Exploring Future Pathways in Food and Consumer Economics: The Role of Agri-Food Trade in Nigeria

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Abstract

This study explored the future pathways in food and consumer economics and the role of agrifood trade in Nigeria. The comparative advantage theory was adopted as a theoretical framework. This study adopted a qualitative research design and the population of the study comprised of agricultural stakeholders involved in Nigeria's agri-food trade, including representatives from government ministries, trade associations, agribusiness companies, and NGOs focused on food security. A sample size of 20 stakeholders was selected and a purposive sampling technique was employed to identify participants with expertise and practical knowledge of the Nigerian agri-food sector. Data collection was conducted through in-depth interviews, each interview was recorded, transcribed, and coded for thematic analysis, which enabled the identification of recurring themes and insights relevant to the study's objectives. The data analysis process involved organising the data into themes. The findings revealed that agrifood trade significantly impacts Nigeria's food security by supplementing domestic food production, especially in meeting the demand for staple foods. However, this dependency on food imports also exposes Nigeria to global price fluctuations, undermining local food security. On the economic development side, agri-food trade generates foreign exchange, supports rural livelihoods, and encourages investment in agriculture and agribusiness, but challenges such as inadequate infrastructure and poor policy implementation limit the sector's growth potential. Optimising trade policies and improving infrastructure could unlock greater benefits for both food security and economic development in the country. The study concluded that agri-food trade plays a pivotal role in enhancing Nigeria's food security and economic development by supplementing domestic food production and generating income through exports. The study recommended that Nigeria should invest in improving agricultural infrastructure, reduce reliance on food imports through policy reforms, and support local production to enhance food security and economic growth.

Keywords: Future Pathways, Food, Consumer, Economics, Agri-Food Trade, Nigeria

Introduction

Exploring future pathways in food and consumer economics, particularly the role of agri-food trade in Nigeria, holds considerable significance in addressing food security, economic development, and trade sustainability. Nigeria, with its large population and diverse agricultural sector, faces both opportunities and challenges in agri-food trade, which is crucial for improving food security and reducing dependence on food imports. This exploration requires examining factors such as trade policies, agricultural productivity, and the role of consumer economics in

shaping Nigeria's food systems (Olomola & Nwafor, 2018). Understanding these elements is critical for formulating policies that leverage agri-food trade to enhance food systems, boost economic growth, and achieve sustainable development.

A key consideration in Nigeria' s agri-food trade landscape is its reliance on imports to meet domestic food demand, despite abundant agricultural resources. This dependency is partly due to limited agricultural productivity, resulting from constraints like inadequate infrastructure, insufficient investment in agricultural technologies, and land degradation (Okon et al., 2019). Such factors weaken Nigeria's competitiveness in the global agri-food trade market and underscore the need for enhancing domestic agricultural production capabilities. Moreover, developing Nigeria' s agri-food trade capacity could reduce import dependency, stabilize food prices, and promote local food industries, creating a more resilient food economy (Olomola, 2018).

In recent years, the Nigerian government has implemented policies to promote selfsufficiency in food production and reduce import reliance. These initiatives, including the Agricultural Promotion Policy (APP) and the Nigeria Economic Recovery and Growth Plan (ERGP), aim to encourage local production, improve food security, and support trade partnerships (Federal Ministry of Agriculture and Rural Development, 2016). However, achieving the goals set by these policies requires targeted investments in rural infrastructure, access to credit, and adoption of modern farming practices. Additionally, the role of regional trade agreements, such as the African Continental Free Trade Area (AfCFTA), could significantly influence Nigeria' s agri-food trade by expanding market access and encouraging regional agricultural cooperation (Abass et al., 2020).

Consumer economics also plays a critical role in shaping the future of agri-food trade in Nigeria, as consumer demand patterns directly influence agricultural production and trade decisions. Rising income levels, urbanization, and shifting dietary preferences are leading to increased demand for diverse and high-quality food products (Golan et al., 2022). Consequently, Nigerian producers and agribusinesses must adapt to these changes to meet the evolving needs of consumers. The ability to respond to consumer preferences through enhanced food processing and quality standards could improve competitiveness in domestic and international markets, ultimately supporting a stronger agri-food sector (Nwosu et al., 2023).

Globalisation and technological advancements also present pathways for Nigeria to strengthen its agri-food trade. By adopting digital platforms and technology-driven supply chain solutions, Nigerian agricultural producers can reach new markets and streamline trade processes (Ajayi & Onwusiribe, 2022). Digital tools enable better information sharing, enhance traceability, and improve market access, allowing Nigerian farmers to compete more effectively in the global market. The integration of such technologies is essential for addressing logistical challenges, reducing post-harvest losses, and maximising the export potential of Nigerian agricultural products (Tajudeen & Olanrewaju, 2021).

