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Drivers of Economic Growth in the East African Community: A Systematic Review of Regional Integration, Trade and Macroeconomic Determinants (2020-2025)

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Abstract

The East African Community (EAC), which is often lauded as one of the shining lights of integration in Africa, has been fraught with institutional challenges that have had a bearing on its quest for sustainable development. Based on the PRISMA 2020 checklist, the primary aim of this systematic literature review was to determine and consolidate findings from existing empirical research regarding economic growth drivers in the EAC between 2020 and 2025. Thorough search of 5 academic databases yielded 118 hits from 5 academic databases. Of those, 16 peer-reviewed empirical studies met the full set of eligibility criteria. Quality appraisal and narrative synthesis found that the primary concerns in these studies revolved around the impact of regional integration, trade openness, foreign direct investment (FDI), the quality of governance, financial technology, and development of energy infrastructure on real gross domestic product (GDP) in all partner states. Based on our evidence, there is a probability that the association between regional integration and trade openness is reliant upon, or mediated by, the quality of institutions. Evidence also points to governance gaps and macroeconomic instability remaining major bottlenecks. Financial technology and electricity consumption have emerged as significant mediating mechanisms, subject to adequate infrastructure and regulatory consistency, respectively. There are equally important research gaps in post-pandemic high-frequency cross-sectional studies, informal sector indicators, and non-linear econometrics. Because the majority of studies included cover the period ending

2022, the Evidence synthesis presented in this paper relates to the general macroeconomic, institutional, and structural drivers of growth in the EAC and not just the post-COVID-19 recovery. It is concluded that the decade-long cross-country experience in the EAC suggests that positive and consistent financial and green infrastructure build-up, combined with multi-sector institutional reforms, macroeconomic balancing, and social, economic, and political stability, constitute the best chance for resilient and inclusive growth.

Keywords

Economic Growth, Regional Integration, Trade Openness, Gross Domestic Product (GDP), Foreign Direct Investment (FDI)

1. Introduction

Sustained economic growth in Sub-Saharan Africa critically depends on the ability of Regional Economic Communities (RECs) to translate institutional integration into positive productivity growth effects. To this end, a considerable amount of research has been published on EAC (comprising Burundi, Kenya, Rwanda, South Sudan, Tanzania, Uganda and the Democratic Republic of Congo), highlighting achievements with regard to the customs union, the protocol on the common market, negotiations toward a monetary union, the impact on market access, and benefits derived from trade integration (African Development Bank, 2021; EAC, 2022). These positive outcomes are, however, shadowed by continued poor performance with regard to economic diversification, susceptibility to external shocks, and differential institutional capacities (African Development Bank, 2021; EAC, 2022). In fact, the recent shocks caused by the COVID-19 pandemic, increasingly exacerbated by climate hazards and shifting geopolitical forces impacting global trade patterns, have highlighted the limits of models where primary commodity exports and limited manufacturing remain the central pillars of growth (World Bank, 2025; Mperejekumana et al., 2024).

Two perspectives explain the connection between integration and growth theoretically. The endogenous growth paradigm stresses the mechanisms through which trade and investment influence long-run productivity growth, based on innovation, human capital accumulation, and institutional quality (Romer, 1990; Mankiw, Romer, & Weil, 1992), while in the neoclassical context, conditional convergence hinges on capital accumulation and minimization of distortions in markets (Solow, 1956). Yet, the EAC context does not support straightforward answers. Trade integration has enhanced access to external markets, although intra-regional trade is limited compared to total trade flows (Ejones, Agbola, & Mahmood, 2021; Krantz, 2024).

FDI inflows have surged, but the relationship to growth depends heavily on absorptive capacity and institutional quality (Asiedu, 2002; Zaman et al., 2021); and the revolution in information and communication technologies, particularly with

the emergence and diffusion of mobile money and financial technology (fintech), may offer leapfrog opportunities, although supporting evidence in the EAC for these relationships is limited (Ngong, Thaddeus, & Onwumere, 2024; Chinoda & Kwenda, 2019).

Three gaps characterized the prior literature review work on EAC economic growth. First, the evidence is generally stale, with the post-COVID recovery phase (2021-2025) being particularly under-researched, and most available evidence stopping before 2020. Second, the evidence is scattered across disciplinary boundaries; that of trade economists focuses on openness and exports, while that of development economists focuses on institutions and quality of governance, not considering energy economists' view, with electricity being the main binding constraint, and thus no integrated assessment of causes for growth is attempted. Thirdly, the empirical literature applies a heterogeneity of methodologies ranging from GMM, VAR, ARDL, and qualitative policy analysis, with often insufficient attention to cross-sectional dependence, non-linear relationships, and other panel data-related concerns (Pesaran, 2015; Pesaran, 2021; Ullah & Akhtar, 2018).

This review adopts a systematic methodology that integrates both quantitative and qualitative data on EAC economic growth to fill the existing research gap. Applying the PRISMA 2020 guidelines (Moher et al., 2009) for systematic reviews, it outlines different approaches by conducting a search of empirical EAC economic growth literature for the period 2020-2025. It aims to examine methodological heterogeneity of the existing evidence, extract different components of the EAC's growth story by categorizing different explanations for growth, and derive actionable policy recommendations for the region based on available evidence, thereby giving the most comprehensive synthesis yet of the evidence published during the post-COVID period on growth determinants in an underdeveloped but economically dynamic region in Africa.

The fundamental research inquiry driving this review paper is identifying, reviewing, and appraising the main macroeconomic, institutional, and structural growth determinants of the EAC member economies since the outbreak of Covid-19 (2020-2025). The central research question in this review, therefore, is: What and how macroeconomic, institutional, and structural factors likely drive EAC's economic growth (2020-2025) in terms of regional integration, trade openness, FDI, governance quality, financial technology (Fintech), and energy infrastructure, and what the quality of the recent empirical literature looks like?

Given this broad objective, the review focuses on the following four objectives:

1) To categorize the primary macroeconomic, institutional, and structural factors driving economic growth in the EAC (2020-2025);

2) To establish the potential direction, size, and significance of regional integration, trade openness, FDI, governance, Fintech, and energy access as some of the growth-supporting factors across the EAC partner states;

3) To identify strengths and weaknesses and assess the empirical methodology and quality of existing recent literature on growth determinants in the EAC;

4) To provide a synthesis of evidence-based policy proposals and areas for further research needed for post-pandemic growth recovery and structural transformation of the region.

2. Literature Review

This synthesis is based on the cleaned data set of 16 selected studies, further supplemented with wider regional and theoretical literature to inform and frame the evidence. The findings are presented thematically in order to explore how the various growth factors impact the EAC.

2.1. Regional Integration and Intra-Regional Trade

Regional economic communities are a fundamental part of the African development framework, and the EAC is widely seen as a litmus paper for regional integration-driven development. The expected theoretical benefits are based on savings due to scale, competitive discipline, and investment creation (Schiff & Winters, 2003). Ejones, Agbola, and Mahmood (2021) find new empirical evidence for a statistically significant positive effect of EAC regional integration on per capita income growth, but the effect varies significantly across countries and sectors. Krantz (2024) finds that deepening regional backward linkages and participation in global value chains have increased since 2015, but the EAC heavily leans on extra-regional demand.

Osabohien et al. (2021), however, dampen this optimism by citing residual inhibitors of intra-EAC trade: non-tariff barriers, lack of trade facilitation, and infrastructure deficit. Lwesya (2022) further warns that without targeted effort to acquire domestic and regional backward and forward linkages and upgrade into regional and global value chains, EAC member states will only gain a share of low levels of the value chain. These reservations will also hold for the more conventional economic concerns surrounding intra-African economic integration, which draw on the structuralist views expressed in Hausmann, Hwang, and Rodrik (2006) that, without an industrial policy, openness can entrench comparative disadvantage. Ouma, Kimani, and Manyasa (2016) highlight a further agricultural issue that can constrain intra-EAC transactions: the low value of agricultural trade, but also the barriers imposed by a lack of harmonization of SPS standards and poor management of post-harvest logistics.

