



**EFFECT OF AFRICAN CONTINENTAL FREE TRADE AGREEMENT (AfCFTA) ON
ECOWAS AGRICULTURAL TRADE: IMPLICATION ON
NIGERIA AGRICULTURAL SECTOR**

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ABSTRACT

The study examined the effect of African Continental Free Trade Agreement (AfCFTA) on ECOWAS Agricultural Trade: Implication on Nigeria Agricultural sector is pertinent. Specifically, it described pattern of ECOWAS agricultural imports and exports within its bloc pre and post AfCFTA, described pattern of ECOWAS agricultural imports and exports with other African blocs pre and post AfCFTA, identified trade intensity index of ECOWAS Agricultural sector to draw AfCFTA effects on Nigeria agricultural sector. Data were collected from secondary sources. and analyzed through the use of descriptive statistics such as percentages, graphs, pie-charts, bar-charts and trade intensity index (TII). The result on Pattern of ECOWAS agricultural imports within its bloc pre and post AfCFTA showed that the highest imports within ECOWAS bloc on cereals products was done by Senegal at \$264,237, while the least was done by Togo at \$291 pre-AfCFTA while post-AfCFTA Ghana was highest importer of cereals at \$34,067 while Cape Verde imports the least (\$11) of cereals. On the other hand, Guinea was the major (\$10,717) importer of live animal within ECOWAS bloc pre AfCFTA. Also, post AfCFTA, Guinea remains the major (\$48,906) importer of live animal within the ECOWAS market while the least imported value came from Nigeria. Results on Pattern of agricultural export trade within its bloc pre and post AfCFTA showed that export of cereals and live animal within ECOWAS region showed that Senegal had the highest export value of cereal (\$156650) pre AfCFTA while Guinea Bissau, Cape Verde, had \$0 export values while Nigeria has \$616 within ECOWAS bloc. Post AfCFTA, Senegal was the highest (\$168009) exporter with little increase in the value. Pattern of ECOWAS agricultural imports with other African trade blocs pre and post AfCFTA, as shown in Figure 1 indicated SADC as the highest importer in both cereals and live animal pre and post AfCFTA while ECCAS had the least pre and post AfCFTA. Trade intensity index of ECOWAS agricultural trade for live animal and cereals products imported within 2019-2023 was 6.769, while on export was 5.868. Among all, the study recommends policy alignment, capacity building, infrastructural development, research development, and private sector engagement are crucial for Nigeria to maximize the benefits of the AfCFTA in the agricultural sector. The study recommends that ECOWAS should continue to strengthen regional trade agreements and tariff reductions to facilitate intra-regional trade and reduce reliance on external imports.

Keywords: Trade, Intensity, ECOWAS, AfCFTA, Agriculture

INTRODUCTION

Regional integration has been a long-term attempt identified by African leaders as means for consolidating economic and social development in Africa (Olowe & Ibraheem, 2015). Similarly, while African Continental Free Trade Area (AfCFTA) remains a strategy for development capable of aggregating Africa's small countries into one large market that can deliver economies of scale, improved competitiveness, foreign direct investment (FDI) and poverty reduction, it can also help in addressing non-economic problems such as recurring conflicts and political instability at the same time increasing the continent's bargaining power in the multilateral front. (Olowe & Ibraheem, 2015). This has led to the entering into a number of regional integration agreements by African states, and currently there are no African countries that are not a part of at least one regional economic



arrangement. At the continental level, attempts have also been made to create economic cooperation and ultimately meaningful integration among African countries. (Abrego, *et al.*, 2019).

On March 21, 2018, at the 10th Extraordinary Summit of the African Union, almost all countries on the African continent signed the African Continental Free Trade Area (AfCFTA) agreement, thereby creating the largest free trade area in the world connecting 55 countries and 1.3 billion people with a combined gross domestic product (GDP) valued at US\$3.4 trillion. The agreement officially entered into force on May 30, 2019, after its ratification by 22 countries as required by the treaty. It is expected to boost intra-African agricultural trade, estimated to currently be less than 20 percent of total agricultural trade (African Union, 2019). Potentially, it can increase Africa's exports by \$560 billion and boost Africa's income by \$450 billion by 2035 while adding \$76 billion to the rest of the world's income. Some of its other objectives include: fostering economic integration of the continent; consolidating the continent into one trade area; removal of tariffs on 90% of goods and services exported within Africa; production of more jobs for African youths; driving industrialization of Africa (Abrego, *et al.*, 2019).