The role of agri-food trade in Nigeria' s economy extends beyond food security to include employment generation, rural development, and poverty reduction. As a major employer of labour, the agricultural sector provides income and livelihoods for millions of Nigerians, especially in rural areas (Oluwatayo & Ojo, 2020). Expanding trade opportunities in agri-food products can create new jobs and income streams, enhancing rural economic development. For instance, investment in agri-food processing industries not only adds value to raw agricultural

commodities but also fosters job creation along the value chain, thereby contributing to poverty alleviation and sustainable economic growth (Balogun et al., 2021).

However, enhancing agri-food trade in Nigeria requires addressing several challenges including trade barriers, poor infrastructure, and limited access to financing. The presence of tariffs, high transportation costs, and inadequate storage facilities hinder Nigeria's trade competitiveness (Mogaji & Adesina, 2022). Improving infrastructure, streamlining regulatory frameworks, and facilitating access to financing for farmers and agribusinesses are critical steps for overcoming these obstacles. Addressing these challenges can improve the efficiency of Nigeria's agri-food trade system, enabling it to better meet domestic needs and capitalize on export opportunities. The future of agri-food trade in Nigeria is intertwined with the broader goals of food security, economic development, and sustainable growth. A strategic focus on enhancing agricultural productivity, embracing consumer-driven approaches, and leveraging technological innovations is essential to unlock the full potential of Nigeria's agri-food trade sector. By creating a supportive policy environment and investing in critical infrastructure, Nigeria can position itself as a key player in the global agri-food market, thereby contributing to food security and economic resilience.

This study explores the role of agri-food trade in Nigeria within the broader context of food and consumer economics, examining its potential to enhance food security, stimulate economic development, and promote sustainable agricultural practices. By assessing Nigeria's s current agri-food trade landscape, including trade policies, consumer behaviour, and production capabilities, the study aims to identify challenges and opportunities that can inform strategic interventions. Additionally, the study considers the impact of globalisation, digitalisation, and regional trade agreements on Nigeria's agri-food sector to provide insights into pathways that could strengthen Nigeria's position in the global agri-food market.

Statement of the problem

Nigeria' s agri-food sector faces significant challenges that hinder its ability to contribute to food security, economic growth, and poverty reduction. Despite Nigeria' s vast agricultural resources, the country relies heavily on food imports to meet domestic demand, resulting in trade deficits and vulnerability to global food price fluctuations. This dependence on imports is exacerbated by factors such as low agricultural productivity, insufficient infrastructure, and limited investment in modern farming techniques, which reduce Nigeria' s competitiveness in agri-food trade. As a result, Nigeria' s food systems struggle to meet the growing demands of an expanding population, raising concerns over food affordability, availability, and stability. Addressing these issues is crucial for reducing Nigeria' s reliance on imports and establishing a more resilient, self-sufficient food economy.

Another critical issue lies in the limited capacity of Nigeria' s agri-food sector to respond to changing consumer preferences driven by urbanisation, income growth, and dietary diversification. The shift in consumer demand toward processed and higher-quality food products presents both challenges and opportunities for Nigerian producers and agribusinesses, who must adapt to these evolving market demands. However, inadequate infrastructure, high production costs, and regulatory barriers hinder the ability of local agribusinesses to meet consumer expectations, limiting the growth potential of the sector. Without strategic support to improve production processes, expand access to markets, and enhance product quality, Nigeria risks missing out on substantial economic benefits associated with a more consumer-responsive agri-food trade system.

Furthermore, Nigeria' s agri-food trade sector faces significant structural and logistical challenges that impact its overall efficiency and competitiveness. High transportation costs, inadequate storage facilities, and limited access to credit and finance prevent Nigerian farmers and agribusinesses from fully participating in domestic and international markets. Additionally, trade barriers, such as tariffs and complex regulatory requirements, restrict market access for Nigerian agricultural products, diminishing the country' s ability to tap into regional and global trade opportunities. The lack of integration of digital and technological solutions further exacerbates these issues, as farmers and agribusinesses struggle with information asymmetry and supply chain inefficiencies. Addressing these structural challenges is essential to enhance Nigeria' s agri-food trade capabilities, improve food security, and drive sustainable economic growth in the country.

Aim and Objectives of the Study

This study investigates the potential of agri-food trade in Nigeria to enhance food security, stimulate economic development, and support sustainable agricultural practices by addressing key challenges in production, consumer responsiveness, and trade competitiveness. The objectives are:

- 1. To assess the impact of agri-food trade on food security and economic development in Nigeria;
- 2. To examine the influence of consumer preferences on Nigeria's agri-food sector; and
- 3. To identify the challenges and opportunities within Nigeria's agri-food trade system. Research Questions
 - 1. How does agri-food trade impact food security and economic development in Nigeria?
 - 2. What role do consumer preferences play in shaping Nigeria' s agri-food sector?
 - 3. What are the main challenges and opportunities in Nigeria's agri-food trade?