2.2. Trade Openness, Export Diversification and Growth

The link between trade openness and economic growth is a matter of empirical debate and remains hotly contested in development economics. Ibrahim and Abdulmalik (2023) show that trade openness plays a role in growth alongside governance, suggesting that institutional conditions for growth are key when liberalization is in progress in the EAC. Otieno Jabuya, Sule, and Ndwiga (2023) focus

on trade openness in agriculture, concentrating on the impact of export diversification on GDP growth in the EAC; the study concludes: "what you export is likely to matter" (Hausmann, Hwang, & Rodrik, 2006).

On the other hand, Huchet, Mouël, and Vijil (2018) express concern that traditional indicators of openness are likely to overestimate the growth effect where the composition of imports is primarily capital or consumer goods that displace domestic production. Carrasco and Tovar-García (2021) complement this by positing that what counts is not total exports but their composition and diversification; economies that depend on a limited range of primary commodities have a weaker elasticity of growth to trade. These distinctions emerge in EAC-specific study foci: for example, while Raghutla (2020) and Zahongo (2016) find evidence of the trade-growth relationship in the context of developing and Sub-Saharan African economies in general, Yameogo and Omojolaibi (2021) signal that poverty reduces the positive effects of this relationship because increased disparity as a result of policy-induced liberalization, absent tradewise investment and redistribution strategies, opens up critical distributional arenas. Odhiambo (2021) also raises doubt about the unconditional reception of export-led growth in the EAC, attributing this to part of the mismatch between structural transformation and trade infrastructure development.

2.3. Foreign Direct Investment, Capital Formation, and Absorptive Capacity

The growth effect of FDI is readily stated to be via capital accumulation, technology spillovers, and productivity growth (Borensztein, De Gregorio, & Lee, 1998). On the EAC, Zaman et al. (2021) show that the growth effect of FDI by itself becomes more significant if the integration of the region is considered, being, in fact, augmented by exports of information technology and capital accumulation. Banday, Murugan, and Maryam (2021) come to the same conclusion in a wider BRICS-plus context, with FDI and trade openness having a joint positive effect on growth—though within an institutional threshold.

Asiedu (2002) demonstrates that the determinants of FDI in Africa differ from those in other developing regions, with institutional quality a decisive locational factor a precondition distinct from, but complementary to, the growth mechanism identified by Borensztein, De Gregorio, and Lee (1998), in which FDI raises growth through capital accumulation, technology transfer and productivity spillovers conditional on absorptive capacity; this institutional precondition has been supported by Ajide and Raheem (2016), who found that the FDI-growth relationship in ECOWAS was strongest in the presence of strong legal and regulatory institutions. Akinlo and Okunlola (2021) incorporate weaker institutions into the developing country paradigm, concluding that past trends of simple trade openness only hold where the quality of institutions is sufficiently high. When domestic mobilization is hindered by poor institutions, the growth benefits of FDI are constrained, a finding which Belloumi and Alshehry (2018) dis-

tinguish from the growth effects of domestic capital flows and find to be underestimated for economically uncompetitive countries with insufficient local sources of specific technological capabilities. Sahoo and Dash (2022) bring specific industry heterogeneity into the picture, although their evidence concerns the heterogeneity of FDI impacts on exports across sectors rather than direct growth-spillover estimates.

2.4. Governance, Institutions, and Macroeconomic Stability

The new institutional economics has conclusively shown that governance has a causal relationship with growth over the long run. Kaufmann, Kraay, and Mastruzzi (2011) set out the methodology of cross-country measurement of governance. Ndulu and O'Connell (1999) empirically relate Africa's growth tragedy to failures in governance. Knack and Keefer (1995) find that measures of institutional quality (property rights and contract enforcement) explain a significant portion of cross-country growth differences more than those that are trade- and investment-related.

In the EAC, Ibrahim and Abdulmalik (2023) explicitly include governance as a moderation variable, with results demonstrating that institutional quality can actively moderate the growth effects of trade openness and FDI. Abdelbary (2018) makes a case for Egypt by highlighting that reform of governance is necessary for sustainable growth in the medium- to long-term, over and above stabilisation in the short term. Adzima and Baita (2019) find this to be true for sub-Saharan Africa as a whole, with governance indicators having a direct positive effect on GDP growth. Afolabi (2019) builds on this with a system generalised method of moments (GMM) dynamic panel approach, revealing that West African economic development is dependent on governance, a finding which can be safely applied to the EAC, sharing the same frazzled institutional spectrum. Fawaz, Mnif, and Popiashvili (2021) offer an assessment of this where they minimise heterogeneity by denying marginal growth in less developed, poorer, and fragile economies.

The other pillar of governance that is at the same time complementary to institutions is macroeconomic stability. Muinga et al. (2024) argue that twin macroeconomic fiscal deficits are a hindrance to EAC growth once they hold back private investment. Through a structural vector autoregression (S-VAR) model approach to monetary policy in the EAC, Olamide et al. (2022) show that macro external shocks-commodity price shocks and exchange rate shocks-transmission to domestic output seems to be quite swift, justifying the need for a credible countercyclical regime.

2.5. Financial Technology, Digital Transformation, and Financial Inclusion

The expansion of digital financial services marks a fundamental change to the mobilization and use of capital in developing economies. Ngong, Thaddeus, and Onwumere (2024) offer the most direct evidence on the EAC, finding a growth-enhancing relationship between fintech adoption and development in the partner

states. Dumor et al. (2024) examine the EAC as part of the Eastern African Belt and Road corridor and find that adoption of information and communication technology (ICT) increases trade and growth, driven by broadband access and regional integration.

Chinoda and Kwenda (2019) use panel cointegration for 30 African countries and find that mobile phone adoption, economic development and bank rivalry jointly influence financial inclusion across the continent and, hence, that fintech has multiple transmission channels. A review of financial innovation in Africa from the perspectives of development, competition and efficiency shows that technological leapfrogging can partially offset limited traditional banking opportunities (Beck, Senbet, & Simbanegavi, 2015). Exploring branchless banking models in Kenya, analysts find that financial innovations are correlated with bank performance and systemic credit intermediation (Chipeta & Muthinja, 2018).

Qamruzzaman and Wei (2019) provide evidence that financial innovation moderates the relationship between financial inclusion and the development of financial market infrastructure in South Asia by significantly reducing transaction costs and expanding the market for investable funds. These mechanisms matter significantly for the EAC, where formal financial depth is limited and mobile money utilization is among the highest globally (European Investment Bank, 2018; Financial Stability Board, 2017).

2.6. Energy, Infrastructure, Climate Vulnerability, and Sectoral Dynamics

No modern growth decomposition can be silent about ecological and physical limits to production. Mutumba, Mubiinzi, and Amwonya (2024) report a unidirectional long-run causal relationship running from electricity consumption to economic growth (the "growth hypothesis") in the EAC over 1990-2021, signifying that energy access constitutes a binding growth constraint. In fact, Ajakaiye and Ncube (2010) show that infrastructural gaps in energy, transport and water are the single most binding constraint to structural transformation in Africa.

A further complication concerns climate change: climate adaptation through adopting the water-energy-food-environment (WEFE) nexus for sustainable development in the EAC system indicates that the decade could end with devastating climate shocks reducing agricultural value-added (Mperejekumana et al., 2024). By exploring the connections between carbon emissions, economic governance, and growth, Otim and Mutumba (2025) observe that weak environmental governance intensifies the carbon intensity of output with serious growth costs. These results are in line with the international approach of reducing its impact, namely, growth at a lower rate (UNCTAD, 2022).

