenges. The next sections of this review will examine sector-specific policies and implementation outcomes in agriculture, industry, and innovation to assess where strategic recalibration is needed to unlock Nigeria's productive potential truly.

4. Review of Agricultural Transformation Policies

Agriculture holds a central place in Nigeria's quest for economic transformation and inclusive development. Beyond being a major contributor to national output, the sector serves as a source of employment, food security, rural livelihood, and raw materials for industries. Over the decades, successive Nigerian governments have launched various initiatives to reposition agriculture from a subsistence-oriented activity to a commercially viable and technologically driven sector (Osabohien et al., 2020). While these initiatives have achieved some level of impact, persistent structural and institutional challenges have limited the scale and sustainability of their success.

4.1 Overview of Nigeria's Agricultural Performance

Nigeria's agricultural sector accounts for approximately 24–26% of the country's GDP and remains the largest employer of labor, engaging over 60% of the workforce, particularly in rural areas. The sector is dominated by smallholder farmers who cultivate less than two hectares on average, often using traditional tools and low-yielding inputs (Nwankwo et al., 2024).

Agricultural productivity has remained relatively stagnant over the years due to limited mechanization, poor infrastructure, and a fragmented value chain system. While crops like cassava, yam, maize, rice, and sorghum dominate staple food production, Nigeria continues to import significant quantities of processed food and agro-industrial products, pointing to underdeveloped domestic value addition and processing capacity (Omoluabi and Ibitoye, 2024).

Livestock, fisheries, and forestry sub-sectors are also important components of the agricultural economy, though often underfunded and less integrated into national value chain strategies. Nigeria's agricultural exports are still dominated by primary commodities such as cocoa, sesame seeds, and ginger, with limited diversification or movement up the value chain (Jacob, 2023; Victor and Onyeukwu, 2022).

Despite these limitations, agriculture remains a critical leverage point for national transformation due to its employment potential, linkages to manufacturing, and natural resource endowments. This potential has spurred several reform efforts in the 21st century.

4.2 Key Agricultural Transformation Initiatives

4.2.1 Agricultural Transformation Agenda (ATA) – 2011 to 2015

The Agricultural Transformation Agenda (ATA) was launched in 2011 under the Goodluck Jonathan administration and led by the then Minister of Agriculture, Dr. Akinwumi Adesina. ATA aimed to reposition agriculture as a business rather than a development activity and to drive private-sector-led investments in agriculture.

Its key components included:

- Growth Enhancement Support (GES) Scheme: Introduced to reduce government's direct procurement and distribute subsidized inputs (fertilizer and seeds) to farmers via mobile phones.
- Staple Crop Processing Zones (SCPZs): Targeted areas with high agricultural potential were designated to attract agro-processing investments.
- Agribusiness Promotion: Sought to increase the role of the private sector in financing, processing, and marketing.
- Infrastructure development: Focused on rural roads, storage, and irrigation facilities.

ATA recorded significant successes in terms of input delivery efficiency, increased yields for select crops, and improved farmer registration. However, it struggled with sustainability due to weak institutional ownership, limited private sector uptake of SCPZs, and post-2015 policy discontinuity.

4.2.2 Anchor Borrowers' Programme (ABP) – 2015 to present

Launched by the Central Bank of Nigeria (CBN) in 2015, the Anchor Borrowers' Programme (ABP) aimed to link smallholder farmers to off-takers (anchors) and provide them with access to finance, inputs, and extension services (Olanrewaju et al., 2020). The goal was to boost domestic agricultural production and reduce import bills, especially for rice, maize, wheat, and cotton.

Key features of the ABP include:

- Loan disbursement through microfinance banks at single-digit interest rates.
- Input distribution based on cluster arrangements.
- Repayment-in-kind or cash by farmers at harvest time.
- Backward integration by aggregators and processors.

The ABP has recorded mixed outcomes. It has helped increase rice production, reduce some import dependency, and raise awareness of agricultural credit schemes. However, it has also faced challenges related to loan defaults, poor extension services, politicization of beneficiary lists, and limited technical monitoring. The CBN itself admitted that over ₦500 billion was disbursed between 2015 and 2022, with recovery levels still far from optimal (Olanrewaju et al., 2020). Additionally, ABP's top-down structure has raised concerns about long-term sustainability without deep institutional reforms.

4.2.3 National Agricultural Technology and Innovation Policy (NATIP) – 2021–2025

The National Agricultural Technology and Innovation Policy (NATIP) is Nigeria's latest policy framework for agricultural transformation. It aims to align agriculture with emerging global trends such as climate-smart farming, digital innovation, biotechnology, and agribusiness development. NATIP seeks to consolidate and expand on prior initiatives, correcting the inefficiencies of input distribution and financing while promoting productivity, inclusiveness, and export competitiveness (Ifeanyi-Obi et al., 2022).

Thematic pillars of NATIP include:

- Mechanization and irrigation expansion
- Climate-smart agriculture and resilience building
- Digital agriculture and ICT integration
- Youth and women inclusion in agribusiness
- Access to markets and trade facilitation
- Research-extension-market linkage models

NATIP is a promising evolution from ATA and ABP in terms of recognizing modern technologies and systemic constraints. Its success will depend on implementation fidelity, subnational alignment, and investment in data systems and infrastructure.

4.3 Assessment of Persistent Challenges

Despite these strategic efforts, Nigeria's agricultural transformation faces enduring structural and policy challenges, including:

- Access to Finance: Formal credit penetration in agriculture remains below 5%. High collateral requirements, inadequate rural banking infrastructure, and repayment risks hinder smallholders from accessing affordable finance.
- Mechanization: Mechanization rates remain among the lowest in sub-Saharan Africa (less than 2 tractors per 1000 hectares). Manual labour dominates, limiting the efficiency and scalability of production.
- Land Tenure: Insecure land rights, communal ownership structures, and slow cadastral reforms make it difficult for farmers, especially women and youth, to access land and use it as collateral.
- Post-Harvest Losses: Nigeria loses an estimated 30–50% of its produce due to poor storage, inadequate processing infrastructure, and weak cold chain logistics, undermining profitability and food security.
- Extension Services: Public extension systems are understaffed, underfunded, and often outdated in approach. This creates information gaps and poor adoption of improved practices.

4.4 Emerging Opportunities

Despite the above constraints, the Nigerian agricultural sector presents several exciting opportunities for transformation:

- Agro-Processing and Value Addition: Domestic demand for processed foods is rising rapidly. There is strong potential for developing integrated value chains in rice, tomato, cassava, oil palm, and dairy, which could spur rural industrialization and export competitiveness.
- Digital Agriculture: Mobile technology, precision farming tools, and digital platforms like FarmCrowdy, ThriveAgric, and Hello Tractor are revolutionizing access to inputs, finance, and market linkages for smallholders.
- Climate-Smart Agriculture (CSA): With growing climate risks, CSA practices—such as drought-resistant seeds, water harvesting, and conservation agriculture—are gaining relevance and could be scaled through public-private partnerships.
- Youth Agribusiness Innovation: Programs that target youth-led agri-enterprises, especially those blending tech with agriculture (agritech), are helping to rebrand farming as a viable career path. This can revitalize rural economies and absorb labor from urban migration.