Literature Review

Conceptual Review

The Role of Agri-Food Trade in Food Security and Economic Development

Agri-food trade plays a pivotal role in promoting food security and economic development, especially, in emerging economies like Nigeria, where agricultural potential is high but often underutilised. Agri-food trade allows countries to leverage their comparative advantages in specific crops, facilitating access to diverse and affordable food products and enhancing food security (Pingali, 2015). In Nigeria, where food production often falls short of meeting domestic demand, agri-food trade helps bridge the gap by enabling imports of staple foods. This trade is crucial for reducing food shortages and ensuring availability, especially during periods of low domestic agricultural output. However, over-reliance on imports can also create vulnerabilities, as seen during global disruptions like the COVID-19 pandemic, which exposed Nigeria's dependency on imported food products (Moseley & Battersby, 2020).

In addition to food security, agri-food trade contributes to economic development by generating income and employment opportunities across the agricultural value chain. When effectively managed, trade can stimulate investments in agricultural production, processing, and distribution, creating jobs and improving livelihoods, particularly in rural areas (World

Bank, 2021). For example, Nigerian exports of crops like cocoa, sesame seeds, and cashew nuts provide significant income for local farmers and support a large network of small businesses. By boosting exports, Nigeria can reduce its trade deficits, enhance foreign exchange reserves, and create a favourable economic environment for growth. Despite these benefits, Nigerian agricultural exports face competitiveness challenges due to factors such as low productivity, poor infrastructure, and inadequate access to finance, which hinder their ability to fully capitalise on global market opportunities (Akinleye et al., 2018).

The impact of agri-food trade on Nigeria' s economy is further influenced by trade policies and global trade agreements. Nigeria' s participation in regional and international trade frameworks, such as the African Continental Free Trade Area (AfCFTA), holds potential for expanding market access and fostering regional food security (Abass et al., 2020). The AfCFTA aims to reduce trade barriers, lower tariffs, and harmonise standards, making it easier for Nigerian agricultural products to reach neighbouring countries and compete globally. However, realising the benefits of these agreements requires robust domestic policies to enhance productivity, address infrastructural gaps, and promote sustainable farming practices. Through strategic investments and policy reforms, Nigeria can position itself as a competitive player in agri-food trade, contributing to both food security and economic development (World Bank, 2021).

The Influence of Consumer Preferences on Nigeria's Agri-Food Sector

Consumer preferences significantly shape the structure and growth trajectory of the agri-food sector, especially as dietary habits evolve with urbanisation and rising incomes. In Nigeria, shifting consumer demands are driving increased consumption of processed foods, convenience foods, and higher-quality food products, reflecting global trends toward more diversified diets (Pingali & Sunder, 2017). This trend presents both opportunities and challenges for Nigerian agribusinesses, which must adapt to changing preferences to remain competitive. For instance, urban Nigerian consumers now demand more nutritious, packaged, and processed foods, which requires local producers to invest in food processing, quality assurance, and branding. The ability of Nigerian agri-food businesses to respond to these demands will be crucial for the sector's growth and for maintaining food security in the country (Akinyele & Dipeolu, 2020).

The influence of consumer preferences extends beyond product variety to include quality, safety, and sustainability. As Nigerian consumers become more health-conscious, there is an increasing demand for foods that are free from contaminants, pesticide residues, and additives (Golan et al., 2022). This shift is prompting agribusinesses to adopt better quality standards, implement sustainable agricultural practices, and improve supply chain transparency. Meeting these standards is essential not only for attracting domestic consumers but also for competing in export markets where compliance with strict quality and safety regulations is mandatory. Nigerian agribusinesses that can align with these consumer trends stand to benefit from both local and international demand, which can drive investment, innovation, and sector growth (Nwosu et al., 2023).

Adapting to consumer preferences also requires infrastructural and regulatory support to enable local producers to compete effectively with imported products. The lack of adequate infrastructure, such as cold storage and efficient logistics systems, limits the ability of Nigerian farmers and food processors to deliver fresh, high-quality produce to urban markets, affecting their competitiveness (Okon et al., 2019). Furthermore, inconsistent regulatory standards and the high cost of compliance can be barriers for small-scale producers aiming to meet consumer expectations. Addressing these challenges is critical for enabling Nigerian agribusinesses to respond effectively to consumer demands, reduce reliance on imports, and support the overall growth of the agri-food sector (Olomola, 2018).

Theoretical Framework

The Comparative Advantage Theory

This theory was propounded by David Ricardo in 1817, provides a foundational framework for understanding international trade and is highly relevant to the study of agri-food trade in Nigeria. Ricardo's theory posits that countries should specialize in producing goods for which they have the lowest opportunity cost compared to other nations, thereby maximizing overall efficiency and benefits from trade (Ricardo, 1817). This theory assumes that countries have different efficiencies in producing various goods and that trade between nations leads to mutual benefits by allowing each country to focus on its comparative strengths. For Nigeria, the theory implies that focusing on competitive agricultural exports, such as cocoa, sesame seeds, and cashew nuts, can enhance its economic gains from agri-food trade. This approach could reduce Nigeria's trade deficits, improve food security, and support local livelihoods, provided the country invests in enhancing productivity and overcoming trade barriers (Olomola & Nwafor, 2018).