Sectoral studies lend greater layers of texture. The other studies included in this special issue are: Mwangi, Chen, and Njoroge (2020), who analyse agricultural imports and productivity in Sub-Saharan Africa and argue that capital-intensive agricultural imports could boost productivity but might also crowd out maize and

other farming activity without concurrent policies to enhance rural development; Ghimire, Lin, and Zhuang (2021), who discuss Bangladesh's experience with agriculture trade and highlight the balance-of-growth-environmental trade-off that the EAC will need to weigh as it expands its agricultural exports; Maina et al. (2023), who focus on housing and mortgage markets and show how housing investment increases the linkage between mortgage financing and growth in EAC member countries—an urbanisation-growth nexus that is insufficiently studied; Alananga and Mutasa (2022), who compare financial sector development in EAC with that of the Southern African Development Community (SADC) and find that proximity and regulatory convergence lead to stronger financial deepening-growth effects.

3. Methodology

3.1. Protocol and Registration

This study was completed as a systematic review in which every step of the review was performed using the PRISMA 2020 guidelines. The systematic procedure of this review was conducted with no internal or external tampering due to the use of an existing formulated protocol detailing in advance such key parameters as: the review question, criteria for selection, search strategy, and methods for analysis. The figures presented in this study were generated using for this study were produced using Python-based data visualization techniques. No ethics committee approval was required because this study did not result in the generation of new human or animal data and only used already published data. Nevertheless, adherence to generally accepted methods for citation, reference, and acknowledgement, and the prevention of plagiarism was essential and was implemented within this paper.

3.2. Information Sources and Search Strategy

A methodical literature survey of relevant publications was carried out between January 2020 and December 2025 to represent the period during and after the COVID-19 pandemic, through five electronic databases and discovery platforms: Web of Science Core Collection, Scopus, EconLit, Google Scholar, and the Directory of Open Access Journals (DOAJ). The search process took place between 15 June and 30 June 2026, and was finalized during the final update, conducted on 15 September 2026, prior to submission of the manuscript on 30 September 2026. A search string was established by creating three search blocks connected by the Boolean operator AND: [economic growth (the dependent variable)], [geographical scope (EAC and related member/countries)], and [explanatory factors]. The full search string developed was: ("Economic Growth" OR GDP OR "Gross Domestic product" OR "Per Capita Income") AND ("East African Community" OR "EAC" OR "Burundi" OR "Kenya" OR "Rwanda" OR "Tanzania" OR "Uganda" OR "South Sudan" OR "Democratic Republic of Congo" OR DRC) AND ("Regional

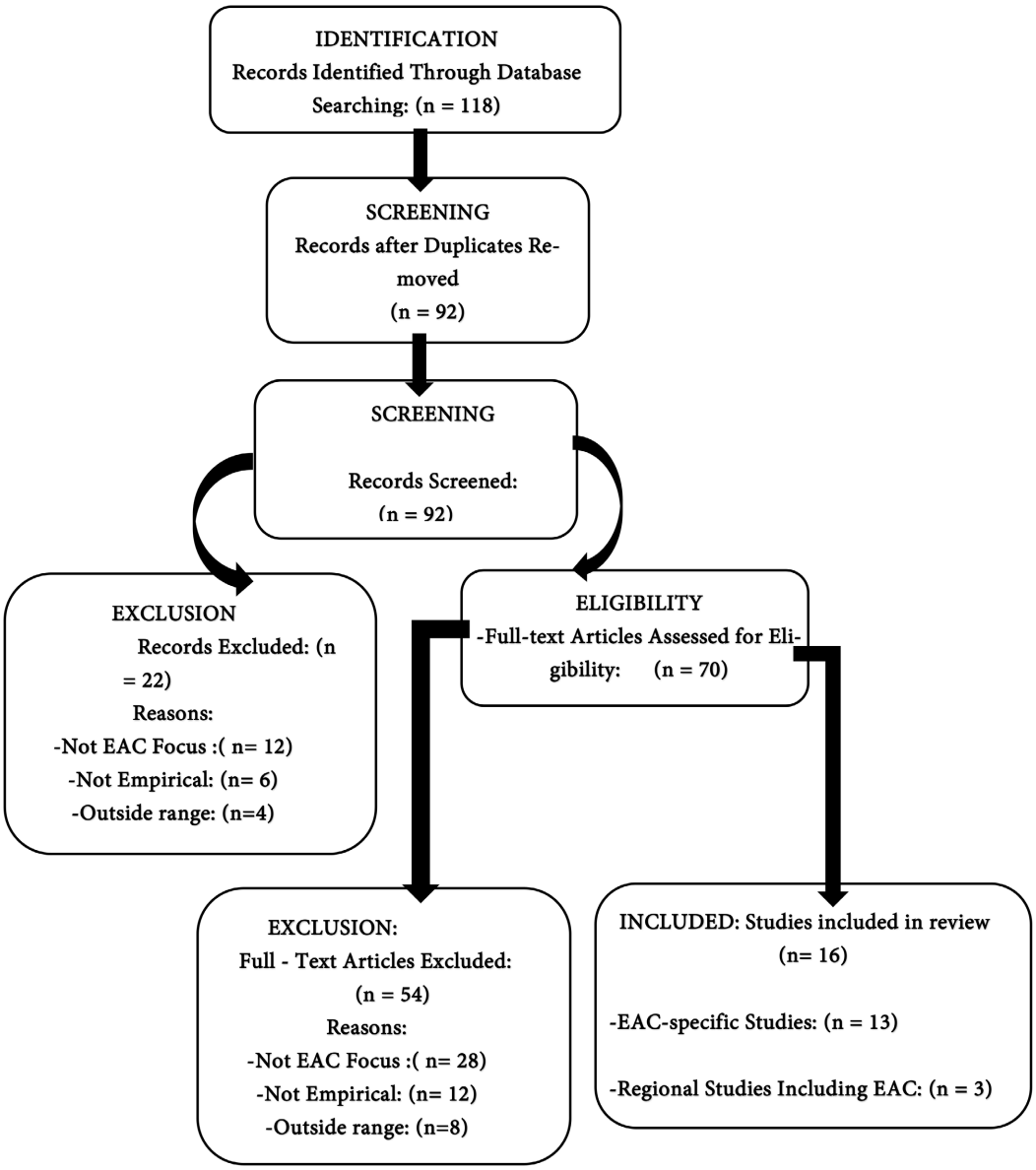
Integration" OR "Trade Openness" OR "Foreign Direct Investment" OR "FDI" OR "Governance" OR Institutions OR "Financial Technology" OR "Fintech" OR "Electricity" OR "Energy" OR "Fiscal Deficit" OR "Monetary Policy" OR "Climate Change" OR "ICT"). Searching varied fields according to each database (e.g., Topic in Web of Science Core Collection, TITLE-ABS-KEY in Scopus, Anywhere in EconLit, the first 200 ranked records per query for each query string in Google Scholar, and All fields in DOAJ). Only studies in English language published in peer-reviewed journals (or working papers/conference papers if applicable) published between 2020 and 2025 were considered in the electronic databases. This research favored sensitivity over precision during the identification phase by trying to retrieve the largest number of possibly relevant publications. Once 26 duplicate records were removed, 118 distinct publications were identified for screening, as shown in **Figure 1**. To make the review as thorough as possible, the study conducted backward citation searching by scrutinizing the bibliography of all selected studies and relevant prior review articles. In addition, the research performed forward citation searching on Google Scholar for each selected study. Records found through these additional methods are recorded as "Citation searching" in the PRISMA flowchart (**Figure 1**).

3.3. Eligibility Criteria

To be included, studies were required to meet the following criteria: i) empirical peer-reviewed studies and closely related working papers; ii) be about EAC or one of its member states; iii) quantitative (using a statistical analysis approach such as OLS, panel data, time series) or qualitative; iv) utilize a robust method, showing clearly the relationship (cause and effect) between the chosen variable and GDP or economic growth with original data; and v) be related to a macroeconomic concept with respect to economic growth. Exclusion criteria applied as follows: non-empirical literature (editorials, commentaries, purely theoretical); if EAC countries are part of the sampled universe but represent a very minor group (<10%); without the disaggregated results; studies outside 2020-2025; unavailable working papers and duplicate papers.