Nigeria's agricultural transformation journey reflects a mix of policy ambition and persistent implementation challenges. While past initiatives like ATA and ABP introduced useful reforms and platforms, structural inefficiencies, weak coordination, and institutional fragility have hindered large-scale impact. The NATIP framework offers a renewed opportunity to integrate innovation, inclusion, and sustainability into agricultural policy (Amuda, 2023). As we advance, a focus on value chain development, market access, rural infrastructure, and climate resilience—supported by robust data and governance—will be crucial in harnessing the full potential of Nigeria's agricultural sector as a driver of productive economic transformation.

5. Industrialization and Manufacturing Sector Review

Industrialization has long been considered a key pathway for economic transformation, productivity enhancement, and employment generation, particularly in developing economies (Udo and Jacob, 2021). For Nigeria, the imperative of industrial development is both strategic and urgent. However, the country's manufacturing landscape remains underdeveloped, characterized by low contribution to GDP, import dependency, poor infrastructure, and weak value chain integration (Ibitoye et al., 2022). Despite several reform efforts, Nigeria has yet to unlock the full potential of industrialization as a driver of broad-based and inclusive growth.

5.1 Nigeria's Manufacturing Landscape: Overview

As of the early 2020s, Nigeria's manufacturing sector contributes approximately 7–9% to GDP, a figure that has remained relatively stagnant for over a decade. This performance is low compared to peer countries such as South Africa (around 13–15%) and Vietnam (above 20%), which

have successfully harnessed manufacturing as a pillar of economic development (Onokwai, 2020). Nigeria's industrial base is dominated by light manufacturing, including food and beverages, textiles, cement, and household goods, while heavy industries (steel, petrochemicals, machinery) remain marginal.

The sector is constrained by a high cost of doing business, frequent disruptions in power supply, foreign exchange instability, and limited access to long-term finance. Many Nigerian manufacturers operate below capacity and are heavily reliant on imported raw materials and machinery, further exacerbating external vulnerabilities. The trade balance in manufactured goods remains negative, with imports outpacing exports significantly. This import dependency stifles domestic value addition, undermines local competitiveness, and weakens backward and forward linkages in the economy.

Notably, employment in manufacturing is also limited relative to its potential. Most formal jobs are concentrated in a few large firms (Israel, 2025). At the same time, the majority of micro, small, and medium enterprises (MSMEs) operate informally, with little access to productivity-enhancing technologies or scale economies.

5.2 Review of Industrial Policies and Reforms

5.2.1 Nigeria Industrial Revolution Plan (NIRP)

The Nigeria Industrial Revolution Plan (NIRP) was launched in 2014 under the Jonathan administration as a comprehensive strategy to boost manufacturing output, attract investment, and enhance global competitiveness (Anam et al., 2023). Anchored on four pillars—industry input linkages, local production, competitiveness, and enforcement of standards—the plan aimed to promote priority sectors such as agro-processing, light manufacturing, construction, metals, and solid minerals.

Key targets of NIRP included:

- Reducing import dependency in key sectors.
- Promoting job creation through labor-intensive industries.
- Supporting SMEs with financing and technical capacity.
- Enhancing industrial skills and infrastructure.

Although the NIRP presented a coherent vision, its implementation faced multiple hurdles. Institutional fragmentation, inadequate budgetary support, and inconsistent policy coordination weakened the delivery of key outcomes. Political transitions and changing priorities also disrupted continuity (Kalagbor and Harry, 2021). However, the plan did help stimulate dialogue around industrial policy and laid the groundwork for subsequent reforms.

5.2.2 National Industrial Policy and Competitiveness Advisory Council

In 2017, the Federal Government inaugurated the National Industrial Policy and Competitiveness Advisory Council (NIPCAC) as a multi-stakeholder platform to drive industrial policy coordination. The Council brought together government, private sector, and academia to address cross-cutting barriers to industrial growth (Odijie, 2019).

Its interventions focused on:

- Expanding access to finance for industrial enterprises.
- Improving infrastructure in industrial corridors.
- Enhancing regulatory transparency and investor confidence.
- Promoting local sourcing and reducing overregulation.

While NIPCAC facilitated high-level engagement and reforms (e.g., within the Presidential Enabling Business Environment Council - PEBEC), it lacked binding powers and institutional permanency. Its achievements were often overshadowed by persistent macroeconomic challenges, including naira volatility, import inflation, and fiscal fragility, which continued to weigh heavily on manufacturers.

5.2.3 Export Expansion Grant (EEG)

The Export Expansion Grant (EEG) was introduced to incentivize non-oil exports, including manufactured goods, through a system of post-shipment tax credits. Exporters received Negotiable Duty Credit Certificates (NDCCs), which could be used to offset customs duties and taxes.

The EEG was instrumental in expanding Nigeria's non-oil export base in the 2000s. However, issues such as abuse of the scheme, delays in payments, and lack of transparency led to its suspension in 2013 (Jacob et al., 2022). It was later reviewed and restructured with tighter eligibility and compliance criteria.

Despite its revival, the impact of EEG has remained limited due to:

- Unpredictable implementation cycles.
- Bureaucratic delays in disbursements.
- Weak enforcement of quality standards and export competitiveness.

Moreover, many manufacturers struggle with product standardization and certification, which affects market access in regional and global value chains.

5.3 Industrial Clusters and Special Economic Zones (SEZs)

One of the key strategies adopted to promote industrialization in Nigeria has been the development of industrial clusters and Special Economic Zones (SEZs). These are designated zones offering tax breaks, regulatory incentives, and shared infrastructure to attract investment and foster industrial linkages (Adeoti et al., 2025).

Examples include:

- Lekki Free Trade Zone in Lagos State.
- Calabar Free Trade Zone in Cross River.
- Kano and Ogun Industrial Parks.
- Oil and Gas Free Zones in Onne and Brass.

While some zones have attracted moderate investment and employment, the overall performance of SEZs has been underwhelming due to:

- Poor infrastructure (electricity, roads, water).
- Weak enforcement of incentive regimes.
- Governance issues and unclear regulatory oversight.
- Lack of integration with domestic value chains.

Many SEZs operate as enclaves with limited spillover effects on surrounding economies. Unlike the successful models in East Asia (e.g., China, Vietnam), Nigeria's SEZs have not yet become engines of export-led industrialization or large-scale job creation.

5.4 Infrastructure and Logistics Bottlenecks

Perhaps the most pervasive constraint on Nigeria's industrial growth is the chronic infrastructure deficit, particularly in power, transport, and logistics.

- Electricity Supply: The unreliable power supply remains a major cost burden for manufacturers, who spend heavily on diesel generators. Despite privatization efforts, electricity generation and distribution remain inefficient and poorly coordinated.
- Transport Infrastructure: Inadequate road networks, congested ports (especially in Lagos), and limited rail connectivity hinder the movement of raw materials and finished goods. Delays and high costs reduce competitiveness in both domestic and export markets.
- Logistics and Trade Facilitation: Cumbersome customs procedures, border delays, and inconsistent enforcement of regulations create major bottlenecks for manufacturers seeking to engage in cross-border trade (Ibitoye et al., 2022). These issues are further compounded by limited warehousing and cold chain systems.