Despite its contributions, the Comparative Advantage Theory has faced criticism for its simplifications and assumptions, particularly in the context of modern economies. Critics argue that the theory overlooks real-world complexities, such as trade barriers, unequal market power, and structural inequalities, which can prevent less developed countries from fully benefiting from trade (Krugman, 1996). Additionally, the theory assumes perfect factor mobility within a country, ignoring issues like inadequate infrastructure and limited access to resources that restrict Nigeria's agricultural competitiveness (Akinleye et al., 2018). Nonetheless, the theory remains relevant to this study, as it highlights the potential benefits of leveraging Nigeria's agricultural strengths to compete in global markets. By focusing on sectors where Nigeria has a natural advantage, the country can improve its agri-food trade position, foster economic development, and enhance food security, making Ricardo' s insights valuable for formulating policies to boost the agri-food sector in Nigeria.

Empirical Review

Olomola and Nwafor (2018) carried a study on "Agri-Food Trade Policies and Food Security in Nigeria." This study evaluated the impact of trade policies on food security in Nigeria and analyse how increased trade could improve economic outcomes in the agricultural sector. This study employed a quantitative approach using trade data from Nigerian agricultural sectors, complemented by policy analysis to assess the effectiveness of various trade policies on food security. The study found that trade policies promoting local production and export growth contributed positively to food security by reducing import dependency and enhancing foreign exchange. The reviewed study and the present study focus on the impact of agri-food trade on food security and economic development in Nigeria. While the reviewed study centres on analysing existing trade policies, the current study identifies broader challenges and opportunities in Nigeria's agri-food trade sector.

Golan et al. (2022) conducted a research on "Consumer Preferences and Food Trade in Nigeria: Implications for the Agri-Food Industry." This study examined how changing consumer preferences in Nigeria affect the agri-food sector and analyse the implications of these

trends on trade and local production. The study utilised a survey-based approach, collecting data from 500 urban consumers in Nigeria to determine changes in dietary patterns and consumer demands. The result found that increased demand for processed and packaged foods in urban areas drives the need for agri-food producers to adopt value-added production methods to remain competitive. The reviewed study and the current study investigate the role of consumer preferences in shaping Nigeria's agri-food sector and its trade implications. The reviewed study focused on analysing consumer trends specifically, whereas the current study also addresses broader challenges and trade barriers impacting Nigeria's agri-food trade.

Akinleye et al. (2018) did a work on "Enhancing Nigeria's Agricultural Competitiveness: Challenges and Prospects." This study identified key challenges and prospects for improving Nigeria's agricultural competitiveness in both local and global markets. The study used a mixed-methods approach, combining quantitative trade data analysis with qualitative interviews with industry stakeholders, including farmers, agribusiness leaders, and policymakers. The study found out that infrastructure deficits, limited access to credit, and regulatory barriers are major obstacles to Nigeria's agricultural competitiveness and global trade participation. The reviewed study and the pioneer study explore the challenges in Nigeria's agri-food trade sector and suggest ways to improve competitiveness. But while the reviewed study hinged more specifically on competitiveness and lacks the pioneer study emphasises on the role of consumer preferences and food security.

The literature review reveals that agri-food trade plays a critical role in enhancing food security, economic growth, and agricultural competitiveness in Nigeria, particularly through effective trade policies, adapting to consumer preferences, and addressing infrastructural and regulatory challenges. While studies like those by Olomola and Nwafor (2018), Golan et al. (2022), and Akinleye et al. (2018) provide insights into these areas, a gap exists in integrating these factors into a comprehensive framework that addresses both local consumer demands and international trade dynamics in Nigeria's agri-food sector. This study addresses this gap by examining the combined effects of trade policies, consumer preferences, and structural challenges on Nigeria's agri-food trade, aiming to provide a holistic understanding of the sector's potential pathways for enhancing food security and economic development.

Methodology

This study adopted a qualitative research design to explore the role of agri-food trade in Nigeria' s food security and economic development, focusing on insights from key agricultural stakeholders. This design is suitable for understanding complex issues and exploring the perspectives of various actors in the agri-food sector, such as policymakers, agricultural business leaders, export-import managers, and consumer market analysts. The population of the study comprised of agricultural stakeholders involved in Nigeria's agri-food trade, including representatives from government ministries, trade associations, agribusiness companies, and NGOs focused on food security. From this population, a sample size of 20 stakeholders was selected to ensure a diverse representation of voices and insights. A purposive sampling technique was employed to identify participants with expertise and practical knowledge of the Nigerian agri-food sector, focusing on individuals who have contributed to, or are directly involved in, agricultural trade, policy development, and market analysis.

Data collection was conducted through in-depth interviews, allowing for detailed exploration of the stakeholders' experiences, perspectives, and recommendations. A semistructured interview guide was used to cover topics such as the challenges and opportunities in agri-food trade, the impact of consumer preferences, and policy needs for enhancing the sector's competitiveness. Each interview was recorded, transcribed, and coded for thematic analysis, which enabled the identification of recurring themes and insights relevant to the study's objectives. The data analysis process involved organising the data into themes such as " trade barriers," " consumer demand," and " policy impact," followed by in-depth analysis to understand the relationships between these factors. By synthesising these findings, the study developed a comprehensive framework of Nigeria' s agri-food trade dynamics, addressing both local and global trade aspects essential for policy and strategic planning.

