



The Journal of Financial, Accounting, and Economics

Homepage: <https://jurnal.glowscien.com/index.php/JFAE>

Vol. 3, Issue. 2, July (2026), 77 - 89

DOI Issue: <https://doi.org/10.58857/JFAE.2025.v03.i02>

E-ISSN 3031-9064



Trade Facilitation and Intra-Regional Trade in the East African Community: Evidence from Panel Data Analysis

Erick Mchuma¹, Issacs Kipruto Kemboi², Simeon Nganai³

¹ Department of Economics, Institute of Accountancy Arusha, Tanzania

^{2,3} Department of Economics, Moi University, Kenya

¹ Email: emchuma@gmail.com

DOI Article: <https://doi.org/10.58857/JFAE.2026.v03.i02.p01>

ARTICLE INFO

Article History:

Submitted: 19 March 2026

Reviewed: 5 June 2026

Revision : 9 July 2026

Accepted : 19 July 2026

Available online: 31 July 2026

Keywords:

Trade
Facilitation, Intra-Trade
Performance, East African
Community

Corresponding Author:

Erick Mchuma

Email: emchuma@gmail.com

ABSTRACT

This research investigates the impact of trade facilitation initiatives on intra-regional trade dynamics within the East African Community (EAC) from 2010 to 2024. Despite the EAC's progress towards regional integration, intra-regional trade continues to underperform relative to its potential, a situation attributable to enduring procedural problems and institutional deficiencies. The study employed a random-effects model to estimate the panel trade data for EAC member countries. The results reveal that export documentation costs, import clearance time and controlling corruption are positively and significantly associated with trade flows. In contrast, import documentation costs and regulatory quality exert negative influence. Findings highlighted the need for policies that improve trade efficiency, simplify regulations, and promote institutional transparency to help integrate trade within the East African Community. East African Community member states ought to prioritise streamlining and standardising trade documentation, especially for imports, to mitigate procedural barriers that impede cross-border commerce. Enhancing digital customs platforms and broadening the scope of electronic clearance systems can significantly improve processing efficiency and transparency. Furthermore, bolstering anti-corruption initiatives at border crossings is essential, as improved governance directly facilitates smoother trade and reduces unofficial costs.

INTRODUCTION

Trade liberalisation is a significant trend in the expansion of global trade. The global trend of trade liberalisation has advanced in two forms: multilateral trade agreements through the WTO (World Trade Organisation) and bilateral trade agreements known as free trade agreements (FTAs). To facilitate trade and reduce trade costs, countries have subscribed to bilateral or multilateral free trade agreements. Trade facilitation has emerged as a crucial factor in enhancing the efficiency of global trade. This is particularly evident in developed nations, where streamlined procedures and sophisticated infrastructure have demonstrably decreased trade costs. According to the OECD

(2023), trade facilitation improvements that encompass border coordination, transparency, and customs automation could potentially reduce trade costs by up to 13% for high-income countries. As a result, developed countries have progressively embraced trade facilitation as a central policy tool to strengthen their trade competitiveness, promote regional value chains, and maintain global market power.

In Europe, Germany and the Netherlands are recognised as leading logistics performers worldwide, having made significant investments in digital customs procedures and integrated port logistics systems. This has reduced the average time for imports to clear customs to less than 24 hours, and documentation costs are almost negligible due to extensive digital systems (World Bank, 2023). Similarly, the United States has implemented the Automated Commercial Environment (ACE), which enables real-time processing and reduces border delays by over 40%, substantially improving trade flows at high-volume ports like Los Angeles and New York (U.S. Customs and Border Protection, 2022). Also, Singapore has been a leading trade hub because it has implemented a mostly paperless trade system, in which customs declarations are processed electronically in more than 99% of cases, with a typical turnaround time of about 10 minutes (WTO, 2023).

In Africa, trade facilitation has become a crucial policy tool that helps to encourage regional integration, lower trade costs, and boost economic growth. Despite some structural differences among African countries, many have made efforts to improve trade facilitation and border efficiency. This is even crucial for strengthening the African Continental Free Trade Area (AfCFTA), which is designed to increase intra-African trade by reducing both tariff and non-tariff barriers. In West Africa, for example, Ghana and Nigeria have modernised their customs systems that aim to speed up the customs clearance process. Ghana's adoption of the Integrated Customs Management System (ICUMS) in 2020 has significantly reduced both clearance costs and customs delays. The system has helped to cut average customs processing times from three days down to less than a day (Ghana Revenue Authority, 2022). Nigeria's Single Window Trade Portal has digitised a significant portion of its trade documentation, resulting in an 18% reduction in import delays (World Bank, 2023).