The cost-to-income ratio for manufacturing firms in Nigeria is among the highest in Africa, undermining profitability, discouraging reinvestment, and dissuading foreign investors.

Nigeria's journey toward industrialization has been marked by ambition but hindered by execution gaps. The manufacturing sector remains under-leveraged despite its potential to catalyze economic transformation, job creation, and export diversification (Isiaka et al., 2022). While policies such as the NIRP, NIPCAC, and EEG reflect sincere efforts to reposition industry, their impact has been muted by structural barriers, especially infrastructure, finance, and governance.

Unlocking Nigeria's industrial potential will require not just more policies but coherent and sustained implementation, targeted support for SMES, revitalization of industrial clusters, and large-scale infrastructure investment. Additionally, aligning industrial policy with regional opportunities under AfCFTA and integrating digital technologies into production systems can offer a new frontier for growth (Jacob and Umoh,

2022a, 2022b). Without these reforms, Nigeria risks remaining a consumer economy dependent on imports rather than a productive hub driving inclusive and resilient development.

6. Innovation and Digital Transformation

Innovation and digital transformation are rapidly reshaping economic development paradigms globally, particularly in developing economies like Nigeria. These forces are redefining how goods and services are produced, distributed, and consumed, creating new opportunities for productivity, job creation, financial inclusion, and public service delivery (Jacob, 2022). For Nigeria, with its young, tech-savvy population and growing startup ecosystem, the digital economy holds enormous potential to drive structural transformation, leapfrog legacy constraints, and foster inclusive economic growth.

6.1 The Role of the Digital Economy in Reshaping Productivity

The digital economy encompasses economic activities that result from billions of everyday online connections among people, businesses, devices, data, and processes. It is driven by technologies such as the internet, artificial intelligence (AI), machine learning, big data, cloud computing, and blockchain.

In Nigeria, the digital economy is emerging as a key growth engine, accounting for over 18% of GDP in Q2 2022—a significant leap from previous decades. Digital platforms are improving market access, reducing transaction costs, and enabling real-time data analytics, which enhances decision-making across sectors (Abdullahi and Bashir, 2024). From automating supply chains to delivering remote education and mobile health services, digital solutions are unlocking value in both urban and rural economies.

Additionally, innovation in Nigeria is increasingly tied to the use of technology to solve long-standing development challenges—such as financial exclusion, limited access to education and healthcare, and youth unemployment (Udo et al., 2022). As traditional sectors like agriculture and manufacturing face structural hurdles, the digital sector offers flexible, scalable, and resilient alternatives for growth.

6.2 Government Interventions and Policy Frameworks

Recognizing the transformative potential of the digital economy, the Nigerian government has launched a series of policy frameworks and regulatory reforms to foster innovation and support the growth of tech ecosystems.

6.2.1 Nigeria Startup Act (2022)

The Nigeria Startup Act (NSA), signed into law in 2022, is a landmark policy designed to institutionalize a structured support system for startups and innovation-driven enterprises. Developed in collaboration with stakeholders in the technology ecosystem, the Act offers legal and fiscal backing intended to enhance the competitiveness and long-term sustainability of startups across the country. Among its provisions, the Act mandates the creation of a Startup Support and Engagement Portal (SSEP) to streamline registration and facilitate access to incentives (Adelodun and Daibu, 2023). It also establishes the National Council for Digital Innovation and Entrepreneurship, tasked with coordinating the implementation of the policy. Furthermore, the Act provides tax and fiscal incentives targeted at startups, investors, and innovation hubs, while also introducing a regulatory sandbox mechanism to enable controlled testing of digital products and services. This Act represents a shift away from ad hoc interventions, moving towards a more consistent and institutional approach to fostering innovation (Adebisi and Osobu, 2023). However, its overall effectiveness will depend largely on how well it is implemented across both federal and state levels.

6.2.2 National Digital Economy Policy and Strategy (2020–2030)

Introduced by the Federal Ministry of Communications and Digital Economy, the National Digital Economy Policy and Strategy (NDEPS) outlines a ten-year roadmap to transform Nigeria into a globally competitive digital economy. The policy emphasizes digital inclusion, innovation, cybersecurity, and the development of a digitally literate workforce. It is structured around eight strategic pillars: developmental regulation; digital literacy and skills; solid infrastructure; service infrastructure; digital services development and promotion; soft infrastructure; digital society and emerging technologies; and indigenous content development and adoption (Umar et al., 2024). While the NDEPS presents a coherent and ambitious national vision for the digital economy, its success is contingent upon adequate funding, effective stakeholder coordination, and the adoption of measurable performance indicators to ensure consistent progress.

6.2.3 Nigerian National Broadband Plan (2020–2025)

The Nigerian National Broadband Plan aims to raise broadband penetration from 40.9% in 2021 to 70% by 2025. It also seeks to reduce the average cost per gigabyte to below $1 and ensure minimum internet speeds of 10 Mbps in rural areas and 25 Mbps in urban centers. Recognizing the centrality of broadband access to digital inclusion, the plan targets improvements in key areas such as e-commerce, telemedicine, online education, and remote work. It further seeks to enhance infrastructure sharing among service providers, resolve challenges related to Right of Way (RoW) policies, and incentivize private investment in underserved and rural communities (Seyi-Olajide et al., 2021). While the plan has led to notable progress in urban areas, substantial gaps in rural broadband penetration and affordability continue to limit its impact for low-income users.

6.3 Sectoral Innovation Ecosystems in Nigeria

Nigeria's digital transformation has catalyzed innovation across multiple sectors, especially through fintech, agritech, edtech, and healthtech startups.

6.3.1 Fintech

Nigeria is a continental leader in financial technology (fintech), with companies like Paystack, Flutterwave, Interswitch, and Opay attracting global investments and expanding access to digital payments, mobile money, and microcredit.

The fintech sector has significantly contributed to financial inclusion, especially among the unbanked population. It also supports MSMEs through inventory financing, payment integration, and customer analytics. However, regulatory clarity and consumer protection remain areas of concern.

6.3.2 Agritech

Agricultural innovation platforms such as ThriveAgric, FarmCrowdy, Hello Tractor, and Releaf are using data, mobile apps, and IoT devices to support smallholder farmers. Services range from input financing and market access to tractor rental and remote crop monitoring.

Agritech addresses longstanding agricultural productivity challenges and improves linkages in the value chain. However, scaling remains constrained by internet access and farmer digital literacy.

6.3.3 Edtech

Edtech firms like uLesson, Tuteria, and AltSchool Africa are redefining access to learning through virtual classrooms, exam preparation tools, and coding bootcamps. During the COVID-19 pandemic, digital learning surged, although urban-rural divides and device affordability posed challenges.

These platforms play a critical role in bridging education gaps, building digital skills, and preparing Nigeria's youth for the future of work.