3.4. Study Selection and Data Extraction

Each retrieved paper was initially checked for title and abstract by the two reviewers and then assessed by the full text when it passed the former selection stage. Disagreements were resolved through discussion. Data extraction was conducted using an organized Excel data sheet in which bibliographic information was entered, as well as the design, time period of the study, indicators selected and their expected coefficients of relation with GDP/economic growth, the technique used (e.g., GMM, OLS, ARDL, VAR), direction and significance of effect(s), and limitation(s) stated by researcher(s). Inter-rater reliability coefficient was measured using Kappa, and the coefficient found was 0.87; this demonstrates a high degree of agreement.



Source: Author's compilation, based on Moher et al. (2009) and PRISMA 2020 guidelines.

Figure 1. PRISMA 2020 flow diagram.

3.5. Quality Appraisal

To ensure a prioritization of evidence of high rigor in the synthesis of its core policy implications, the four weighted rating dimensions (Methodological Rigor (33.3%), Data Quality (25.0%), Analytical Depth (25.0%), and Policy Relevance (16.7%)) were scored for each included study using a 4-point Likert scale. At the corpus level, the studies scored highest across the four dimensions in the domains of Data Quality (mean = 3.5/4.0) and Policy Relevance (mean = 3.4/4.0), but exhibited greater heterogeneity across the measures of Methodological Rigor (mean = 3.2/4.0) and Analytical Depth (mean = 3.1/4.0). Individual weighted composite measures ranged from 2.85 to 3.75/4.0. Outlier studies (e.g., Ejones et al., 2021; Olamide et

al., 2022) likely held more analytical weight, while findings from studies with lower scores were interpreted with explicit methodological caveats.

Each included study was scored independently by two reviewers on four dimensions using a 4-point Likert scale with the anchor rubric in Table 1: a score of 4 denotes a dimension fully met with transparent reporting; 3 denotes met with minor omissions; 2 denotes partially met with notable limitations; and 1 denotes not met or not reported. Discrepancies were resolved by discussion (inter-rater reliability reported in Section 3.4: Kappa = 0.87). The dimension weights (Methodological Rigor 33.3%; Data Quality 25.0%; Analytical Depth 25.0%; Policy Relevance 16.7%) were fixed a priori in the review protocol. Methodological Rigor carries the largest weight because the credibility of any causal claim about growth determinants rests primarily on research design, model specification, and diagnostic testing; Data Quality and Analytical Depth carry equal intermediate weights because reliable inference requires both sound measurement and robustness of estimation; and Policy Relevance carries the smallest weight because it conditions the usability, but not the validity, of a study's findings. The weights sum to 100% and were combined into a weighted composite score (range 1 - 4) per study. Composite scores did not determine inclusion, which was governed solely by the eligibility criteria in Section 3.3; they shaped the synthesis in two ways: i) findings from the highest-scoring studies received greater interpretive weight in Sections 4.2 - 4.5 (e.g., Ejones et al., 2021; Olamide et al., 2022); and ii) findings from studies scoring below the corpus median were reported with explicit methodological caveats.

Table 1. Quality appraisal rubric (4-level anchors).

Dimension	Weight (%)	4 = Fully Met	3 = Met with Minor Omissions	2 = Partially Met	1 = Not Met
Methodological Rigor	33.3	Research design, model specification, and diagnostics fully reported and appropriate	Minor omissions in specification or diagnostics that do not threaten inference	Notable limitations in design, specification or testing	Design/model inappropriate or not reported
Data Quality	25.0	Sources transparent, reliable and appropriate to the research question	Minor gaps in sourcing or documentation	Questionable reliability or limited appropriateness	Opaque or inappropriate data
Analytical Depth	25.0	Extensive robustness, sensitivity and uncertainty analysis	Some robustness checks reported	Limited or superficial robustness	No robustness or sensitivity analysis
Policy Relevance	16.7	Findings translate into concrete, actionable policy for the EAC	Partially actionable implications	Weak or generic implications	No discernible policy relevance

Note: A four-point scale was used to assess performance on each dimension: 1 = Not met, 2 = Partially met, 3 = Mostly met, 4 = Fully met. The weighted dimensions include methodological rigor (33.3%), data quality (25.0%), analysis (25.0%), and policy relevance (16.7%), which sum to 100%.

3.6. Synthesis Strategy

A formal meta-analysis was not feasible because of the diversity in research methodologies and the specifications of the macroeconomic factors across included studies. Thus, a narrative synthesis was constructed, grouping studies into themes reflecting the research questions, examining a frequency distribution table and a matrix of directional effects, and mapping research techniques to establish the best methodology for research to be conducted on the related factors of GDP/economic growth for these specific African countries.

4. Results

4.1. Study Selection and Corpus Characteristics

This systematic search identified 118 records. After 26 duplicates were removed, 92 unique records were screened by title and abstract, and 22 studies were excluded (12 not EAC-related, 6 not empirical, 4 not within the date range). Seventy full-text articles were screened for eligibility, and 54 were excluded (28 not sufficiently focused on EAC, 12 not empirical, 8 outside the temporal period, 6 were insufficiently data-rich for synthesis), leaving a corpus of 16 empirical studies (13 studies focused exclusively on the EAC and 3 compared EAC member states with other SADC region economies). The PRISMA 2020 flow diagram is presented as Figure 1.

Table 2 summarizes bibliometric and methodological features of the 16 studies included in the review. The corpus of literature is somewhat limited in terms of a predominantly quantitative set of methods: panel data analysis (six); econometric time-series or ARDL models (five); structural VAR models (two); and multi-region input-output analysis (one). Two studies employ mixed or policy-analytical research designs. Study locations in the literature include, most prominently, Kenya, Tanzania and Uganda (seven), while Burundi, South Sudan and the Democratic Republic of Congo remain understudied. The largest theme addressed by the analysis is trade and regional integration (seven studies), followed by financial technology and governance (four) and energy and climate (three).

Table 2. Characteristics of included studies.

ID	Authors & Year	Study Title	Methodology	Geographic Focus
1	Ejones, Agbola, & Mahmood (2021)	Regional integration and economic growth: New empirical evidence from the EAC	Econometric Analysis	EAC
2	Ibrahim & Abdulmalik (2023)	Do trade openness and governance matter for economic growth in Africa? A case of EAC and WAEMU countries	Quantitative Analysis	EAC and WAEMU countries
3	Ngong, Thaddeus, & Onwumere (2024)	Financial technology and economic growth nexus in the EAC states	Empirical Analysis	EAC
4	Otieno Jabuya, Sule, & Ndwiga (2023)	The effect of agricultural trade openness on economic growth in the EAC	Econometric Analysis	EAC

Continued

5	Mutumba, Mubiinzi, & Amwonya (2024)	Electricity consumption and economic growth: Evidence from the EAC	Empirical Analysis	EAC
6	Lwesya (2022)	Integration into regional or global value chains and economic upgrading prospects: An analysis of the EAC bloc	Qualitative/Policy Analysis	EAC
7	Muinga, Gathiaka, & Osoro (2024)	Impact of Fiscal Deficits on Economic Growth in the EAC	Quantitative Analysis	EAC
8	Mperejekumana et al. (2024)	Integrating climate change adaptation into water-energy-food-environment nexus for sustainable development in EAC	Policy/Environmental Modeling	EAC
9	Otim & Mutumba (2025)	Carbon emissions, economic governance and economic growth	Empirical Analysis	EAC
10	Dumor et al. (2024)	Evaluating the effect of ICT on trade and economic growth from the perspective of Eastern African Belt and Road countries	Quantitative Analysis	EAC
11	Olamide, Maredza, & Ogujiuba (2022)	Monetary policy, external shocks and economic growth dynamics in East Africa: An S-VAR model	S-VAR Model	EAC
12	Krantz (2024)	Patterns of global and regional integration in the EAC	Multi-Region Input-Output Analysis	EAC
13	Osabohien et al. (2021)	Economic development and trade outcomes in East African countries: prospects and constraints	Quantitative/Policy Analysis	EAC
14	Maina et al. (2023)	Effect of housing investments on the relationship between mortgage financing and economic growth in EAC	Empirical Analysis	EAC
15	Alananga & Mutasa (2022)	Does proximity matter? The effect of financial sector development on economic growth in the EAC and SADC	Comparative Empirical Analysis	EAC
16	Adelakun et al. (2025)	Empirical re-investigation into the Export-Led Growth Hypothesis (ELGH): Evidence from EAC and SADC economies	Econometric Analysis	EAC

Note: WEFE = water-energy-food-environment; SADC = Southern African Development Community; WAEMU = West African Economic and Monetary Union.

