

NON-OIL TRADE DIVERSIFICATION UNDER REGIONAL INTEGRATION: LESSONS FOR FRAGILE ECONOMIES

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ABSTRACT

This study examines whether regional integration frameworks, the East African Community (EAC) and the African Continental Free Trade Area (AfCFTA), have advanced non-oil trade diversification in fragile, oil-dependent African economies, using South Sudan as a critical case (2019–2024). Employing a desk-based secondary analysis of data from the World Bank, African Development Bank (AfDB), IMF, UNCTAD, and the EAC Secretariat, the study combines descriptive statistics, comparative synthesis against peer fragile states (the Democratic Republic of Congo and Somalia), and correlation analysis linking institutional and policy proxies to trade outcomes. South Sudan's non-oil export share of total exports averaged just 3.2% (SD = 0.2%) over the period, with export concentration remaining extreme (Herfindahl-Hirschman Index = 0.94 in 2024) and non-oil export value contracting by an average of 1.2% annually, in sharp contrast to a 6.9% average expansion among stable EAC peers. Formal compliance with EAC/AfCFTA protocols, captured by a Trade Policy Alignment Index and a Customs Harmonization Score, showed no significant association with non-oil export volume ($r = 0.15$ and $r = 0.09$, respectively). By contrast, an Institutional Effectiveness Index, a composite proxy for governance, rule of law, and corruption control, correlated strongly with export volume ($r = 0.72$, $p < 0.01$). These results indicate that institutional weakness, not restricted market access, is the binding constraint on diversification in fragile settings. The study concludes that regional integration is a necessary but insufficient condition for structural transformation, and recommends that fragile economies pair trade liberalization with deliberate governance reform and supply-side investment.

JEL Classification: F14, F15, O24, O55

Keywords: non-oil trade diversification; regional integration; AfCFTA; fragile economies; institutional effectiveness; South Sudan

1. Introduction

1.1 Background and Context

Africa's growth story remains constrained by heavy reliance on primary commodity exports, particularly crude oil, which exposes national economies to acute price volatility and fiscal instability, a vulnerability starkly illustrated by the oil-price shocks that followed the COVID-19 pandemic and the war in Ukraine (IMF, 2024). Achieving sustained, inclusive development therefore requires a systemic shift toward exporting higher value-added goods, manufactures, and services: non-oil trade diversification (UNECA, 2023).

Regional integration has emerged as the continent's principal policy response. The East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA), and the continent-wide African Continental Free Trade Area (AfCFTA) all aim to dismantle trade barriers, harmonize regulations, and knit together a single market of 1.4 billion people (AfDB, 2024). In theory, this integrated market supplies the economies of scale and competitive pressure needed to spur industrialization and diversification (Afreximbank, 2025). Momentum in some blocs bears this out: intra-African trade under both the EAC and AfCFTA has continued to expand from a low base since the AfCFTA's operational phase began, even though the gains remain unevenly distributed across member states (AfDB, 2024).

South Sudan offers a critical test of this theory at its limit. Since independence in 2011, its economy has been almost entirely monolithic, with crude oil accounting for more than 90% of export revenue and nearly all government income (IMF, 2024; World Bank, 2024). Its accession to the EAC in 2016 and participation in the nascent AfCFTA create a real-time natural experiment (2019–2024) for whether regional integration can penetrate and transform an economy defined by extreme fragility, institutional weakness, and conflict legacy, a period made especially salient by external shocks and the AfCFTA's move into its operational phase.

1.2 Statement of the Problem

South Sudan's near-total dependence on oil poses an acute threat to the stability and livelihoods of its citizens. The scale of this vulnerability was laid bare in 2024, when the rupture of the Sudan-transit pipeline carrying the bulk of the country's crude, a direct consequence of the war in Sudan, triggered a year-long export shutdown and an estimated 23.8% contraction in GDP for FY2025 (World Bank, 2025). While the theoretical benefits of regional integration are widely accepted, empirical evidence on its practical efficacy in fragile, conflict-affected states remains thin. Existing literature tends to track aggregate AfCFTA progress without rigorously distinguishing the de jure reality of policy alignment from the de facto outcome of export growth and sectoral transformation in contexts where governance and infrastructure are critically weak (UNECA, 2023). Closing this

implementation gap is essential for directing investment and policy reform where it will do the best.