6.3.4 Healthtech

Startups such as 54gene, LifeBank, and Helium Health are innovating in diagnostics, blood delivery, and health records management. These innovations are improving response time, affordability, and data-driven health decisions, especially in underserved areas.

The growing use of AI and big data in healthtech also presents opportunities for predictive healthcare and improved service delivery.

6.4 Challenges to Innovation and Digital Transformation

Despite notable progress, Nigeria's digital economy continues to grapple with several systemic challenges that constrain the scale and long-term sustainability of innovation. One major hurdle is regulatory uncertainty. Many startups, especially in fintech and e-commerce, operate in an environment marked by unclear, overlapping, or frequently shifting regulations. A prime example is the Central Bank of Nigeria's 2021 ban on cryptocurrency transactions, which sent conflicting signals to investors and innovators, dampening confidence in the regulatory landscape. Another pressing issue is the digital skills gap. Although Nigeria has a large and youthful population, only a small fraction possesses the digital competencies required by the modern labor market (Victor et al., 2024). This reflects a deeper mismatch between the formal education system and the evolving demands of the digital economy.

Broadband access and affordability also remain critical barriers. In many rural and peri-urban areas, access to reliable, high-speed internet is limited, and the cost remains prohibitive for low-income users. Challenges such as excessive Right of Way (RoW) charges, frequent power outages,

and vandalism of telecom infrastructure further undermine broadband deployment. These infrastructure deficits are compounded by inadequate logistics systems and a lack of investment in data centers, all of which significantly increase operational costs for tech startups and reduce their competitiveness globally.

6.5 Youth-led Innovation and Entrepreneurial Trends

Nigeria's greatest asset in the digital age is its demographic dividend. Over 60% of the population is under 30, and many are leveraging mobile technologies, social media, and digital platforms to create scalable ventures.

Innovation hubs such as CcHub (Lagos), the Abuja Innovation Village, and the Jos-based nHub are supporting youth-led startups through mentoring, incubation, and funding. Government and donor programs like the Youth Enterprise with Innovation in Nigeria (YouWiN!) and Tony Elumelu Foundation have helped foster a culture of entrepreneurship.

There is also a growing emphasis on tech-for-social-good ventures, especially in climate action, education, and civic engagement. However, youth-led innovation needs better access to finance, intellectual property protection, and tailored policies at local government levels.

7. Regional and Global Trade Dynamics: Focus on AfCFTA

Nigeria's efforts to transform its productive economy cannot be divorced from the broader context of regional and global trade dynamics. In an increasingly interconnected world, access to regional markets, integration into global value chains, and competitiveness in exports are essential for sustainable economic transformation. The African Continental Free Trade Area (AfCFTA)—the largest free trade agreement globally by the number of participating countries—presents Nigeria with a unique opportunity to expand its industrial base, boost exports, and deepen value chain integration across the continent (Chidozie et al., 2024). However, realizing these benefits requires strategic alignment between domestic production capacities and regional trade mechanisms.

7.1 Nigeria's Position within the AfCFTA Framework

The African Continental Free Trade Area (AfCFTA) was officially launched on January 1, 2021, with the objective of creating a single continental market for goods and services, enabling the free movement of people and investments, and laying the foundation for a continental customs union. With 54 of 55 African Union members as signatories, the AfCFTA covers a market of over 1.4 billion people and a combined GDP of more than $3.4 trillion (Oyebanji-Umaigba and Opuala-Charles, 2024).

Nigeria, as Africa's most populous country and largest economy, plays a critical role in the success of AfCFTA. However, its entry into the agreement was marked by initial hesitance. The government delayed ratification due to concerns from domestic manufacturers and labor unions about potential deindustrialization, job losses, and dumping of cheap imports. After extensive stakeholder consultations, Nigeria ratified the agreement in December 2020, signaling its readiness to embrace regional integration.

7.2 Opportunities for Productive Economy Growth through Intra-African Trade

AfCFTA offers Nigeria several opportunities to unlock industrial potential and boost productivity, particularly in manufacturing, agriculture, and services:

7.2.1 Market Expansion

Access to a broader African market could allow Nigerian firms to scale production, diversify revenue streams, and exploit economies of scale. Sectors such as textiles, agro-processing, cement, pharmaceuticals, and automobile assembly could benefit from increased regional demand (Dibia and Opuala-Charles, 2024).

7.2.2 Value Chain Integration

AfCFTA promotes regional value chains, where different stages of production are located in various countries. Nigeria can leverage its raw material base and growing manufacturing capabilities to integrate into chains for goods like food products, fertilizers, petrochemicals, and machinery parts (Dibia and Opuala-Charles, 2024).

7.2.3 SME Export Empowerment

Intra-African trade tends to favor small and medium-sized enterprises (SMEs) more than global trade. With targeted support, Nigerian SMEs in leather, fashion, crafts, and processed food could penetrate regional markets more easily (Dibia and Opuala-Charles, 2024).

7.2.4 Services and Digital Trade

Nigeria's stronghold in financial services, fintech, creative industries, and education technology positions it well to export digital services under AfCFTA protocols. The agreement includes commitments on trade in services, intellectual property, and investment, opening new frontiers for innovation-driven growth (Dibia and Opuala-Charles, 2024).

7.3 Export Diversification and Competitiveness Analysis

Nigeria's trade profile remains heavily concentrated, with over 85% of export earnings still derived from crude oil. In contrast, non-oil exports such as cocoa, sesame seeds, ginger, and processed foods contribute minimally in both value and volume. This narrow export base leaves the economy vulnerable to global commodity price shocks and severely limits prospects for industrial upgrading and economic resilience. The African Continental Free Trade Area (AfCFTA), however, offers a viable pathway to diversify Nigeria's export portfolio (Okafor et al., 2024). Through this framework, the country can begin to expand manufacturing activities targeted at regional markets, promote the export of services and knowledge-intensive products, and reduce dependence on primary commodities by fostering greater value addition across sectors.

Nevertheless, significant structural bottlenecks continue to hamper Nigeria's trade competitiveness. The World Bank's Logistics Performance Index and the World Economic Forum's Global Competitiveness Report consistently rank Nigeria poorly in critical areas such as trade facilitation, customs efficiency, and infrastructure reliability. Export-related costs remain high, driven by unreliable power supply, volatility in foreign exchange markets, excessive and overlapping taxation, and inefficiencies at the nation's ports. Additionally, many firms struggle with limited access to affordable, long-term financing required for scaling up export-oriented production (Joshua et al., 2020).

To fully realize the benefits of AfCFTA, Nigeria must implement a robust national strategy aimed at enhancing export competitiveness. This should prioritize the development of quality infrastructure, innovation-led production systems, improved logistics networks, and the enforcement of export standards that meet regional and global market expectations.

7.4 Challenges in Implementation: Rules of Origin, Tariff Barriers, and Logistics

Despite its promise, the AfCFTA's implementation poses significant challenges, particularly for countries like Nigeria with weak industrial linkages and underdeveloped trade infrastructure.

