International Journal of Sustainable Development and Planning
Vol. 19, No. 12, December, 2024, pp. 4735-4742
Journal homepage: http://iieta.org/journals/ijsdp

Agriculture Trade Exports Tracing and Economic Growth Among Integrated Blocs

Henry Thomas Asogwa[1*], Benedict Azu[2]

[1] Institute for Development Studies, University of Nigeria Enugu Campus, Enugu, Enugu State 400241, Nigeria
[2] Department of Economics, University of Delta, Delta State 321001, Nigeria

Corresponding Author Email: henry.asogwa@unn.edu.ng

https://doi.org/10.18280/ijsdp.191220

Received: 21 September 2024
Revised: 1 November 2024
Accepted: 3 December 2024
Available online: 30 December 2024

Keywords:
agriculture, value-added, trade, growth, region, export

ABSTRACT

African Agricultural Trade has demonstrated a certain level of deprived export opportunities in processed products, hence the reawakened research interest examining how agricultural trade export impacts the economic growth of integrated bloc compared to African growth performance. Adopting the Panel cross-section technique and descriptive trend tracing of agricultural trade export and value chain involving six regions which were; East Asia and Pacific, Eastern and Southern Africa region, Western and Central Africa region, Europe and Central Asia region, South Asia region, and Latin America and Caribbean region where data was retrieved from the World Bank Indicators (WBI) 2022 covering from 1980 to 2022, across the selected regions. Results demonstrated that exports significantly impact economic growth but not for the Western and Central Africa region. Also, the East Asia and Pacific region and the South Asia region both demonstrated huge economic coordination and willingness to grow their market which account for more reason their agricultural trade export and agriculture value chain added impacted on economic growth rate at 76 percent compared to Eastern and Southern Africa region. This showed for the South Asia region at 93 percent compared to the Eastern and Southern Africa region. Many gains from integrated blocs across African blocs should be unbundled through single currencies, infrastructural connectivity, currency harmonization, technology, and trade policies that could facilitate trade engagement for intra-trade considering the population opportunity provided by the market. The world has made significant progress through capital and labor economic integration. Hence the need to go beyond trade policy to cross-border consolidation of trade within should be matched to address the huge deficit in trade surplus and untapped resources.

1. INTRODUCTION

Trade and regulatory policies that facilitate trade in processed agricultural products no doubt share largely in objective drives of the Malabo Declaration Goal of Intra-African Agricultural Trade for 2025, alongside other programs like the African Continental Free Trade Area (AFCFTA) and the African Agricultural Trade Monitor under the African Growth and Development Policy (AGRODEP). Interestingly, these policies and programmes were harmonized to increase trade gain, widen exports, and create more job opportunities intended to reduce poverty among integrated blocs with the intention of market expansion across African countries. The African blocs seem not to have deepened the gains from these opportunities as export performance has been poorly rewarded through the huge intra-African trade constraints.

This is because the African Agricultural Trade has shown a certain level of deprived export opportunities in value-added agricultural products with more export of primary raw products to other blocs despite that Shobande [1] revealed how economic integration, as measured by trade openness, is a powerful predictor of export performance in the African region. Yet Africa ranks near the bottom when competing in the global economy due to fragmented markets, efficiency, and economic size.

The argument that trade contributes to achieving sustainable development goals 1 on eradicating poverty in Africa has dominated many studies' outcomes. Interestingly, this curiosity has further deepened our interest in asking questions on how the agriculture trade export has impacted the growth rate of the African market in recent times. The extent to which police programs support firms with funds, infrastructures, and technology among other factors complement the effort of several trade agreements openly entered to grow the African agricultural market.

Unfortunately, outside the narrowed benefits of primary products exported by many African countries, the region is still skewed to the back door when occupying global markets for the agricultural value chain. As found in many studies, even with all the staged managed and cosmetics trade policies and economic blocs put together. SSA countries' exports over time have been supported by weak trade policies across the region considering the difficult simultaneity in the free movement of capital, labours, goods, and technology transfer should have opened trade space in the region. Gradually, what appears to have collapsed the region have been the widening

space for system neglect and leadership needed to stimulate the agricultural sector in the region which gradually may be among the leading causes of food shortage, unemployment, and price spike, crippling the region.

Previous studies [2-5] demonstrated that sub-Saharan African countries have the highest prevalence of food insecurity in the region. Interestingly, cases of Africa's rising incomes and growing population, with increasing urbanization, demand for consumer-oriented agricultural products, and intermediate goods seem to have dominated trending literature. The region at some point demonstrates an eagerness to initiate a sustainable growth path, and at a different path shows evidence of backwardness repeatedly. For example, SSA countries have undertaken the commitment to remove tariff lines, with the remaining 10 percent being sensitive or excluded items, as well as liberalize services such as transport, communication, tourism, financial services, and business services yet, the report still showed that regional integration in Africa is currently low.

