

The Role of Digital Trade in Shaping Global Commerce: Opportunities and Challenges for Emerging Economies

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Abstract

Digital technologies are reshaping global commerce, with digital trade emerging as a central driver of competitiveness, innovation, and economic integration. This study examines how digital trade has evolved across emerging economies in Asia, Africa, and Latin America from 2010 to 2024, using descriptive indicators from the World Bank, UNCTAD, ITU, and WTO. The results show substantial improvements in internet access, mobile-broadband adoption, and digitally delivered services exports, although progress varies significantly across regions. Asia demonstrates the strongest and most consistent growth, supported by robust infrastructure, harmonized digital-governance frameworks, and a deepening pool of digital skills. Latin America shows moderate expansion with persistent institutional fragmentation, while Africa exhibits slower but positive gains constrained by affordability, regulatory gaps, and human-capital limitations. Cross-regional comparison reveals that digital-trade preparedness is shaped not only by connectivity but also by regulatory quality and human-capital capacity. The study concludes that emerging economies must prioritize long-term investments in digital infrastructure, skills development, and interoperable regulatory frameworks to fully leverage digital trade for inclusive and sustainable growth.

Keywords

Digital Trade, Global Commerce, E-Commerce, Emerging Economies, ICT Infrastructure, Data Governance

1. Introduction

The world trade is undergoing a structural change due to the impact of digitaliza-

tion like never before. During the last twenty years, there was the emergence of digital technologies that have transformed the circulation of goods, services, and information, thus creating what economists refer to as digital trade the exchange of goods and services that have been digitally ordered, digitally delivered, or facilitated through digital platforms (López-González & Jouanjean, 2017; WTO et al., 2023). This transformation is also supported by the advances in the broadband networks, artificial intelligence, mobile payment, and cloud computing which have lowered the costs of transactions and made the geographical boundaries blurry (Baldwin, 2019; Lund et al., 2021). According to WTO (2023), digitally delivered service exports added to over US \$3.8 trillion in 2022, approximately 12 percent of the world trade, with OECD (2023) estimating that this figure will grow to over 25 percent by 2030. To most developing countries, the digital trade provides a different path of growth since it enables them to engage in value chains without necessarily relying on the physical infrastructure (UNCTAD, 2022; Freund & Weinhold, 2023). Nevertheless, such a rapid growth of online commerce has also resulted in new threats like uneven connectivity and data-privacy concerns and the supremacy of large digital platforms, which are prone to amplify global inequalities (Banga & te Velde, 2020; Aaronson & Leblond, 2018). These tendencies demonstrate that the digital transformation though being widespread in the world is extremely lopsided in its distribution of benefits and threats.

To the new economies in Asia, Africa, and Latin America, the digital-trade revolution poses the most opportunities and structural challenges that it has never experienced before. Regarding the opportunity side, e-commerce and digital platform have lowered the entry barriers of small and medium-sized enterprises (SMEs), enabling them to enter international markets and diversify their export (Cernat & Kutlina-Dimitrova, 2020; Qiang et al., 2021). Experimental evidence demonstrates that economies that have a greater broadband penetration rate and digital-skills investments have a greater export growth rate and more service-sector diversification (Kimura & Chen, 2018; Van der Marel, 2021). Asia Digital-services trade is now a key growth engine in India, Malaysia and the Philippines (ITU, 2023); export-driven economies of Latin America, including Brazil and Mexico, are booming on fintech and creative-industry exports (Cepal, 2022); and countries in Africa are leading the way in mobile-money systems and digital entrepreneurship centers (Ndung'u & Signe, 2020). Nevertheless, structural gaps are still visible, despite this development. The average coverage of fixed-broadband in Sub-Saharan Africa is 10 per cent compared to more than 70 per cent in East Asia (ITU, 2023). The regulation of digital-trade is still weak in Latin America, and inefficient cybersecurity structures deter data flows across borders (Banga & te Velde, 2020). Besides, the inequalities in human capital, digital literacy, and institutional preparedness limit the inclusion in digitalization (Mirzayevs et al., 2025). According to scholars, emerging economies are likely to be pushed to the margins of digital value chains unless the set of policies (both digital infrastructure, competition policy, and data governance) is overhauled (Foster & Graham, 2017; Draper & Schneidman, 2020) (Figure 1).

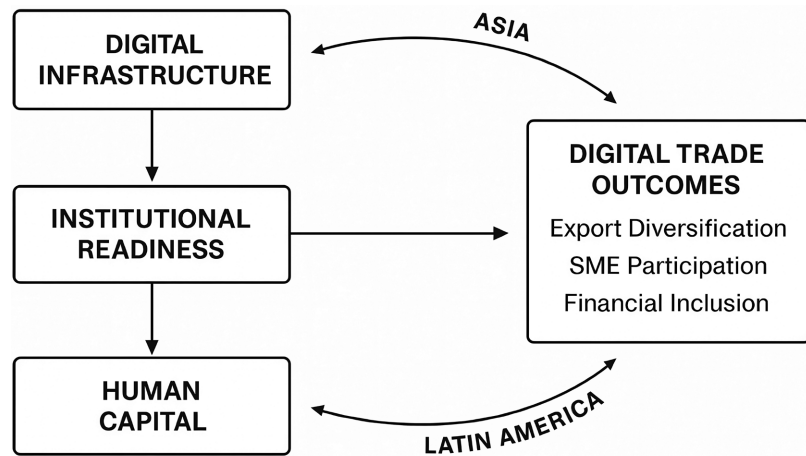


Figure 1. Conceptual framework linking digital-trade enablers and outcomes in emerging economies (Asia, Africa, and Latin America).

A conceptual map, which illustrates three enabling pillars (Digital Infrastructure, Institutional Readiness, and Human-Capital Capability) that give rise to three outcomes (Export Diversification, SME Participation, and Financial Inclusion), and has cross-regional feedback loops showing the interactions between Asia and Africa and Latin America.