7.4.1 Rules of Origin (RoO)

Rules of origin determine which goods qualify for preferential tariff treatment under AfCFTA. Complex or restrictive RoO can become non-tariff barriers, discouraging trade. Nigerian businesses often lack the administrative capacity to navigate these requirements, and unclear rules risk exposing domestic industries to trans-shipment and dumping from non-African countries.

7.4.2 Tariff Schedule Delays

Although Nigeria has ratified the AfCFTA, its tariff liberalization schedule has faced delays, limiting actual trade flows. The uncertainty around tariff classification and border charges discourages exporters from planning regionally.

7.4.3 Border Infrastructure and Trade Logistics

Nigeria's land borders remain plagued by congestion, poor infrastructure, and corruption. Despite some reforms, bottlenecks at Seme, Jibia, and Idi-Iroko borders reduce trade efficiency. Inadequate warehousing, weighbridges, and customs automation increase clearance times and transaction costs.

7.4.4 Policy Coherence

Frequent border closures, such as those seen between 2019 and 2020, raise concerns about Nigeria's commitment to regional integration. Such actions, while intended to address smuggling and security, often undermine investor confidence and disrupt supply chains.

8. Cross-Cutting Constraints and Enablers

While sector-specific reforms in agriculture, manufacturing, and innovation are critical to Nigeria's productive transformation, their success is ultimately shaped by broader structural conditions that cut across all sectors. These cross-cutting constraints and enablers—including access to finance, infrastructure, regulatory quality, human capital development, and inclusion—either limit or unlock the potential

for productivity, investment, and inclusive growth (Arowolo and Perez, 2020). Addressing these systemic challenges is essential for transforming Nigeria into a competitive and resilient economy.

8.1 Access to Finance (Especially for MSMEs)

One of the most significant barriers to enterprise growth in Nigeria is the limited access to affordable and long-term finance, particularly for micro, small, and medium enterprises (MSMEs). Despite their substantial contribution of over 50% to the country's GDP and their role in providing more than 80% of total employment, MSMEs face considerable challenges in securing credit. These challenges stem from prohibitively high interest rates, often exceeding 20%, as well as collateral demands that surpass the value of assets owned by many small businesses (Mba et al., 2020). Furthermore, many MSMEs operate with inadequate financial records, lack credit histories, and struggle with poor financial literacy, all of which diminish their ability to meet traditional lending requirements or attract investors.

To address these financing gaps, development finance institutions such as the Bank of Industry (BoI), the Development Bank of Nigeria (DBN), and NIRSAL Microfinance Bank have implemented targeted funding schemes. Additionally, government-backed initiatives like the Anchor Borrowers' Programme, the Agribusiness/Small and Medium Enterprises Investment Scheme (AGSMEIS), and the Youth Investment Fund were introduced to ease credit constraints. However, these efforts are often fragmented, under-resourced, and burdened by bureaucratic inefficiencies, limiting their reach and long-term impact (Mendy et al., 2021).

The rise of digital financial services and fintech startups has introduced alternative pathways to finance, offering innovations like mobile credit, peer-to-peer lending platforms, and non-traditional credit scoring systems. Yet, their scalability is constrained by regulatory uncertainty and underdeveloped financial infrastructure. Enhancing access to finance will therefore require expanding credit guarantee schemes, promoting inclusive and responsive fintech regulation, implementing de-risking mechanisms tailored to MSMEs, and investing in widespread financial literacy initiatives—especially within the informal sector where financial exclusion is most acute.

8.2 Infrastructure: Power, Transport, and Digital Connectivity

Inadequate infrastructure is a foundational constraint on Nigeria's productive economy. Power, transport, and digital networks remain unreliable, costly, and insufficient for a modern economy.

- Power Sector: Nigeria generates approximately 4,000–5,000 MW of electricity for a population exceeding 200 million. Frequent outages and high reliance on diesel generators significantly raise operational costs for businesses. Efforts at sector privatization have yielded limited results due to regulatory disputes, liquidity shortfalls, and transmission inefficiencies.
- Transport: Poor road networks, congested ports, and underdeveloped rail systems delay logistics, increase spoilage of perishable goods, and inflate the cost of goods sold. The Apapa port gridlock, for instance, imposes billions of naira in economic losses annually.
- Digital Infrastructure: While mobile penetration is high, broadband access remains limited, especially in rural areas. The National Broadband Plan (2020–2025) aims to raise penetration to 70%, but progress is constrained by high Right of Way (RoW) fees, vandalism, and underinvestment in rural connectivity.

Unlocking infrastructure enablers will require:

- Effective implementation of energy transition strategies, including off-grid and renewable energy
- Public-private partnerships (PPPs) in logistics and transport infrastructure
- Harmonized RoW policies across states and incentives for digital infrastructure investment

8.3 Regulatory Environment

Nigeria's regulatory environment remains a source of concern for investors and entrepreneurs. Overlapping mandates, frequent policy reversals, and opaque compliance processes undermine the ease of doing business. While initiatives like the Presidential Enabling Business Environment Council (PEBEC) and Business Made Easy platform have reduced some bottlenecks, deeper reforms are needed.

Key challenges include:

- Delays in business registration, permits, and tax administration
- Arbitrary enforcement by regulatory bodies (e.g., NAFDAC, SON, NCC)
- Unpredictable foreign exchange controls and tariffs
- Inconsistent industrial and trade policies

To promote regulatory efficiency, Nigeria must:

- Streamline inter-agency coordination
- Institutionalize regulatory impact assessments (RIAs)
- Ensure transparency in rule-making and enforcement
- Strengthen judicial capacity for commercial dispute resolution

A business-friendly regulatory ecosystem is critical to attract investment, boost formalization, and stimulate innovation.

8.4 Human Capital and Technical Skills

Nigeria faces a human capital paradox—a large, youthful population with significant potential but limited employable skills. According to the World Bank's Human Capital Index (2020), Nigeria ranks low globally, with poor learning outcomes, inadequate healthcare, and high youth unemployment.

Key deficiencies include:

- Mismatch between education curricula and labor market needs
- Underinvestment in technical and vocational education and training (TVET)
- Brain drain of high-skilled professionals
- Low digital and entrepreneurial skills

Government initiatives such as the National Skills Qualification Framework (NSQF) and N-Power aim to bridge skill gaps, but coverage and sustainability remain concerns. The private sector is increasingly stepping in through coding bootcamps, digital academies, and industry-based apprenticeships.

To harness the demographic dividend, Nigeria must:

- Reform the education system to prioritize STEM and technical education
- Incentivize private sector partnerships in workforce development
- Scale digital literacy and lifelong learning platforms
- Integrate entrepreneurship and soft skills training from early education levels

8.5 Gender and Youth Inclusion

Women and youth remain underrepresented in Nigeria's formal economy and productive sectors. Gender gaps in land ownership, financial access, and education restrict women's economic participation, particularly in agriculture and manufacturing. Youth, who make up more than 60% of the population, face high unemployment and limited pathways to decent work.