This has continued to limit opportunities in the continent considering the high dependence on primary commodity exports partly responsible for driving economic slowdowns and downturns in the region. However, others have continued to strengthen their trade policies, and engagement, explore private sector potentials to enhance trade ties, and investment across borders, supporting trade domestic trade through tax incentives, and subsidies which have continued to reflect in most of the blocs' economic size, and making sure that more finished product are hugely exported.

Not much progress has been made in intra-trade within African markets due to multiple currencies, infrastructures, languages, small business grants, and travel documents, which should have addressed agriculture trade hence, the need to estimate how agricultural trade export impacts the economic growth across different blocs. Comparing their outcome across blocs would be needful for further engagement and conversations on adopting agriculture trade to end poverty in Africa, which meets SDG targets for 2030. Also improving efficiencies in the agriculture value chain is central to addressing unemployment for the rural poor and food insecurity challenges.

2. LITERATURE

The theoretical background for these studies has been provided by Schultz's theory of Traditional Agriculture and the Heckscher-Ohlin Model because of their rich explanations of international trade. Schultz's Theory of Traditional Agriculture designed by Schultz in 1964 envisioned a key role in transforming traditional agriculture into a productive source of economic growth as an investment designed to make modern high-payoff inputs available to farmers in poor countries. The theory provides better drives for trade engagement through agricultural value change that has effects on output. This agrees with Schultz idea that highly transformed factors of production investment and capital injected into any sector have a substantial impact on growth across sectors.

Unfortunately, the theory seems to be incomplete because of the mechanism by which resources were allocated as reflected across poor countries. The Heckscher-Ohlin Model (1933) by design was meant to evaluate trade between two countries with varying specialties and natural resources which they have in excess while proportionately importing resources they need. The theory provides views that guide how countries could trade at the level of trade imbalance. Unfortunately, the African region has huge untapped value chain resources. Berkum and Meijl [6] validated the Heckscher-Ohlin model, on the parameters that trade export in agriculture and value-added analysis largely connect to comparative gains across countries or regions with economic blocs. However, the theory points to African bloc limitations hence, technology, institutional failure, infrastructural deficit, and multiple currencies among other factors affecting intra-trade in the continent despite the resources that should have created trade gains. Nevertheless, studies have demonstrated that agriculture has impacted economic growth as earlier validated by reviewed theories, interestingly, some studies seem to have taken advantage of economic blocs to innovate the agricultural sector which also has yielded massive opportunities for their domestic markets as well as export. Empirical evidence shows that while many have benefited from economic bloc policies, not much has been validated for the African bloc as Wood and Mayer [7] suggested that the concentration of Africa's exports on unprocessed primary products is caused largely by the region's combination of low levels of education and abundant natural resources. The study further revealed the progress made by some African countries to improve their export through infrastructures and policy models that worked in America and Asia but have not been spread across the African bloc. Similarly, Ba [2] strategic commodity value chain in Africa if a regional approach were to be adopted but market fragmentation has become a major constraint for Africa's economic path. The approach has yet to improve the region's outcome in terms of its economies of scale. Gilbert et al. [8] explored and quantified the contribution of agricultural exports to economic growth in Cameroon using the extended generalized Cobb-Douglas production estimation model to provide evidence that both coffee and banana export exports have a substantial effect on economic growth in Cameroon but were not so for cocoa export which is exported at the primary level with little or no value added. This again corroborated the weakness observed in agriculture trade export, and its value-added leading to sustainable development challenges across African blocs for years. Similar evidence by Ouma et al. [9] demonstrated the relationship of the agricultural trade with economic growth in East Africa across countries like Kenya, Rwanda, Burundi, Tanzania, and Uganda where such agricultural exports and economic growth differences existed. The evidence provided by Verter and Bečvářová [10] again shows similar findings in the area of agriculture export and trade openness. The evidence provided by Nigeria's experiment revealed the level of uncertainty in the trade balance in agricultural trade, and domestic processing industries as the gains from the agriculture trade have not been well utilized.

Bakari and Mabrouki [3] discuss the influence of agricultural exports and agricultural imports on economic growth in North African countries using the gravity model provided that agricultural trade has a positive correlation with gross domestic product, but it appears that agriculture exports and gross domestic product have a weak correlation, especially for the economic growth in North Africa Countries which the study argued that the need to strengthen agricultural investment, improvement on agricultural trade openness policies could be useful for the region if the potentials of sector will be tapped considering the opportunities.