The agricultural sector is one of Nigeria's strategic sectors, especially given its contribution to GDP which stood at 25% in 2018 and its share of employment 48% of the employed labour force. The sector's output is valued at N27.4 trillion, comprising crop production (88%), livestock (7.5%), fishery (3.1%) and forestry (1.0%). Although Nigeria has a huge agricultural resource and potential, the challenges of lower yields, communal conflicts, poor market access and storage facilities, poor quality and standards and high cost of doing business continue to limit growth of the sector. In the last two years for instance, the sector only grew by 3.5% in 2017 and 2.12% in 2018, a far cry from over 6% growth experienced in 2014 (National Bureau of Statistics (2023). In terms of external trade, Nigeria's relation with other African countries particularly the agricultural sector remains low. Imports from Africa accounted for 3.5% of total imports in 2023. For the agricultural sector, of the total agricultural goods imported, 7.5% are from Africa. Of the total imports from Africa, agricultural products account for 13.2%. Nigeria's total agricultural goods export was valued at US\$851 million in 2023 and represents just 1.6% of the country's total export. The major traded agricultural commodities include Sesame seeds, Cocoa, Cashew nuts and livestock. It is expected that as a result of the AfCFTA, trade figures among African countries will improve significantly (National Bureau of Statistics (2023). Based on the above, the main objective of this study is to determine the effects of African Continental Free Trade Agreement (AfCFTA) on ECOWAS agricultural trade and its implication on Nigeria agricultural sector and specifically:

- I. describe pattern of ECOWAS agricultural imports and exports within its bloc pre and post AfCFTA
- II. describe pattern of ECOWAS agricultural imports and exports with other African trade blocs pre and post AfCFTA
- III. Identify the trade intensity index of ECOWAS Agricultural sector.
- IV. Identify the implications of AfCFTA on Nigeria agricultural sector.

METHODOLOGY

Area of study

The study covered the Economic Community of West African States (ECOWAS) and African Union (AU) as the study areas, while other countries that are not in any of these two trade blocs, were referred to as Rest of the World (ROW). ECOWAS is made up of 15 countries, founded in 1975. Its aim is to economically promote integration in all areas of economics, particularly agriculture, transport, industry, telecommunications, energy, natural resources, commerce, social cultural and monetary matters. The following are the countries that make up ECOWAS as of April 2016 till date: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. Agriculture (agrarian economy) accounts for at least 25% of the GDP in all these countries with land area of about 5,112,913km² (ECOWAS newsletter, 2016).



Sampling Procedure

This study purposely selected all the countries in ECOWAS region and Africa Union trade bloc due to the fact that ECOWAS region is among the trade blocs going into partnership of AfCFTA with the AU.

Data Collection

Data were collected from secondary sources only and mainly from International Trade Centre (ITC), World Trade Organization (WTO) on both Agricultural trade imports and exports within the period of 2018 to 2023 (pre implementation of AfCFTA 2017-2019 and post implementation of AfCFTA 2020-2023). Similarly, this Study was carried out using panel data under the following Agricultural product groups of United Nations Harmonization System of Classification (HS) codes 1 and 10: product group one (Live Animals) and product group Ten (Cereals). (Economic Report on Africa (2017). SADC, COMESA, ECCAS and EAC were used to represent other Africa trade blocs.