The imbalanced distribution of digital opportunities across these areas are the indication of larger problems of governance, collaboration, and the inequality of the global digital world. It is also becoming clear in the literature that digital trade is not only economic process but also an institutional one, which is determined by regulation, trust, and transnational collaboration (Aaronson, 2021; Ferracane & van der Marel, 2021). The relative success in Asia has been explained by the strategized regional policies in Asia like ASEAN Digital Framework and enabled by the digital-skills programs (OECD, 2023; Kimura & Chen, 2018). Conversely, the development of Africa relies on efforts within the new-digital-trade protocol under African Continental Free Trade Area, where Latin America is exploring the use of digital-integration chapters of Mercosur and the Pacific Alliance (WTO et al., 2023). These regional differences highlight the fact that the results of digital trade are related to the interaction between infrastructure and policy coherence and human-capital development. Without conscious investments in connectivity and capacity building, digital transformation may contribute to increasing the disparities in the regions and not reducing them (UNCTAD, 2022; Lund et al., 2021). Hence, a comparative, cross-regional approach to digital trade can be essential to defining areas of mutual opportunities and policy lessons in the emerging economies.

The main aim of this paper is to discuss the digital trade in relation to transforming the world of commerce and exploring the opportunities and threats it holds on emerging economies in Asia, Africa, and Latin America over the period 2010 and 2024. The study synthesizes secondary data on World Bank, UNCTAD, WTO, and ITU to map the trends in the digital-trade indicators including internet

penetration, ICT-goods exports, digital-services trade, and e-commerce readiness, in the region. It tries to find out the way differences in infrastructure, institutional quality, and investment in human capital affect digital-trade performance. The paper combines the empirical trends and the analysis of policies to add to the academic and policy discussion on how emerging economies can use digital trade to facilitate sustainable and inclusive growth. By so doing, it places digital trade not as a technological change per se, but as a strategic development tool—one which, when managed well and coordinated on the regional level, can contribute to bridging as opposed to widening the global digital divide.

2. Literature Review

The fast digitalization of trade has produced a growing academic discourse regarding how new economies among others have become part of and benefited in the global digital economy. The initial theoretical approaches set the digital trade in the environment of the larger scheme of trade liberalization and technological innovation (Liu & Nath, 2018; Meltzer, 2019). The works focus on the importance of the idea that digital trade is not similar to conventional commerce only in terms of the way of delivery but also depends on the intangible resources including the data, intellectual property, and digital infrastructure. According to Brynjolfsson and Kahin (2020), digital trade is the new general-purpose infrastructure of globalization and hold the view that information and communication technologies (ICT) are now a necessity in all productive sectors. This trend is supported by empirical evidence, as digitally deliverable services, such as cloud computing or online education, are growing at 3 times the rate as the trade of merchandise (Foster-McGregor et al., 2021). At that, digital connectivity acts as the trade facilitator that can be compared to ports and highways in the industrial era (Goldfarb & Tucker, 2019). Nonetheless, as developed economies have seized most of the gains in digital-trade, researchers observe that developing nations have lagged in different levels of preparedness because of infrastructure gaps, regulatory systems and human resources (Bari et al., 2022) (Table 1).

Table 1. Summary of representative academic literature on digital-trade themes in emerging economies type styles.

Author(s) & Year	Regional Focus	Key Contribution	Findings/Insights
Meltzer (2019)	Global	Conceptualization of digital trade	Differentiates digitally delivered vs. digitally ordered goods and highlights data-flow governance.
Kimura & Chen (2018)	East Asia	Policy & trade effects	Digitalization improves export performance and trade efficiency.
Aker & Mbiti (2021)	Africa	Mobile technologies	Mobile money expands financial inclusion but limited cross-border integration.
da Silva & Perez (2022)	Latin America	Digital competitiveness	Infrastructure and innovation crucial for ICT exports.
González & Ferencz (2021)	Developing Economies	Data-flow policy	Regulation quality influences trade readiness.

Studies of digital transformation in Asia have especially played a leading role in explaining how specific government policies can streamline the process of joining digital value chains faster. East and Southeast Asian studies emphasize the value of industrial and digital-infrastructure planning, particularly in such economies as South Korea, Singapore, and Malaysia (Kohli & Mukherjee, 2020; Park & Shin, 2022). These countries used state-sponsored broadband development, ICT R&D investments and programs on digital skills to provide them with a better competitiveness in both manufacturing and services. The empirical data based on panel data supports the fact that the exports of digital-services in Asia have increased by over 12 per cent per year since 2010, which is faster than other traditional service sectors (Nguyen, 2021). Researchers explain this by the large penetration of mobile-internet and the introduction of digital payments, as well as investment in logistics technologies (Akimov et al., 2020). Simultaneously, comparative data reveal that even within the Asian region, the benefits distribution is unequal: whereas such economies as China and India are leaders in platform-based export, less developed countries, such as Laos and Myanmar, are at the rear (Prakash & Roy, 2022). The literature therefore establishes a two-speed process of in the digitalization of Asia, in which high adopters become entrenched in global digital commerce and late adopters become incapable of overcoming infrastructural and governance divides.

Conversely, the African literature highlights the potential and frailty of the digital evolution of trade in the continent. The empirical research reports rapid spreading of mobile-money ecosystems, digital-finance services and micro-e-commerce platforms (Aker & Mbiti, 2021; Signé, 2022). Such innovations have enhanced financial inclusion and productivity in the informal-sector, but the effectiveness of cross-border trade has been limited due to poor broadband networks and high international connection expenses (Kende & Quast, 2021). According to such analysts as Abebe and Koutroumpis (2020), the main obstacles to the digital-trade preparedness found in Africa are the inadequacy of infrastructure available in terms of the last mile and the inefficiency of regulatory harmonization between communities of the regional economies. Besides, the lack of data-protection and cybersecurity models discourages foreign investment in cloud-based services (Mothobi & Gillwald, 2021). The latest policy studies consider the opportunities of the African Continental Free Trade Area (AfCFTA) in helping to resolve these problems through the formation of a single digital-trade protocol (Gelb et al., 2022). Nevertheless, difficulties in implementation exist because states have different national interests and the resources to implement them (Wanjala, 2023). In general, African literature finds a common point in the fact that only with such conditions as massive investment in infrastructure and the harmonization of cross-border regulations, digital trade can trigger the structural change (Adam & Graham, 2021; Foster, 2022).