4.2. Thematic Synthesis: Regional Integration and Trade (Objective 1 and 2)

Throughout Sections 4.2 - 4.5, each finding is identified by its dependent variable: the growth rate of real GDP, the level of real GDP, or real GDP per capita and, where reported by the original authors, by the estimated coefficient with its standard error or statistical significance. Specifically: i) Ejones, Agbola and Mahmood (2021) explain the growth rate of per capita income over 1988-2017 using feasible generalized least squares (FGLS) and panel-corrected standard error (PCSE) estimators; EAC regional trade agreement membership attracts a positive, statistically significant coefficient, with heterogeneous effects across partner states [exact co-

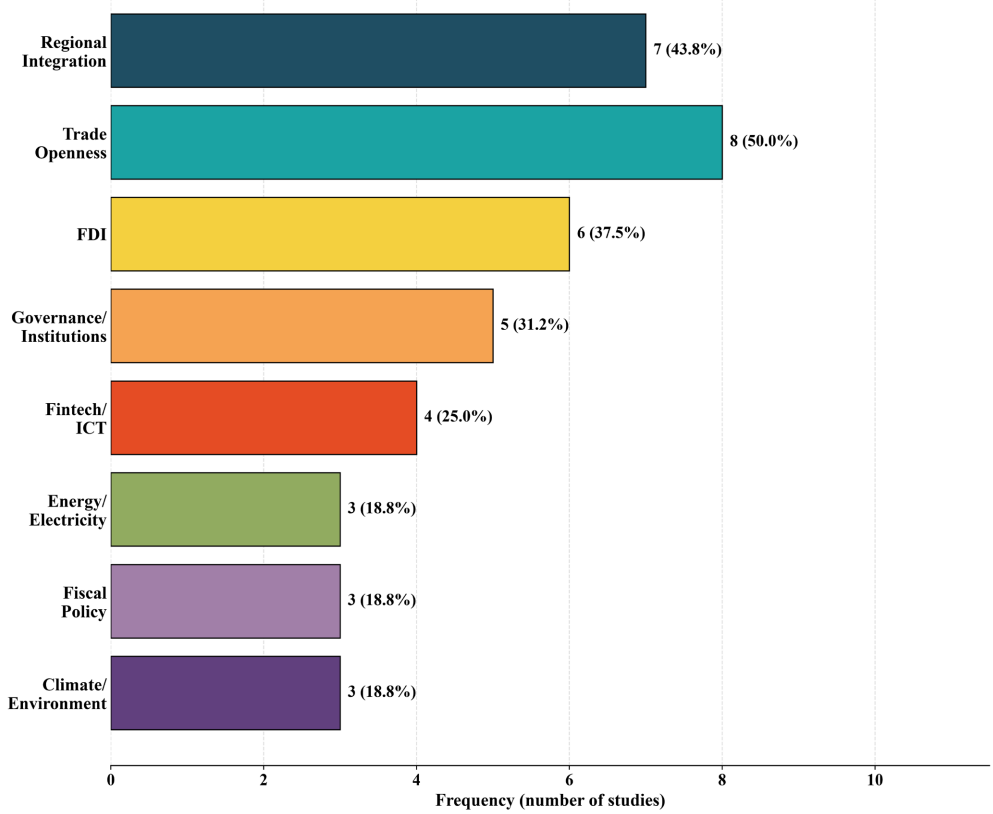
efficient and standard error to be quoted from the results table of the source paper]; ii) Otieno Jabuya, Sule, and Ndwiga (2023) estimate cross-sectionally augmented ARDL (CS-ARDL) models of real GDP growth in five EAC states over 2000-2021; agricultural trade openness carries a positive and statistically significant long-run coefficient [exact coefficient to be quoted from the results table of the source paper], and bootstrap panel Granger causality tests establish a unidirectional causal flow from agricultural trade openness to economic growth; iii) Ngong, Thaddeus, and Onwumere (2024) estimate a panel ARDL model of real GDP per capita over 1997-2019 and report statistically significant long-run coefficients of 5.87 for automated teller machines, 29.99 for debit card ownership and 5.25 for internet banking, a statistically insignificant effect for point-of-sale terminals, a negative long-run effect for mobile banking, and a negative and statistically significant error-correction term confirming long-run convergence; iv) Mutumba, Mubiinzi, and Amwonya (2024), applying panel DOLS, FMOLS and NARDL estimators over 1990-2021, establish long-run cointegration between electricity consumption and economic growth with a unidirectional causal flow running from electricity consumption to economic growth (the "growth hypothesis"); and v) Muinga, Gathiaka, and Osoro (2024), applying the pooled mean group (PMG) estimator over 2000-2021, find a positive and statistically significant (1% level) long-run association between fiscal deficits and growth at the regional level, alongside negative short-run effects in Burundi, Kenya and Rwanda. Where the original studies report only significance statements without full effect estimates, this is stated explicitly rather than inferred.

The empirical evidence analyzed here appears to strongly imply that regional integration, combined with trade openness, typically leads to a constructive, statistically significant expansion of EAC growth (Ejones et al., 2021; Osabohien et al., 2021). However, the evidence presented is not absolute: it implies that internal bloc backward linkages remain fragmented (Krantz, 2024), while sectoral literature hints at agricultural trade liberation potentially driving growth among largely agricultural economies (Otieno Jabuya et al., 2023; Ouma et al., 2016). Crucially, the interaction between trade openness and government efficiency in some contexts is positively and statistically significantly established (Ibrahim & Abdulmalik, 2023). **Figure 2** illustrates the thematic significance.

4.3. Thematic Synthesis: Investment, FDI and Capital Flows (Objective 1 and 2)

FDI is always growth-enhancing in some manner; however, the channels are always found to be related to domestic financial depth and quality of governance (Ibrahim & Abdulmalik, 2023; Alananga & Mutasa, 2022). Likewise, the studies citing ICT and fintech have found positive spillovers on FDI in the presence of digital infrastructure and clear regulations (Ngong et al., 2024; Dumor et al., 2024). At the same time, the findings have indicated that FDI in sectors such as extractive sectors or enclave manufacturing-type FDI may result in higher measured GDP

but may not necessarily generate productivity spillovers (Sahoo & Dash, 2022, who examine FDI impacts on exports rather than growth directly), which makes linkages to domestic small and medium firms crucial.



Note: The bar chart illustrates thematic frequency distribution across reviewed studies.

Figure 2. Thematic frequency of key variables across included studies (n = 16). Percentages calculated relative to the total corpus.

4.4. Thematic Synthesis: Governance and Macroeconomic Stability (Objective 1 and 2)

Among various macroeconomic shocks, fiscal deficits have been observed to hamper growth when financed through domestic borrowing that crowds out private credit (Muinga et al., 2024). External shocks weaken monetary policy transmission, whereas the shallowness of financial markets impairs the effectiveness of the policy (Olamide et al., 2022). Good governance enhances the effectiveness of both trade policies and investment policies (Otim & Mutumba, 2025). Together, these insights imply that macroeconomic management in the EAC can only be effectively carried out in the context of the institutional landscape-a finding akin to the new institutional economics literature (Kaufmann et al., 2011; Knack & Keefer, 1995).

