EE
E u r o E c o n o m i c a
Issue 1(45)/2026 *ISSN: 1582-8859*

An Assessment of the Impact of the African Continental Free Trade Agreement (AfCFTA) on South Africa's Manufacturing Exports

Collen Makhubele[1], Lerato Nkosi[2]

Abstract: The AfCFTA is a transformative initiative aimed at fostering economic integration across fifty-five (55) African nations by removing trade barriers and establishing a unified market. Despite its potential to drive economic growth and industrialisation, empirical research on its impact remains limited, particularly on South Africa's intra-Africa exports. This study aims to address this gap with a focus on the manufacturing sector. The study employed a rigorous quantitative methodology using annual trade data from 2010 to 2023. Supporters of the AfCFTA view it as a boost to Africa's food security, employment, and industrialisation, however critics warn that trade liberalisation could harm less developed countries by threatening local businesses and jobs. Through econometric analysis, findings have revealed that intra-Africa exports have a strong and statistically significant positive impact on South Africa's manufacturing exports. This highlights the AfCFTA's role in accelerating export growth. Although the GDP growth and exchange rates showed positive relationships with manufacturing exports, prime interest rates have a negative influence. Overall, the study found a significant positive impact of the AfCFTA on South Africa's intra-Africa exports, particularly in the manufacturing sector.

Keywords: AfCFTA; exports; manufacturing; trade liberalisation

JEL Classification: F14

1. Introduction

The African Union has recognised the desire for a more interconnected African economic landscape for a very long time. Consequently, the Africa Continental Free Trade Agreement (AfCFTA) is a significant initiative under the African Union's Agenda 2063. It is widely understood that expanding trade within the African continent is critical for the growth and development of African economies. The decision to establish the AfCFTA was made during the 18th Ordinary Session of the African Union held in Addis Ababa, Ethiopia, from the 23rd to 30th of January 2012 (Chukwuemeka et al., 2022). The theme of the session was "Boosting Intra-Africa Trade." It was at this session that African heads of state and

[1] MBA, Graduate School of Business Leadership, University of South Africa, Pretoria, South Africa, Address: 1 Preller Street, Muckleneuk Ridge, Pretoria, South Africa, E-mail: 53338901@mylife.unisa.ac.za.
[2] Ph.D., University of South Africa, Pretoria, South Africa, Address: 1 Preller Street, Muckleneuk Ridge, Pretoria, South Africa, Corresponding author: nkosil@unisa.ac.za.

Copyright: © 2026 by the authors.
Open access publication under the terms and conditions of the
Creative Commons Attribution-NonCommercial (CC BY NC) license
(https://creativecommons.org/licenses/by-nc/4.0/)

government collectively agreed to establish the AfCFTA. The culmination of this effort occurred six years later on the 21st March 2018, when the AfCFTA agreement was signed in Kigali, Rwanda, by forty-four (44) out of the fifty-five (55) African Union member countries. The agreement officially took effect on 30 May 2019, and became fully operational after the African Union Summit on 7 July 2019 (Chukwuemeka et al., 2022). However, trading under the regime commenced on 1 January 2021 due to a combination of complex negotiations, delays in ratification by member states, and unforeseen disruptions caused by the COVID-19 pandemic.

The AfCFTA agreement aims to establish a single market for goods and services in Africa, with the objective of enhancing intra-Africa trade. This will be accomplished through the elimination of trade barriers, reduction of tariffs, and promotion of economic integration among the union member countries. It is worth mentioning that there are existing subregional integration agreements in Africa that share similar goals as the AfCFTA such as SADC and ECOWAS (Maliszewska et al., 2020). However, the AfCFTA distinguishes itself by providing participating economies and traders with access to broader continental markets, accompanied by improved legal certainty, predictability, and a fair dispute resolution process (Department of Trade, Industry and Competition, 2023, p. 9).

Should the AfCFTA realise its potential, it holds the capacity to usher in a transformative era. This agreement would establish a single African market encompassing over a billion consumers, positioning Africa as the largest free trade area globally. Msweli and Gama (2023, p. 7) declare that the pact covers a population of 1.3 billion people, and a potential Gross Domestic Product (GDP) of approximately 3.4 trillion United States Dollars (USD). When considering the number of participating countries, it is evidently the most extensive free trade area since the establishment of the World Trade Organisation (WTO). South Africa, being one of Africa's largest economies, has actively participated in the discussions and implementation of the AfCFTA. This commitment carries significant implications that extend beyond its own borders.

South Africa's National Development Plan (NDP) and New Growth Path (NGP) policies reflect its ambition to achieve sustainable economic growth and development (Moyo & Mamabolo, 2014). Evaluating the impact of the AfCFTA on the country's exports is crucial for identifying potential opportunities and challenges across various sectors and industries (Msweli & Gama, 2023). Such understanding can guide the efforts to leverage favourable trade dynamics, enhance competitiveness, and stimulate economic growth. Furthermore, the AfCFTA opens doors for Foreign Direct Investment (FDI) and joint ventures within Africa (Morgan, Farris & Johnson, 2022). Therefore, comprehending the impact on South Africa's intra-Africa export trade is essential for identifying potential investment sectors, markets, and partners. This knowledge can attract investors and enable South African businesses to make informed decisions regarding market entry and expansion strategies.