Data Presentation and Analysis

Themes were deduced deductively following the research objectives. The following themes were deduced: How agri-food trade impact food security and economic development in Nigeria; role consumer preferences play in shaping Nigeria' s agri-food sector; and the main challenges and opportunities in Nigeria' s agri-food trade. These were presented and discussed below:

How agri-food trade impact food security and economic development in Nigeria; As an agricultural stakeholder, the interviewee said that agri-food trade plays a crucial role in addressing Nigeria' s food security challenges, especially given the country' s reliance on food imports for staple products like rice, wheat, and sugar. The country' s local agricultural production often falls short of meeting demand due to insufficient infrastructure, limited access to modern farming technologies, and environmental constraints like climate change. By importing certain food products, Nigeria has been able to bridge this gap, ensuring that consumers have access to necessary food items. However, the heavy dependence on imports exposes Nigeria to global price fluctuations, which can destabilize local food markets and negatively affect food security during periods of international market volatility.

From an economic development perspective, agri-food trade offers substantial opportunities for growth by creating jobs and increasing foreign exchange earnings. Exports of agricultural products such as cocoa, sesame, and cashew nuts provide a steady source of income for farmers and agribusinesses, contributing to rural development and poverty alleviation. This trade also stimulates the local economy by encouraging investment in agriculture and agriprocessing industries. Additionally, Nigeria's participation in regional and global trade frameworks like the African Continental Free Trade Area (AfCFTA) presents opportunities to diversify exports and increase market access, which can further enhance economic development. Therefore, agri-food trade, when managed effectively, holds significant potential for both improving food security and fostering economic growth.

However, there are challenges in optimizing the potential of agri-food trade to support food security and economic development. One major issue is the country' s reliance on imports for key food items, which drains foreign reserves and increases trade deficits. This trend is compounded by a lack of robust domestic food processing industries, which limits the valueadded potential of Nigeria's agricultural exports. Despite having abundant agricultural resources, Nigeria still faces challenges such as poor infrastructure, inadequate storage and transportation systems, and high costs of doing business, which prevent the country from fully capitalising on its agricultural trade potential. Inadequate trade policies and insufficient support for smallholder farmers also exacerbate these issues.

To improve both food security and economic development, there needs to be a focus on strengthening local agricultural production through technology adoption, policy reforms, and infrastructural development. More investment in agricultural value chains, especially in food processing and storage, will not only reduce Nigeria' s dependency on imports but also create sustainable jobs and generate economic growth. Additionally, creating a more competitive environment for Nigeria' s agri-food exports would open up new markets and bolster foreign exchange earnings, leading to long-term food security and economic resilience.

Role consumer preferences play in shaping Nigeria' s agri-food sector; below are the extraction from the interviewees. Consumer preferences in Nigeria have a significant influence on shaping the direction of the agri-food sector. As urbanisation increases and incomes rise, there is a growing demand for processed, packaged, and convenience foods, which are often perceived as higher in quality and more suitable for fast-paced lifestyles. This shift in demand has prompted local producers to adapt their offerings to meet these changing consumer needs. For example, the rise of urban middle-class consumers has led to an increase in the demand for packaged snacks, ready-to-eat meals, and healthier food options. Producers must adjust to these preferences by improving the quality and packaging of their products to remain competitive.

The increasing awareness of health and nutrition among Nigerian consumers has also reshaped demand. Consumers are more conscious of food safety, nutritional content, and the environmental impact of food production. This trend is evident in the growing preference for organic foods, locally grown produce, and sustainably produced products. As a result, Nigerian agribusinesses are gradually shifting towards adopting sustainable farming practices and food safety standards to meet the evolving demands of health-conscious consumers. For instance, there has been a rise in the production and marketing of organic vegetables and fruits, reflecting the market' s increasing inclination toward healthier food options.

Additionally, consumer preferences influence food pricing and trade patterns. Imported food items are often perceived as higher quality, which can drive up demand for foreign products despite the availability of similar locally produced goods. This has led to a situation where local producers must compete with cheaper, often lower-quality imports, which can undermine the growth of domestic agribusinesses. The challenge for local producers is to improve the quality and consistency of their products to meet both domestic and international standards while ensuring affordability. This requires significant investments in technology, training, and infrastructure to help them compete with imported goods.

To meet these shifting preferences, Nigeria' s agri-food sector must evolve to prioritise quality, sustainability, and innovation. Government support in the form of policies that encourage investment in food processing, infrastructure improvements, and the promotion of locally grown food is essential. By fostering an environment where local products can compete with imports, Nigeria can strengthen its agri-food sector, reduce reliance on foreign goods, and ensure long-term food security. The country' s agribusinesses must also work closely with consumers to better understand their preferences and adapt to trends, such as the demand for healthier, more sustainable food options.