In southern Africa, South Africa has exceptional logistics performance, ranking 33rd worldwide on the Logistics Performance Index. Investments in port infrastructure and the electronic clearance system have improved cargo turnaround times, particularly in Durban and Cape Town (World Bank, 2023). In the same way, Botswana and Namibia are among African countries that have benefited from the establishment of one-stop border posts (OSBPs), which have reduced cross-border shipment time by as much as half (African Development Bank (AfDB), 2022). Despite these developments, intra-regional trade across several regions remains below 15% of total trade, primarily due to fragmented regulatory frameworks, elevated documentary compliance costs, and inadequate border coordination (UNECA, 2023). These barriers underscore the necessity for more comprehensive structural reforms and improved policy alignment.

The East African Community (EAC) has consistently placed a high value on regional trade integration, viewing it as a fundamental element of its economic strategy. However, trade within the EAC has been both low and inconsistent among its member states. In 2023, trade among EAC countries accounted for only 15% of the region's total trade. This is significantly less than the figures for the European Union (EU), which was 60%, and the Association of Southeast Asian Nations (ASEAN), which was 35% (UNCTAD, 2024). This underperformance is particularly noteworthy, given the region's shared borders, cultural connections and interconnected production systems. Data indicate significant differences among the countries of the East African Community (EAC). Kenya remains the primary exporter in the East African Community (EAC), accounting for about 45% of all intra-EAC exports. This superiority is underpinned by its relatively advanced manufacturing and logistical capabilities (EAC Secretariat, 2023). Uganda, despite its expanding trade footprint, is the second-largest contributor, benefiting from improved road infrastructure and agricultural trade. In contrast, Burundi and South Sudan make minimal contributions, with intra-regional trade shares

consistently around 5%, largely due to insufficient infrastructure, political instability, and a considerable reliance on informal trade routes (AfDB, 2023). Barriers to trade facilitation persist as a prevalent factor contributing to these disparities.

The average time required for import clearance within the East African Community (EAC) is 85 hours, with South Sudan and Burundi experiencing the most significant delays as reported by the World Bank's Doing Business (2023) publication. Furthermore, the costs associated with export documentation surpass \$175 per shipment. Cargo inspections remain common, with more than half of all shipments in countries like Tanzania and Rwanda undergoing physical examination. The use of electronic tracking systems is restricted, with adoption rates dipping 60% below in most member states. Existing institutional weaknesses further complicate these procedural challenges. The World Governance Indicators (2023) reveal that countries such as Burundi and South Sudan have low scores in both corruption control and regulatory quality, undermining confidence and predictability in international engagements. Despite Rwanda's robust institutional framework, the nation continues to grapple with elevated compliance expenses and suboptimal border operations. This research examines the effects of trade facilitation measures of EAC member countries on trade performance. The findings highlight the need to strengthen and expand practical trade facilitation policies already in use across Africa to enhance intra-EAC trade.

Literature Review

The New Trade Theory (NTT), developed by Paul Krugman (1979, 1980), serves as the foundation for this study by offering a conceptual explanation of the incentives and processes through which enterprises opt to enter international markets. The theory represented a departure from classical trade models, positing that nations with comparable factor endowments could still experience gains from trade, even in the presence of increasing returns to scale and product differentiation. This theory underscores that disparities in resources do not exclusively determine trade; rather, it is also driven by the impetus to capitalise on economies of scale, thereby reducing per-unit costs and to engage in markets characterised by diverse consumer preferences. NTT operates under the assumption of imperfect competition, thereby emphasising the significance of market access and the formal structures that mitigate fixed trade costs, conditions that are facilitated through trade facilitation measures.

New Trade Theory (NTT) offers a theoretical perspective on the significance of customs efficiency, documentation protocols, border clearance times, and institutional quality. These elements constitute the fixed trade costs that NTT posits must be minimised to facilitate firms' effective participation in expansive regional markets. If customs documentation processes are optimised and border procedures are harmonised through electronic tracking systems or one-stop border posts, firms encounter reduced entry costs, enabling them to scale production to supply multiple nations within the trading bloc. This fosters heightened specialisation, improved resource allocation, and enhanced regional trade performance. Additionally, the theory posits that nations, even in the absence of pronounced comparative advantages, can still experience gains from intra-regional trade provided that institutional and procedural trade barriers are mitigated. Consequently, NTT directly justifies the investigation of trade facilitation variables in this research, illustrating how alleviating administrative and logistical difficulties empowers firms to expand and integrate more comprehensively into regional trade networks.