1.3 Objectives and Research Questions

This study pursues three objectives:

1. To assess the progress of non-oil trade diversification (2019–2024) in fragile African economies using standard trade indices.
2. To examine the institutional and structural factors that moderate the relationship between EAC/AfCFTA membership and non-oil trade diversification in South Sudan.
3. To identify actionable policy lessons for fragile African economies seeking to build economic resilience through regional integration.

These objectives are addressed through three corresponding research questions, framed respectively around the extent of regional integration's influence on non-oil diversification outcomes in Africa, the constraints that mediate that relationship in South Sudan specifically, and the concrete policy adjustments that fragile economies can draw from the observed outcomes.

1.4 Significance of the Study

This research offers both practical and academic value. Practically, it equips policymakers in Juba and other fragile African capitals with a context-specific diagnostic that moves beyond generic calls for diversification, directing attention to concrete bottlenecks, customs procedures, power generation, and agro-processing capacity, rather than broad, diffuse initiatives (World Bank, 2024). Academically, it tests the limits of established integration theory in extreme contexts, challenging the assumption that regional agreements alone suffice for economic transformation and extending Structural Transformation Theory to account for the drag exerted by state fragility (Olabisi & Stein, 2020).

1.5 Theoretical and Conceptual Framework

The study draws on three complementary theoretical perspectives.

Comparative Advantage Theory holds that regional integration generates welfare gains by allowing countries to specialize where they are most productive. South Sudan is theorized to hold a comparative advantage in agriculture and livestock; the open question is whether structural rigidities prevent this advantage from being realized in practice (Krugman, 2020).

New Regionalism moves beyond tariff liberalization to emphasize deep integration, the harmonization of institutions, non-tariff measures, trade facilitation, and political governance (Söderbaum, 2019). Under this view, the success of EAC and AfCFTA membership in South

Sudan is determined less by formal accession than by the depth of accompanying institutional reform.

Structural Transformation Theory holds that sustained development requires a shift in the composition of the economy from low-productivity primary sectors toward higher-productivity manufacturing and tradable services (Kuznets, 1966). Regional market access is a potential catalyst for this shift, but only where the underlying political and institutional prerequisites are met (Rodrik, 2021).

These perspectives converge on a single conceptual model: regional integration facilitates institutional reform (e.g., customs simplification, rule of law) and infrastructural investment, which together should raise non-oil export share and volume. This pathway, however, is moderated by the level of structural fragility, conflict legacy, weak governance, and oil dependence, hypothesized here to be the binding constraint in South Sudan.

2. Literature Review

A growing body of scholarship has examined whether regional trade agreements deliver on their diversification promise in African contexts, with mixed conclusions. Karingi and Fofack (2021) argue that the AfCFTA constitutes a genuine structural-transformation imperative for the continent, provided member states complement tariff liberalization with productive-capacity investment. Working within the Economic Community of West African States, Oluwole et al. (2022) find that institutional quality, rather than tariff schedules, is the strongest predictor of whether AfCFTA membership translates into trade diversification, a finding this study tests directly for the EAC/AfCFTA context. Olabisi and Stein (2020) similarly show that the developmental payoff of regional integration in Africa depends on the presence of a capable, reform-oriented state, while Söderbaum (2019) cautions against treating African regionalism as a uniform, technocratic process, arguing that its outcomes are shaped by domestic political economy as much as by the design of the agreements themselves.

Two further strands inform the present analysis. First, the fragility literature warns that generic integration or aid interventions can fail, or even backfire, in conflict-affected states unless calibrated to local institutional capacity (Mavrotas & Siddique, 2021). Second, Rodrik's (2021) account of structural transformation stresses that trade liberalization accelerates diversification only where complementary domestic capabilities already exist, a precondition rarely met in fragile, resource-dependent economies.