Method of Data Analysis and Model Specification

Both descriptive and inferential statistics were used in analyzing the data. Objectives (i), (ii) and (iii) of this study were realized by the use of descriptive statistics such as percentages, graphs, pie-charts, bar-charts. Objective (iv), were achieved using the trade intensity index (TII) as applied by Drysdale and Garnaut (1982). The model was later modified and used by Onogwu and Arene (2013). Under this hypothetical scenario, each country's total trade would be distributed across countries according to each trade partner's share of world trade. TII is expressed in two forms: the export intensity index (XII) and the import intensity index (MII) which is specified as follows:

$$XII_i = \frac{x_{ij}/x_{iw}}{m_{jw}/(m_w - m_{iw})} \dots\dots\dots (1)$$

$$MII_i = \frac{m_{ij}/m_{iw}}{x_{jw}/(x_w - x_{iw})} \dots\dots\dots (2)$$

Where;

- XII_i**= ECOWAS countries export intensity index
- MI_i**= ECOWAS countries import intensity index
- X_{ij}**= ECOWAS countries export to AU countries
- X_{iw}**= ECOWAS countries total export to the rest of the world
- M_{jw}**= AU countries total imports from the rest of the world
- M_w**= Rest of the world imports
- M_{iw}**= ECOWAS countries import from rest of the world
- m_{ij}**= ECOWAS countries import from AU
- X_{jw}**= ECOWAS countries total export to the rest of the world
- X_w**= rest of the world total exports
- i**= ECOWAS countries
- j**= African union countries (AU)

RESULTS AND DISCUSSION

Pattern of ECOWAS Agricultural Imports within its Bloc pre and post AfCFTA

As presented in Table1 it was observed that the highest imports within ECOWAS bloc on cereals products was done by Senegal at \$264,237, while the least was done by Togo at \$291 pre-AfCFTA while at post-AfCFTA Ghana was observed to be the major importer of cereals within ECOWAS countries at \$34,067 while Cape Verde imports the least (\$11) of cereals within the ECOWAS market. This implies that AfCFTA has distorted the pattern of cereals imports within the ECOWAS market in a negative form. This is because ECOWAS countries are now sourcing their cereals from other AU countries who have signed the AfCFTA with ECOWAS trade bloc. Based on this, it is very possible that the AfCFTA will have negative trade effect on ECOWAS agricultural market and in turn to Nigeria as it's been part of the ECOWAS trade bloc.

On the other hand, the result on the table 3.1 equally showed that Guinea was the major importer of live animal \$10,717 within ECOWAS bloc and Cape Verde did not import at all within ECOWAS market pre AfCFTA. Also, post AfCFTA, Guinea remains the major (\$48,906) importer of live animal within the ECOWAS market while the least imported value came from Nigeria with \$0 and Cape Verde did not import at all. This implies that AfCFTA has affected the importation of live



animal positively in some of these ECOWAS countries while in the case of Nigeria been the least importing country in post AfCFTA can be traced to the fact that they have access to import from other AU country.

Table 1: Pattern of ECOWAS agricultural imports within its bloc Pre and Post AfCFTA

ECOWAS COUNTRIES	CEREALS IMPORT WITHIN ECOWAS PRE-AfCFTA	CEREALS IMPORT WITHIN ECOWAS POST-AfCFTA	CEREALS IMPORT DIFFERENCE WITHIN ECOWAS	LIVE ANIMALS IMPORT WITHIN ECOWAS PRE-AfCFTA	LIVE ANIMAL IMPORT WITHIN ECOWAS POST-AfCFTA	LIVE ANIMAL IMPORT DIFFERENCE WITHIN ECOWAS
Senegal	2642	1069	2632	36	13	23
Côte d'Ivoire	5805	1399	4406	144	4119	-3975
Burkina Faso	5047	3193	4728	182	200	-18
Niger	1485	4394	2909	197	70	127
Nigeria	2105	143	-2248	20	0	20
Benin	2954	203	-2327	12	10	2
Mali	3163	1469	-3309	1329	484	845
Togo	291	647	-356	136	520	-384
Ghana	2721	3407	-6128	8047	2538	5509
Guinea	6074	1118	-7192	1072	4891	-3819
Cape Verde	1165	11	-1176	0	0	0
Gambia	1052	3118	-1364	127	275	-148
Liberia	802	344	-1146	588	76	512
Guinea Bissau	8745	1232	-2107	2	4891	-4890
Sierra Leone	1245	1045	-1349	5	6	-1
Total	4916	1357	14745	2154	1061	-8458

Source: Computed using the data extracted from International Trade Centre (Trade Map), 2024 Note pre=2015-2018, post =2019-2023