Adeyinka et al. (2024) and Siyakiya (2025) show that intra-regional trade in ECOWAS and SADC, respectively, experiences substantial growth when customs procedures are streamlined and trade-related barriers, such as unnecessary border delays and documentation requirements, are reduced. Their work aligns with NTT by showing that trade growth depends not only on differences in resource endowments but also on institutional and procedural improvements that enable firms to operate at larger scales. Likewise, Muhia (2023) presents data from Kenya that corroborates NTT by illustrating how improvements in customs infrastructure and procedural efficiency enabled Kenyan exporters to engage more actively in regional markets. These investigations employ the

principles of NTT to demonstrate how enhanced trade facilitation, through instruments such as digital clearance systems and streamlined border procedures, reduces transaction costs, fosters firm-level specialisation, and supports scalable, formal trade.

A growing body of research has evaluated the measurable impact of trade facilitation on intra-regional trade in Africa. Siyakiya (2025) found that improvements in border administration, transparency, and infrastructure positively affected exports within the Southern African Development Community (SADC). This was especially beneficial for lower-income member states, which had initially poor logistics performance. Adeyinka et al. (2024), using panel data from the Economic Community of West African States (ECOWAS), found that trade facilitation significantly increased intra-manufacturing exports, with customs efficiency having the greatest impact. Similarly, Muhia (2023) discovered that Kenya's trade performance improved significantly after trade facilitation reforms, particularly in customs modernisation and transport streamlining. Omari (2022), through qualitative assessment, showed that the Electronic Single Window (ESW) system reduced border delays and documentation time, directly contributing to improved intra-African trade under the African Continental Free Trade Area (AfCFTA).

Bakouan et al. (2024), concentrating on regional integration and its economic ramifications, found that trade facilitation, when coupled with tariff elimination, spurred growth in trade volumes and economic output within East African nations, with Kenya and Tanzania experiencing the most pronounced benefits. Letlala & Johnson (2025), utilising a gravity model, observed that the AfCFTA has already engendered statistically significant expansions in intra-African trade flows, particularly in the agricultural and light manufacturing industries. Furthermore, Toriola et al. (2025) demonstrated that regional trade blocs, including ECOWAS and SADC, characterised by elevated trade facilitation scores, also exhibited superior GDP growth and export diversification. Aderibigbe (2022), focusing on Nigeria, found that trade facilitation initiatives reduced trade costs and increased trade flows, particularly with neighbouring nations. Okonkwo et al. (2025) assessed the BIAT Action Plan. They found that its implementation led to a measurable increase in West African intra-regional trade volumes, albeit with sectoral and national disparities.

Comparative investigations beyond the African continent offer additional perspectives. Shahzad and Miao (2025) examined Sino-South Asian trade dynamics, revealing that reduced customs delays and business cycle synchronisation, both associated with trade openness, positively affected bilateral trade volumes. Yu and Song (2023) found that trade facilitation, specifically improvements in infrastructure and customs predictability, significantly drove regional value chains within CAFTA, with a more pronounced effect observed in nations with pre-existing logistical capabilities. Similarly, Adeyinka et al. (2023) found that ECOWAS nations with greater customs automation and port efficiency experienced higher intra-manufacturing export growth than their peers. These studies collectively demonstrate that trade facilitation consistently yields quantifiable benefits in terms of trade volume, export diversification, and regional integration. Nevertheless, these investigations did not assess the impact of trade facilitation measures on intra-regional trade within the East African Community.