Shobande [1] further demonstrated how economic integration impacts agricultural export performance in West African economies using the gravity model of bilateral trade as well given that economic integration, export, and nominal exchange rates could have been responsible for the poor level of agricultural export performance in West Africa. Similarly, Osabohien et al. [4] hold that export boosts economic growth where technology and innovation have been adopted. They are using the Autoregressive Distribution Lag (ARDL) econometric technique to analyze the long-run relationship and the impact of agricultural exports on Nigeria's economic growth which provided empirical support to this. Similarly, Calderón et al. [11] demonstrated that trade integration fosters growth in sub-Saharan Africa through manufacturing trade which primary export has failed to provide over the years. They argued that capital accumulation and factor productivity are possible determinants of growth in sub-Saharan Africa if inter-regional trade is well channeled. Adeabah and Asongu [12] provide conflicting results about the agricultural export-led growth hypothesis. Adopting the Meta-analysis approach revealed a significant presence of what has been considered unreliable on how average export growth for the poor African country is unsubstantial, and that Export promotion should be targeted at agricultural output in low-income and lower-middle-income countries. In contrast, upper-middle-income countries in Africa may focus on non-agricultural exports to increase income for the poor in African countries.

Ibrahim et al. [13] argued differently from the perspective of trade facilitation, and costs. Adopting a panel on a dynamic system of generalized method of moments for 33 countries demonstrated that higher import costs, documents, and time significantly improve agricultural sector performance of sub-Saharan African countries despite how exports negatively impact the region's agricultural sector performance. Further, Ali et al. [5] used the generalized method of moments (two-step difference GMM) to demonstrate that agricultural production increases economic growth when the interaction term between GDPC and FDI is combined for sub-Saharan African countries. While, El Weriemmi and Bakari [14] employing an advanced gravity model with both fixed and random effects, discern the nuanced impact of agricultural exports on economic growth across 12 low-income countries, to provide a comprehensive understanding of how agricultural exports contribute to economic development in these countries. Highlighting both direct and indirect effects within the broader economic context provides different perspectives on the overall impact of agriculture trade gain on economic growth in the region. Studies comparing both the trend approach and panel estimation methods that investigate the impact of agricultural trade on economic growth across regions were lacking even as it concerns trade gains associated with integration [3, 5, 11, 15, 16]. In addition, SSA countries have the worst trade gains compared to other regions, not many studies clearly showed agriculture value chain performance indicators compared with other blocs. The agriculture trade export, and small business grant support for products, were intentional to look at the opportunities provided across regions with regards to poverty reduction which was silent across studies [17].

3. METHODOLOGY

The Heckscher-Ohlin Model provides a theoretical framework for this study because it explores trade export in agriculture and value-added analysis largely connects to comparative gains across countries with economic blocs despite being constrained. Interestingly, this study introduced credit to the private sector small business support for agriculture products. Most global economies are driven more by private sectors which indirectly drive or yield more to value added and export. Wood and Mayer [7] argued that the export of what can be most efficiently and plentifully produced provides trade gains that stimulate the growth necessary to end poverty comparing this across countries or blocs, the panel estimation technique and the descriptive statistics were approached to this investigation. The longitudinal data approach provides robust empirical that reveals countries or regional distribution of findings considering the scope of this study, and the innovation it provides to theoretical studies. Hsiao [18] and Baltagi [19] also demonstrated how this approach has allowed for more degrees of freedom, variability, information, and less multi-collinearity among the variables.

Specifically, the panel has the advantage of having a series of cross-sectional indicators and variables for more robust observation for controlling for individual country heterogeneity as found in many applications that focused on variations observed in agriculture trade gains. This methodology provides better-suited techniques for examining how agriculture trade impacts economic growth across blocs.

Hence, to estimate the impact of agriculture trade export on economic growth, model (1) is specified functionally as follows:

$$\begin{aligned} Ingdpgrowth &= f(Inagric\ VA + \ln\exp ort \\ &+ Indomcredit\_private\sec + i.regionbloc) \end{aligned} \tag{1}$$

Model (1) is thus specified econometrically as:

$$\begin{aligned} lngdpgrowth_{it} &= \beta_1 nagricVA_{it} + \beta_2 \ln\exp ort_{it} \\ &+ \beta_3 Indomcredit\_private\sec_{it} + \beta_4 i.regionbloc_{it} \\ &+ \phi_1 + \chi_{it} - \mu_{it} \end{aligned} \tag{2}$$

The term $\mu_1 > 0$, measures countries across regions and other intervening indicators. It is constrained to be always non-negative. The above model was then re-written as:

$$\begin{aligned} Ingdpgrowth_{it} &= \beta_1\ nagricVA_{it} + \beta_2\ In\exp ort_{it} + \\ \beta_3 Indomcredit\_private\sec_{it} &+ \beta_4 i.regionbloc_{it} + \phi_1 + \delta_{it} \end{aligned} \tag{3}$$