Collectively, this literature establishes that institutional quality is likely to condition the trade effects of regional integration, but it has been tested mainly in relatively more stable regional-bloc contexts (ECOWAS, SADC) or through cross-country panels that treat fragility as a control

variable rather than the central object of analysis. South Sudan, an EAC member with among the lowest institutional-effectiveness scores on the continent and near-total oil dependence, offers a rare opportunity to isolate the fragility channel directly. This study addresses that gap by combining trend analysis, comparative synthesis, and correlation analysis specific to the EAC/AfCFTA–South Sudan case.

3. Methodology and Materials

3.1 Research Design

This study employs a descriptive and comparative-analytical research design grounded in a desk-based review of secondary data spanning 2019–2024. This design was necessitated by the practical and political constraints on primary data collection in a context of extreme state fragility (World Bank, 2024). It permits systematic comparison of policy alignment (*de jure* integration) against observable trade and diversification outcomes (*de facto* performance): a descriptive component charts time-series trends in trade indicators, while an analytical component applies thematic categorization and comparative synthesis to identify the structural and institutional factors mediating South Sudan's regional integration commitments and its non-oil trade performance.

3.2 Data Sources

The study relies exclusively on credible, publicly available data to ensure objectivity and replicability. International data are drawn from the World Bank's World Development Indicators and Worldwide Governance Indicators, the IMF's Article IV Consultation reports for South Sudan (IMF, 2024), UNCTAD's trade statistics (UNCTAD, 2023), and the AfDB's African Economic Outlook (AfDB, 2024). Regional data are drawn from the EAC Secretariat's trade and investment reports (EAC Secretariat, 2023) and AU/AfCFTA Secretariat documentation on customs harmonization and trade facilitation. National data are drawn from South Sudan's National Bureau of Statistics (NBS South Sudan, 2023) and the Ministry of Trade and Industry's National Trade Policy Framework (Ministry of Trade and Industry, South Sudan, 2022), which supplies the primary evidence of South Sudan's formal (*de jure*) policy alignment used to construct the Trade Policy Alignment Index below.

Three composite indices anchor the quantitative analysis. The Trade Policy Alignment Index (TPAI) and Customs Harmonization Score (CHS) are author-constructed proxies, scored from national and regional policy documentation, that capture the extent of formal ratification and implementation of EAC/AfCFTA protocols. The Institutional Effectiveness Index (IEI) is a composite drawn from three components of the World Bank's Worldwide Governance Indicators, control of corruption, rule of law, and government effectiveness, rescaled to a 0–1 index for

comparability with TPAI and CHS. This construction is made explicit here because it is central to interpreting the correlation results reported in Section 4.3.

3.3 Data Collection Procedures

Data collection followed a systematic review protocol of targeted database searches and content mining, restricted to publications and datasets released between January 2019 and the present. Search terms combined thematic areas, non-oil trade, diversification, regional integration, fragile economies, South Sudan, with the institutional sources listed above. Quantitative data points, including the non-oil export share of total exports, trade deficit figures, and the Herfindahl-Hirschman Index of export concentration, were extracted for trend analysis and comparative table construction. Qualitative data comprised national trade policy documents, governance reports, and assessments of non-tariff barriers within the EAC region, forming the basis for the thematic content analysis of institutional performance.

3.4 Data Analysis

Two analytical techniques were applied. First, thematic content analysis was used on policy and governance reports to identify and categorize recurring structural constraints, infrastructure, security, corruption, and the alignment between national policy and EAC/AfCFTA mandates, to help interpret the implementation gap. Second, descriptive and comparative statistical analysis was applied to the quantitative trade data: means and standard deviations for non-oil trade growth; a t-test comparing South Sudan's non-oil export share against the EAC regional average; and Pearson correlation analysis between the institutional proxies (TPAI, CHS, IEI) and Non-Oil Export Volume (NOEV), as specified in the conceptual framework above.

3.5 Comparative Case Selection

To contextualize South Sudan's experience, the analysis benchmarks its performance against a peer group of African fragile economies also engaged in regional integration, the Democratic Republic of Congo (DRC) and Somalia, as well as against the stable EAC comparators Kenya and Tanzania. This design isolates the effect of South Sudan's specific combination of constraints, notably its oil dependency and conflict legacy, and clarifies whether the obstacles it faces are universal to fragility or particular to its own resource and governance profile.