Latin America is in a special middle state in the global digital-trade environment. Research indicates that exports of regional digital-services, especially in the

creative sector, fintech, and software development have been steadily growing, with increased internet penetration rates and the proliferation of e-commerce (Bustelo, 2021; da Silva & Perez, 2022). Nevertheless, digital markets in Latin America are very much concentrated and reliance on external platforms limits national value appropriation (Bárcena et al., 2020). According to scholars, such countries as Chile and Uruguay have made significant strides in the early adoption of digital infrastructure and open-data policies, and they are ahead of other countries such as Bolivia and Paraguay, which have low levels of competition and institutional inertia (Herrera, 2022; Palacios, 2023). Moreover, Mercosur and the Pacific Alliance still have many digital-integration processes, but the region still lacks a unified regulatory scheme of cross-border data flows and taxation of e-commerce (Arbache, 2021). The experience of the empirical studies shows that inappropriate policies cause SMEs to not be able to grow globally and leave productivity gaps permanently in comparison with companies in Asia or Europe (Katz & Callorda, 2020). Therefore, the Latin American experience highlights the idea that market opportunities are not a sufficient guarantee of the success of digital-trade, but consistent regional policies and policies of innovation should be followed (Figure 2).

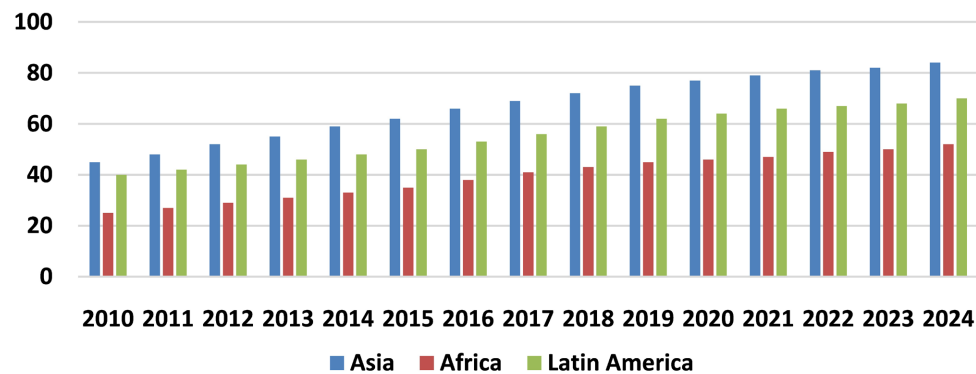


Figure 2. Regional comparison of digital-trade preparedness scores, 2010-2023 (Asia, Africa, Latin America).

In addition to regional benchmarks, the literature has established three general themes that determine the digital-trade performance of the emerging economies: infrastructure and access, regulatory and institutional quality, and human-capital readiness. First, digital commerce is still based on connectivity. The empirical research based on cross-country samples proves that with every 10-percentage-point growth in broadband penetration, the trade volume increases by 1.5 percent (Czernich et al., 2021; Hjort & Poulsen, 2019). The marginal effects, however, decline when the issues of affordability and reliability are not discussed (Williams et al., 2020). Second, institutional quality such as data-protection legislation, competition regulation and execution power play a great role in digital-trade participation. The openness of the regulatory environment in an economy leads to more investment in digital services and faster diffusion of technologies (Dunne &

Keller, 2021; Ferracane et al., 2022). Third, the development of digital-skills is once again and again mentioned as the determining factor. Research in the developing world shows that when companies resort to digital-payments and e-procurements, only in the presence of complementary digital skills of the workers, productivity levels increase (Dau & Cuervo-Cazurra, 2020; Cirera et al., 2022). Technology adoption can become a source of inequality instead of its decrease without human-capital improvement (Rodrik, 2022). All these findings suggest that digital-trade policy should incorporate physical connectivity, governance, and education -three aspects that support each other in the attainment of sustainable results (Table 2).

Table 2. Determinants of digital-trade performance identified in prior empirical studies.

Determinant	Indicator Examples	Empirical Evidence	Expected Impact
Infrastructure	Broadband penetration, Internet speed	Czernich et al. (2021); Hjort & Poulsen (2019)	↑ Trade volume and productivity
Regulatory Quality	Data-protection, Competition policy	Dunne & Keller (2021); Ferracane et al. (2022)	↑ Digital-services exports
Human Capital	Digital-skills index, ICT graduates	Cirera et al. (2022); Rodrik (2022)	↑ SME digital adoption
Regional Cooperation	Trade protocols, E-commerce law alignment	Wanjala (2023); Gelb et al. (2022)	↑ Cross-border digital trade

The connection between digital trade and sustainable development is also discussed lately. According to scholars, a number of Sustainable Development Goals (SDGs), such as decent work, gender equality, and climate efficiency, can be supported with the help of digitalization (Meltzer & Loveless, 2021; Galperin & Fernandez-Maldonado, 2022). However, some critics warn of technological determinism, which is that the ability of a limited number of multinational platforms to hold ownership of data and market influence is dangerous to continue to propagate digital colonialism (Couldry & Mejias, 2019; Ndemo, 2022). Empirical studies indicate that, although digital trade has the potential to reduce transaction costs and make transactions more inclusive, it can also make the transactions more susceptible to cyberattacks and misuse of privacy information, should governance structures be weak (Martin-Shields & Papagianni, 2020). The comparison of emerging economies reveals that balanced policy solutions need to be developed that ensure openness and protection of domestic digital sovereignty (Aaronson, 2021; Bauer et al., 2022). This emerging line of literature highlights the idea of multi-stakeholder governance and regional collaboration as an attempt to balance the global integration with the local development priorities (Drezner, 2021; Gurumurthy & Chami, 2023).