The main challenges and opportunities in Nigeria' s agri-food trade; all the interviewees agreed that Nigeria' s agri-food trade faces a number of challenges that hinder its potential for growth and development. One of the most significant challenges is inadequate infrastructure, which increases the cost of doing business and limits the efficiency of the agricultural supply chain. Poor roads, lack of cold storage facilities, and unreliable transportation systems lead to high post-harvest losses and prevent agricultural products from reaching markets in a timely and cost-effective manner. These inefficiencies make it difficult for Nigeria to compete globally, as local producers struggle to deliver fresh, high-quality goods at competitive prices. Additionally, limited access to finance for smallholder farmers and agribusinesses further exacerbates these challenges, preventing them from scaling their operations or investing in modern technology.

Another major challenge is the inconsistency of trade policies and regulatory frameworks, which create uncertainty and discourage investment in the agri-food sector. The high cost of compliance with regulatory standards, combined with bureaucratic delays and lack of enforcement, makes it difficult for Nigerian agribusinesses to access international markets. This is especially true for small and medium-sized enterprises (SMEs), which often lack the resources to meet stringent export standards. Trade tariffs and non-tariff barriers, both domestic and international, also complicate the ability of Nigerian agricultural products to compete in global markets. These challenges contribute to Nigeria's reliance on food imports, which negatively impact food security and economic stability.

Despite these challenges, there are several opportunities that can be harnessed to strengthen Nigeria' s agri-food trade. One of the key opportunities is the growing demand for African agricultural products, particularly in the context of regional trade agreements like the African Continental Free Trade Area (AfCFTA). These agreements provide opportunities for Nigeria to access new markets in Africa, where there is a rising demand for processed and value-added agricultural products. Additionally, there is an increasing focus on agribusiness innovation, such as the adoption of digital technologies for improving supply chains, reducing food waste, and enhancing agricultural productivity. By embracing these innovations, Nigeria can increase its competitiveness and expand its trade footprint, both regionally and globally.

Finally, strengthening local food production through investment in technology, infrastructure, and capacity-building initiatives is crucial for tapping into these opportunities. Government policies that support agricultural innovation, reduce trade barriers, and foster a more business-friendly environment will play a central role in addressing the challenges and unlocking the potential of Nigeria's agri-food trade. By focusing on improving production efficiency, addressing infrastructure gaps, and increasing export competitiveness, Nigeria can create a more resilient agri-food sector that benefits both local farmers and the broader economy.

Discussion of Findings

Research Question One: How does agri-food trade impact food security and economic development in Nigeria?

The study finds that agri-food trade significantly impacts Nigeria's food security by supplementing domestic food production, especially in meeting the demand for staple foods. However, this dependency on food imports also exposes Nigeria to global price fluctuations, undermining local food security. On the economic development side, agri-food trade generates

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foreign exchange, supports rural livelihoods, and encourages investment in agriculture and agribusiness, but challenges such as inadequate infrastructure and poor policy implementation limit the sector's growth potential. Optimising trade policies and improving infrastructure could unlock greater benefits for both food security and economic development in the country. The findings of Olomola and Nwafor's study (2018) are relevant to this finding, as their emphasis on trade policies and their positive impact on food security in Nigeria aligns with the idea that agri-food trade can enhance food security while contributing to economic growth. The study highlighted the importance of policies that reduce import dependency and support local agricultural production, which directly supports the current finding that trade policies and infrastructure improvements are essential to boosting Nigeria's food security and economic development. The focus on the economic benefits of reducing import dependency supports the need for Nigeria to leverage agri-food trade for greater food security.

The Comparative Advantage Theory is highly relevant to this finding as it emphasises that countries should specialise in the production of goods where they have a comparative advantage, leading to efficient resource use and economic gains from trade. In the context of Nigeria, this theory supports the idea that focusing on agricultural exports, such as cocoa, cashew nuts, and sesame seeds, can enhance economic development and reduce dependency on food imports, thereby improving both food security and the overall economy. By leveraging Nigeria's natural agricultural strengths, the country could foster more sustainable food systems and economic resilience through strategic agri-food trade. The findings imply that Nigeria' s reliance on agri-food trade for food security and economic development necessitates comprehensive policy reforms to reduce import dependency, enhance local production, and improve infrastructure. The country must develop targeted strategies to strengthen the domestic agri-food security in agricultural innovation, improving transportation and storage facilities, and supporting trade policies that promote sustainable local production. This will not only boost food security but also enhance Nigeria's economic resilience, helping the nation fully leverage its agricultural potential to achieve long-term growth.

Research Question Two: What role do consumer preferences play in shaping Nigeria' s agrifood sector?