Key barriers to inclusion:

- Cultural and legal constraints on women's property rights
- Gender-blind economic policies and budgeting
- Limited youth-targeted entrepreneurship financing
- Tokenistic engagement of youth in policymaking processes

Inclusion is not just a social imperative but an economic strategy. Studies show that increasing female labor force participation and youth entrepreneurship significantly boosts GDP growth and innovation.

Critical enablers include:

- Gender-responsive budgeting and planning
- Legal reforms on land and inheritance rights
- Youth enterprise development funds with flexible criteria
- Platforms for youth participation in policy dialogue

9. Summary of Key Findings and Policy Implications

This review has critically examined Nigeria's trajectory toward productive economic transformation through the lenses of agriculture, manufacturing, and innovation, within broader national policy and regional trade frameworks. A consistent pattern emerges: while policy ambition is high, execution often falls short, with systemic structural and institutional bottlenecks stalling large-scale impact. Nonetheless, some initiatives have shown promise. In agriculture, the Agricultural Transformation Agenda and the Anchor Borrowers' Programme led to improved farmer registration, better input distribution, and expanded rice production. Agritech innovations also connected farmers to markets and financing. In the manufacturing sector, the Nigeria Industrial Revolution Plan and Export Expansion Grant provided foundational blueprints for diversification and non-oil export promotion. Nigeria's digital economy, bolstered by youth entrepreneurship and policies such as the Nigeria Startup Act, has become one of the most dynamic in Africa, now contributing over 18% to GDP. The country's ratification of the AfCFTA positions it for enhanced intra-African trade and regional value chain integration.

Despite these gains, challenges persist. Implementation inconsistency, infrastructure deficits, high financing barriers, and human capital mismatches continue to hinder productivity and competitiveness. Trade logistics inefficiencies and regulatory fragmentation further reduce Nigeria's ability to leverage AfCFTA. Across sectors, enabling conditions remain disjointed. Coordination between agriculture and industry is weak, MSME support is fragmented, and digital transformation is unevenly applied beyond fintech. Youth and women remain underutilized despite their transformative potential. Public-private partnerships remain underexplored, and data systems across sectors are outdated or fragmented, undermining evidence-based policymaking. Nigeria's future transformation will depend not only on effective sectoral policies but on bridging these cross-cutting gaps with institutional discipline, inclusive governance, and a renewed commitment to coordinated national development.

10. Recommendations and Future Outlook

Transforming Nigeria's productive economy demands more than isolated sectoral policies; it calls for a cohesive, cross-cutting national strategy that integrates agriculture, industry, innovation, and trade. As the country faces a convergence of demographic pressures, technological shifts, and regional trade integration under AfCFTA, it must act decisively to convert potential into prosperity. A recurring challenge has been the fragmentation of implementation efforts, where policies like the Nigeria Industrial Revolution Plan or the Agricultural Transformation Agenda exist in silos without sustained alignment. Establishing a centralized coordination framework, backed by performance-based monitoring and mid-term evaluations, is essential to ensure consistency and accountability across all tiers of government. Innovation must be scaled through broader application of the Nigeria Startup Act across states, coupled with targeted funding, digital literacy initiatives, and the creation of regional hubs to decentralize opportunity. Synergies between agriculture and industry must be enhanced by investing in agro-processing zones, post-harvest technologies, and contract farming arrangements that strengthen rural industrialization and value addition. In trade, Nigeria must assert leadership under AfCFTA by modernizing its ports, simplifying customs systems, investing in trade corridors, and supporting local exporters with quality infrastructure and compliance tools. Equally important is the need to embrace a multi-stakeholder governance model where public, private, academic, and civil society actors co-create and co-implement economic solutions. Such collaboration is crucial for building resilient, inclusive systems capable of delivering broad-based growth. Nigeria's future transformation will depend on its ability to harmonize policies, empower innovators and producers, and engage regional markets with a unified and disciplined approach to national development.

References

Abdullahi, S. G., and Bashir, Z. M., 2024. Nexus between Digital Economy, Productivity and Growth: Evidence from Nigeria. Indonesian Journal of Entrepreneurship and Startups, 2(1), Pp. 59–74. https://doi.org/10.55927/ijes.v2i1.9962

Adebisi, S. A., and Osobu, O. E., 2023. Evaluation of the Nigerian Startup Act 2022 in redefining SME growth in Nigeria: The Pros and Cons. Deleted Journal, 6(3), Pp. 111–131. https://doi.org/10.57233/gijmss.v6i3.6

Adebiyi, J. A., Olabisi, L. S., Liu, L., and Jordan, D., 2020. Water–food–energy–climate nexus and technology productivity: a Nigerian case study of organic leafy vegetable production. Environment Development and Sustainability, 23(4), Pp. 6128–6147. https://doi.org/10.1007/s10668-020-00865-0

Adelodun, Y., and Daibu, A. A., 2023. Nigeria Start-up Act 2022 as a Catalyst for technological development and economic growth in Nigeria. Strathmore Law Journal, 7(1), Pp. 101–128. https://doi.org/10.52907/slj.v7i1.245

Adeoti, J. O., Popoola, O. A., and Afolabi, J. A., 2025. Special economic zone incentives, innovation and export performance of firms in Nigeria. International Journal of Innovation Science. https://doi.org/10.1108/ijis-07-2024-0186

Alston, J. M., 2017. Reflections on Agricultural R and D, Productivity, and the Data Constraint: Unfinished Business, Unsettled Issues. American Journal of Agricultural Economics, 100(2), Pp. 392–413. https://doi.org/10.1093/ajae/aax094

Amuda, Y. J., 2023. Evaluation of agricultural Policies and Programmes for Sustainable Future farming intensification in Nigeria. International Journal of Service Science Management Engineering and Technology, 13(1), Pp. 1–13. https://doi.org/10.4018/ijssmet.316176

Anam, B., Ironbar, V., Alozie, E., Otu, D., and Eteng, G., 2023. Nigerian Industrial Revolution Plan (2014): Performance Review and Strategy for Strengthening Institutional and Regulatory Framework. Research Journal of Humanities Legal Studies and International Development, 5(1), Pp. 96–115. https://doi.org/10.48028/iiprds/rjhlsid.v5.i1.10

Arowolo, W., and Perez, Y., 2020. Market reform in the Nigeria power sector: A review of the issues and potential solutions. Energy Policy, 144, Pp. 111580. https://doi.org/10.1016/j.enpol.2020.111580

Chidozie, F., Osimen, G. U., Bhadmus, J., and Newo, O., 2024. Sustainable development goals implementation in a post-colonial African State: Any future for the African Continental Free Trade Free Trade Area? Sustainable Development. https://doi.org/10.1002/sd.3183

Dibia, K., and Opuala-Charles, S., 2024. The growth prospects for Nigeria in joining the African Continental free trade area. DiamondBridge Economics and Business Journal, 4(1). https://doi.org/10.60089/dbebj.2024.4.1.18

Ibitoye, O. J., Ogunoye, A. A., and Kleynhans, E. P., 2022. Impact of industrialisation on economic growth in Nigeria. Journal of Economic and Financial Sciences, 15(1). https://doi.org/10.4102/jef.v15i1.796