Although this has been done to a large extent, there is still scholarly agreement that empirical studies of digital trade are still in a fragmented state, in case of

emerging economies that are not in East Asia. The current models typically use aggregate indicators on ICT, which do not include the qualitative variations in the institutional capacity, data-governance maturity, and social inclusion (Elms & Low, 2022; Koval & Zymnytska, 2023). In addition, a comparative analysis between continents has not been carried out extensively to demonstrate how contextual factors, including demographic structure, income inequality, and regional cooperation, influence the patterns of digital-trades. To deal with these gaps, there is a need to incorporate integrative frameworks that integrate quantitative information and policy analysis. It is precisely with this need that the present paper will attempt to answer: it will examine how digital trade is changing the global commerce and it will also seek to pinpoint the opportunities and challenges facing emergent economies in Asia, Africa, and Latin America in the period between the year 2010 and 2024. The study offers new comparative information on the policy-based narrative of institutional, infrastructural, and human-capital preparedness of digital-trade. It finally aims to show that inclusive trade governance and regional coordination can help through digital trade to trigger sustainable equitable economic integration in the Global South (Figure 3).

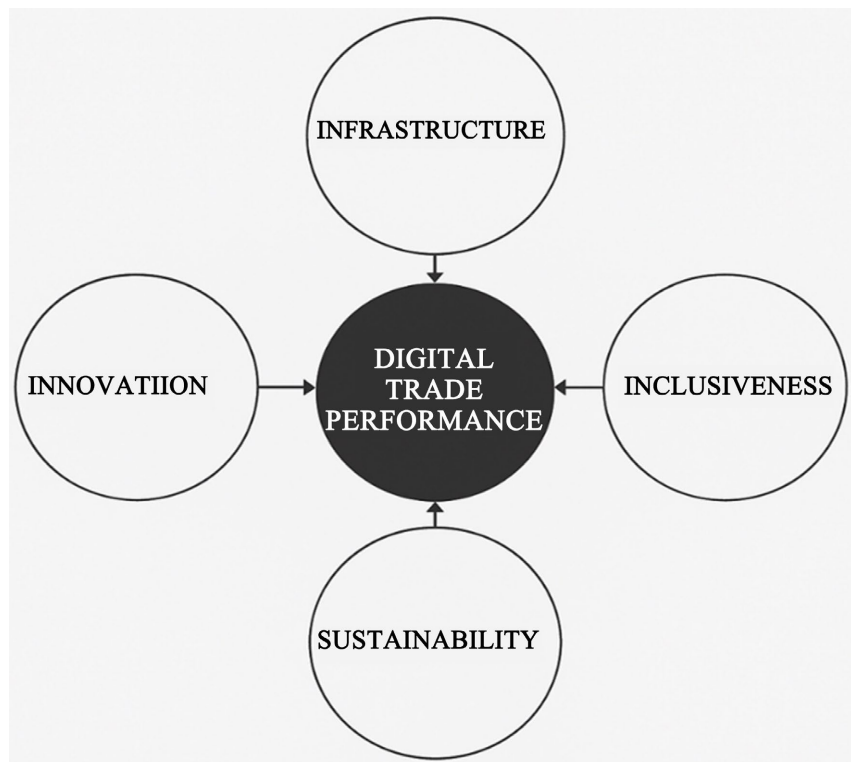


Figure 3. Digital trade performance.

3. Methodology and Data

This study adopts a descriptive, cross-regional, and policy-analytic methodological approach to examine how digital trade has evolved in emerging economies across Asia, Africa, and Latin America between 2010 and 2023. Unlike economet-

ric studies that rely on model-dependent causal inference, this research emphasizes a holistic, multi-dimensional exploration of digital-trade indicators, institutional environments, and regional trajectories. The rationale for this approach is grounded in the recognition that digital trade is shaped by complex interactions between infrastructure, policy, and human capital factors that cannot be fully captured through quantitative estimation alone (Mattoo & Meltzer, 2020; Burri, 2021). A descriptive and comparative method therefore provides a more flexible framework to highlight contextual differences and illuminate the enabling and constraining elements that influence digital-trade preparedness in the Global South. This methodology aligns with contemporary digital-trade scholarship that increasingly advocates for multi-layered assessments which integrate empirical indicators with qualitative policy insights (Katz & Callorda, 2020). For conceptual clarity and consistency, this study adopts the term digital-trade preparedness throughout, referring to the multidimensional capacity of economies to participate effectively in digital trade, encompassing infrastructure, institutional frameworks, and human capital.

The empirical basis of the study is based on secondary data, in particular, the World Bank, World Development Indicators (WDI), the United Nations Conference on Trade and Development (UNCTAD), Digital Economy Database, the International Telecommunication Union (ITU), and the World Trade Organization (WTO). These are greatly considered as the most authoritative avengers of global digital and economic statistics guaranteeing reliability, comparability, and consistency between countries and years. The choice of indicators was informed by theoretical frameworks, which indicate the importance of digital infrastructure, institutional preparedness, and human capital in determining the results of digital-trade (Bauer et al., 2021; Lane & Milesi-Ferretti, 2018). Accordingly, the data set has internet penetration and mobile-broadband subscriptions, ICT-goods exports, digital-services exports, e-commerce preparedness indices, human-capital indicators and economic openness. The timeframe 2010-2023 was selected as it is a decade of transformation due to the rapid diffusion of mobile-internet, the development of trade platform-based, and an increased rate of cross-border digital flows following the COVID-19 pandemic (UNCTAD, 2021; WTO, 2023).

In this study, “emerging economies” refer to middle-income countries classified by the World Bank that exhibit rapid structural transformation, increasing integration into global trade, and ongoing development of digital infrastructure and institutional capacity. The sample population will include twenty-five developing economies in the three regions Asia (India, Indonesia, Malaysia, Vietnam, Philippines, Thailand, Bangladesh, Pakistan), Africa (Kenya, South Africa, Nigeria, Rwanda, Ghana, Egypt, Tanzania, Ethiopia), and Latin America (Brazil, Mexico, Chile, Colombia, Peru, Argentina, Uruguay, Ecuador). This sample satisfies three characteristics. To start with, the world economic classifications categorize all countries into emerging or developing ones (World Bank, 2023). Second, both economies show proactive involvement in the process of digitalization or policy

statements to expand digital-trade integration. Third, geographical diversity increases the external validity of cross-regional comparisons and enables the research to determine both region specific and generalizable trends. The multicountry representation per region can help avoid skewed understandings that can arise when a single country or two digital champions (India or Kenya) are used to provide insights on digital-trade preparedness in the Global South, and rather give a more balanced perspective on the preparedness to digital trade in the Global South (Minges, 2019).