The new intercept $\alpha_1 = (\alpha - \mu_1)$ is now economic growth measured by real GDP growth rate and $\phi 1$ was the unobserved region heterogeneity that affected agricultural value added or value chain, export, and domestic credit to the private sector. Therefore, the random effects model suggests that the unobserved region heterogeneity $\phi 1$ be expressed in the idiosyncratic disturbance.

$$\begin{aligned} lngdpgrowth_{it} &= \beta_1 nagricVA_{it} + \beta_2 In\exp ort_{it} \\ &+ \beta_3 Indomcredit\_private\sec_{it} \\ &+ \beta_4 i.regionbloc_{it} + \phi_1 + \mu_{2it} \end{aligned} \tag{4}$$

The random effects model puts ϕ into the idiosyncratic disturbances because it changes across "t" and "i". As such, the fixed effects model was however transformed into a vector:

$$lngdpgrowth_{it} = \beta_1 nagricVA_{it} + \beta_2 Inexport_{it} + \beta_3 Indomcredit\_privatesec_{it} + \beta_4 i.regionbloc_{it} + \phi_1 + \epsilon_{2it} \quad (5)$$

Therefore, to interrogate how agricultural trade export and value chain added impact growth rate in African region and other regions model 6 is employed.

$$lngdpgrowth_{it} = \beta_1 nagricVA_{it} + \beta_2 \ln\exp ort_{it} + \beta_3 Indomcredit\_private\sec_{it} + \beta_4 i.regionbloc_{it} + \phi_1 + \delta_{it} \quad (6)$$

The estimation procedure has several statistical tests at both pretest and post-test estimation for robust consistency and efficiency improved by adjusting the standard error estimates to capture more robust findings (t-stat and f-prob) for reducing the heterogeneity bias that may occur in likely studies. This allowed the choice of Hausman's test to select the most appropriate approach to compare random and fixed effects outcomes where rho statistics, R2, and z-statistics were used to determine the variances due to differences across time, the measure of goodness of fit, and statistical significance. Here, the absolute z-value of each coefficient was compared with 1.96 and if greater than 1.96, such variable possessing the coefficient was accepted as statistically significant, fit for inferences and forecasting. This study used panel cross-sectional data-specified models where data was retrieved from the World Bank Indicators (WBI) 2022. The data coverage was from 1980 to 2022, across the selected regions.

4. SECTION HEADINGS RESULTS

The stationarity of the data has been checked by utilizing the Fisher-type Unit Root test presented in (Table 1) indicating that not all variables of agricultural value added proxy for agricultural value chain (lnagicva_gd), export (lnexport_gdp), domestic credit to the private sector (lndomcredit_privsector), and economic growth (lngdpgrowth) are not stationary at level 1(0), however, all variables became stationary after taking the first difference I(1) by their probability values. The computed Fisher-type Unit Root tests are all less than 0.05 at both 1% and 5% of the significance level conducted on the variables.

Table 2 depicts the long-run adjustment estimates in how agricultural trade export and agricultural value chain added impact the economic growth rate in the African region and other regions. Unfortunately, the error co-integration term which was expected to be negative and significant indicated an exogenous shock in one of the variables leading to convergence towards the equilibrium and showed a positive coefficient indicating a divergence towards the equilibrium. In other words, an exogenous shock in economic growth in this case didn't lead to movement towards the original equilibrium every year, the equilibrium was unstable perhaps due to the regional data of countries in the African bloc and other regions that seem to have had a stable trade policy, and export. The result also, demonstrated that the short-run estimates were significant at a 5% significance level.

Table 1. Fisher-type unit root test at the level form and 1st difference

Variables	Test Parameters	At level Statistic	First Difference Statistic
lnagicva_gdp	Inverse chi-squared (12) P	16.5853 (0.1659)	98.6377 (0.0000)
	Inverse normal z	0.6054 (0.7275)	-8.1458 (0.0000)
	Inverse logit t (34) L*	0.6240 (0.7316)	-11.2649 (0.0000)
	Modified inv. chi-squared Pm	0.9360 (0.1746)	17.6849 (0.0000)
lnexport_gdp	Inverse chi-squared (12) P	10.2146 (0.5971)	103.6171 (0.0000)
	Inverse normal z	0.6015 (0.7263)	-8.3598 (0.0000)
	Inverse logit t (34) L*	0.6950 (0.7541)	-11.8302 (0.0000)
	Modified inv. chi-squared Pm	-0.3644 (0.6422)	18.7013 (0.0000)
lndomcredit_privsector	Inverse chi-squared (12) P	9.3416 (0.6735)	40.0627 (0.0001)
	Inverse normal z	0.9542 (0.8300)	-3.3034 (0.0005)
	Inverse logit t (34) L*	0.9928 (0.8361)	-4.0118 (0.0002)
	Modified inv. chi-squared Pm	-0.5426 (0.7063)	5.7283 (0.0000)
Lngdpgrowth	Inverse chi-squared (12) P	89.1136 (0.0000)	150.8549 (0.0000)
	Inverse normal z	-7.7015 (0.0000)	-10.6626 (0.0000)
	Inverse logit t (34) L*	-10.1757 (0.0000)	-17.2393 (0.0000)
	Modified inv. chi-squared Pm	15.7407 (0.0000)	28.3436 (0.0000)