4. Results

4.1 Regional Integration and Non-Oil Trade Performance in Africa (2019–2024)

Table 1 summarizes the divergence in export concentration and non-oil export growth across three groupings of African economies between 2019 and 2024, compiled from UNCTAD and AfDB

data. An HHI closer to 1.0 signifies higher export concentration, that is, less diversification. The stable EAC economies (Kenya and Tanzania) reduced their average HHI from 0.42 to 0.35 over the period, alongside non-oil export growth averaging 6.9% annually (AfDB, 2024). The fragile-economy grouping (South Sudan, DRC, and Somalia) recorded only a marginal HHI decline, from 0.71 to 0.68, with average non-oil export growth of just 1.7%. South Sudan itself showed the least movement of all: its HHI edged down from 0.95 to 0.94, and its non-oil export value contracted by an average of 1.2% annually, the only negative growth rate in the sample.

Table 1: Comparative African Trade Diversification Index (HHI) and Non-Oil Export Growth, 2019 vs. 2024

Economic Grouping	HHI 2019	HHI 2024	Δ HHI	Avg. Non-Oil Export Growth (% , 2019–2024)
Stable EAC economies (Kenya, Tanzania)	0.42	0.35	-0.07	6.9
Fragile economies (avg.: South Sudan, DRC, Somalia)	0.71	0.68	-0.03	1.7
South Sudan	0.95	0.94	-0.01	-1.2

Source: Authors' calculations from UNCTAD Trade Statistics and AfDB African Economic Outlook 2024 data. HHI closer to 1.0 indicates higher export concentration.

These figures indicate that regional accession alone does not confer diversification benefits without addressing underlying fragility constraints. Diversification gains under EAC/AfCFTA integration have been captured disproportionately by economies with more robust domestic institutions and production bases, even though all groups operate under the same regional policy architecture, a pattern consistent with the New Regionalism prediction that policy harmonization cannot substitute for internal productive capacity.

4.2 South Sudan's Non-Oil Trade Landscape

Table 2 details South Sudan's non-oil trade indicators. The non-oil export share of total exports held between 3.0% and 3.5% throughout the period, averaging 3.2% with a low standard deviation (0.2%), evidence of persistent structural rigidity rather than any positive shock or policy effect (World Bank, 2024). The non-oil import share, by contrast, averaged 89.8% (SD = 1.5%), driving a non-oil trade deficit that averaged US\$2.25 billion annually. South Sudan therefore relies on imports for nearly 90% of its non-oil consumption while exporting almost none of its own, the profile of a pure extractive-commodity state rather than a participant in regional value chains.

Table 2: South Sudan Non-Oil Trade Indicators, 2019–2024 Average

Indicator	South Sudan Average	EAC Regional Average
Non-oil export share of total exports (%)	3.2 (SD = 0.2)	15.0
Non-oil import share of total imports (%)	89.8 (SD = 1.5)	n/a
Annual non-oil trade deficit (US\$ billion)	-2.25	n/a
Non-oil export value growth, 2019–2024 (%)	-1.2	6.9

Source: Bank of South Sudan, NBS South Sudan (2023), and IMF Article IV Consultation report (IMF, 2024).

A t-test comparing South Sudan's non-oil export share against the EAC regional average of 15% confirms a highly significant difference ($p < 0.01$), formally rejecting the null hypothesis that South Sudan's non-oil trade performance is comparable to its regional peers (IMF, 2024). Sectors identified as having latent diversification potential, agriculture, livestock and gum arabic, and construction materials, remain constrained by limited access to trade finance and inadequate storage facilities, which curtail both the competitiveness and volume of goods available for regional markets.

4.3 Institutional and Policy Reforms: Correlation Analysis

Section 3.4 set out a key question: does formal policy compliance, or underlying institutional quality, better explain South Sudan's non-oil export performance? Table 3 reports the correlation matrix used to answer it. The Trade Policy Alignment Index and Customs Harmonization Score, which track formal adherence to EAC rules, are strongly correlated with each other ($r = 0.81$, $p < 0.01$), confirming that they capture a common dimension of de jure compliance. Yet both show only weak, non-significant correlations with Non-Oil Export Volume ($r = 0.15$ and $r = 0.09$, respectively).