Pattern of Agricultural Trade Export within ECOWAS Bloc Pre and Post AfCFTA

The results in Table 2 depicts export of cereals and live animal within ECOWAS region, pre and post AfCFTA showed that Senegal was observed to have the highest export value of cereal (\$156650) pre AfCFTA while Guinea Bissau, Cape vade, had \$0 export values while Nigeria had \$616 within ECOWAS bloc. At the post AfCFTA, Senegal had the highest export value (\$168009) with a little increase in the value, while Cote d'ivore and Gambia had \$0 export values. The result shows that Senegal, Mali, and Ghana had significant increase in cereal exportation within ECOWAS post AfCFTA, this is an indication that there is a potential benefit from the implementation of the trade agreement, while countries like Cote d'ivore and Burkina Faso had significant decrease in cereals exportation which indicates that these countries might be exporting their products to other Africa trade blocs pre AfCFTA.

However, Senegal was observed to have the highest exportation value of \$612582 followed by Cote d'ivore \$102297. Countries like Cape Verde, Gambia, Liberia, Guinea bissau Ghana and Sierra leone had \$0 export value in the pre-implementation of AfCFTA, Mali had the highest export value (\$691283) followed by Togo (\$60314), Burkina faso had \$4056 export value. Gambia, liberia Guinea bissau and sierra leone had \$128, 9, 9, and \$4568 respectively indicating that they had a significant increase when compared to the pre-implementation of the agreement, but reverse is the case with Nigeria as it experienced a significant decrease in live animal exportation post implementation (\$4) when compared to the value it had pre-implementation of AfCFTA.

Table 2: Pattern of ECOWAS Agricultural Trade Exports within its Bloc Pre and Post AfCFTA

ECOWAS COUNTRIES	CEREALS EXPORT WITHIN ECOWAS PRE-	CEREALS EXPORT WITHIN ECOWAS POST AfCFTA	CEREALS EXPORT DIFFERENCE WITHIN ECOWAS	LIVE ANIMALS EXPORT WITHIN ECOWAS PRE-	LIVE ANIMAL EXPORT WITHIN ECOWAS POST-	LIVE ANIMAL DIFFERENCE WITHIN ECOWAS
Senegal	156650	168009	11,359	612582	4	-612578
Côte d'Ivoire	49726	0	49726	102297	0	-102297
Burkina Faso	38448	1041	-37407	12443	4056	-8387
Niger	119	52	-67	475	75	-400
Nigeria	616	2134	1518	2202	4	-2198
Benin	202	16	-186	75	0	-75
Mali	1184	72260	71076	9	691283	691274
Togo	784	19	-765	10	60314	60304
Ghana	1343	597	-746	0	179	179
Guinea	232	6042	5810	29	0	-29
Cape Verde	0	5726	5726	0	0	0
Gambia	483	0	-483	0	128	128
Liberia	11	5	-6	0	9	9
Guinea Bissau	0	857	857	0	9	9
Sierra Leone	21	40060	40039	0	4568	-4568
Total	249819	296818	46999	730122	760629	-30507

Source: Computed using the data extracted from International Trade Centre (Trade Map), 2024.

Note: pre=2015-2018, post =2019-2023

Pattern of ECOWAS Agricultural Imports with other African Trade Blocs Pre and Post AfCFTA

Figure 1 presents the importation values of cereals and live animals among ECOWAS and other African trade bloc pre and post AfCFTA. The chart shows that SADC has the highest import value of cereals while ECCAS had the lowest value pre AfCFTA. There is a significant increase in pattern of ECOWAS imports from COMESA and EAC post AfCFTA but reverse is the case from SADC and ECCAS. The decrease in imports from SADC and ECCAS is an indication that there is a shift in trade pattern or reduced demand which can be traced back to the effect of AfCFTA agreement. The chart also shows that SADC had the highest import value of live animal pre AfCFTA while lowest came from EAC. There was a notable increase in live animal import from COMESA post AfCFTA. The increase in imports from COMESA post AfCFTA may suggest growing demand or improved trade relationships while the decrease in imports from SADC post-AfCFTA could indicate a decline in demand or trade diversion.