Digital-trade preparedness in this research is a conceptual construct affected by the capacity of infrastructures, institutional policies and human resource abilities. Operation indicators are proxies of each of these dimensions, which is quantitative. Another measure of connectivity and access is internet penetration (percentage of the population who have access to the internet) and mobile-broadband subscriptions. Share of exports in ICT-goods exports represent integration in digital-hardware value-adding sectors and digital-services export represent participation in digitally deliverable sectors such as IT outsourcing, online finance, and cloud services (Ferracane & van der Marel, 2019). Institutional preparedness is approximated by with the help of: digital-trade policy indices including UNCTAD B2C E-commerce Index, ITU regulatory-tracker scores, and WTO Trade Facilitation indicators regarding digital procedures (Park & Kim, 2021). Human-capital-preparedness is gauged with the help of such secondary indicators as average years schooling, digital-skills indices, and tertiary enrollment into science, technology, engineering, and mathematics (STEM). These indicators lack the ability to account for every single detail of the institutional or skills development, but they are actively employed in the world-level digital-economy studies and offer an equal level of comparability across the regions (Sáez et al., 2020; Kox & van der Marel, 2020).

There are three fundamental stages of the analytical approach. The initial step descriptive trend analysis, by which the chosen indicators will be analyzed throughout the 14 years and discover growth trends, deviations, and the time points, when the growth direction is accelerated and when it stays constant. The approach is typically applied in the academic research of the global digital-economy to demonstrate structural dynamics and cross-national patterns (Galperin & Mariscal, 2022). Dataset can be turned into charts and tables that will be used by the study to explain the regional variations in digital adoption and export performance. It is important to note that quantitative indicators are not sufficient to explain the investigative determinants of an institution and the second stage incorporates the qualitative analysis of policy. This step is based on triangulation of empirical trends with policy reports, national digital strategies, and the digital-trade literature of developing mixed strategies that capture multidimensional and dynamic aspects of digital economies (Aaronson, 2022).

The third level applies the cross-regional interpretation. The study does not directly compare countries with each other but rather finds structural similarities

and differences between regions. The approach does not engage in implausible comparisons of structurally differentiated economies but dwells on contextualized trends, e.g. the dominance of Asia in exporting digital services, the innovations of African countries in mobile finance, the intermediate digital preparedness of Latin America but disjointed regulatory frameworks (Hill, 2021; Rivera et al., 2022). Recent scholarship has proposed such comparative framing as a way of capturing complexity in the global digital transformations and avoiding the use of the same one-size-fits-all interpretations (Gurumurthy & Chami, 2023). It also helps in policy relevance that allows governments and development partners to appreciate how the structural and institutional conditions are affecting digital-trade outcomes in continents in varied ways.

This paper has only used secondary data but the limitations related to secondary data were considered to minimize the drawbacks of these tools. To begin with, all indicators are based on regular sets of data that are internationally standardized reduce measurement error. The most reliable and steady series was chosen where more than one source covered the same indicator. Second, gaps data availability especially of lower-income countries were only interpolated when missing value was in the middle, as opposed to start of time series or end of time series. Care was taken to the extreme to avoid inflating distorting trends. Third, the cross country comparability was also improved through the ratio based index based indicators (ex. percentage population, share of exports) which minimizes the economic size impact. The latter is a strategy that is suggested by various international digital-economy measurement systems, including the Digital Development Index offered by the ITU and the Core Digital Economy Indicators offered by the UNCTAD (UNCTAD, 2020; ITU, 2022). Although secondary data necessarily cannot be able to reflect all qualitative shades like firm-level digital practices or informal digital entrepreneurship, the data utilized in this case are the strongest and most internationally comparable data.

Another methodological implication is the combination policy analysis and the empirical trends. Empirical results were placed in the context of policy documents and regulatory frameworks and national digital strategies. The main sources are regional digital policies released by ASEAN, AU and ECLAC, national digital policy such as Digital India Initiative issued by India, Digital Economy Blueprint that was issued by Kenya and Brazil and e-commerce roadmap that was released in Indonesia, and policy analysis articles in the journals focusing on international trade, ICT development, and the regulation of the digital economy. The triangulation enables the study to investigate how policy promises nonexistent-interact with empirical digital-trade preparedness. also offers basis in the derivation of policy implications later sections. Overall, this methodological design allows the study to combine quantitative rigor with contextual understanding. By drawing on a suite of internationally standardized indicators and integrating them with detailed policy insights, the research offers a comprehensive perspective on digital trade in emerging economies. The descriptive focus serves not only to document

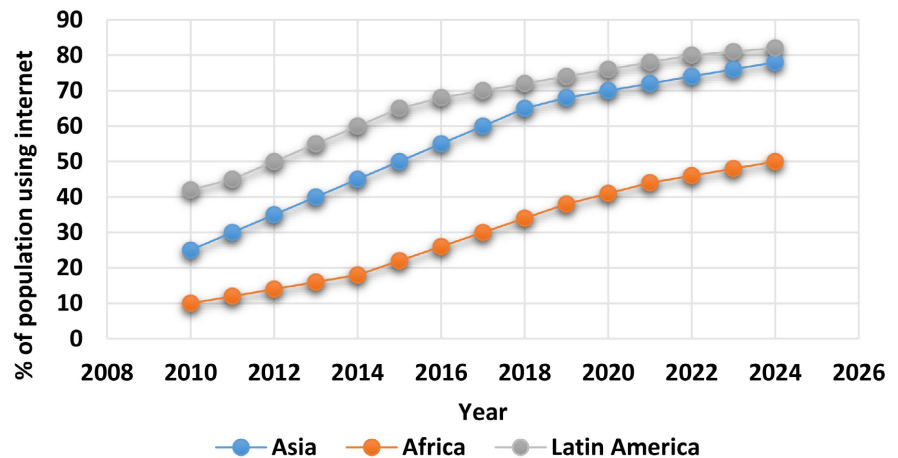
existing patterns but also to identify underlying structural drivers of divergence across regions. In doing so, the methodology not only fills a gap in comparative digital-trade literature but also provides a foundation for actionable policy recommendations tailored to the needs and capabilities of emerging economies.