Methodology

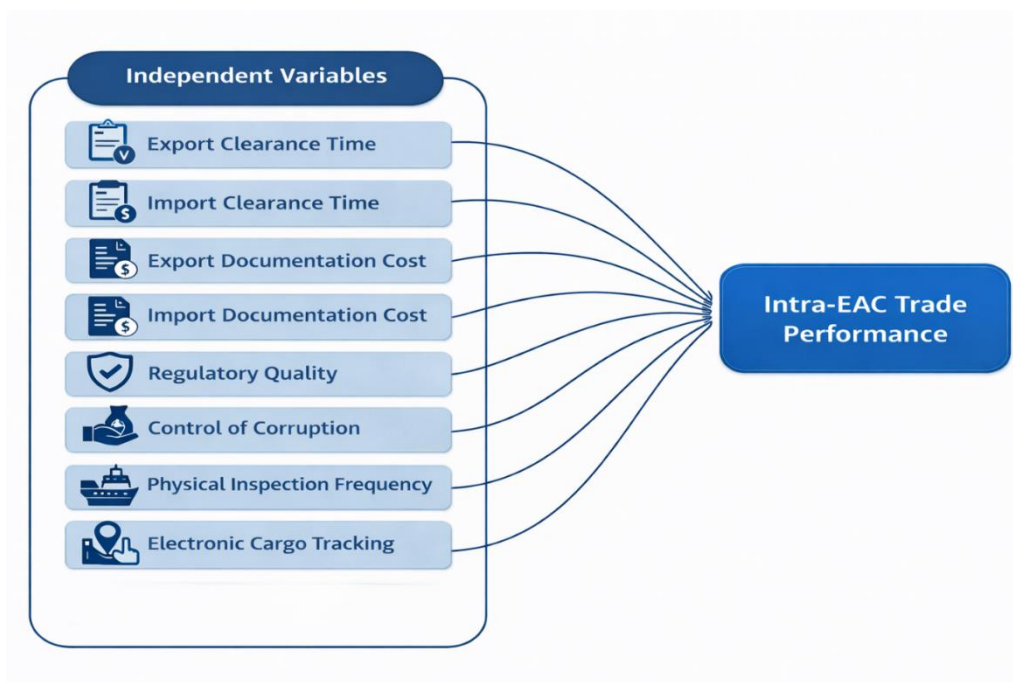


Figure 1: Conceptual Framework

Data and Methodology

This study adopts a quantitative statistical research design, applying panel data econometric techniques to investigate the effects of trade facilitation measures on intra-EAC trade performance from 2010 to 2024 across five member states: Burundi, Kenya, Rwanda, Tanzania, and Uganda. Panel data methodology is appropriate for this analysis as it captures cross-country and over-time variations, offering greater analytical depth than purely cross-sectional or time-series approaches. The model accounts for country-specific, time-invariant factors such as geography, legal systems, or structural trade barriers that could otherwise bias the results. The selected trade facilitation indicators, including export and import clearance times, documentary compliance costs, regulatory quality, control of corruption, and cross-border coordination variables such as physical inspection frequency and electronic tracking adoption, vary significantly across countries and over time.

The study utilises exclusively secondary data spanning from 2010 to 2024 for five East African Community (EAC) member states: Burundi, Kenya, Rwanda, Tanzania, and Uganda. The dependent variable, intra-trade value, is obtained from UNCOMTRADE and EAC trade statistical reports. Independent variables include key trade facilitation indicators, such as export and import clearance times and documentation costs, sourced from the World Bank's Doing Business and Logistics Performance Index (LPI). Non-tariff barrier variables, such as regulatory quality and control of corruption, are derived from the World Governance Indicators (WGI) and reflect institutional and regulatory dimensions that influence trade. Cross-border coordination measures, such as the frequency of physical inspections and the adoption of electronic cargo tracking, are drawn from the EAC Secretariat's monitoring frameworks.

Table 1: Measurement of Variables

Variable Name	Measurement / Scale
Intra-EAC Trade Value	Continuous (log of USD millions)

Variable Name	Measurement / Scale
Export Clearance Time	Continuous (hours)
Import Clearance Time	Continuous (hours)
Export Documentation Cost	Continuous (USD per shipment)
Import Documentation Cost	Continuous (USD per shipment)
Regulatory Quality	WGI score (−2.5 to +2.5)
Control of Corruption	WGI score (−2.5 to +2.5)
Physical Inspection Frequency	Percentage of shipments subject to inspection (%)
Electronic Cargo Tracking Adoption	Percentage of cargo tracked electronically (%)

Analytical Framework and Model Specification

The study employs a panel data econometric approach to examine the effect of trade facilitation measures on intra-regional trade performance in the East African Community (EAC). The Random Effects Model is adopted because it assumes that country-specific unobserved effects are uncorrelated with the explanatory variables, allowing for both within- and between-country variations over the period 2010 - 2024. Consider:

i = country (Burundi, Kenya, Rwanda, Tanzania, Uganda), $i = 1, \dots, N$

t = year (2010–2024), $t = 1, \dots, T$

Y_{it} = dependent variable (lnIntra_EAC_Tval)

X_{kit} = explanatory variables

μ_{it} = unobserved country-specific effect

ϵ_{it} = idiosyncratic error

General Panel Regression Model

$$Y_{it} = \beta_0 + \sum_{k=1}^K \beta_k X_{kit} + \mu_i + \epsilon_{it}$$

This is the general form of the Random Effects model where X_{kit} are trade facilitation variables.

$\ln Intra_EAC_Tval_{it}$

$$= \beta_i + \beta_1 ClearExp_{it} + \beta_2 ClearImp_{it} + \beta_3 DocCostExp_{it} + \beta_4 DocCostImp_{it} + \beta_5 RegQual_{it} + \beta_6 CorrControl_{it} + \beta_7 InspectRate_{it} + \beta_8 ETrackRate_{it} + \mu_i$$

Where each variable represents a trade facilitation or institutional component affecting trade flows;

ClearExp / ClearImp - Time for export/import clearance

DocCostExp / DocCostImp - Export/import documentation cost

RegQual - Regulatory quality

CorrControl - Control of corruption

InspectRate - Physical inspection frequency

ETrackRate - Electronic cargo tracking rate

Random Effects Decomposition

$$Y_{it} = \beta_0 + \sum_{k=1}^K \beta_k X_{kit} + \underbrace{\mu_i}_{\text{between effect}} + \underbrace{\epsilon_{it}}_{\text{within effect}}$$