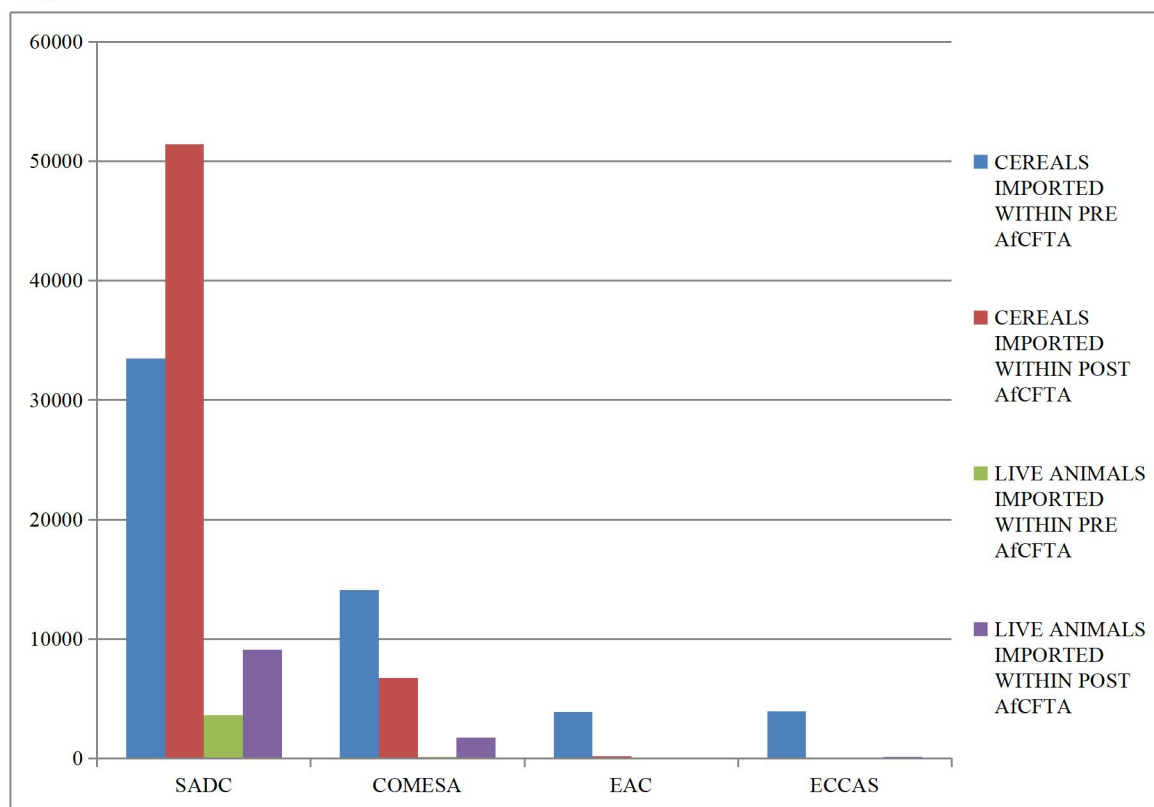


Figure 1: Pattern of ECOWAS agricultural imports with other African trade blocs pre and post AfCFTA (Data source: international trade center (ITC))

Pattern of ECOWAS Agricultural Export with other African Trade Blocs Pre and Post AfCFTA

The result in Figure 2 shows that ECOWAS had its highest export value of cereal post-AfCFTA from ECCAS while there was no export from EAC pre AfCFTA of cereals. The chart further shows that there was an increase in ECOWAS export from SADC and COMESA on cereals. The significant increase in ECOWAS export to ECCAS post AfCFTA is an indication that there is an improved trade facilitation or increase demand with ECCAS bloc and ECOWAS. The decrease in ECOWAS export to ECCAS post AfCFTA on cereals could suggest a trade diversion.

The chart also furtherly shows that ECOWAS export to ECCAS had the highest pre AfCFTA export value of live animal while ECOWAS export to EAC had the lowest value in the pre AfCFTA. At the post implementation there was a significant increase in exportation value of live animal by ECOWAS to EAC and COMESA but decrease to SADC and ECCAS. The notable increase in live animal exportation to EAC and COMESA by ECOWAS was perceived and this implies that there is growing demand or improved trade relationships among the trade blocs.