4. Results and Discussion

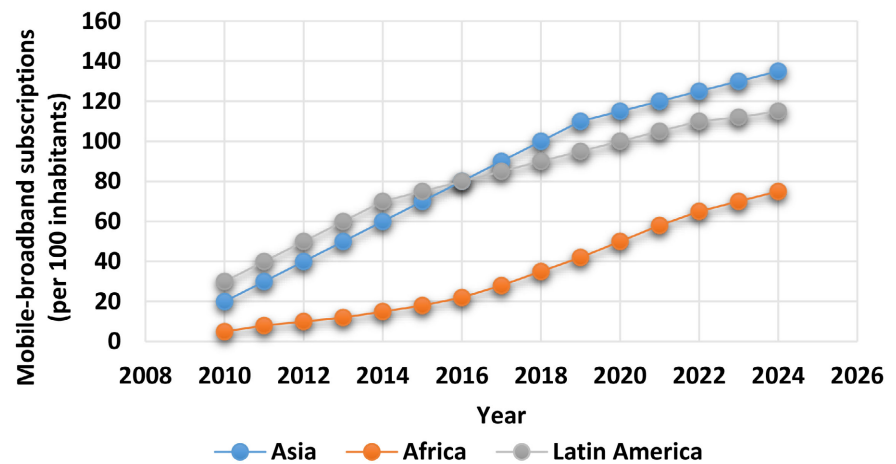
The descriptive analysis of the digital-trade indicator over the 2010-2024 period shows that there will be a massive transformation in infrastructure, institutional preparedness, and trade in digital-services over the emerging economies. The findings confirm that the three parts of the world, Asia, Africa and Latin America, are showing significant advances in the core indicators like internet penetration, mobile-broadband access and exports of digital-services. Nevertheless, the speed, uniformity, and depth of digital integration vary considerably in any region. These disparities bring up the role of structural preparedness and policy consistency in the capacity of the emerging economies to take advantage of the global digital-trade revolution (Bari et al., 2022; Lane & Milesi-Ferretti, 2018).

In Asia, the pace of digital development rose very fast in the period between 2010 and 2024. The internet penetration in the region increased to over 72-80% in 2024 with massive mobile-broadband growth, as well as with the declining data rate (ITU, 2023; Nguyen, 2021). In Malaysia, Vietnam, and India, the numbers of countries with the most rapid growth, national digitalization policies were driven. Some of the policies that have been attributed to the growth of digital infrastructure and the rise in citizen engagement in digital services are Digital India program in India, Palapa Ring broadband program in Indonesia, and MyDIGITAL blueprint in Malaysia (Kohli & Mukherjee, 2020; Park & Shin, 2022). The descriptive data further show that the exports of digital-services increased significantly over the course of this time, and IT-enabled services (ITES), cloud-computing, software-engineering and online-creative industries have also expanded significantly (Akimov et al., 2020). This increase is a reflection of research findings on the topic that indicate that Asia has developed into the center of digitally deliverable services and contributed over 55 percent of the growth in digital-services exports globally over 2015-2023 (UNCTAD, 2023; WTO, 2023). **Figure 4(a)** shows This figure illustrates the growth of internet penetration across the three regions over the period 2010-2024. Asia shows the fastest and most consistent increase, rising from 25% to 78% of the population using the internet. Latin America maintains steady progress, increasing from 42% to 82%, supported by wide mobile connectivity. Africa shows the slowest but positive trajectory, growing from 10% to 50%, reflecting persistent structural constraints but gradual improvements in digital access. **Figure 4(b)** shows how mobile-broadband penetration in the three regions, in terms of subscriptions per 100 people, is going to change between 2010 and 2024. Asia is seen as a fast adopter trending between 20 and 135 subscriptions per 100 population and is attributed to the extensive use of 4G/5G and the drop in the cost of devices. The growth of Latin America is high as it increases by 30 to

115 subscriptions per 100 inhabitants. Africa shows a gradual yet declining increment of 5 to 75 subscriptions, which reflects the difficulty in affordability, infrastructure and skewed rural access to the internet.



(a)



(b)

Figure 4. (a) Internet penetration in Asia, Africa, and Latin America (2010-2024); (b) Mobile Broadband Subscriptions per 100 Inhabitants in Asia, Africa, and Latin America (2010-2024).

In the meantime, the path of Africa is characterized by an impressive development and significant structural limitations. The penetration of the internet has increased by an average of 10% in 2010 to an estimated 43% - 50% in 2024, however, there are still significant gaps in urban and rural regions (Aker & Mbiti, 2021; ITU, 2023). Mobile-broadband subscriptions grew very fast, with the expansion of the industry being encouraged by the investment of the private sector and the innovation of mobile finance. Kenya, Ghana, Rwanda, and South Africa continue to be the leaders in the digital transformation of the region, and mobile-money systems like M-Pesa allow millions of people to enter the digital payments and informal e-commerce (Signé, 2022; Mothobi & Gillwald, 2021). Nonetheless, there

is disproportionate performance of digital-trade in Africa. In Kenya and South Africa, exports of digital-services have increased by a measurable amount, but most African economies did not realize similar amounts of growth because of the lack of infrastructure, high data prices, and low numbers of skilled digital workers (Abebe & Koutroumpis, 2020; Adam & Graham, 2021). The finding highlights that the issue of connectivity enhancement is not enough to increase the rate of digital-trade without parallel investments in digital skills and institutions.