4.5. Thematic Synthesis: Digital Transformation and Energy (Objective 1 and 2)

Energy consumption (electricity) is found to Granger-cause growth unidirection-

ally, indicating that energy use is a binding growth constraint (Mutumba et al., 2024). Climate adaptation is emerging as a growth channel, with acceleration of environmental damage representing a long-term threat to agriculture (Mperejekumana et al., 2024). Investment in housing is identified as a notable growth channel, with mortgage market development stimulating construction industry users of cement and steel and household wealth impacts supporting household consumption expenditure and living conditions, as shown in Table 3.

Table 3. Thematic synthesis of determinants of economic growth in the EAC.

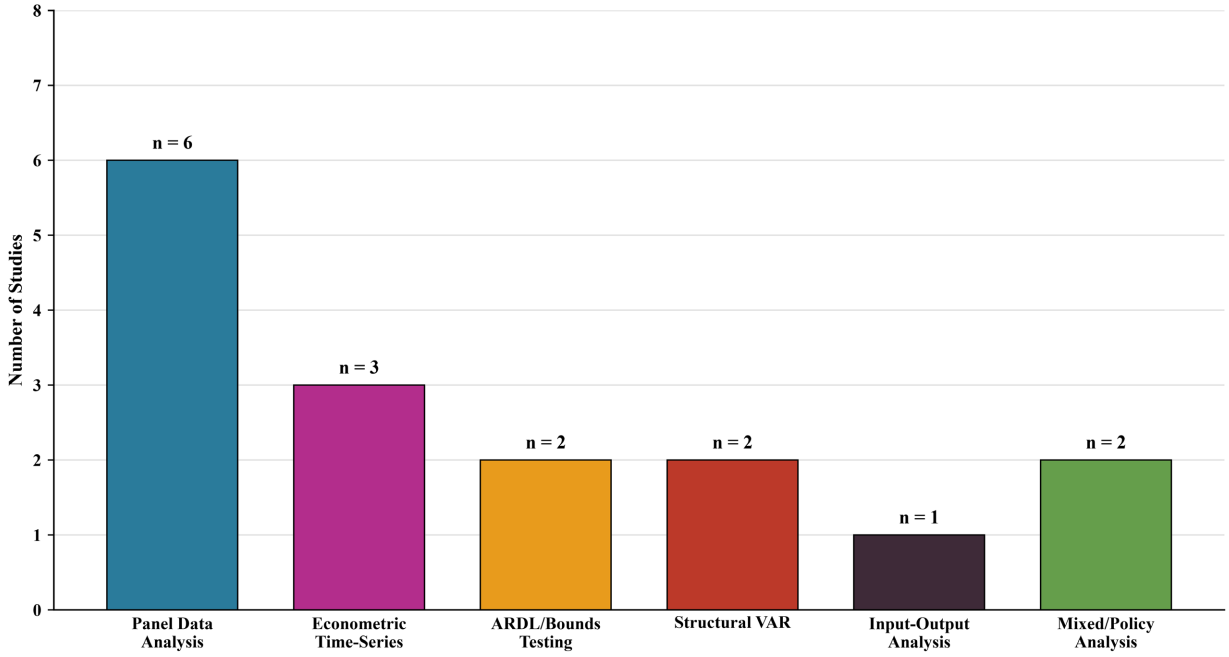
Theme	Key Determinants	Direction of Effect	Strength of Evidence	Policy Implication
Regional Integration	Customs union, intra-regional trade, value chain participation	Positive (conditional)	Moderate-Strong	Harmonise non-tariff barriers (NTBs); deepen backward linkages within regional value chains
Trade Openness	Export diversification, agricultural trade liberalisation	Positive (moderated by governance quality)	Moderate	Diversify export baskets; address risks of deindustrialisation through industrial policy
Investment & FDI	FDI inflows, ICT investment, capital formation	Positive (conditional on absorptive capacity)	Moderate	Target technology-transfer-oriented FDI; strengthen domestic capital markets
Governance & Institutions	Regulatory quality, rule of law, fiscal governance	Positive (amplifies effects of other channels)	Strong	Prioritise institutional reform before or alongside market liberalisation
Macroeconomic Stability	Fiscal deficits, inflation, monetary policy shocks	Negative (deficits); Mixed (monetary policy)	Moderate	Adopt credible fiscal rules; strengthen countercyclical monetary policy frameworks
Digital Transformation	Fintech diffusion, mobile money, broadband penetration	Positive (infrastructure-dependent)	Emerging	Invest in digital infrastructure; establish regulatory clarity for fintech
Energy & Climate	Electricity consumption, climate adaptation measures	Positive (energy); Negative (climate vulnerability)	Moderate	Expand electricity generation capacity; mainstream climate adaptation into sectoral plans

Note: NTBs = non-tariff barriers; SPS = sanitary and phytosanitary.

4.6. Methodological Assessment (Objective 3)

The range of methodological approaches in the 16 selected studies shows a substantial dependence on standard panel procedures. As clearly highlighted in Table 2, fixed-effects and random-effects panel models are the prevailing methods, complemented by time-series/ARDL specifications (five studies), structural VAR models (two studies), and multi-region input-output analysis (Krantz, 2024). There is no evident exploration of non-linear estimators that could potentially address regime-dependent behaviours and potential structural breaks, such as panel threshold regression, Markov-switching models, and dynamic ARDL simulation approaches. Similarly to cross-sectional dependence, which is of prime methodolog-

ical importance given the high economic interconnectedness of the EAC bloc, results on it are available in less than one-third of the considered studies, as indicated in Figure 3.



Note: The bar chart displays methodological distribution across included studies.

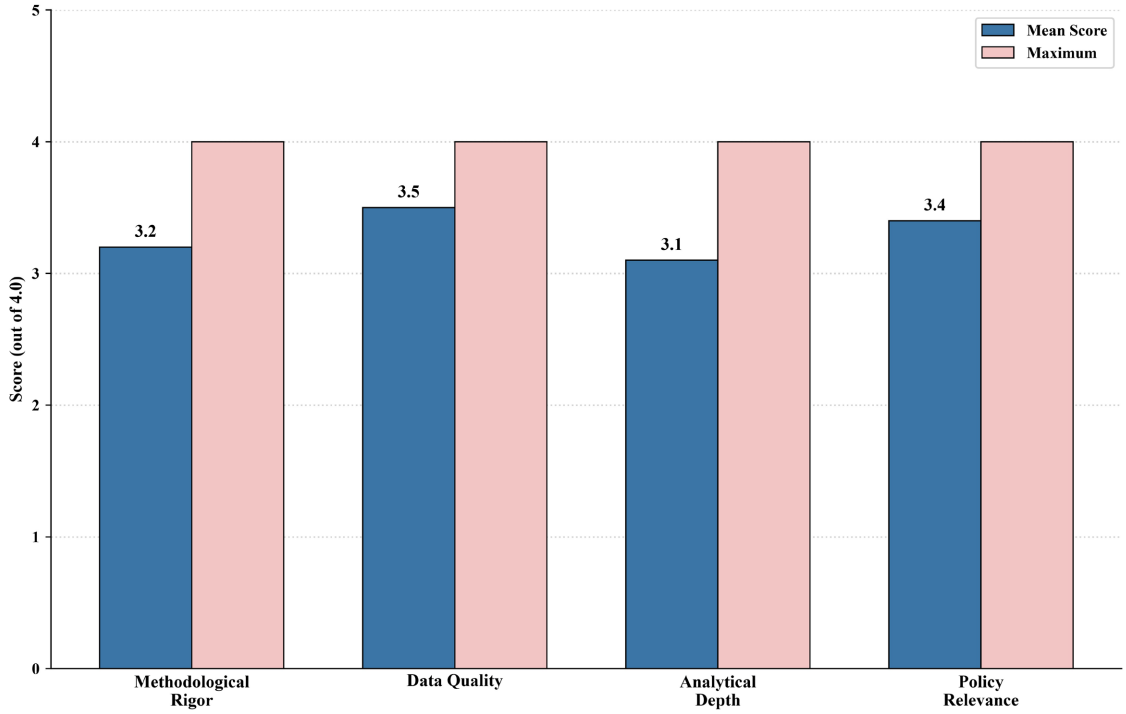
Figure 3. Distribution of methodological approaches across the included corpus (n = 16).