Therefore, the aim of this study is to thoroughly evaluate the impact of the AfCFTA agreement on South Africa's intra-Africa exports, with a focus on the manufacturing sector, by providing crucial empirical evidence and insights. To assess the impact of the AfCFTA on South Africa's intra-Africa exports, the remainder of this paper is organised as follows. Section 2 reviews the relevant literature; section 3 discusses data sources, definitions, and methodologies; section 4 presents and discusses the results; and section 5 offers conclusions and recommendations.

2. Literature Review

2.1. Theoretical Literature

Theories of comparative and absolute advantage are fundamental concepts in international trade.

2.1.1. Absolute Advantage

Absolute advantage, proposed by economist Adam Smith in the 18th century, suggests that a country should specialise in producing goods and services in which it is more efficient than other countries, regardless of its absolute productivity levels (Smith, 1776). According to this theory, countries should specialise in producing commodities for which they have an absolute advantage and export the surplus to make it easier to import commodities for which they don't have an absolute disadvantage. Sikhwari and Kugara (2023, p. 108). This perspective is supported by the economic structure of SADC, where countries like South Africa and Angola dominate the manufacturing sector, while Botswana, Zimbabwe, and Zambia have rich mining-related resources, while Madagascar and Mozambique are major contributors to agriculture (AfDB, 2019, p. 9). In agreement with this perspective, Sikhwari and Kugara (2023, p. 110) highlighted that African nations are distinguished by their resources. This abundance of raw materials suggests that free trade may indeed hold significant potential. In an effort to boost intra-continental trade, Africa has made significant strides by creating intra-regional trading blocs such as the CEMAC, COMESA, EAC, ECOWAS, and the SADC. However, Africa has not achieved meaningful trade gains, registering the lowest intra-continental trade globally at 18% (Hollington, 2021, p. 56). As a result, African exports have little to no value added, while imports from these economies possess significantly increased value and inflated prices when they return to Africa. To address this issue, Africa must take control of its resources and improve its production value chain. Additionally, Africa should prioritise manufacturing for export within the continent to boost intra-African trade. Msweli and Gama (2023) argue that focusing on manufacturing will create sustainable job opportunities and raise living standards as Africa enhances its terms of trade by increasing its industrial output.

2.1.2. Comparative Advantage

Comparative advantage, originally introduced by economist David Ricardo (1817), argues that countries should specialise in producing goods and services where they have a lower opportunity cost compared to other countries, even if they are not the most efficient producers overall. Shinyekwa, Bulime, and Nattabi (2020, p. 60) highlight the influential contributions of Heckscher (1919) and Ohlin (1933) in expanding Ricardo's (1817) framework, particularly in their examination of the factors determining comparative advantage and the resulting impact of trade on factor earnings. The findings of these studies demonstrate that nations stand to benefit by exporting goods that require the intensive use of the country's relatively abundant and inexpensive factor of production, while importing goods that require the intensive utilisation of their scarce and costly factors of production. Factors such as differences in relative factor endowments (natural resources, human, and capital endowments) and varying levels of technological advancement between countries are important sources of comparative advantage and determinants of specialisation (Ndonga, Laryea & Chaponda, 2020, p. 780). By linking these theories to the AfCFTA, we can see how the principles of specialisation and trade can benefit African nations.

2.2. Empirical Literature Review

Using the Global Trade Analysis Project (GTAP) Model, Afrexim Bank (2018) examined the economic impact of the AfCFTA agreement, by applying four policy scenarios in a simulation exercise. Under policy scenario 1 (full tariff elimination), total welfare gains amount to USD 3.58 billion, GDP improves by 0.65%, and per capita household utility increases by 0.41%. Exports increase by 2.94%, imports increase by 3.13%, and trade terms improve by 0.39%. However, under scenario 2 (full elimination of tariffs on all agricultural trade), all these economic gains are significantly reduced, highlighting the vulnerability of agricultural goods to tariffs in African trade. If policy scenario 3, which involves eliminating all tariffs on all trade and reducing non tariff barriers (NTBs), is implemented, the economy would benefit in several ways. This includes a welfare gain of USD 17.95 billion, 3.15% GDP growth, a 1.94% increase in household utility, 5.25% export volume growth, 6.59% import volume growth, and 1.35% improvement in the terms of trade. The economic gains under policy scenario 4 (complete tariff removal on all trade and a smaller reduction in NTBs based on a 5% positive improvement shock) reflect trends like those under scenario 3, but with smaller gains.

The UNECA (2018) conducted an empirical assessment of the AfCFTA modalities on trade in goods in African economies using computerised general equilibrium (CGE) modelling. According to the study, the value of intra-African trade is predicted to increase from 15% (or USD 50 billion) to 25% (or USD 70 billion) by 2040, depending on the extent of liberalisation, compared to a situation without the AfCFTA. If tariffs on goods alone are removed, the share of intra-African trade would increase by nearly 40% to over 50% between the start of implementation and 2040, depending on the level of liberalisation. Furthermore, the study projects that intra-African trade in industrial products will increase by about 25% (or USD 36 billion) to 30% (or USD 44 billion) in 2040 compared to a situation without the AfCFTA, depending on the level of liberalisation.