Latin America is a transitional path of the dynamism of Asia and the unequal development of Africa. Internet coverage in Latin America expanded between 40% - 45% in 2010 to over 75% - 80% in 2024, with the high coverage of mobile-networks and an average growth of broadband coverage (ECLAC, 2023). Chile, Uruguay, and Argentina, and Brazil had almost universal connectivity, and other countries, like Bolivia, Honduras, and Paraguay, lagged because of structural inequality and the lack of competition in the telecommunications industry (da Silva & Perez, 2022; Bustelo, 2021). The findings reveal that there was a gradual increase in the export of digital services in Latin America especially in the areas of fintech, software engineering, e-learning and audiovisual production but the overall growth is not as strong as that of Asia. Fragmentation of the institutions and poor coordination of regional policy slowed down the further integration into global digital markets (Arbache, 2021; Herrera, 2022). As an example, variations in data-protection regulations and cross-border taxation systems of Mercosur and Pacific Alliance nations are a drag on harmonization of digital trade in the region (Palacios, 2023).

To enhance policy relevance, the findings suggest that digital-trade preparedness in emerging economies requires targeted and region-specific policy actions, rather than generic investments. In Asia, priority should be given to deepening cross-border data-flow agreements and interoperable digital-trade rules under frameworks such as ASEAN, particularly in areas of data localization, cloud-service regulation, and mutual recognition of digital identities. These measures would support the continued expansion of digitally deliverable services and platform-based exports.

In Africa, policy efforts should focus on harmonizing e-payment systems, digital-customs procedures, and consumer-protection regulations under the African Continental Free Trade Area (AfCFTA) Digital Trade Protocol. While mobile-money ecosystems are well established, the absence of interoperable regulatory frameworks limits cross-border scalability and domestic value capture. Accelerating regulatory convergence and reducing transaction frictions would allow African firms to move beyond domestic and informal digital markets.

For Latin America, the results highlight the need to strengthen competition policy, data-governance frameworks, and regional regulatory coordination across Mercosur and the Pacific Alliance. In particular, harmonizing e-payment regulations, digital-taxation rules, and data-protection standards would reduce fragmentation and enable SMEs to participate more effectively in regional and global

digital markets. Such reforms are also essential to mitigate excessive dependence on dominant external platforms and to improve domestic value retention.

These findings can be further interpreted through the lens of digital colonialism, a concept referring to the asymmetric control of digital infrastructure, data, and platform-based value by a small number of predominantly foreign or externally anchored firms (Couldry & Mejias, 2019; Ndemo, 2022). In the case of Latin America, the growing reliance on large multinational or regionally dominant digital platforms has expanded market access and consumer reach, yet it has simultaneously constrained domestic value capture, local data ownership, and the development of indigenous digital ecosystems. While digital platforms have reduced transaction costs and facilitated SME participation, much of the generated value—particularly data rents, platform fees, and algorithmic control—remains concentrated outside national economies. This pattern reflects a form of digital-trade integration that reinforces structural dependency rather than enabling full economic upgrading, consistent with digital colonialism dynamics identified in the literature (Table 3).

Table 3. Trends in digital infrastructure (Internet Penetration 2010-2024), UNCTAD (2023), and World Bank (2023) estimates of digital-trade performance identified in prior empirical studies.

Year	Asia (%)	Africa (%)	Latin America (%)
2010	24 - 28	10	40 - 45
2015	38 - 45	20 - 25	55 - 60
2020	60 - 65	35 - 40	70 - 75
2023	70 - 75	42 - 48	75 - 80
2024	72 - 80	45 - 50	76 - 82

Three significant findings can be made in a cross-regional comparison. To begin with, infrastructural preparedness is the most conclusive contributor to digital-trade performance. The presence of effective telecommunication markets, fiber-optic networks, and high rates of broadband penetration in Asia is strongly associated with its leadership in the growth of digital services and entrepreneurship in digital services (Nguyen, 2021; Katz & Callorda, 2020). Findings indicate that the rate of growth in digitally deliverable services is higher in countries where high-speed internet infrastructure has been established early—in line with previous empirical evidence (Czernich et al., 2021; Foster-McGregor et al., 2021). The under-performance in Africa, in turn, is as a result of later rollout of the broadband and, comparatively, high cost of data, which still fails to support inclusive digital access (Kende & Quast, 2021). The moderate development of Latin America suggests that although the internet availability is large, it is limited by the competition among networks and unequivocal investment in the last-mile connection. According to Figure 5, the institutional readiness differs significantly between the three regions, with Asia scoring highest in e-commerce readiness, data-protection

frameworks, the quality of ICT regulation, and cybersecurity resilience, and Africa is the least prepared, whereas Latin America is between the two.

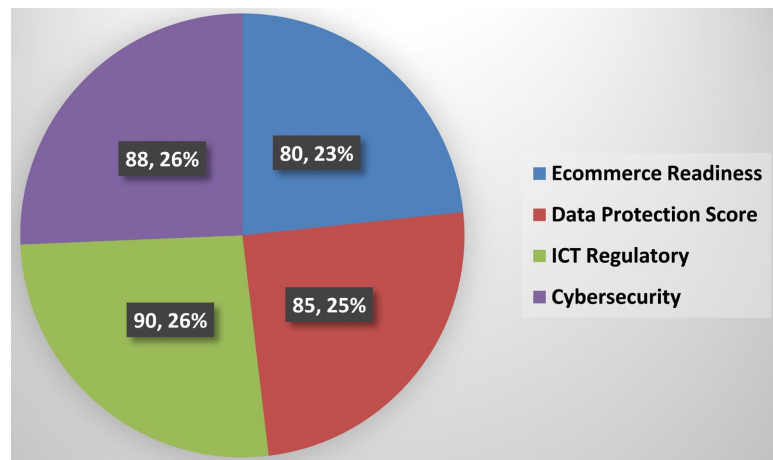


Figure 5. Institutional preparedness indicators for digital trade across regions (2024).