This equation shows that the error term is decomposed into:

μ_{it} = country-specific component (random effect)

ϵ_{it} = random disturbance over time

Post-diagnosis test

Hausman Test Hypothesis

$H_0: Cov(\mu_i, X_{kit}) = 0$ (Random Effects is consistent)

$H_1: Cov(\mu_i, X_{kit}) \neq 0$ (Use Fixed Effects instead)

Breusch-Pagan Lagrange Multiplier (LM) Test

$H_0: \delta_\mu^2 = 0$ (No panel effect, use Pooled OLS)

$H_1: \delta_\mu^2 > 0$ (Panel structure is significant)

This test checks whether the variance of the unobserved effect is significantly different from zero. A significant result justifies using a panel model rather than pooled regression.

Results and Discussions

Descriptive Statistics

The descriptive statistics in Table 2 provide an overview of the distribution and central tendencies of the key variables used to examine the impact of trade facilitation measures and non-tariff barriers on intra-EAC trade across 75 observations from six countries over the 2010–2024 period.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lnIntra-EAC Trade Value	75	13.232	1.356	9.605	15.055
Export Clearance Time	75	32.56	12.563	19	50
Import Clearance Time	75	85	46.253	26	140
Export Documentation Cost	75	178	65.135	95	260
Import Documentation Cost	75	172	99.252	0	295
Regulatory Quality	75	-.428	.336	-1.168	.186
Control of Corruption	75	-.668	.677	-1.6	.776
Physical Inspection Frequency	75	55.661	27.676	0	100
Electronic Cargo Tracking Adoption	75	50.015	31.711	0	100

Source: Authors Computations, 2026

The variable lnIntra-EAC trade value, which is the natural log of intra-EAC trade value, has a mean of 13.232, with a minimum of 9.605 and a maximum of 15.055, indicating moderate variation in trade performance across countries and time. The relatively low standard deviation (1.356) suggests that trade values are somewhat concentrated around the mean, with some dispersion likely driven by differences in trade infrastructure, policy environments, or economic shocks. For trade facilitation measures, the average export clearance time is approximately 32.56 hours. In comparison, the import clearance time is significantly higher at 85 hours, with a wide range (26 to 140 hours) and a high standard deviation (46.253). This disparity indicates greater bureaucratic or infrastructural delays in import procedures than in export processes within the EAC. Documentary compliance costs also vary, with export documentation averaging USD 178 and import

documentation slightly lower at USD 172. Import costs range from 0 to 295 USD, indicating significant variation in cost efficiency and customs procedures across countries or over time.

Regulatory quality has a mean of -0.428, with all scores falling below 1, reflecting generally weak regulatory environments across EAC countries. Likewise, the control of corruption variable shows an even more negative average of -0.668, with values ranging from -1.6 to 0.776, suggesting systemic governance and institutional challenges persist in managing corruption and ensuring compliance. Regarding cross-border coordination, the average frequency of physical inspections is high at 55.66%, indicating that more than half of shipments are subject to inspection, which can cause delays and discourage trade. In contrast, the adoption rate of electronic cargo tracking is a moderate average of 50.01%, ranging from 0% to 100%, suggesting inconsistent deployment of tracking technologies across countries and years; some borders may be fully digitised while others remain manual. Overall, these descriptive statistics highlight notable inefficiencies and disparities in customs procedures, documentation costs, governance quality, and border coordination among EAC member states.

Empirical Results

The Random Effects model reveals several statistically significant relationships between trade facilitation measures and intra-EAC trade performance. Notably, import clearance time shows a positive and marginally significant effect (coefficient = 0.026; $p = 0.084$), which is somewhat counterintuitive, as longer clearance times are typically seen as trade obstacles. However, this result may reflect reverse causality, in which increased trade volume leads to greater congestion and longer processing times. Alternatively, it may indicate that countries with more structured trade systems, though slower, also handle larger or more complex trade flows, thereby reporting higher trade values. Similarly, export documentation cost shows a positive and highly significant effect (coefficient = 0.031; $p < 0.001$). While higher costs are often perceived as onerous, in this case, they may correlate with more formalised, traceable, and higher-value trade transactions, where increased documentation is associated with improved compliance and regulatory enforcement.

In contrast, import documentation costs have a negative and highly significant effect on intra-EAC trade (coefficient = -0.039, $p = 0.003$), consistent with expectations. This finding confirms that increased administrative burdens during the import process directly discourage trade, likely by raising transaction costs and delaying the movement of goods. Reducing documentation requirements and automating import processes could therefore yield substantial gains in intra-regional trade efficiency. On the institutional side, regulatory quality has a negative and marginally significant effect (coefficient = -1.192; $p = 0.075$), which is unexpected. Rather than supporting trade, improvements in regulatory quality may be introducing new compliance challenges or adjustment costs that disproportionately affect small and medium-sized traders. This result suggests that regulatory reforms may not be well-aligned with trade facilitation goals or may lack effective implementation.