Source: author's computation, 2023

Table 2. ARDL long-term estimates of agricultural trade and economic growth

D.lngdpgrowth	Coef.	Std. Err.	z	P>|z|
ECT				
lndomcredit_privsector	0.2848082	0.2554569	1.11	0.265
lnagicva_gdp	0.1766734	0.3808193	0.46	0.643
lnexport_gdp	0.1455818	0.1790169	0.81	0.416
SR				
ECT	0.9355434	0.0660679	14.16	0.000
lndomcredit_privsector				
D1.	-2.204276	1.971273	-1.12	0.263
lnagicva_gdp				
D1.	0.6364963	0.779301	0.82	0.414
lnexport_gdp				
D1.	0.8931544	1.617869	0.55	0.581
_cons	0.7000273	0.181212	3.86	0.000

Source: author's computation, 2023

Table 3. Panel of agricultural trade export and growth across blocs

lngdpgrowth	Coef.	Std. Err.	z	P>|z|
lndomcredit_privsector	-0.1301254	0.2373496	-0.55	0.584
lnagicva_gdp	0.1187516	0.3664292	0.32	0.746
lnexport_gdp	0.574144	0.2223648	2.58	0.010
Id: Eastern and Southern Africa as the base category				
Western & Central Africa	-0.0938717	0.3786333	-0.25	0.804
East Asia & pacific	0.7562024	0.3007853	2.51	0.012
EuropeEurope & Central Asia	-0.3464991	0.6062357	-0.57	0.568
South Asia	0.9337176	0.2268027	4.12	0.000
Latin America & Caribbean|	-0.1793867	0.4674563	-0.38	0.701
_cons	-0.6032511	1.971649	-0.31	0.760
sigma_u	0.53176106			
sigma_e	0.6699702			
rho	0.38649299	(fraction of variance due to u_i)		

Source: author's computation, 2023

Table 3 demonstrates that export significantly impacts the economic growth rate unlike the agricultural value added or value chain and domestic credit to the private sector. Both existing literature validated this which seriously is reasonable. After all, exports from agricultural primary products could also impact the growth rate except that the impact may not be significant spreads across blocs. We found that regions like East Asia and Pacific that include countries like; Australia, Cambodia, China, Japan, Taiwan, Singapore, North Korea, Vietnam, New Zealand, South Korea, Philippines among others have in the past demonstrated huge economic coordination and willingness to grow their market which accounts for more reason, their agricultural trade export and agriculture value chain added impacted on economic growth rate by 0.7562024 which is at 76 percent at a 5% level of significance with a probability value that is less than 0.05 when compared to Eastern and Southern Africa region, and this largely support the target of SDG goals for these blocs.

Similarly, the South Asia region which makes up countries like India, Pakistan, and Sri Lanka, among others shows how their agricultural trade export and agriculture value chain added impacted on economic growth rate by 0.9337176 which is at 93 percent at a 5% level of significance with a probability value that is less than 0.05 when compared to Eastern and Southern Africa region. Unfortunately, countries within Western and Central Africa, Europe, and Central Asia, and Latin America and the Caribbean were not significant at all, and the reason for this was revealed by many studies as some of the constraints were attributed to infrastructure, value-added products, and poor trade policies. This no doubt has continued to affect the achievement of the SDG goals in the African bloc as not much has been articulated to agriculture trade benefit.

The rho statistics show that 38% of the variance is due to panel differences. However, looking closely at East Asia Pacific and South Asia region performance, we have no doubt but to align with the performance of the Heckscher-Ohlin Model (1933) that countries should operate and trade when resources are imbalanced, and considering that no country in the world had all resources but to transform what they have with others which also shared in Berkum and Meijl [6] that trade export in agriculture and value-added analysis largely connect to comparative gains across countries or regions with economic blocs as well as evidence shared by previous studies [3-5].

Figure 1 depicts the direction of Agriculture Trade Export and Agriculture value added for Eastern and Southern African regions and Western and Central African regions from 1980 to 2022. The trend showed that agricultural trade export of goods and services for the Eastern and Southern Africa region was progressive and has been continuously declining compared to the Western and Central African region with an inconsistent trend path which has been declining continuously since 2013 thereby reflecting poor trade surplus and trade yields.