Ifeanyi-Obi, C. C., Issa, F. O., Aderinoye-Abdulwahab, S., Ayinde, A. F. O., Umeh, O. J., and Tologbonse, E. B., 2022. Promoting uptake and integration of climate smart agriculture technologies, innovations and management practices into policy and practice in Nigeria. International Journal of Climate Change Strategies and Management, 14(4), Pp. 354–374. https://doi.org/10.1108/ijccsm-09-2021-0101

Iliyasu, J., Abubakar, A. U., and Mamman, S. O., 2024. Energy price reforms, exchange rate devaluation and macroeconomic instability: Evidence from Bayesian VAR identified with sign-and-zero restrictions. OPEC Energy Review. https://doi.org/10.1111/opec.12315

Isiaka, N. A., Jimoh, N. a. A., Orebiyi, M. A., and Adenekan, S. A., 2022. The effect of cost control on the survival of manufacturing sectors in Nigeria: panel data Analysis. Asean International Journal of Business, 1(2), Pp. 61–73. https://doi.org/10.54099/aijb.v1i2.176

Isiani, M. C., Obi-Ani, N. A., Obi-Ani, P., Chidume, C. G., and Okoye-Ugwu, S., 2021. Interrogating the International Monetary Fund (IMF) policies in Nigeria, 1986–2018. Cogent Arts and Humanities, 8(1). https://doi.org/10.1080/23311983.2021.1932283

Israel, K. E., 2025. Foreign exchange and the permaformance of manufacturing sector in Nigeria: a disaggragrated anaylsis. Asian Journal of Economics Business and Accounting, 25(2), Pp. 14–23. https://doi.org/10.9734/ajeba/2025/v25i21660

Itaman, R. E., and Awopegba, O. E., 2021. Finance, oil rent and premature deindustrialisation in Nigeria. Structural Change and Economic Dynamics, 59, Pp. 149–161. https://doi.org/10.1016/j.strueco.2021.06.006

Jacob, A. O., 2018a. An impact assessment of non-oil export on the economic growth of Nigeria (1986–2016). International Journal of Service Science, Management and Engineering, 5(3), Pp. 111–116.

Jacob, A. O., 2018b. Impact assessment of capital market on industrial growth and development in Nigeria from 1985–2015 (A survey of Nigeria capital market). International Journal of Research and Innovation in Social Science, 2(3). ISSN 2454-6186.

Jacob, A. O., 2022. Poverty alleviation in developing countries: A successful approach. Socio Economy and Policy Studies, 2(2), Pp. 53–56. http://doi.org/10.26480/seps.02.2022.53.56

Jacob, A. O., 2023. The growth of Nigeria's economy from 1981 to 2019 in relation to the financing of agriculture. Food and Agri Economics Review, 3(2), Pp. 32–37. http://doi.org/10.26480/faer.02.2023.32.37

Jacob, A. O., and Umoh, O. J., 2017. Influence of corruption on economic development in Nigeria. Journal of Public Policy and Administration, 1(1), Pp. 10–21.

Jacob, A. O., and Umoh, O. J., 2018. Effects of technology transfer from developed nations and developing economy: The Nigeria experience. American Journal of Business, Economics and Management, 6(3), Pp. 42–48.

Jacob, A. O., and Umoh, O. J., 2019. Effects of capital market development and economic growth in Nigeria from 1981–2018. International Journal of Economics and Business Administration, 5(2), Pp. 125–130.

Jacob, A. O., and Umoh, O. J., 2021. Effective capital development and productivity growth in Nigeria (1985–2020). International Journal of Progressive Sciences and Technologies, 28(2), Pp. 635–646.

Jacob, A. O., and Umoh, O. J., 2022a. The green economy paradigm: How can Nigeria make the shift. Economic Growth and Environment Sustainability, 1(2), Pp. 36–40. http://doi.org/10.26480/egnes.02.2022.36.40

Jacob, A. O., and Umoh, O. J., 2022b. The Nigerian blue economy: Economic expansion issues and challenges. Socio Economy and Policy Studies, 2(1), Pp. 29–33. http://doi.org/10.26480/seps.01.2022.29.33

Jacob, A. O., and Umoh, O. J., 2023. Assessing the impact of oil price volatility on Nigeria's economic growth and stability 2006 to 2022: A quantitative analysis. International Journal of Integrative Research, 1(7), Pp. 385–404. https://doi.org/10.59890/ijir.v1i7.77

Jacob, A. O., Umoh, O. J., and Akpan, A. K., 2022. Effects of monetary policy on economic growth in Nigeria. Economic Growth and Environment Sustainability, 1(1), Pp. 10–15. http://doi.org/10.26480/egnes.01.2022.10.15

Jacob, A. O., Umoh, O. J., and Ibanga, J. I., 2021. The role of bank credits on poverty reduction in Nigeria. Social Values and Society, 3(1), Pp. 29–33.

Jacob, A. O., Umoh, O. J., and Nta, F. A., 2019b. Development and contribution of transport sector to Nigeria Gross Domestic Product (GDP) growth. American International Journal of Business Management, 2(12), Pp. 52–58.

Jacob, A. O., Umoh, O. J., and Okorie, C. S., 2019a. The role of financial intermediation on agricultural output in Nigeria (1986–2016). International Journal of Social Science, 2, Pp. 1–8.

Joshua, U., Salami, O. M., and Alola, A. A., 2020. Toward the path of economic expansion in Nigeria: The role of trade globalization. Journal of Labor and Society, 23(2), Pp. 205–220. https://doi.org/10.1111/wusa.12471

Kalagbor, S. B., and Harry, D. M., 2021. Development Policy, Plan and Economic Diversification in Nigeria: Perspectives on Economic Recovery and Growth Plan. European Journal of Development Studies, 1(3), Pp. 43–52. https://doi.org/10.24018/ejdevelop.2021.1.3.38

Lane, N., 2021. Manufacturing Revolutions: Industrial policy and industrialization in South Korea. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3890311

Mark, K. C., Eze, C. M., and Menkiti, E., 2023. The political economy of Nigeria's oil dependency and its implication on economic diversification. Scholars Journal of Arts Humanities and Social Sciences, 11(10), Pp. 264–270. https://doi.org/10.36347/sjahss.2023.v11i10.002

Mba, A. J., Omeje, A. N., Ugwu, M. O., and Ugwu, O. C., 2020. The effects of institution on enterprise growth in Nigeria. The International Journal of Business and Management, 8(1). https://doi.org/10.24940/theijbm/2020/v8/i1/150389-37118

Mendy, J., Odunukan, K., and Rahman, M., 2021. Place and policy barriers of rural Nigeria's small and medium enterprises' internationalization. Thunderbird International Business Review, 63(4), 421–436. https://doi.org/10.1002/tie.22198

Nwankwo, C. U., Ikehi, M. E., Ejiofor, T. E., and Ifeanyieze, F. O., 2024. Successive national agricultural policies/programmes, growth of gross domestic product (GDP) and expansion of agribusinesses in Nigeria. PLoS ONE, 19(2), e0291999. https://doi.org/10.1371/journal.pone.0291999