Huijskens (2017) examined the impact of Free Trade Agreements (FTAs) on bilateral trade flows and how this effect varies between developed and developing countries. This study used bilateral data from a panel dataset of 31 developed and 31 developing countries from 1995 to 2014. The regression models were based on the gravity equation and estimated using the ordinary least squares method with fixed effects for time and bilateral country. The data reveals that having an FTA between countries increases trade by 6%. Additionally, when comparing developed and developing nations, the data shows that the impact of FTAs on trade flows becomes stronger as the exporting country's development status rises, while it weakens as the importing country's development status increases.

Suara (2016) used a gravity equation model to analyse the determinants of bilateral trade between African countries based on RTAs. The panel data for 52 countries, consisting of 53,040 observations, was processed and analysed using the STATA data analysis and statistical software tool. The dataset was analysed using two distinct statistical methods: pooled ordinary least squares and panel data (fixed effect). The findings from the data analysis using pooled ordinary least squares showed that all the variables in the gravity equation were statistically significant for trade flow among trading partners. The panel data fixed effect analysis yielded different results compared to the pooled ordinary least squares method: only the trade partners' income was shown to be significant, while the other variables in the equation had statistically zero impact on trade volume.

Moyo (2023) assessed the effect of the SADC FTA on intra-exports using both the gravity model and the Difference in Difference (DID) estimator as an impact evaluation technique. The study used data spanning from 2001 to 2019. The findings revealed that the full implementation of the SADC FTA did not have a significant impact on export performance. There was no significant difference in exports between countries that joined the FTA and those that did not, even when examining sectoral exports. Moyo (2023, p. 151) raised concerns that if, eight years after the full liberalisation of tariffs in the SADC region, intra Africa trade remains low and country-level performance is mixed, it raises doubts about whether the AfCFTA will yield different results. Nevertheless, Maliszewska et al. (2020, p. 5) note that while several subregional integration agreements in Africa share common goals, the AfCFTA is expected to have a greater impact due to two key features. First, in policy areas already covered by subregional agreements, the AfCFTA will provide a non-discriminatory reduction in tariffs and a common regulatory framework. Second, unlike many subregional agreements, the AfCFTA addresses a wider range of non-tariff measures, facilitating deeper trade integration. As a result, the AfCFTA will provide participating economies and traders with a single set of rules for trade and investment among African countries, as well as access to more open continental markets supported by enhanced legal certainty, predictability, and proper resolution of trade disputes.

Bayale, Ibrahim and Mensah (2022) assessed the potential trade, welfare, and revenue implications of the AfCFTA for Ghana utilising the World Integrated Trade Solution-Single Market Partial Equilibrium Simulation Tool (WITS-SMART). The study revealed that total trade effects in Ghana were projected to increase by USD 148.3 million, boosting consumers' welfare by USD 8.6 million. While there may be a revenue loss due to the removal of tariffs, Ghana's exports and imports to other African countries were estimated to increase by 12.9% and 0.7%, respectively. This suggests that Ghana's net trade balance was expected to improve, as its exports were set to exceed imports after the implementation of the free-trade area. Examining individual countries, the study projected that South Africa's export revenue would rise from USD 369.5 million to USD 440.8 million after the AfCFTA, an increase of USD 71.3 million.

Wonyra and Bayale (2022) used the partial equilibrium model with disaggregated trade data for 2018 to assess the potential effects of the AfCFTA on the Togolese economy. The results revealed that Togo's exports would increase by USD 8.84 million after the implementation of AfCFTA. In addition, imports from other African countries to Togo would increase by approximately USD 4.38 million. The study also examined the effect of exports on individual African countries to see how they would benefit from the implementation of AfCFTA from Togo. The study found that not all African countries would experience positive gains. Some countries, such as Ghana, Nigeria, and Guinea-Bissau, would be negatively affected. However, the rest of the fifty-four (54) African countries could gain more than USD 242.72 million in export revenue after the implementation of AfCFTA by Togo. Specifically, South Africa's export revenue from Togo would increase by USD 2.66 million, rising from USD 16.98 million before AfCFTA to USD 19.64 million after AfCFTA.

Mhonyera and Meyer (2023) used the Decision Support Model (DSM) and the Global Trade Analysis Project (GTAP) CGE model to assess how the AfCFTA would impact the welfare and trade of Nigerian and South African sectors with sustained export potential in AfCFTA member states. The findings showed that Nigeria was expected to experience favourable welfare gains of USD 146.12 million, while South Africa was projected to benefit by USD 1.46 billion. These gains were attributed to the GTAP

sectors identified as having sustainable export opportunities within AfCFTA member states. The primary drivers of welfare gains were the endowment effect, with South Africa also benefiting significantly from the allocative efficiency effect. Additionally, the establishment of the AfCFTA was expected to promote net trade creation in Nigerian and South African sectors, enabling continued export opportunities within member countries.