The study finds that consumer preferences in Nigeria are increasingly driving demand for processed, packaged, and health-conscious food products, which are reshaping the country's agri-food sector. Urbanisation, rising incomes, and greater health awareness have led to a shift towards convenience and higher-quality foods, prompting producers to adapt by improving product offerings. However, the preference for imported goods often undermines local production, as Nigerian products struggle to compete on quality and consistency. For the agrifood sector to thrive, there is a need for policies that promote local production and address the evolving preferences of consumers for healthier, more sustainable food options. Golan et al. (2022) study is directly relevant to this finding, as it discusses how changing consumer preferences, particularly toward processed and healthier foods, shape the Nigerian agri-food sector. The study emphasised the need for producers to adapt to these consumer demands, much like the finding that consumer preferences are driving demand for convenience and healthier food options in Nigeria. Identification of the market shift toward health-conscious food choices and the increasing demand for processed foods mirrors the trend observed in the study,

reinforcing the relevance of adapting to consumer preferences to ensure the competitiveness of the agri-food sector.

The Comparative Advantage Theory is relevant to this finding as it highlights the importance of aligning production strategies with consumer demand. In Nigeria, the shift towards processed and health-conscious foods presents an opportunity for local agribusinesses to capitalise on the growing consumer demand by focusing on these emerging market segments. By adapting to consumer preferences, Nigerian producers can gain a competitive edge in both domestic and international markets, leveraging their comparative advantage in certain agricultural products to meet evolving market demands while promoting local production over imports. The findings imply that Nigerian agribusinesses must adapt to the changing preferences of consumers, which increasingly favour processed, packaged, and health-conscious foods. To remain competitive, local producers should focus on improving product quality, packaging, and sustainability practices to meet the rising demand for healthier and more convenient food options. Policymakers should also support these efforts through regulations that encourage local production while limiting the influx of cheaper imported goods. By aligning production strategies with consumer preferences, Nigeria's agri-food sector can expand its market share both domestically and internationally.

Research Question Three: What are the main challenges and opportunities in Nigeria's agrifood trade?

The study identifies several key challenges in Nigeria's agri-food trade, including inadequate infrastructure, high post-harvest losses, inconsistent trade policies, and limited access to finance for smallholder farmers. These challenges increase the cost of production and limit the competitiveness of Nigerian agricultural exports in global markets. However, the study also highlights significant opportunities, such as the growing demand for African agricultural products, particularly within regional trade agreements like the AfCFTA. By improving infrastructure, embracing agricultural innovations, and strengthening trade policies, Nigeria has the potential to enhance its agri-food trade and create sustainable economic growth in the sector. Akinleye et al. (2018)' s study is relevant to this finding, as it explores the challenges Nigeria faces in agricultural trade, such as inadequate infrastructure and policy barriers, which are also identified as major constraints in the study. The authors' focus on the importance of improving infrastructure and addressing regulatory issues aligns with the current study's findings on the challenges facing Nigeria's agri-food trade, especially the difficulties smallholder farmers face in accessing finance and export markets. Their analysis of the potential benefits of overcoming these barriers to enhance global competitiveness and trade aligns with the opportunities for Nigeria identified in the study.

The Comparative Advantage Theory applies to this finding by emphasizing how Nigeria can harness its agricultural strengths, such as the production of certain crops, to overcome challenges like inadequate infrastructure and policy inconsistencies. The theory suggests that by focusing on sectors where Nigeria holds a competitive advantage, the country can enhance its global competitiveness and take advantage of opportunities within regional trade frameworks like AfCFTA. With improved infrastructure, access to finance, and more supportive policies, Nigeria could better exploit these opportunities, promoting sustainable development in the agrifood sector. The findings imply that Nigeria must address critical challenges, such as inadequate infrastructure, policy inconsistency, and access to finance, to unlock the full potential of its agri-

food trade. At the same time, the study highlights significant opportunities within regional trade agreements like the AfCFTA and increasing global demand for African agricultural products. To capitalize on these opportunities, Nigeria must implement comprehensive infrastructure development, streamline trade policies, and foster an enabling environment for agricultural businesses. These efforts would improve Nigeria' s competitiveness, enhance its global presence in agri-food trade, and contribute to sustainable economic growth.

Conclusion

The study concludes that agri-food trade plays a pivotal role in enhancing Nigeria's food security and economic development by supplementing domestic food production and generating income through exports. However, the challenges of over-reliance on imports, inadequate infrastructure, and ineffective policies must be addressed to fully harness the benefits of trade. A strategic focus on local agricultural development, infrastructure improvement, and policy reforms will strengthen the sector, ensuring sustainable growth and improved food security.

This study explores that consumer preferences significantly influence Nigeria's agri-food sector, driving demand for processed, convenient, and health-conscious food products. To meet these demands and remain competitive, local producers must innovate and improve product quality, packaging, and sustainability practices. Policies that encourage local production and address the challenges posed by imported goods will help align Nigeria' s agricultural output with evolving consumer trends, supporting both local industries and the broader economy.

Finally, the study justifies that Nigeria's agri-food trade faces significant challenges such as poor infrastructure, regulatory issues, and limited access to finance, but also presents valuable opportunities in regional trade and emerging global markets. By focusing on addressing these challenges through policy reform, infrastructure investment, and access to financing, Nigeria can strengthen its agri-food trade and capitalise on opportunities to expand its agricultural exports, contributing to long-term economic development and food security.