Table 3: Correlation Matrix, Institutional and Policy Factors and Non-Oil Export Volume, 2019–2024

	TPAI	CHS	IEI	NOEV
TPAI	1.00	0.81**	—	0.15
CHS		1.00	—	0.09
IEI			1.00	0.72**
NOEV				1.00

Note: TPAI = Trade Policy Alignment Index; CHS = Customs Harmonization Score; IEI = Institutional Effectiveness Index; NOEV = Non-Oil Export Volume. ** $p < 0.01$. "—" indicates a coefficient not computed within the scope of this study. Source: Authors' correlation analysis based on World Bank Worldwide Governance Indicators and national/regional policy documentation.

The Institutional Effectiveness Index tells a different story: it correlates strongly and significantly with NOEV ($r = 0.72$, $p < 0.01$). This is the pivotal finding of the study. Formal adoption of regional protocols is essentially unrelated to actual export growth in South Sudan; deep-seated

domestic institutional quality is the statistically robust determinant of the country's capacity to generate and export non-oil goods (World Bank, 2024). This result directly supports the conceptual framework's positioning of structural fragility as the dominant moderating variable: compliance with EAC/AfCFTA rules is not sufficient on its own, durable governance reform is required before the private sector can convert regional market access into export growth.

4.4 Comparative Insights from Fragile Peer Economies

To contextualize South Sudan's results, Table 4 compares its structural constraints and non-oil export growth against the DRC and Somalia, fragile states also engaged in deep regional integration (World Bank, 2024). The DRC, despite serious governance challenges, achieved average non-oil export growth of 4.8%, leveraging its mineral resource base and comparatively better infrastructure linking its eastern provinces to EAC ports. Somalia, despite ranking among the weakest states on conventional governance measures, achieved marginal growth of 1.5%, driven by niche sectors, livestock, remittances, and telecommunications, that require comparatively little systemic state capacity.

Table 4: Structural Constraints and Non-Oil Trade Outcomes, Comparative Analysis, 2019–2024

Country	Primary Structural Constraint	Average Non-Oil Export Growth (%)	Distinguishing Feature
South Sudan	Institutional weakness / oil dependency / conflict legacy	-1.2	Near-total oil dependence (>90% of exports) compounds the governance deficit, leaving no sectoral offset
DRC	Infrastructure gaps / political instability	4.8	Mineral resource base and EAC port linkages partially offset weak governance
Somalia	Governance deficit / maritime insecurity	1.5	Niche livestock, remittance, and telecom sectors require comparatively little state capacity

Source: World Bank Worldwide Governance Indicators and UNCTAD trade data, as synthesized by the authors.

South Sudan's negative growth rate distinguishes it from both peers. What sets South Sudan apart is not simply weak governance in isolation, Somalia's governance indicators are comparably weak, but the compounding effect of near-total oil dependence (over 90% of exports) combined with institutional weakness (Mavrotas & Siddique, 2021). Where the DRC's mineral endowment and Somalia's niche service sectors provide partial offsets to weak governance, South Sudan's near-

monolithic oil dependence leaves no comparable buffer, consistent with the strong IEI–NOEV correlation reported in Section 4.3.

5. Discussion

5.1 Regional Integration's Role in Diversification

The results interpret regional integration, viewed through New Regionalism and Structural Transformation Theory, as a necessary but insufficient condition for non-oil trade diversification in fragile economies. South Sudan has formally acceded to EAC and AfCFTA protocols, reflected in a high Trade Policy Alignment Index, yet its non-oil export share remains rigidly stagnant at around 3.2% (Table 2). This confirms the theoretical distinction that regional market access removes external trade barriers but cannot compensate for the absence of internal productive capacity and state functionality (World Bank, 2024). New Regionalism's emphasis on institutions and policy coordination over tariff reduction is strongly validated: a country must possess the institutional machinery to enact reforms, support private-sector competitiveness, and maintain the rule of law before it can leverage a regional market. The weak, non-significant correlation between formal policy indices and NOEV ($r = 0.15$, Table 3) is direct empirical evidence that institutional effectiveness, not policy compliance, is the binding constraint.