Among the institutional governance variables, control of corruption emerges as a strong and significant positive determinant of intra-EAC trade (coefficient = 1.635; $p = 0.002$). This implies that better anti-corruption mechanisms, especially in customs, border control, and licensing, significantly enhance trade flows by lowering informal costs and increasing predictability. In the context of the EAC, where corruption remains a critical barrier to efficient trade, this result highlights the importance of strengthening governance, transparency, and accountability in trade-related institutions.

Table 3: Random Effect Model Results on the Effect of Trade Facilitation Measures on Intra-Trade Performance in the East African Community (EAC) Region

<i>lnIntra_EA_Tval</i>	<i>Coef.</i>	<i>St.Err.</i>	<i>t-value</i>	<i>p-value</i>	<i>[95% Conf Interval]</i>
------------------------	--------------	----------------	----------------	----------------	----------------------------

Export Clearance Time	0.098	0.071	1.37	0.170	-0.042	0.237
Import Clearance Time	0.026*	0.015	1.73	0.084	-0.003	0.055
Export Documentation Cost	0.031***	0.007	4.57	0.000	0.018	0.045
Import Documentation Cost	-0.039***	0.013	-2.93	0.003	-0.065	-0.013
Regulatory Quality	-1.192*	0.67	-1.78	0.075	-2.506	0.122
Control of Corruption	1.635***	0.519	3.15	0.002	0.617	2.653
Physical Inspection Frequency	0.002	0.025	0.06	0.949	-0.048	0.051
Electronic Cargo Tracking Adoption	-0.001	0.022	-0.04	0.970	-0.043	0.042
Constant	9.493***	2.214	4.29	0.000	5.153	13.833
Hausman test	Prob>Chi2=0.299		LM test		Prob>Chibar2=0.000	
Overall r-squared	0.773		Number of obs		75	
Chi-square	224.633		Prob > chi2		0.000	
R-squared within	0.153		R-squared between		0.999	

Source: Authors Computations, 2026

The diagnostic assessments substantiate the random effects model as the appropriate specification for this investigation. The Hausman test produced a p-value of 0.299, suggesting that the null hypothesis, which posits no correlation between the unobserved individual effects and the explanatory variables, cannot be dismissed. This finding supports the statistical appropriateness of the random-effects model for estimating the association between trade facilitation measures and intra-EAC trade. Furthermore, the Breusch-Pagan Lagrange Multiplier (LM) test yielded a p-value of 0.000, thereby strongly rejecting the null hypothesis of no panel-level variance and validating the use of panel estimation over pooled OLS. The model exhibits considerable explanatory power, as evidenced by an overall R-squared of 0.773, indicating that approximately 77% of the variation in intra-EAC trade is explained by the model's predictors. The high between R-squared (0.999) shows that the model is very effective at capturing differences across countries, while the within R-squared (0.153) captures modest variation over time. The model's overall significance is confirmed by a Chi-square statistic of 224.633 ($p < 0.001$). This indicates that the independent variables together explain a significant portion of the variation in trade performance. Collectively, diagnostic tests validate both the reliability and the appropriateness of the random effects approach for this study.

Discussions

The observation that import clearance time shows a slight positive correlation with intra-EAC trade runs counter to the conventional assumption that expedited clearance facilitates trade. Although this finding may seem paradoxical, it could be explained by the dynamics observed by Siyakiya (2025) and Muhia (2023), wherein nations with more structured or regulated import processes, despite being slower, tend to support larger or more formalised trade volumes. In such situations, delays might be an outcome of heightened trade activity rather than a hindrance. Furthermore, the result implies a potential threshold effect: beyond a certain point, clearance time may no longer impede trade if other supportive systems, such as digital platforms or transparent procedures, are implemented. Conversely, further investigation is warranted, given that Adeyinka et al. (2024) determined that minimising border delays within ECOWAS was crucial for stimulating manufacturing exports, a trend potentially applicable to the EAC.