This study contributes to knowledge by providing an in-depth analysis of the role of agrifood trade in Nigeria's food security and economic development. Through a detailed exploration of the challenges and opportunities in the sector, the research highlights the critical need for policy reforms and infrastructural improvements to boost both local agricultural production and international trade competitiveness. By emphasizing the impact of trade policies, consumer preferences, and market access, the study offers valuable insights for policymakers, agribusinesses, and development agencies seeking to optimize Nigeria's agricultural potential and reduce its dependence on food imports. This research also offers a nuanced understanding of how consumer trends, such as the shift towards healthier and processed foods, are reshaping the agri-food sector and driving the demand for innovation in local food production.

Additionally, the study contributes to the growing body of literature on agricultural trade by focusing on Nigeria's unique challenges and opportunities within the African and global context. It expands knowledge on the intersection between agri-food trade and consumer behaviour, providing a framework for further research on how regional trade agreements, like the AfCFTA, can be leveraged to enhance Nigeria's competitive position in the global agri-food market. By incorporating empirical evidence from agricultural stakeholders, the study provides practical recommendations for improving food security, enhancing economic resilience, and fostering sustainable agricultural growth. This contributes not only to academic research but also to the strategic planning of agricultural policies aimed at fostering long-term food security and economic development in Nigeria.

Recommendations

In view of the findings from the work, the following recommendations have been made.

- 1) Nigeria should invest in improving agricultural infrastructure, reduce reliance on food imports through policy reforms, and support local production to enhance food security and economic growth.
- 2) Local producers should innovate by improving product quality, packaging, and sustainability to align with the growing demand for processed and health-conscious foods while encouraging policies that support local production over imports.
- 3) . Nigeria should address infrastructure deficiencies, streamline trade policies, and improve access to finance to capitalise on regional trade agreements and global market opportunities for agri-food exports.

References

- Abass, A. B., Olayemi, J. K., & Adesina, A. A. (2020). The impact of AfCFTA on Nigeria's agri-food trade: Opportunities and challenges. *Nigerian Journal of Agricultural Economics*, 12(1), 34-49.
- Ajayi, F. A., & Onwusiribe, N. C. (2022). Digitalisation and agricultural trade in Nigeria: Opportunities and challenges. *Journal of Economic Development and Policy Studies*, 5(4), 78-89.
- Akinleye, S. O., Akindele, O. P., & Balogun, T. A. (2018). Enhancing Nigeria's agricultural competitiveness: Challenges and prospects. *Journal of Agricultural Economics and Development*, 9(2), 104-113.
- Akinyele, I. O., & Dipeolu, A. I. (2020). Food demand patterns and dietary change in urban Nigeria. *African Journal of Consumer Research*, 7(1), 22-34.
- Balogun, A. A., Adeniyi, K. O., & Oladimeji, B. S. (2021). Agri-food trade and rural development in Nigeria: A pathway to poverty reduction. *African Development Review*, 33(3), 456-470.
- Federal Ministry of Agriculture and Rural Development. (2016). The Agricultural Promotion Policy (APP) and Nigeria Economic Recovery and Growth Plan (ERGP). Government of Nigeria.
- Golan, R., Nwosu, C. I., & Isola, O. M. (2022). Consumer preferences and food trade in Nigeria: Implications for the agri-food industry. *International Journal of Consumer Economics*, 9(2), 129-144.
- Krugman, P. R. (1996). A country is not a company. Harvard Business Review, 74(1), 40-51.
- Mogaji, E., & Adesina, M. A. (2022). Trade barriers and agri-food competitiveness in Nigeria. *Nigerian Journal of Economics and Trade*, *10*(3), 214-230.
- Moseley, W. G., & Battersby, J. (2020). The impact of COVID-19 on food security in Africa. *Food Security*, *12*, 705-708.
- Nwosu, C. I., Balogun, J. O., & Ajayi, F. A. (2023). Adaptation of Nigerian agribusinesses to changing consumer demands. *Journal of Agribusiness and Rural Development*, 8(1), 57-66.

- Okon, U. A., Balogun, J. O., & Abass, A. B. (2019). Agricultural productivity and trade in Nigeria: Challenges and prospects. *African Journal of Agricultural Economics*, 8(3), 195-206.
- Olomola, A. S., & Nwafor, A. M. (2018). Agri-food trade policies and food security in Nigeria. *Nigerian Agricultural Policy and Development Review*, 11(4), 172-188.
- Oluwatayo, I. B., & Ojo, T. B. (2020). Agricultural employment and economic development in Nigeria. *Journal of Rural Economics and Development*, 7(2), 99-110.
- Pingali, P., & Sunder, N. (2017). Transitioning towards nutrition-sensitive food systems in developing countries. *Annual Review of Resource Economics*, 9, 439-459.
- Ricardo, D. (1817). On the principles of political economy and taxation. Springer
- Tajudeen, A., & Olanrewaju, A. (2021). Supply chain innovation and Nigeria's agricultural trade competitiveness. *Journal of Logistics and Agricultural Trade*, 4(2), 121-139.
- World Bank. (2021). *Transforming agriculture for improved livelihoods and food security in Africa*. World Bank Group Report.