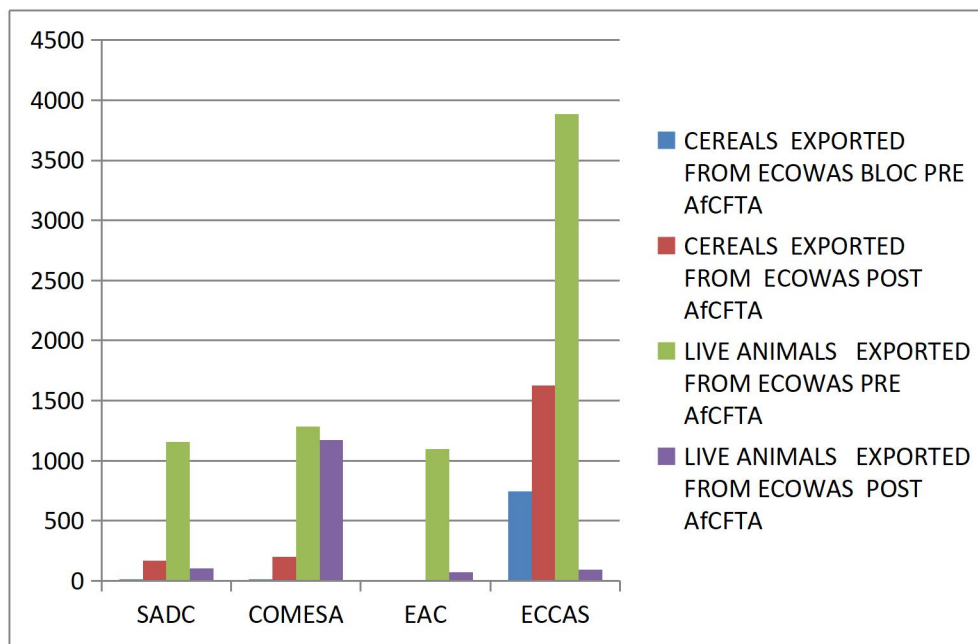


Figure 2: Pattern of ECOWAS agricultural export with other African trade blocs pre and post AfCFTA (Data source: International trade center (ITC) data base)

Trade Intensity Index of ECOWAS Agricultural Sector

This report presents a comparative analysis of trade intensity index (TII) of ECOWAS import and export trade. The study assessed the level of trade intensity between ECOWAS member state and the rest of the world.

Trade Intensity Index of ECOWAS Agricultural Import

The result in table 3.3 shows trade intensity index of ECOWAS agricultural trade for live animal and cereals products imported within the period of 2019-2023 is calculated to be 6.7692. The TII value (6.7692) indicates relatively high level of trade intensity in ECOWAS agricultural import trade. This suggests that ECOWAS member states have a strong reliance on imports to meet their agricultural needs. The high TII value may be attributed to factors such as: Limited domestic agricultural production capacity, Dependent on imported agricultural products to meet consumers' demand and regional trade agreements that facilitate imports

Trade Intensity Index of ECOWAS Agricultural Export Trade

The result in Table 4.3 also shows trade intensity index of ECOWAS agricultural trade for live animal and cereals products exported within the period of 2019-2023 is calculated to be 5.8676. The TII value (5.8676) indicates a moderate to high level of trade intensity in ECOWAS agricultural export trade. This suggests that ECOWAS member states have a significant level of agricultural exports, but may not be fully utilizing their export potential.

Table 3: Trade Intensity Table: Aggregated Result of Import and Export Trade of ECOWAS and the Rest of the World

INDICATORS	LIVE ANIMAL (US\$)	CEREAL (US\$)	TOTAL (US\$)
Xij	774006	339421	1113427
Xiw	775172	351668	1126840
Mjw	5649874	144768986	150418858
Mw	122922473	803907968	926830441
Miw	258002	33122661	33380663
Mij	177108	115292	292400
Xjw	775172	115292	1126840
Xw	119469396	726523752	845993148

SOURCE: International Trade Center (ITC). XIIi=5.8676, MIIi=6.7692



Implications of AfCFTA on Nigeria's Agricultural Sector.