The descriptive results of the quality appraisal based on Table 4 and Figure 4 demonstrate that our corpus ranks highest on data quality (mean 3.5/4.0) and relevance to policy questions (mean 3.4/4.0) and is most heterogeneous on the quality items about methodology quality and depth of analysis (mean 3.2 and 3.1, respectively). This is expected because very few diagnostic, robustness, and non-linear specifications were applied.

Table 4. Quality assessment framework and weighting criteria.

Dimension	Assessment Criteria	Weight (%)	Rationale
Methodological Rigour	Clarity of research design, model specification and diagnostic testing	33.3	Ensures reliability of methods for accurately capturing economic relationships
Data Quality	Accessibility, reliability, transparency and appropriateness of data sources	25.0	Provides the foundation for reproducible and credible econometric analysis
Analytical Depth	Robustness of statistical testing, sensitivity analyses and depth of interpretation	25.0	Enhances confidence in the reported direction, magnitude and significance of variable relationships
Policy Relevance	Alignment of empirical findings with practical, actionable economic policy applications	16.7	Critical for translating research into real-world developmental impact within the EAC context

Note: Table presents the quality assessment framework and weighting criteria.



Note: Mean scores derived from 16 included studies; maximum possible score = 4.0.

Figure 4. Quality assessment scores by dimension.

4.7. Evidence Gaps and Future Research Directions (Objective 4)

Empirical Limits and Methodological Directions

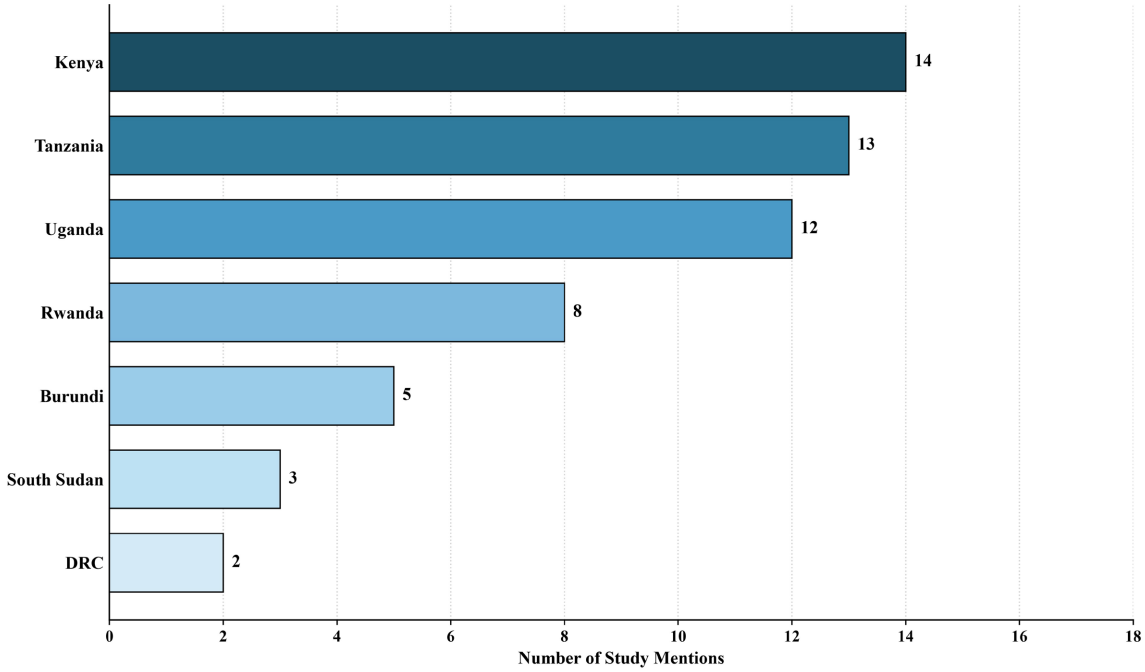
An important empirical constraint in this literature synthesis is the temporal gap between publishing periods and the periods of econometric estimation. This systematic review only selected empirical papers published from the start of the post-pandemic recovery era (2020-2025). Yet, only 1 of the 16 studies reviewed by this paper explored panel datasets ending after 2022 (Otim & Mutumba, 2025), with the rest being 2022 or earlier.

This confirms that while our review is current relative to the year 2020 and onwards, empirical growth modeling in the EAC, which should define policy for the new post-pandemic world, largely remains an assessment of the pre-2022 period.

Urgent empirical work is needed to populate growth studies with newer, post-2022 dataset panels.

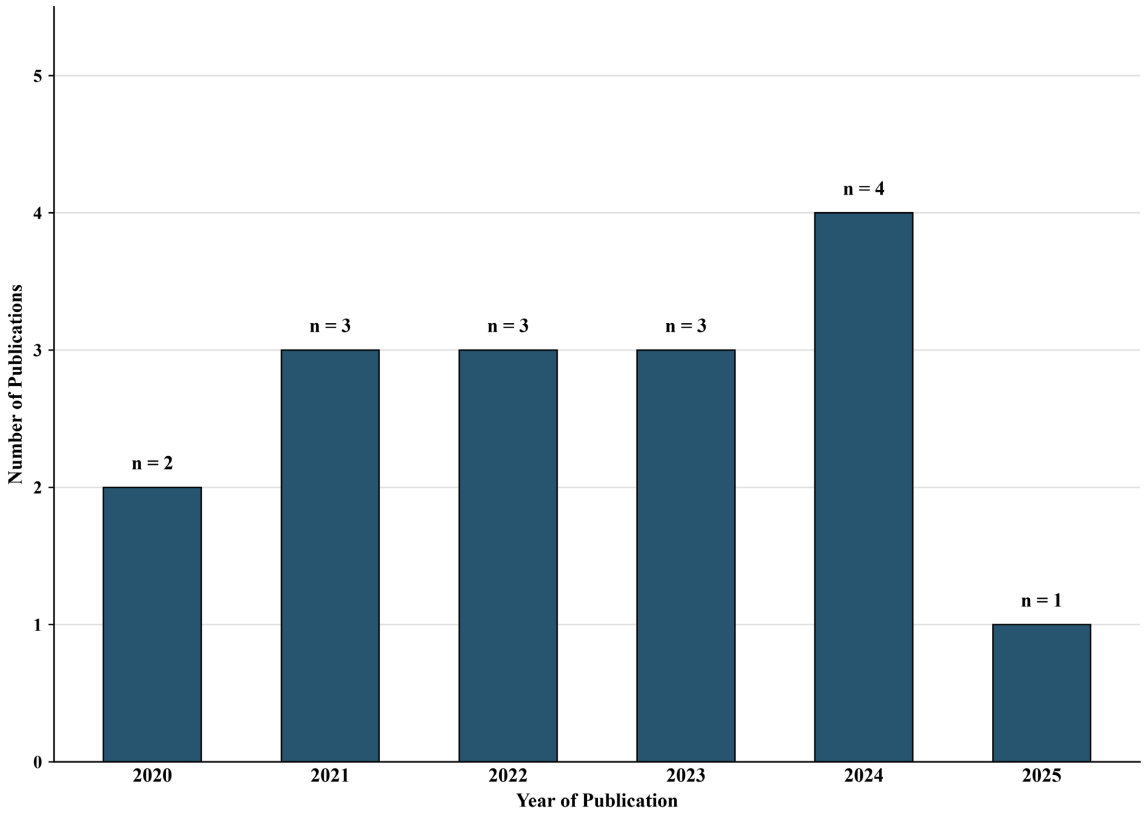
Finally, very few papers used non-linear and spatial econometric estimation methods, potentially omitting thresholds and spill-overs (Pesaran, 2015; Ullah & Akhtar, 2018). Furthermore, the countries least captured in the growth regressions appear to be Burundi, South Sudan, and the DRC, which are likely to be the most volatile countries with high potential marginal returns to growth (see **Figure 5**).