Mhonyera, Steenkamp and Matthee (2018) conducted an evaluation of South Africa's utilisation of sustained export potential in SSA (Sub-Saharan Africa) using a three-step research method. The first step involved identifying products that South Africa consistently exports competitively and markets in SSA with consistently high or growing import demand. The second step focused on matching product-country combinations from SSA with the products that South Africa consistently exports competitively (its sustainable exports). The third step involved evaluating South Africa's utilisation of sustained export potential in SSA. The results indicated that South Africa was utilising only 58% of its identified sustained export potential in SSA, with exports growing by 21%. Most of the utilised export potential was in Eastern Africa, while the underutilised and unutilised potential was mainly in Central and Western Africa. In addition to the above, the Deaprtment of Trade Industry and Competition (DTIC) released a report titled "A Guide to the AfCTA," which highlighted that South Africa primarily exports to the southern and eastern regions of Africa. Thus, South Africa has two avenues for expanding its exports. First, it could increase the volume of goods it already exports, resulting in growth at an intensive margin. And secondly, South Africa could diversify its export portfolio by entering new markets or introducing new products, thus expanding at an extensive margin.

3. Research Methodology

This section covers the methodology, the population and sample framework, and the data collection and analysis methods for the study. The purpose of this section is to describe the tools and methodologies used to achieve this study's objectives.

3.1. Research Methodology

Research methodology is the overall strategy that a researcher adopts when conducting a research project. This approach influences the specific tools that the researcher chooses to use. The research approach and technique employed in this study are quantitative.

3.2. Quantitative Approach

A quantitative approach, as described by Megits and Meyer (2023) encompasses the collection and analysis of numerical data to understand patterns, trends, and statistical relationships. The quantitative approach used in this study enabled the researcher to assess the impact of the AfCFTA agreement's effect on South Africa's exports to other African countries. Using this method, the study aims to provide empirical evidence and statistical insights by examining trade data from 2010 to 2023. The goal is to assess trends and changes in South Africa's export patterns before and after the implementation of the AfCFTA agreement.

The South African exports are categorised by product using data obtained from the DTIC database and Quantec, Easy Data. That said, the following quantitative method is employed: Export trade data analysis. This analysis aims to assess changes in trade patterns and quantities before and after the AfCFTA was implemented. Econometric techniques to determine the significance, if any, of the AfCFTA on South Africa's intra-Africa exports were also used. This involved using a regression model to estimate the impact of variable such as South Africa's exports data within Africa. The study employed an Ordinary Least Square (LS) method of regression to statistically measure the impact of AfCFTA on South Africa's Intra-Africa export.

3.3. Data Collection Methods

The chosen method of data collection for this research study is secondary data analysis, primarily utilising data from the DTIC, Quantec and other official trade statistics sources. Blumberg et al. (2014) defined secondary data as pre-existing material, gathered and documented by individuals other than the researchers for reasons unrelated to the present study. A significant amount of data collected by the government is readily accessible to the public, either free of charge or at a minimal cost.

4. Results and Discussion

This section provides estimated findings based on the interpretation of the results and data analysis.

4.1. Trade Trend Analysis Before and After AfCFTA Came into Effect

The data shown in Table 1 below indicates South Africa's intra-Africa trade performance before and after the AfCFTA came into effect in January 2021. The data shows that South Africa's export performance has significantly shifted after the implementation of the AfCFTA. However, this created an imbalance in the direct comparison of total exports, as the shorter post-AfCFTA period naturally resulted in lower absolute totals. To mitigate this, average exports and exports growth rate per year were used as a comparative measure rather than simply comparing total exports The average annual export growth rates demonstrated a clear acceleration of South Africa's intra-Africa exports following the implementation of the AfCFTA. During the pre-AfCFTA period (2010-2020), South Africa's exports grew at an average rate of 6.80% per year. However, in the post-AfCFTA period (2021-2023), the average annual growth rate surged to 19.71%. This sharp increase highlighted the significant impact the AfCFTA has had in boosting South Africa's export growth in a brief period.

Table 1. SA intra-Africa export before and after AfCFTA came into effect

SA Intra-Africa Export Before and After AfCFTA came into effect.				
Period	**Measure**	**Total Exports**	**Average exports**	**Average annual export growth rate**
Pre-AfCFTA (2010-2020)	Rand	3 078 470 000 000	279 861 000 000	6.80%
Post-AfCFTA (2021-2023)		1 421 600 000 000	473 868 000 000	19.71%

Source: Author's computation based on SA export data from the Department of Trade, Industry and Competition (2024).

Similar to Table 1, the average annual export growth rates in Table 2 demonstrated an increase in export volume following the implementation of the AfCFTA. During the pre-AfCFTA period (2010-2020),

South Africa's exports volume grew at an average rate of 5.27% per year. However, in the post-AfCFTA period (2021-2023), the average annual growth rate surged to 11.30%. This sharp increase highlighted the significant impact the AfCFTA has had on boosting South Africa's export growth in a brief period. This further indicated that trade liberalisation within Africa was yielding tangible results for South Africa.