Figure 2 depicts the Agriculture Trade Export and Agriculture value added for East Asia, Pacific, and Southern Asia from 1980 to 2022. The trend showed that the agricultural value chain for the East Asia and Pacific regions has also been performing poorly however, the region exports had been progressively trending till 2008 when they started trending downward perhaps due to the financial crisis of 2007 to 2008 yet, pick up in 2010. Similarly, the South Asia region exports

showed a consistent growth path from 1980 to 2014 even when the region's Agricultural value-added kept declining but stabilized from 2006 showing that whatever, they implemented yielded a positive impact in the region compared to the Western and Central African region which demonstrated a high level of volatility over the years.

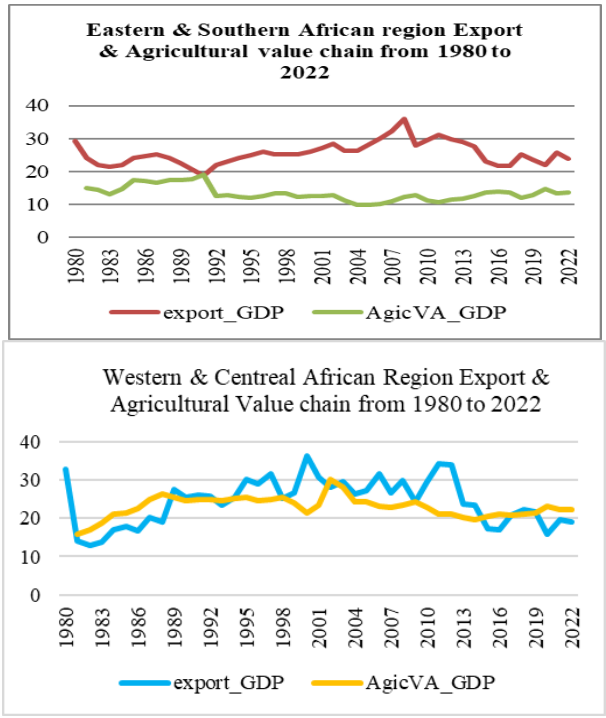

Figure 1. Agriculture trade export and agricultural value added for Eastern and Southern African region and Western and Central African region from 1980 to 2022
Source: author's computation, 2023

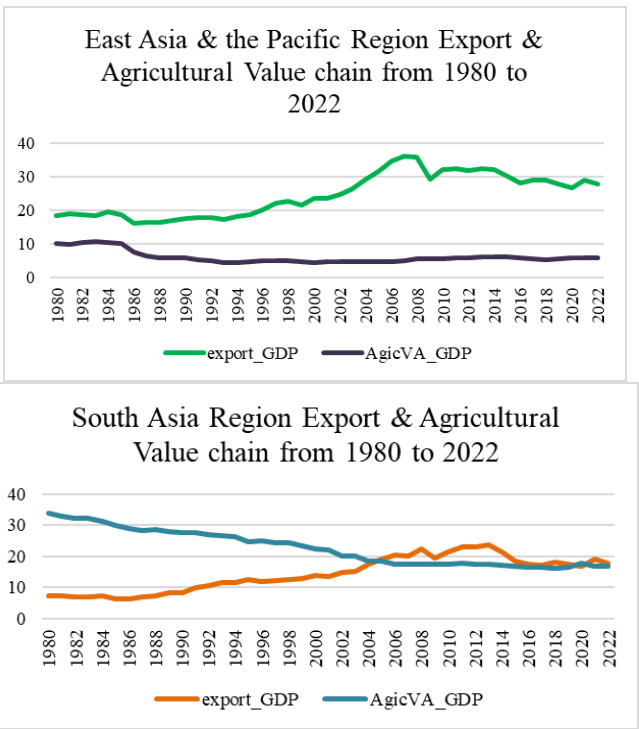

Figure 2. Agriculture trade export and agricultural value added for East Asia; The pacific region and Southern Asia region from 1980 to 2022
Source: author's computation, 2023

Figure 3 depicts the Agriculture Trade Export and Agricultural value added for Latin America/Caribbean, and Europe/Central Asia region from 1980 to 2022. The trend showed that the agricultural value chain for the agriculture trade export of goods and services for Europe and Central Asia, Latin America, and the Caribbean region has continued to show a persistent growth path but with unmatched agricultural value chain performance for both. This again deferred from the trend path of the Western and Central African region which validated the need for concern on how agricultural trade export and the value chain of agriculture; added growth rate for African countries regions compared to others. This no doubt, demonstrated clearly, that the West and Central Africa region have performed poorly in agricultural trade export and the value chain of agriculture over the years despite all the celebrated trade blocs and agreements.