Nigeria is a member of the Economic Community of West African States (ECOWAS) and the African Continental Free Trade Area (AfCFTA). The trade data and trends shown in the tables and charts suggest: With the implementation of AfCFTA, Nigerian farmers and agricultural businesses may face increased competition from other African countries, particularly in the cereal and live animal markets.

- ❖ The growth in cereal exports within ECOWAS and the increase in live animal exports in some blocs suggest potential export opportunities for Nigeria's agricultural sector. The data further highlights the importance of diversifying Nigeria's agricultural exports to reduce dependence on a single commodity and tap into growing markets.
- ❖ The changes in trade patterns and volumes emphasize the need for improved trade facilitation infrastructure and procedures to enhance Nigeria's competitiveness in regional and continental markets.
- ❖ The insights from the tables and charts suggest the need for Nigeria to align its agricultural policies with regional and continental frameworks to maximize benefits and mitigate challenges. By understanding these implications, Nigeria can strategically position its agricultural sector to benefit from regional and continental trade agreements, enhance food security, and promote economic growth.

CONCLUSION AND RECOMMENDATIONS

The implementation of the African Continental Free Trade Agreement (AfCFTA) has significant implications for Nigeria's agricultural sector. Nigeria needs to improve its competitiveness, diversify its agricultural exports, and enhance trade facilitation infrastructure to benefit from the AfCFTA. Policy alignment, capacity building, infrastructure development, research and development, and private sector engagement are crucial for Nigeria to maximize the benefits of the AfCFTA in the agricultural sector. The Trade Intensity Index analysis reveals a high level of trade intensity in ECOWAS agriculture import trade and a moderate to high level of trade intensity in export trade. To promote food security, reduce the trade deficit, and enhance agricultural trade competitiveness, ECOWAS member states should prioritize domestic agricultural production, enhance export competitiveness, and strengthen regional trade integration.

1. Nigeria needs to improve its competitiveness, diversify its agricultural exports, and enhance trade facilitation infrastructure to benefit from the AfCFTA. Policy alignment, capacity building, infrastructure development, research and development, and private sector engagement are crucial for Nigeria to maximize the benefits of the AfCFTA in the agricultural sector.

2. Nigeria's agricultural sector has the potential to drive economic growth, enhance food security, and promote regional and continental trade. By addressing the challenges and opportunities presented by the AfCFTA, Nigeria can position itself as a key player in the African agricultural market.

3. The AfCFTA presents both opportunities and challenges for Nigeria's agricultural sector. By proactively addressing these issues, Nigeria can unlock the potential of its agricultural sector and promote economic growth and food security.

4. The comparison of import and export results of trade intensity index has important implications for ECOWAS agricultural trade policy:

- I. Promote domestic agricultural production: ECOWAS member states should invest in domestic agricultural production to reduce reliance on imports and enhance food security.
- II. ECOWAS member states should identify and address constraints to agricultural exports, such as quality standards, logistics, and market access.
- III. ECOWAS should continue to strengthen regional trade agreements and tariff reductions to facilitate intra-regional trade and reduce reliance on external imports.

REFERENCES

Olowe, T. S., & Ibraheem, A. G. (2015). Impact of trade liberalization on the growth of the Nigerian economy 1970-2012. *Journal of Research in Business and Management*, 3(10): 01-07.



- Abrego L., Amado M. A.,Gursoy T.,Nicholls G. P. and Perez-Saiz H. (2019). The African continental free trade agreement: welfare gains estimate from a general equilibrium model. *IMF Working Paper, WP/19/124*.
- Economic Report on Africa (2017). *Urbanization is thus a defining trend for Africa United Nations Economic Commission for Africa*. <https://www.uneca.org/economic-report-africa-2017>.
- Economic Report on Africa (2017). *Urbanization is thus a defining trend for Africa United Nations Economic Commission for Africa*. <https://www.uneca.org/economic-report-africa-2017>.
- Onogwu G. O. & Arene C. J., (2013). "Trade, revenue and welfare effects under an economic partnership agreement between Burkina Faso and the European union," *Russian Journal of Agricultural and Socio-Economic Sciences*, CyberLeninka;Редакция журнала Russian Journal of Agricultural and Socio-Economic Sciences, **14**(2): 44-54.