Table 2. SA intra-Africa export before and after AfCFTA came into effect

SA Intra-Africa Export before and after AfCFTA came into effect.				
Period	**Measure**	**Total Volume**	**Average Volume**	**Average annual export growth rate**
Pre-AfCFTA (2010-2020)	Volume	357 614 000 000	32 510 367 235	5.27%
Post-AfCFTA (2021-2023)		128 482 000 000	42 827 240 824	11.30%

Source: Author's computation based on SA export data from the Department of Trade, Industry and Competition.

When focus is shifted to the manufacturing sector, the average annual export growth rates demonstrated in Table 3 show an increase following the implementation of the AfCFTA. During the pre-AfCFTA period (2010-2020), South Africa's manufacturing sector exports grew at an average rate of 3.86% per year. However, in the post-AfCFTA period (2021-2023), the average annual growth rate surged to 11.31%. This rise suggests that the manufacturing sector has benefited from the AfCFTA, possibly due to greater demand for South African manufactured goods within the continent and improved competitiveness through reduced tariffs. Despite the increase in the manufacturing sector's exports, Songwe (2019, p. 103) argues that wealthier and more open African countries like South Africa and Morocco have established manufacturing export industries that require new markets for growth and innovation, as improving export quality within existing sectors is limited. Thus, the AfCFTA presents South Africa with opportunities to expand into West and North African markets, offering alternative destinations for exporting value-added goods and services.

Table 3. Manufacturing total actuals before and after AfCFTA came into effect

Manufacturing Total Actuals Before and After AfCFTA came into effect.				
Period	**Measure**	**Total Exports**	**Average Export**	**Average Annual Export Growth Rate**
Pre-AfCFTA (2010-2020)	Rand	22 903 443 205	2 082 131 200	3.86%
Post-AfCFTA (2021-2023)		8 971 227 237	2 990 409 079	11.31%

Source: Author's computation based on SA Manufacturing sector production and sales data from Quantec, Easy Data (2024).

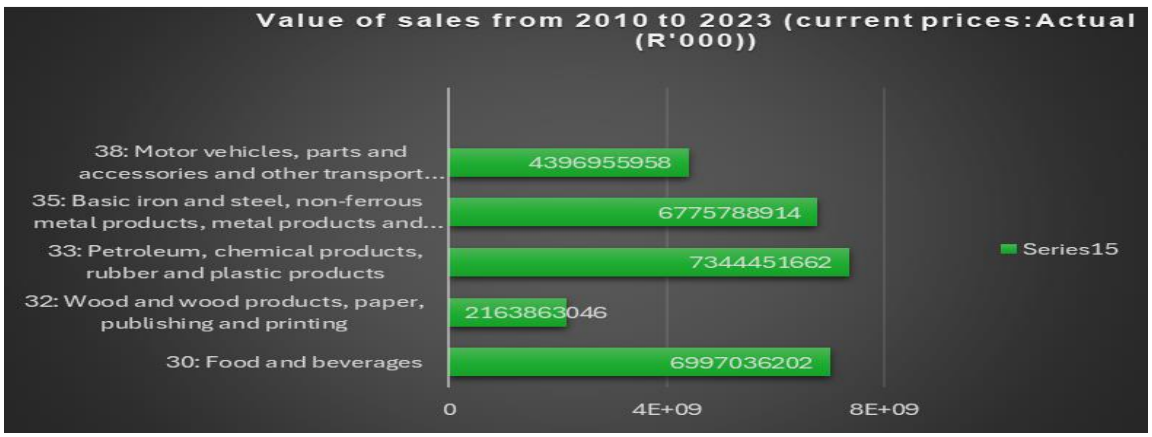


Figure 1. Top 5 export sales value per product

Source: Author's computation based on SA Manufacturing sector production and sales data from Quantec, Easy Data (2024).

Figure 1 shows the export value of South Africa's top 5 manufacturing industries. South Africa's total manufacturing exports amounted to R31.87 billion, with key contributions from various manufactured products. The largest share came from Petroleum, chemical products, rubber, and plastic products, accounting for a total at R7.34 billion of the top 5. Food and beverages followed closely, contributing 21.96% (R6.99 billion), reflecting the country's strong agricultural and food processing industries. Basic iron and steel, non-ferrous metal products, and machinery accounted for 21.28% (R6.78 billion). Motor vehicles and transport equipment represented 13.80% (R4.39 billion), while wood, paper, and printing products contributed 6.79% (R2.16 billion). The diversity of these products and sectors reflected South Africa's industrial base and the country's ability to export both raw materials and high-value manufactured goods, which are crucial for economic stability, job creation, and export revenue.