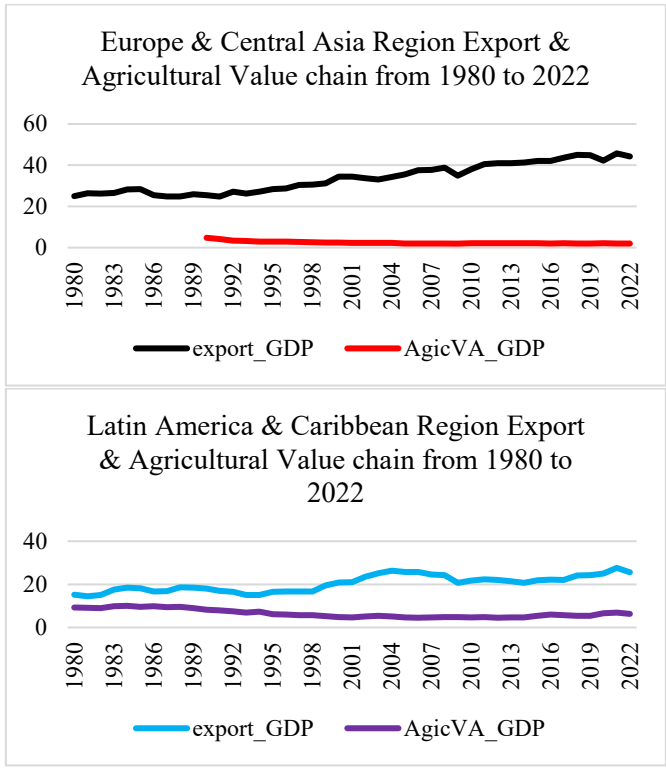

Figure 3. Agriculture trade export and agricultural value added for Latin America and the Caribbean region and Europe and Central Asia region from 1980 to 2022
Source: author's computation, 2023

5. CONCLUSIONS

The 2030 Agenda for Sustainable Development recognizes international trade as an engine for inclusive economic growth and poverty reduction, and an important means to achieve the Sustainable Development Goals (SDGs). This study estimated the impact of agriculture trade on economic growth across blocs comparing them to African growth performance. This was relevant because of the role of agriculture trade in poverty reduction for the region which consolidating on trade policies would support the region's sustainable development goal targets for 2030.

The Panel cross-section technique and the descriptive statistics adopted involved six regions which were East Asia and Pacific, Eastern and Southern Africa region, Western and Central Africa region, Europe and Central Asia region, South

Asia region, and Latin America and Caribbean region where data was retrieved from the World Bank Indicators (WBI) 2022 covering from 1980 to 2022, across the selected region. The result demonstrated that exports significantly impact the economic growth rate but agricultural value added or value chain and domestic credit to the private sector have not impacted economic growth due to more trade export of primary products which has continued to worsen trade gain in Africa. Hence, making it difficult to achieve the SDG target of 2030.

The East Asia and Pacific region and the South Asia region both demonstrated huge economic coordination and willingness to grow their market which accounts for more reason their agricultural trade export and agriculture value chain added impact on economic growth rate by 0.7562024 which is at 76 percent at a 5% level of significance with a probability value that is less than 0.05 when compared to Eastern and Southern Africa region. This also showed for the South Asia region where their agricultural trade export and agriculture value chain added impacted on economic growth rate by 0.9337176 which is at 93 percent at a 5% level of significance with a probability value that is less than 0.05 when compared to Eastern and Southern Africa region which was never the same for Western and Central Africa, Europe and Central Asia, and Latin America and Caribbean. This agrees with several studies' outcomes that Agricultural exports substantially impact growth for European countries as found by Seok and Moon [15] but failed for ECOWAS countries as demonstrated by Mamba and Ali [16] and Bjornlund et al. [20]. Looking forward requires Eastern and Southern African regions and Western and Central African regions to change their pattern of export and trade with others. This should be reflected in insisting on technology transfer and building plants that export more diversified products considering its implication on employment, better market surplus, and price stability. The need to go beyond trade policy to cross-border consolidation of SDG targets for 2030 through agriculture value-added expansion, providing a road map to food security, migration, and brain drain ravaging the continent. African leaders should unbundle single currencies battle and harmonization, infrastructural connectivity, technology adaptability, and transportation challenges within the region as these could facilitate intra-trade engagement.

ACKNOWLEDGMENT

This work is supported by the World Bank Development Indicators for the data used in this study.