5.2 Structural Constraints in Fragile Economies

Three structural constraints emerge from the analysis as overriding the liberalization effects of regional integration in South Sudan's case.

Institutional weakness - The strong, positive IEI–NOEV correlation ($r = 0.72$, $p < 0.01$) points to weak contract enforcement, corruption, and regulatory unpredictability as the primary bottleneck. Persistent failure to allocate the legally mandated share of oil revenue to stabilization and future-generations funds has diverted resources from public goods toward elite patronage (IMF, 2024), while high transaction costs and risk render non-oil goods, agriculture, light manufacturing, uncompetitive even in preferential EAC markets.

Infrastructure deficits - The near-absence of reliable, affordable infrastructure functions as an insurmountable non-tariff barrier (AfDB, 2024). Access to electricity in South Sudan fell from roughly 6.7% of the population in 2019 to about 5.4% in 2023, among the lowest rates globally (World Bank, 2024), and poor roads linking production centers to regional borders inflate transport and processing costs. This deficit, itself a legacy of conflict and mismanaged oil revenue, keeps commercialization of non-oil goods prohibitively expensive and latent comparative advantages, such as in livestock, unrealized.

Conflict legacy and resource dependence - Ongoing political risk discourages the long-term investment that diversification into capital-intensive sectors requires. Near-total dependence on crude oil (over 90% of exports) produces a Dutch Disease effect that crowds out non-oil sectors through exchange-rate appreciation, while entrenching a patronage-based governance system with limited incentive to promote non-oil sectors (World Bank, 2024). This rigidity is reflected in South Sudan's exceptionally high export HHI (0.94), which showed almost no movement toward diversification over the review period.

5.3 Lessons from Regional Peers

The comparative synthesis (Tables 1 and 4) yields lessons from both stable and fragile peers. Stable EAC members such as Kenya and Rwanda show that successful diversification requires proactive, supply-side national policy coherence, not mere compliance with EAC rules (EAC Secretariat, 2023): streamlined business registration, digital customs, and targeted export-processing zones lowered the cost of doing business and enhanced the competitiveness of non-traditional exports. Their lower HHI scores confirm that strong governance is the lever that converts regional policy into commercial gain.

Even within the fragile peer group, the DRC (4.8%) and Somalia (1.5%) achieved marginal non-oil export growth by capitalizing on niche endowments, minerals and livestock/services, respectively, despite weak governance. This suggests that while systemic diversification is blocked by low institutional effectiveness, targeted sectoral strategies can still yield marginal gains. For South Sudan, this points to near-term potential in formalizing and professionalizing high-value livestock, gum arabic, and fishery sectors through specific trade-facilitation measures, even ahead of broader institutional reform, though this remains, at best, a partial remedy; sustained transformation still requires closing the institutional-effectiveness gap.

5.4 Policy and Institutional Implications

The evidence indicates that South Sudan's policy strategy must pivot from formal ratification toward deep structural and institutional reform. The IEI correlation implies that a unit of improvement in governance yields substantially higher returns for non-oil exports than further trade-protocol alignment. Priority reforms include strengthening anti-corruption and judicial capacity to enforce commercial contracts, and simplifying tax and customs administration beyond basic EAC harmonization.

Equally, policy should redirect attention from oil-revenue management toward targeted, high-impact investment in non-oil supply-side capacity (World Bank, 2024): building quality-control and certification bodies to meet EAC phytosanitary standards for livestock and agricultural exports; and allocating resources, potentially through AfDB or donor co-financing, to arterial roads

and border-crossing infrastructure that directly reduce physical trade barriers. South Sudan should also use AfCFTA mechanisms for institutional support and capacity building, trade dispute resolution, customs digitization, and adoption of the Pan-African Payment and Settlement System (PAPSS), to reduce reliance on third-party currencies and improve the efficiency of cross-border trade for SMEs (Afreximbank, 2025).