However, Mhonyera et al. (2018) stated that South Africa is currently utilising only 58% of its identified sustained export potential in SSA, with a 21% growth in exports. Most of the utilised export potential is in Eastern Africa, while the underutilised and unutilised potential is mainly in Central and Western Africa. This presents an opportunity to South Africa to expand exports and fully tap into the remaining 42%. In addition, the underutilised and unutilised export potential in Central and Western Africa, present a strategic opportunity for South Africa to diversify its markets and increase trade in these regions. Sustained growth in these sectors will depend on continued investment in energy, rail and port infrastructure, competitive trade policies, and adapting to global market changes. The AfCFTA offers opportunities to boost intra-African trade in these manufactured goods.

4.2. Regression Analysis Using the Ordinary Least Square (OLS) Method

The dependent variable in the regression was SAM (South African manufacturing exports), and the key independent variables included: SAIAX (Intra-African exports), GDP growth, exchange rate (EX_R) and annual prime rates (SARB).

It can be observed from Table 4 that intra-African exports (SAIAX) exhibited a strong, positive, and statistically significant impact on South African manufacturing exports, with a coefficient of 0.597 and a very low p-value of 0.0003. This indicated that a 1% increase in intra-African exports led to a 0.597% increase in South African manufacturing exports. The p-value indicated that the coefficient was statistically significant at the 1% level. As intra-African exports increased, manufacturing exports also rose correspondingly, highlighting a positive linkage between regional trade and manufacturing growth. Furthermore, the statistical significance at the 1% level suggested there was only a 1% probability that this relationship was due to random variation. This underscored intra-African exports as a critical factor influencing South Africa's manufacturing exports.

GDP growth had a coefficient of 0.0158 and a p-value of 0.0600, which is significant at the 10% level of significance. This suggested a positive but marginally insignificant effect at the 5% significance level. Specifically, a 1% increase in intra-African exports increased South African manufacturing exports by 0.0158%. While economic growth in South Africa may have supported increased manufacturing exports, the relationship was not particularly strong. Additionally, the significance of GDP growth at

the 10% level implied a weaker but still notable relationship, with a 10% probability that this relationship could be attributed to chance. Although this indicated that this economic variable did impact manufacturing exports, the level of confidence in this finding was lower compared to that for SAIAX.

The exchange rate (EX_R) showed a coefficient of 0.0198 and a p-value of 0.0764, which was significant at the 10% level of significance. This indicated a weak but positive relationship. A 1% increase in intra-African exports resulted in an increase of 0.0198% in South African manufacturing exports. A weaker South African Rand could have enhanced export competitiveness, thereby stimulating manufacturing exports, although the effect was not strong. Furthermore, the significance of the exchange rate at the 10% level implied a weaker but still notable relationship, with a 10% probability that this relationship could be attributed to chance. While this suggested that the exchange rate did impact manufacturing exports, the level of confidence in this finding was also lower compared to that for SAIAX.

Lastly, the annual prime rates showed a coefficient of -0.0111 and a p-value of 0.0975, which was significant at the 10% level of significance. This indicated a negative relationship with manufacturing exports. Specifically, a 1% increase in annual prime rates led to a 0.0111% decrease in South African manufacturing exports. The negative coefficient suggested that higher prime interest rates were associated with decreased manufacturing exports. While this relationship was not highly significant, it suggested that higher prime rates tended to increase borrowing costs, which may have discouraged investment and production in the manufacturing sector, ultimately reducing export levels. Similarly, the significance of prime rates at the 10% level implied a weaker but still notable relationship, with a 10% probability that this relationship could be attributed to chance. Although this suggested that the exchange rate did impact manufacturing exports, the level of confidence in this finding was also lower compared to that for SAIAX.

Table 4. Regression results using the least square method

Dependent Variable: SAM (South African manufacturing exports)
Method: Ordinary Least Squares

Sample: 2010 2023
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SAIAX	0.597546	0.107233	5.572381	0.0003
GDP_GROWTH	0.015890	0.007391	2.149967	0.0600
EX_R	0.019828	0.009907	2.001559	0.0764
ANNUAL_PRIME_RATES_SARB	-0.011091	0.005999	-1.848726	0.0975
C	5.515673	2.713793	2.032459	0.0726

R-squared	0.983858	Mean dependent var	21.52267
Adjusted R-squared	0.976684	S.D. dependent var	0.225227
S.E. of regression	0.034392	Akaike info criterion	-3.629559
Sum squared resid	0.010645	Schwarz criterion	-3.401325
Log likelihood	30.40692	Hannan-Quinn criter.	-3.650687
F-statistic	137.1364	Durbin-Watson stat	0.960090
Prob(F-statistic)	0.000000		

Source: Author's computation with EViews

These results demonstrated that the study has examined whether the AfCFTA has had a positive or negative impact on South Africa's intra-Africa exports. The key regression statistics indicated a robust model for analysing manufacturing exports. The R-squared of 0.9839 suggested that 98.39% of the variance in manufacturing exports are due to independent variables included in the model, demonstrating its high predictive power. Similarly, the Adjusted R-squared value of 0.9767 reinforced this assertion, indicating that the model remained highly explanatory even after adjusting for the number of predictors. The F-statistic of 137.1364, with a p-value of 0.0000, confirmed that the model was jointly statistically significant, implying that at least one of the predictors is significantly related to the dependent variable. However, the Durbin-Watson statistic of 0.9601 suggested a positive autocorrelation in the residuals, as the test statistic was below 2, indicating the potential presence of serial correlation. This underscored the need for careful interpretation of the results, particularly regarding the assumptions of the regression analysis. In this context, a further examination of the serial correlation in the residuals using the Breusch-Godfrey Serial Correlation LM Test was considered.