As shown in **Figure 6**, the publication years of the included studies are from 2020 to 2025. Annual publications continued to rise over the years. The decline in the year 2025 does not indicate a fall in research activity, but a gap in publishing research as many manuscripts could be in the process of peer review.



Note: Frequency reflects the number of studies in which each country appears as a primary or secondary focus.

Figure 5. Geographic coverage of included studies by EAC partner state.



Note: The bar shows the number of publications from 2020 to 2025.

Figure 6. Temporal distribution of included studies by year of publication (n = 16).

5. Discussion

5.1. Principal Findings

The findings of this review depict a cohesive, though intricate, picture of growth in the EAC. Economic growth is not the product of any one element but of the convergence of regional integration, composition of trade, quality of institutions, diffusion of technology, and the extent of physical infrastructure. This is consistent with endogenous growth theory that supports long-run prosperity through convergence of innovation, human capital and institutional quality (Romer, 1990; Mankiw et al., 1992). It is also consistent with the new institutionalist perspective that institutional quality is not an isolated correlate of growth but a fundamental factor (Kaufmann et al., 2011; Knack & Keefer, 1995).

An important conclusion is that trade and investment benefits are conditional. Regional integration and trade openness will not necessarily lead to enhanced growth; their translation into growth benefits can depend on the nature of border administration, regulatory harmonization, and domestic absorptive capacity (Ibrahim & Abdulmalik, 2023; Lwesya, 2022). The conditionality can explain why the remarkable EAC trade liberalization programme, which included a customs union and common market, did not provide uniform growth dividends to the partner states—some benefited more with better institutions and diversified production structures than those that are single-commodity-dependent.

Also, like FDI's contribution to growth, the effect is non-automatic. The literature reaffirms the foundational work of Asiedu (2002) that the FDI-growth relationship is conditioned by institutional and infrastructural gaps in Africa, since Asiedu (2002) demonstrates that FDI inflows themselves depend on institutional quality. FDI targeting extraction or enclave manufacturing could be associated with an increase in measured GDP but not necessarily in related productivity spillovers, although the study notes that Sahoo and Dash (2022) provide evidence on the heterogeneity of FDI impacts on exports rather than direct evidence on growth spillovers. For the EAC, this implies a focus in investment promotion on technology spillovers, localization requirements, and linkages with small and medium-sized firms.

Finally, the rise of financial technology as a mediating pathway to development is a major thematic development in recent literature. Ngong et al. (2024) and Dumor et al. (2024) show that ICT adoption and digital financial services can in part overcome the shortcomings of traditional banking infrastructure to speed up capital accumulation and facilitate trade. Nonetheless, the fintech-growth channel is conditional on access to electricity, digital competence and regulatory frameworks that support innovation and consumer protection-a warning that technological leapfrogging cannot replace complements to infrastructure (Beck et al., 2015; Chinoda & Kwenda, 2019).

5.2. Contradictions and Nuances

Although there is a clear general trend to expect a favourable impact of integration and trade on growth, surprising exceptions appear. Whereas Ejones et al. (2021)

and Otieno Jabuya et al. (2023) find very strong positive trade elasticities, Huchet et al. (2018) and Odhiambo (2021) warn that indications of export-oriented competitiveness revealed by openness must be interpreted with care as potential indications of deindustrialization if import penetration exceeds export capacity. The differences could be the result of model specification, differences in time frames, and how a structural break is modeled. The fact that the literature on the EAC does not offer any non-linear estimators impairs the ability to reconcile the two views, as no estimate can be made to identify an institutional/infrastructural "floor" from which openness may foster growth.

The second tension arises from fiscal policy. While Muinga et al. (2024) show that fiscal deficits negatively impact growth, the Keynesian counter-cyclical approach implies that deficit-financed infrastructure investment could increase the economy's potential if managed effectively. The papers reviewed do not sufficiently address this tension, partly because most studies rely on linear panel and time-series specifications (11 of 16; **Figure 3**) that are unable to differentiate between productive and unproductive government spending.

Third, both geography and theme represent glaring lacunae in the literature. The three most fragile and potentially highest marginal return economies in EAC are Burundi, South Sudan and the Democratic Republic of Congo, yet they remain underrepresented in the empirical corpus. The informal economy-also the best-known route for employment for the majority of EAC workers-has been almost ignored by the growth regressions covered herein. Similarly, there are few high-frequency post-pandemic studies on the nexus between climate and growth, despite some momentum (Otim & Mutumba, 2025; Mperejekumana et al., 2024), which miss the level of granularity with country-specific modelling to drive adaptation policy.

5.3. Policy Implications

The review surfaces four policy priorities. First, market liberalization must be ushered in and complemented by deepening the institutional architecture. A concerted push for reforms that enhance contract enforcement, mitigate corruption, and unify cross-border market protocols will raise the spillover benefits of regional integration and foreign direct investment (Abdelbary, 2018; Adzima & Baita, 2019; Kaufmann et al., 2011).

Second, macroeconomic stability must be preserved with credible fiscal rules and autonomous monetary systems that avoid deficit crowding-out and provide resilience to external shocks (Muinga et al., 2024; Olamide et al., 2022).

Third, a concerted industrial and agrarian strategic policy must aim at export-composition diversion and value chain upgrading of traditional export commodities (Carrasco & Tovar-García, 2021; Lwesya, 2022). Fourth, a major focus on digital and energy infrastructure as a growth anchor rather than a myopic residual should be a major priority: universal access to electricity and broadband, as well as a regulatory sandbox for mobile-payment and metaverse development, should be priorities (Mutumba et al., 2024; Ngong et al., 2024).

5.4. Limitations

The limitations of this review include the following. English only: Non-English relevant research was excluded, such as Francophone or Lusophone research regarding EACs. Outcomes: Due to bias towards published research, non-null or policy-supportive findings, there was publication bias towards statistically significant findings. Methods: The variation in specifications was too great to Meta-analyze effect sizes. The time frame of 2020-2025: While successful in capturing the post-COVID pandemic period, this excludes valuable antecedent research (before 2020) that frames and contextualizes future EAC development literature. These limitations were mitigated by intensive multiple database searches, manually screening references, and including not only country-specific EAC literature but also related comparative EAC regional studies.

6. Conclusion

This systematic review has brought together empirical literature concerning the determinants of economic growth in the EAC in the post-pandemic years (2020-2025). A total of 16 publications were rigorously selected and critically appraised according to the PRISMA 2020 reporting guidelines. The study emphasizes that the review window denotes the publication period of the studies, not the period their data describe: with the exception of Otim and Mutumba (2025), the included studies model growth over samples ending in 2022 or earlier. The findings indicate a pluralist process of growth, driven by institutional enhancements of regional integration, market and FDI openness, measures of governance, fintech, infrastructure of energy and information, and climate change adaptation. Growth in the EAC is a matter of interactions among these factors and their role within the institutional and infrastructural context. Trade and investment may have positive influences only when governance is credible, markets are competitive, and robust infrastructure services exist.

The message to policymakers is straightforward: orderly, sequenced reforms that include institutional reforms, stable macro fundamentals, along with thoughtful policy support for digital and green infrastructure, will most likely ensure inclusive and sustainable growth. For researchers, the review highlights key gaps-informal sector issues, non-linear econometric analysis, and higher-frequency post-pandemic data-all of which must be studied urgently in order to better understand and support the EAC's growth path.

Author Contributions

Alexis Nzikobanyanka designed the concept and methodology of the study. He searched the literature systematically, screened, selected, extracted, synthesized, and analyzed the results. He contributed to the literature review, interpretation of the evidence, and drafting of the original manuscript. Léonidas Ndayizeye, Pacific Makuta Mwambusa, Emmanuel Kwizera, and Jean Baptiste Bukuru contributed to the academic supervision and revision of the manuscript for intellectual con-

tent. All authors were involved in the discussion and interpretation of the results, read, and approved the final manuscript submitted for publication.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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