Unexpectedly, the research reveals a positive relationship between export documentation expenses and trade performance. This may indicate the formalisation of export procedures, in which higher costs are associated with stricter regulatory compliance, improved record-keeping, or

greater access to established trade networks. Omari (2022) emphasised how initiatives such as the Electronic Single Window, notwithstanding initial financial outlays, foster enhanced trade facilitation and sustained efficiency. Likewise, Adeyinka et al. (2023) found that ECOWAS countries with more automated and structured customs systems achieved stronger export growth. In contrast, higher import documentation costs have been found to significantly reduce intra-EAC trade, aligning with well-established findings in the trade facilitation literature. This result confirms that excessive documentation requirements raise transactional friction, limit participation, particularly for SMEs and ultimately suppress trade flows. The negative impact supports earlier studies, such as Aderibigbe (2022) and Bakouan et al. (2024), which found that simplifying import procedures and reducing hidden administrative costs were key drivers of trade expansion.

The study identifies a marginally significant negative effect of regulatory quality on intra-EAC trade, which appears contrary to expectations. However, this result may point to issues in policy implementation or unintended consequences of regulatory reform. Improvements in regulation that are not harmonised across the region or are overly stringent may create new compliance burdens that hinder cross-border trade. This finding corroborates the apprehensions expressed by Okonkwo et al. (2025), who observed that regional policy initiatives, such as the BIAT Action Plan, yielded inconsistent results due to implementation disparities. Furthermore, it is consistent with the conclusions of Yu & Song (2023), who highlighted the substantial influence of institutional preparedness and enforcement capabilities on trade facilitation outcomes. The most influential positive factor identified in this study concerning intra-EAC trade is the control of corruption, thereby underscoring the essential role of governance in facilitating trade. Predictability and transparency within customs and inspection procedures are crucial as trade traverses national borders. When corruption is reduced, informal payments and discretionary obstacles are lessened, which helps trade to flow more smoothly. This supports the findings of Toriola et al. (2025) and Letlala & Johnson (2025), who linked good governance and trade facilitation to increased regional trade. Moreover, Okonkwo et al. (2025) found that anti-corruption reforms, as part of the BIAT Plan, were crucial to improving trade flows across West Africa.

Conclusion and Policy Implications

Empirical findings underscore the crucial influence of trade facilitation and institutional quality on enhancing intra-EAC trade performance. The research indicates that while a reduction in import documentation costs substantially stimulates trade, improvements in regulatory quality could have adverse effects if not appropriately attuned to traders' practical requirements. The observed positive correlation between export documentation costs and trade suggests that formalisation and compliance may facilitate higher-value transactions. In contrast, the marginally positive impact of import clearance time could reflect capacity limitations within high-volume trade environments. Most significantly, the pronounced positive effect of improved control over corruption underscores the importance of governance reforms in customs procedures, licensing protocols, and border management practices. These results underscore the need for targeted policy interventions to streamline trade processes, enhance institutional transparency, and ensure that regulatory reforms are not only well-conceived but also effectively implemented to foster deeper regional integration within the EAC.

This study's findings highlight the need to strengthen and expand existing trade facilitation policies to boost trade within the East African Community. The negative impact of import documentation costs underscores the need to expand systems such as the Electronic Single Window (ESW) and Single Customs Territory (SCT), which facilitate documentation and clearance procedures, as evidenced by their implementation in selected regions of Kenya, Uganda, and Rwanda. Although the prospect of export documentation costs may imply greater trade formalisation, this advantage requires augmentation through sustained investment in digital infrastructure, exemplified by Kenya's Integrated Customs Management System (iCMS), coupled

with focused assistance for small-scale traders to promote inclusivity. The unexpected inverse relationship observed between regulatory quality and trade highlights the imperative for regulatory harmonisation and simplification. Employing the AfCFTA Non-Tariff Barrier (NTB) reporting mechanism, in conjunction with the African Union's Continental Guidelines on trade facilitation, offers a means to mitigate excessive regulations and discrepancies among member states.

Moreover, the significant positive impact of reducing corruption highlights the need to strengthen governance. This includes Customs Integrity Committees, risk-based inspections, and electronic payment systems, all of which have proven effective in reducing reliance on personal judgment and informal payments at borders. If these policies are implemented and coordinated effectively across different regions, they could substantially lower trade barriers, enhance transparency, and accelerate the development of a more integrated and competitive African market.