4.3. Discussion of Results

The regression analysis in Table 4 revealed that intra-African exports (SAIAX) were the most significant factor influencing South Africa's manufacturing exports, suggesting that the AfCFTA has had a positive impact on trade within Africa, particularly benefiting South African manufacturers by boosting export activity. These findings align with the absolute advantage theory, where countries like South Africa and Angola excel in manufacturing, while others like Botswana, Zimbabwe, and Zambia focus on mining, and Madagascar and Mozambique specialise in agriculture (AfDB, 2019). However, the benefits of trade liberalisation are not equally distributed. Diop and Sene (2019) cautioned that less open economies with industries at a comparative disadvantage may face revenue losses within the AfCFTA. A study by Wonyra and Bayale (2022) which assessed the potential effects of the AfCFTA on the Togolese economy found that while the broader continent may gain over USD 242.72 million in export revenue post-AfCFTA, some countries, such as Ghana, Nigeria, and Guinea-Bissau, could experience negative outcomes after the implementation of AfCFTA by Togo.

Other macroeconomic factors, such as GDP growth and exchange rates, also positively influenced South Africa's manufacturing exports, though to a lesser extent than intra-African exports. Higher GDP growth supported manufacturing, while a weaker rand enhanced export competitiveness. However, higher prime interest rates tended to dampen exports due to increased production costs. The research addressed the study's core questions by demonstrating the significant positive impact of the AfCFTA on South Africa's manufacturing exports and intra-African trade. South Africa's export growth increased from an average of 6.80% annually during the pre-AfCFTA period (2010–2020) to 19.71% in the post-AfCFTA period (2021–2023). Similarly, export volumes surged from 5.27% to 11.30%. These outcomes were consistent with Huijskens' (2017) findings that FTAs generally increase trade by 6%, and Bayale et al. (2022), which projected an increase in South Africa's export revenue from USD 369.5 million to USD 440.8 million post-AfCFTA.

Despite these positive impacts, the results highlighted some contradictions with previous research. Moyo (2023), for instance, found no significant difference in export performance between countries that joined the SADC FTA and those that did not, raising concerns about the long-term impact of the AfCFTA. Moyo's (2023) findings suggested that trade performance may remain uneven across Africa,

particularly in the absence of structural reforms and improved trade facilitation. Nonetheless, the study met its objectives by providing strong evidence of the AfCFTA's positive impact on South Africa's intra-Africa exports. The statistical significance of LSAIAX at the 1% level underscored the robust relationship between the AfCFTA and export growth, while GDP growth, exchange rates, and interest rates, though significant at the 10% level, showed a weaker but still relevant influence.

These findings reinforced the AfCFTA's importance as a key tool for promoting regional economic integration and expanding South Africa's export opportunities. A study by Matthee and Santana (2017) highlighted that South Africa exports more than 20% of its product categories to just twenty-seven (27) out of 196 nations, while exporting 5% or less to 111 countries, indicating that South Africa's exports are concentrated in a limited number of markets. This suggests substantial untapped potential for market diversification under the AfCFTA. To maximise the agreement's benefits, policymakers should focus on reducing NTBs, enhancing infrastructure, and improving trade facilitation. While significant gains have already been achieved, further efforts to strengthen regional cooperation and address structural challenges will be essential to ensure equitable and sustainable long-term benefits for South Africa in the broader African market.

5. Conclusions and Recommendations

The findings of this study highlighted several important insights regarding the impact of the AfCFTA on South Africa's intra-Africa exports and manufacturing sector. First, the results demonstrated that the AfCFTA had a positive and significant impact on South Africa's intra-Africa exports, as indicated by the strong statistical significance of intra-African exports (LSAIAX) at the 1% level. This suggested that the growth of intra-African exports was strongly linked to an increase in South Africa's manufacturing exports, underscoring the importance of regional trade integration in driving export growth.

Furthermore, the study showed that other economic variables such as GDP growth, exchange rates, and interest rates also influenced South Africa's export performance, but with weaker statistical significance at the 10% level. While these variables did play a role in shaping export outcomes, their impact was less pronounced compared to the direct effects of the intra-African exports.

The strong positive relationship between the AfCFTA and South Africa's manufacturing exports suggested that policymakers should continue to support and deepen trade integration within the African continent. This could be done by reducing NTBs, improving infrastructure to facilitate trade, and enhancing policy coordination between member states. Additionally, given the influence of GDP growth, exchange rates, and interest rates on exports, policymakers should also consider macroeconomic stability and competitiveness in their trade and industrial strategies to maximise the benefits of the AfCFTA.