REFERENCES

[1] Shobande, O.A. (2019). Effect of economic integration on agricultural export performance in selected west African countries. Economies, 7(3): 79. https://doi.org/10.3390/economies7030079

[2] Ba, M.N. (2016). Strategic agricultural commodity value chains in Africa for increased food: The regional approach for food security. Agricultural Sciences, 7(9): 549. https://doi.org/10.4236/as.2016.79055

[3] Bakari, S., Mabrouki, M. (2018). The impact of agricultural trade on economic growth in North Africa: Econometric analysis by static gravity model. https://mpra.ub.uni-muenchen.de/85116/.

[4] Osabohien, R., Akinpelumi, D., Matthew, O., Okafor, V., Iku, E., Olawande, T., Okorie, U. (2019). Agricultural exports and economic growth in Nigeria: An econometric analysis. Earth and Environmental Science, 331(1): 012002. https://doi.org/10.1088/1755-1315/331/1/012002

[5] Ali, E.B., Gyamfi, B.A., Bekun, F.V., Ozturk, I., Nketiah, P. (2023). An empirical assessment of the tripartite nexus between environmental pollution, economic growth, and agricultural production in Sub-Saharan African countries. Environmental Science and Pollution Research, 30(27): 71007-71024. https://doi.org/10.1007/s11356-023-27307-4

[6] Berkum, S.V., Meijl, H.V. (2000). The application of trade and growth theories to agriculture: A survey. The Australian Journal of Agricultural and Resource Economics, 44(4): 505-542. https://doi.org/10.1111/1467-8489.00123

[7] Wood, A., Mayer, J. (2001). Africa's export structure in a comparative perspective. Cambridge Journal of Economics, 25(3): 369-394. https://doi.org/10.1093/cje/25.3.369

[8] Gilbert, N.A., Linyong, S.G., Divine, G.M. (2013). Impact of agricultural export on economic growth in Cameroon: Case of banana, coffee and cocoa. International Journal of Business and Management Review, 1(1): 44-71.

[9] Ouma, D., Kimani, T., Manyasa, E. (2016). Agricultural trade and economic growth in East African Community. African Journal of Economic Review, 4(2): 203-221. https://doi.org/10.22004/ag.econ.264463

[10] Verter, N., Bečvářová, V. (2016). The impact of agricultural exports on economic growth in Nigeria. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 64(2): 691-700. https://doi.org/10.11118/actaun201664020691

[11] Calderón, C., Cantú, C., Zeufack, A. (2020). Trade integration, export patterns, and growth in Sub-Saharan Africa. https://documents1.worldbank.org/curated/en/812731580315829595/pdf/Trade-Integration-Export-Patterns-and-Growth-in-Sub-Saharan-Africa.pdf.

[12] Adeabah, D., Asongu, S. (2024). Agricultural export, growth and the poor in Africa: A meta analysis. Journal of Interdisciplinary Economics, 36(2): 204-223. https://doi.org/10.1177/02601079221132145

[13] Ibrahim, R.L., Yu, Z., Hassan, S., Ajide, K.B., Tanveer, M., Khan, A.R. (2022). Trade facilitation and agriculture sector performance in sub-Saharan Africa: insightful policy implications for economic sustainability. Frontiers in Environmental Science, 10: 962838. https://doi.org/10.3389/fenvs.2022.962838

[14] El Weriemmi, M., Bakari, S. (2024). The impact of agricultural exports on economic growth: New evidence from low income countries. https://mpra.ub.uni-muenchen.de/121631/1/MPRA_paper_121631.pdf.

[15] Seok, J.H., Moon, H. (2021). Agricultural exports and agricultural economic growth in developed countries: Evidence from OECD countries. The Journal of International Trade and Economic Development, 30(7): 1004-1019. https://doi.org/10.1080/09638199.2021.1923780

[16] Mamba, E., Ali, E. (2022). Do agricultural exports

enhance agricultural (economic) growth? Lessons from ECOWAS countries. Structural Change and Economic Dynamics, 63: 257-267. https://doi.org/10.1016/j.strueco.2022.10.003
[17] Xu, J., Wang, Y., Zhao, X., Etuah, S., Liu, Z., Zhu, H. (2023). Can agricultural trade improve total factor productivity? Empirical evidence from G20 countries. Frontiers in Sustainable Food Systems, 7: 1100038. https://doi.org/10.3389/fsufs.2023.1100038
[18] Hsiao, C. (2014). Analysis of Panel Data. 3rd Edition, Cambridge University Press, New York. https://doi.org/10.1017/CBO9781139839327
[19] Baltagi, B. (2008). Econometric Analysis of Panel Data. 3rd Edition, John Wiley and Sons, Hoboken.
[20] Bjornlund, V., Bjornlund, H., Van Rooyen, A.F. (2020). Why agricultural production in sub-Saharan Africa remains low compared to the rest of the world–a historical perspective. International Journal of Water Resources Development, 36(sup1): S20-S53. https://doi.org/10.1080/07900627.2020.1739512