REFERENCES

- Aderibigbe, T. A. (2022). The Effects of Trade Facilitation on Trade Flows in Nigeria. *ACU Journal of Social and Management Sciences*, 3(1). 237-251
- Adeyinka, O. B., Muktar, M., Zakaree, S., Abraham, A., & Yakubu, A. (2024). Impact of trade facilitation on intra-manufacturing export among ECOWAS member states. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, 11(6), 419-432.
- Adeyinka, O. B., Salihu, A., Aiyedogbon, J., & Salako, G. (2023). Intra-manufacturing export performance among ECOWAS member states. *Journal of Management and Science*, 13(1), 9-21.
- African Development Bank (AfDB). (2022). *Trade and transport facilitation in Africa: One-stop border post sourcebook (2nd ed.)*. <https://www.afdb.org/>
- Anderson, J. E., & van Wincoop, E. (2003). Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review*, 93(1), 170–192.
- Bakouan, P., Diarra, M., & Ouedraogo, I. M. (2024). How Can Tariff Elimination and Trade Facilitation Affect East African Economies?. *Foreign Trade Review*, 59(1), 117-145.
- East African Community (EAC) Secretariat. (2023). *Trade and investment report 2022*. Arusha, Tanzania: EAC Secretariat. <https://www.eac.int/>
- Ghana Revenue Authority. (2022). *Customs Division Annual Report 2022*. Accra, Ghana: <https://gra.gov.gh/>
- Krugman, P. (1979). Increasing Returns, Monopolistic Competition, and International Trade. *Journal of International Economics*, 9(4), 469–479.
- Krugman, P. (1980). Scale Economies, Product Differentiation, and the Pattern of Trade. *American Economic Review*, 70(5), 950–959.
- Lelala, N., & Johnson, A. O. (2025). Assessing the Impact of the African Continental Free Trade Area on Intra-African Trade: A Gravity Model Analysis. *Journal of Contemporary Business Research*, 1(2), 87-103.
- Muhia, J. N. (2023). *Effect of Trade Facilitation on Kenya's Trade Performance* (Doctoral dissertation, University of Nairobi).
- Okonkwo, A. E., Ezenwegbu, J. C., & Nwokoye, A. (2025). Policy Effectiveness and Regional Trade: A Study of the BIAT Action Plan in West Africa, 2012–2022. *Socialscientia: Journal of Social Sciences and Humanities*, 10(3).1-11
- Omari, M. Y. (2022). AfCFTA and Digitalisation: The Role of Trade Facilitation Measures through the Electronic Single Window (ESW) in improving Intra-Africa Trade.
- Organisation for Economic Co-operation and Development (OECD). (2023). *Trade facilitation indicators: The impact of trade facilitation on trade flows*. <https://www.oecd.org/trade/topics/trade-facilitation/>
- Ozekhome, H. O. Trade Facilitation and Trade Expansion in the Ecowas: Implications For Regional Economic Integration.
- Shahzad, U., & Miao, C. (2025). Economic integration and intra-trade between China and South Asia: The role of business cycles and trade openness. *Environment, Development and Sustainability*, 1-25.
- Siyakiya, P. (2025). AnalyzingAnalyzing the Impact of Trade Facilitation on Intra-exports in the Southern African Development Community (SADC). *African Journal of Business and Economic Research*, 20(3), 9-36
- Sorgho, Z. (2022). trade costs, trade facilitation, and regional integration. *The Oxford Handbook of the Economy of Cameroon*.
- Tinbergen, J. (1962). *Shaping the World Economy: Suggestions for an International Economic Policy*. The Twentieth Century Fund.

- Toriola, A. A., Odusanya, I. A., & Olufelo-Adewale, D. (2025). Economic Performance of Regional Trade Blocs in Africa. *Zbornik Radova Ekonomskog Fakulteta u Istočnom Sarajevu*, (30), 33-45.
- Toriola, A. A., Odusanya, I. A., & Olufelo-Adewale, D. (2025). ECONOMIC PERFORMANCE OF REGIONAL TRADE BLOCS IN AFRICA. *Zbornik Radova Ekonomskog Fakulteta u Istočnom Sarajevu*, (30), 33-45.
- U.S. Customs and Border Protection. (2022). *Automated Commercial Environment (ACE): Enhancing trade processing*. <https://www.cbp.gov/>
- United Nations Conference on Trade and Development (UNCTAD). (2023). *Economic Development in Africa Report 2023: The Potential of AfCFTA for Industrialization*. <https://unctad.org/publication/economic-development-africa-report-2023>
- United Nations Economic Commission for Africa (UNECA). (2023). *Facilitating trade in Africa: Moving forward with the AfCFTA*. Addis Ababa, Ethiopia: UNECA. <https://www.uneca.org/>
- World Bank. (2023). *Doing Business 2023: Comparing Business Regulation in 190 Economies*. Washington, DC: World Bank Group. <https://www.doingbusiness.org/>
- World Bank. (2023). *Logistics Performance Index (LPI) 2023* <https://lpi.worldbank.org/>
- World Governance Indicators (WGI). (2023). *Worldwide Governance Indicators Dataset*. World Bank Group. <https://info.worldbank.org/governance/wgi/>
- World Trade Organization (WTO). (2023). *World Trade Report 2023: Re-globalizationRe-globalization for a resilient, inclusive and sustainable economy*. Geneva: WTO. <https://www.wto.org/>
- Yu, Y., & Song, Z. (2023). Main drivers of regional value chains in CAFTA: Does trade facilitation matter?. *Plos one*, 18(12), e0289775.