Finally, to sustain and expand the gains from the AfCFTA, South Africa should prioritise enhancing its manufacturing capacity and exploring new markets across the continent. By leveraging the opportunities presented by the AfCFTA, South African businesses can strengthen their export potential, attract investment, and drive sustained economic growth. Additionally, future research should incorporate longitudinal analysis to assess the AfCFTA's long-term impact on South Africa's trade dynamics and overall economic performance, providing valuable insights to inform policy and strategic decision-

making. Sector-specific research within South Africa could also help identify industries where the country may gain competitive advantages or face challenges under the AfCFTA framework.

References

African Development Bank (AfDB). (2019). *Southern Africa regional economic outlook: Macroeconomic performance and prospects, regional integration and private sector development*.

Bank, A. E. I. (2018). *African trade report 2018*. Afreximbank.

Bayale, N., Ibrahim, M., & Atta-Mensah, J. (2022). Potential trade, welfare and revenue implications of the African Continental Free Trade Area (AfCFTA) for Ghana: An application of partial equilibrium model. *Journal of Public Affairs, 22*(1), e2385.

Blumberg, B. F., Cooper, D. R., & Schindler, P. S. (2014). *Business research methods* (4th ed.). McGraw Hill Education.

Chukwuemeka, E. I., Chimezie, O. S., Obinna, O., & Ngozi, E. (2022). *Africa Continental Free Trade Area (AfCFTA): Review of literature*.

Diop, A. N., & Sene, S. O. (2019). Impact of the African Continental Free Trade Agreement on exports. *International Journal of Economics and Financial Issues, 9*(2), 251-264.

DTIC (Department of Trade, Industry and Competition). (2023). *A guide to the African Continental Free Trade Agreement*.

Hollington, M. (2021). The AfCFTA and the promise of intra-continental trade in Africa. *The Thinker, 88*(3), 47-59.

Huijskens, R. (2017). *The effect of free trade agreements on international trade: An empirical analysis for developed and developing countries*.

Maliszewska, M., Mensbrugghe, D., Pereira, M., Rodarte, I. S., & Ruta, M. (2020). *The African Continental Free Trade Area: Economic and distributional effects*.

Matthee, M., & Santana-Gallego, M. (2017). Identifying the determinants of South Africa's extensive and intensive trade margins: A gravity model approach. *South African Journal of Economic and Management Sciences, 20*(1), 1-13.

Megits, N. M., & Meyer, D. (2023). An economic analysis of the impact of the Russian war in Ukraine on the Poland-U.S. trade. *Journal of Eastern European and Central Asian Research, 10*(7), 1135-1147.

Mhonyera, G., & Meyer, D. F. (2023). The impact of AfCFTA on welfare and trade: Nigeria and South Africa in light of core export competences. *Sustainability, 15*(6), 5090.

Mhonyera, G., Steenkamp, E., & Matthee, M. (2018). Evaluating South Africa's utilisation of sustained export potential in sub-Saharan Africa. *South African Journal of Economic and Management Sciences, 21*(1), 1-13.

Moyo, B. (2024). Impact of SADC free trade area on Southern Africa's intra-trade performance: Implications for the African continental free trade area. *Foreign Trade Review, 59*(1), 146-180.

Moyo, T., & Mamobolo, M. (2014). The national development plan (NDP): A comparative analysis with the reconstruction and development programme (RDP), the growth, employment and redistribution (GEAR) programme and the accelerated and shared-growth initiative (ASGISA). *Journal of Public Administration, 49*(3), 946-959.

Moyo, T. (2020). The African Continental Free Trade Agreement (AfCFTA). *Africa Insight, 50*(1), 54-75.

Msweli, P., & Gama, S. (2023). *Africa Continental Free Trade Agreement effect on investment flows into the manufacturing sector in Africa.*

Ndonga, D., Laryea, E., & Chaponda, M. (2020). Assessing the potential impact of the African Continental Free Trade Area on least developed countries: A case study of Malawi. *Journal of Southern African Studies, 46*(4), 773-792.

Shinyekwa, I. M., Bulime, E. N., & Nattabi, A. K. (2021). Trade, revenue, and welfare effects of the AfCFTA on the EAC: An application of WITS-SMART simulation model. *Business Strategy & Development, 4*(1), 59-74.

Smith, A. (1776*). The wealth of nations.* Penguin Books.

Songwe, V. (2019). *Intra-African trade: A path to economic diversification and inclusion*. Brookings Institution.

Suara, A. E. (2016). *The determinants of bilateral trade between African countries based on regional trade agreements*. Doctoral dissertation, KDI School.

Tshedza, S. T., & Lee, K. S. (2023). How will AfCFTA Impact on South Africa's Socio-economic Position? *Journal of African Foreign Affairs, 10*(3), 103-120.

United Nations Economic Commission for Africa (UNECA). (2015). *Economic report on Africa: Industrializing through trade*.

United Nations Economic Commission for Africa (UNECA). (2018). *An empirical assessment of the African Continental Free Trade Area modalities on goods*.

Wonyra, K. O., & Bayale, N. (2022). Assessing the potential effects of the AfCFTA on Togolese economy: An application of partial equilibrium model. *Journal of Public Affairs, 22*(1), e2377.