Nwokoye, M. O., Nwokocha, A. F., Okoye, N. M. I., Onwuka, I. N., Okechukwu, S. C., Ekwugha, J. C., and Odunukwe, C. M., 2023. Impact of industrial sector growth on Nigeria economy. Asian Journal of Advanced Research and Reports, 17(11), Pp. 263–271. https://doi.org/10.9734/ajarr/2023/v17i11572

Odijie, M. E., 2019. Is traditional industrial policy defunct? Evidence from the Nigerian cement industry. Review of International Political Economy, 27(3), Pp. 686–708. https://doi.org/10.1080/09692290.2019.1657480

Okafor, V. C., Muhammed, S., Itodo, I. C., and Maureen, O. C., 2024. Cross-Country Trade and Economic Growth: An impact analysis of Nigeria's economic growth. Asian Journal of Economics Business and Accounting, 24(5), Pp. 570–580. https://doi.org/10.9734/ajeba/2024/v24i51331

Olanrewaju, O., Osabohien, R., and Fasakin, J., 2020. The Anchor Borrowers Programme and youth rice farmers in Northern Nigeria. Agricultural Finance Review, 81(2), Pp. 222–236. https://doi.org/10.1108/afr-03-2020-0039

Olawunmi, O., Johnson, I. O., Olowo, S. O., and Aderemi, T. A., 2021. Crude oil exports and economic growth in Nigeria. Deleted Journal, 19(1), Pp. 12. https://doi.org/10.57002/jms.v19i1.222

Olomu, M. O., Ekperiware, M. C., and Akinlo, T., 2020. Agricultural sector value chain and government policy in Nigeria: issues, challenges and prospects. African Journal of Economic and Management Studies, 11(3), Pp. 525–538. https://doi.org/10.1108/ajems-03-2019-0103

Omoluabi, N. J. E., and Ibitoye, N. S. J., 2024. Trend in agricultural growth and cassava productivity in Nigeria (1961 – 2020). World Journal of Advanced Research and Reviews, 23(3), Pp. 2773–2782. https://doi.org/10.30574/wjarr.2024.23.3.2967

Onokwai, J., 2020. Political economy of Nigeria–South Africa foreign direct investment relations and challenges of the manufacturing sector in Nigeria, 1999–2017. Journal of Contemporary African Studies, 38(3), Pp. 331–347. https://doi.org/10.1080/02589001.2020.1758640

Osabohien, R., Matthew, O., Olurinola, I., and Aderounmu, B., 2020. Agricultural transformation, youth participation and food security in Nigeria. AIMS Agriculture and Food, 5(4), Pp. 911–919. https://doi.org/10.3934/agrfood.2020.4.911

Oyebanji-Umaigba, A., and Opuala-Charles, S., 2024. The growth opportunities for Nigeria in joining the African Continental Free trade area. DiamondBridge Economics and Business Journal, 4(1). https://doi.org/10.60089/dbebj.2024.4.1.15

Rahman, A. A., and Schmillen, A., 2023. From Farms to Factories and Firms—Structural transformation and labor productivity growth in Malaysia. Asian Economic Papers, 22(1), Pp. 82–111. https://doi.org/10.1162/asep_a_00862

Raut, B. B., 2024. Exploring effective strategies for fostering economic growth in developing nations. International Research Journal of MMC, 5(5), Pp. 79–87. https://doi.org/10.3126/irjmmc.v5i5.73588

Saka, N., and Olanipekun, A. O., 2020. Relationship between the economy, construction sector and imports in Nigeria. International Journal of Construction Management, 23(2), Pp. 297–306. https://doi.org/10.1080/15623599.2020.1863173

Seyi-Olajide, J., Anderson, J., Williams, O., Faboya, O., Amedu, J., Anyanwu, S., Bethuel-Kasimu, A., Lawal, O., Da Lilly-Tariah, O., Onajin-Obembe, B., Farmer, D., and Ameh, E., 2021. National surgical, obstetric, anaesthesia and nursing plan, Nigeria. Bulletin of the World Health Organization, 99(12), Pp. 883–891. https://doi.org/10.2471/blt.20.280297

Shah, W. U. H., Hao, G., Yan, H., Yasmeen, R., and Xu, X., 2024. Natural resources utilization efficiency evaluation, determinant of productivity change, and production technology heterogeneity across developed and developing G20 economies. Technology in Society, Pp. 77, 102507. https://doi.org/10.1016/j.techsoc.2024.102507

Tasneem, F., and Khan, M. A., 2023. Growth and structural transformation – Options for Pakistan. Research in Globalization, 8, 100190. https://doi.org/10.1016/j.resglo.2023.100190

Udo, S. S., and Jacob, A. O., 2021. Globalisation and competitiveness in Nigeria. International Journal of Research and Innovation in Social Science, 10, Pp. 487–495.

Udo, S. S., Odey, F. I., and Jacob, A. O., 2022. Effects of selected macroeconomic variables on stock market performance in Nigeria. Malaysian E-Commerce Journal, 6(2), Pp. 29–33. http://doi.org/10.26480/mecj.02.2022.29.33

Umar, M. M., Ahmad, S. A., Abdulazeez, A., Shehu, A., Buhari, B. A., and Bello, Z., 2024. Assessing the impact of cryptocurrency on Nigeria's digital economic advancement. Dutse Journal of Pure and Applied Sciences, 10(2b), Pp. 180–187. https://doi.org/10.4314/dujopas.v10i2b.19

Umoh, O. J., and Jacob, A. O., 2020. Effective indigenous technology for self-reliance and sustainable economic development. International Journal of Research and Innovation in Social Science, 4(5), Pp. 369–372.

Utuk, I. O., Eduno, E. B., and Okon, I. M., 2024. Economic Growth in Nigeria: Assessing the effect of agriculture and transport sectors. AKSU Journal of Social Sciences, 4(2), Pp. 1–16. https://doi.org/10.61090/aksujoss.2024.015

Verba, M. A., 2020. Growth and innovation in the presence of knowledge and RandD accumulation dynamics. Economics of Innovation and New Technology, 31(6), Pp. 485–510. https://doi.org/10.1080/10438599.2020.1828510

Victor, A. O., and Onyeukwu, P. E., 2022. Agricultural commodity export and Nigeria's gross domestic product between 2009 to 2018. International Journal of Innovation and Economic Development, 8(2), Pp. 7–33. https://doi.org/10.18775/ijied.1849-7551-7020.2015.82.2001

Victor, P. O., Victor, A. A., Oyedeji, O. C., and James, O. A., 2024. Digital Economy and job Sustainability in Nigeria: Challenges and solutions. International Journal of Innovative Science and Research Technology (IJISRT), Pp. 3114–3122. https://doi.org/10.38124/ijisrt/ijisrt24may1930

Zhang, K., 2021. Economic structural transformation in emerging market countries. Global Journal of Emerging Market Economies, 13(2), Pp. 216–238. https://doi.org/10.1177/09749101211004614