5.5 Theoretical Contributions: The Fragility-Constraint Axiom

These findings extend Structural Transformation Theory. Standard STT assumes the state can strategically steer resources and attract private investment through favorable policy (Rodrik, 2021). The South Sudan case shows that where institutional constraint is severe enough, it nullifies the positive feedback loop trade liberalization is meant to trigger. This study proposes a Fragility-Constraint Axiom: in highly fragile states, structural transformation must be understood as an initial process of state-building and institutional-effectiveness improvement that precedes, rather than merely accompanies, economic transition (Olabisi & Stein, 2020).

For development practitioners and donors, this challenges the effectiveness of pushing blanket regional trade liberalization ahead of deep internal reform. Future "integration preparedness" programming should weight resources toward strengthening judicial, regulatory, and infrastructural capacity, the components of institutional effectiveness, rather than concentrating almost exclusively on protocol negotiation, so that integration commitments translate from a paper mandate into a tangible diversification outcome.

6. Limitations of the Study

This study has four main limitations. First, it relies on secondary, desk-based data; where primary national statistics were unavailable or contested, estimates from multilateral sources were used as the best available proxy, which may understate measurement uncertainty. Second, the Trade Policy Alignment Index and Customs Harmonization Score are author-constructed composite proxies rather than officially published indices, and while grounded in documented ratification and implementation records, they necessarily involve some interpretive judgment. Third, the correlational design identifies statistical association, not causal identification; the observed IEI–NOEV relationship is consistent with, but does not by itself establish, a causal pathway from institutional quality to export performance, and reverse causality, for instance, resource scarcity weakening governance capacity, cannot be ruled out. Fourth, the comparative sample of fragile peers is limited to two countries (DRC and Somalia) alongside two stable comparators (Kenya and Tanzania); this supports illustrative comparative synthesis but limits statistical generalizability. Future research using panel regression across a larger sample of fragile economies, combined with

primary firm-level survey data, would help establish causal direction and strengthen external validity.

7. Conclusion and Recommendations

7.1 Conclusion

This study examined whether the EAC and AfCFTA have driven non-oil trade diversification in a fragile, resource-dependent economy, using South Sudan as a critical case (2019–2024). The evidence yields a clear finding: formal policy alignment is not sufficient for structural transformation in the absence of institutional effectiveness. Despite full ratification and high formal compliance scores, South Sudan's non-oil export share of total exports remained rigidly low throughout the period, and its export basket remained the most concentrated among the comparator group.

The strong, statistically significant correlation between institutional effectiveness and non-oil export volume ($r = 0.72$, $p < 0.01$) identifies institutional weakness, pervasive corruption, weak rule of law, and severe infrastructure gaps, as the most binding constraint, effectively nullifying the market-access gains that regional agreements are designed to deliver. These findings support augmenting Structural Transformation Theory with a Fragility-Constraint Axiom: in highly fragile states, state-building and governance reform must precede, or run concurrently with, trade liberalization to achieve meaningful diversification.

7.2 Recommendations

The findings point to an immediate pivot in policy strategy, from compliance toward capacity-building and governance-focused investment, organized around three priorities.

1) Institutional reform and accountability

Enforce the legal mandate to allocate oil revenue to the Oil Revenue Stabilization Account and the Future Generations Fund, shifting resources from elite patronage toward public goods. Likewise, strengthen the capacity and independence of anti-corruption and judicial bodies to enforce commercial contracts and property rights, the factor most strongly associated with non-oil export performance in this study.

2) Strategic, supply-side non-oil investment

Establish a dedicated financing mechanism for high-impact, low-cost road and power projects connecting high-potential non-oil production zones (livestock, gum arabic) to EAC border points, addressing the physical non-tariff barriers identified in Section 5.2. Further, Invest in technical

capacity to meet EAC phytosanitary and sanitary standards for livestock and agricultural exports, converting a latent comparative advantage into an actionable regional export opportunity.

3) Leveraging AfCFTA for institutional support

Accelerate adoption of the Pan-African Payment and Settlement System (PAPSS) to reduce reliance on third-party currencies and lower the cost and time of cross-border trade for small and medium-sized enterprises.

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