This number compares the institutional preparedness of Asia, Africa and Latin America based on four major indices: e-commerce preparedness, data-protection frameworks, ICT regulatory quality and devotion to cybersecurity. The overall preparedness is the greatest in Asia at the cost of more established regulatory frameworks and more established digital-trade policies, whereas Africa scores the lowest because of its disjointed regulations and a weak enforcement ability. Latin America is in a middle ground, having good achievements in e-commerce preparedness and cybersecurity but poorer integration of the digital-governance regulations.

Second, the institutional and regulatory preparedness demonstrates a high degree of correlations with digital-trade results. Areas that have more readily available and better predictable digital governance systems, including data-protection regulations, cybersecurity controls, transnational payment regulations and e-commerce regulation, are more likely to draw increased investments into digital infrastructure and services (Dunne et al., 2021; Ferracane et al., 2022). The descriptive results prove that the digital-trade ecosystem in Asia was advantaged by policies that were aligned on the regional level within ASEAN such as harmonization of e-commerce regulations and digital-governance policies. The situation in Africa, on the contrary, is less coherent due to early initiatives under the African Union Digital Transformation Strategy and the AfCFTA digital-trade protocol (Gelb et al., 2022; Wanjala, 2023). The level of heterogeneity in digital governance in Latin America is even higher, as uneven regulatory frameworks restrict the movement of cross-border data flows and integration of digital-services (Arbache, 2021; Bárcena et al., 2020). These findings align with the previous literature that points out that regulatory alignment is central to scaling digital trade (Bauer et al., 2022; Burri, 2021). **Figure 6** indicates that the disparity in the exports of digital services has been growing with the passage of time, with Asia registering an expo-

mental growth, Latin America fixed growth, and Africa recording slower yet steadily improving rates of digital services delivered.

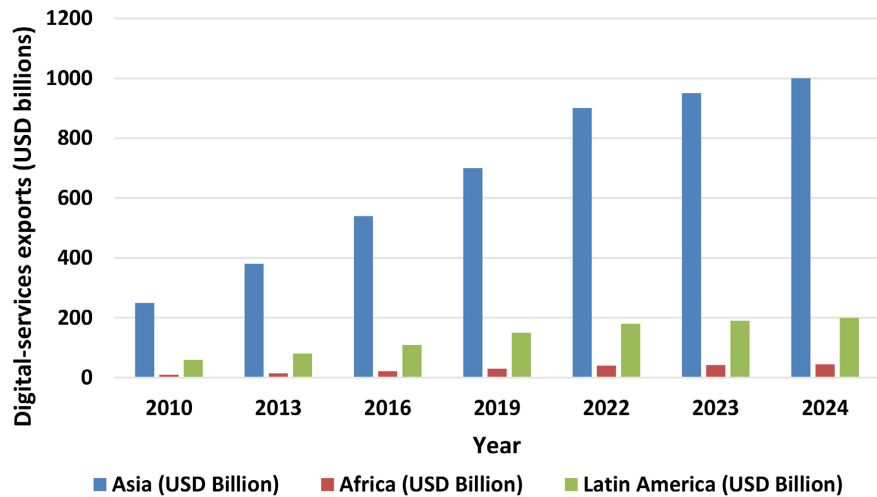


Figure 6. Digital services export growth in Asia, Africa, and Latin America (2010-2024).

Figure 6 shows the development of the digitally delivered services exports in the three emerging regions in the period between 2010 and 2024. Asia has an upward trend, which is steep and uninterrupted, with USD 250 billion at the beginning of the decade and USD 1000 billion towards the end of the decade, reflecting its superior position in digital services across the globe. Latin America has moderate yet steady growth with a growth of USD 60 billion to USD 200 billion within the same time. Africa is experiencing slow growth, which can be explained by the structural limitations yet gradual increment of digital capabilities. The chart shows an increasing gap in regional inequalities, which confirms the findings discussed in Section 4 on the leadership of Asia, middle performance of Latin America, and less but positive growth among African regions on digital trade.

The regional differences in digital infrastructure and regulatory frameworks have direct implications for SME participation in digital commerce. In Asia, high broadband penetration, widespread digital-payment systems, and relatively harmonized e-commerce regulations have significantly lowered entry barriers for SMEs, enabling small firms to engage in cross-border digital trade through online marketplaces, outsourcing platforms, and digitally deliverable services. The rapid growth of platform ecosystems has allowed SMEs to internationalize without large upfront investments in physical logistics or foreign market presence.

In Africa, mobile-money adoption and expanding mobile-broadband coverage have facilitated SME participation primarily in domestic and informal digital markets, particularly in retail, services, and micro-entrepreneurship. However, limited fixed-broadband infrastructure, high data costs, and fragmented regulatory frameworks constrain the ability of SMEs to scale across borders. As a result, digital participation often remains localized, with restricted integration into regional

or global digital value chains.

For Latin America, relatively high internet penetration and platform access have enabled SMEs to enter digital commerce, yet regulatory fragmentation, uneven competition policy, and inconsistent e-payment and data-governance rules limit cross-border expansion. SMEs frequently rely on dominant regional or global platforms, which facilitates market access but reduces value retention and bargaining power. These findings suggest that while digital trade lowers entry barriers for SMEs across regions, the depth and sustainability of SME participation depend critically on infrastructure quality and regulatory coherence (Table 4).

Table 4. Growth of digital services exports (2010-2024) These values represent regional aggregates from WTO (2023).

Region	2010	2015	2020	2024
Asia	High growth; baseline ~USD 250B	~USD 450B	~USD 700B	~USD 900B+
Africa	Low baseline ~USD 10B	~USD 18B	~USD 28B	~USD 40B
Latin America	~USD 60B	~USD 95B	~USD 130B	~USD 180B

Third, human-capital capacity seven becomes a key factor in determining whether digital infrastructure becomes a significant digital-trade player. The increased development of STEM education, coding bootcamps, digital-skills training, and vocational training in Asia has greatly enhanced the digital labor force in the region (Sáez et al., 2020). In India and Vietnam, to name a few, they established large programs of technical-skills training that deliver millions of workers every year to the world markets of IT and business-process outsourcing (Park & Shin, 2022). Conversely, African nations continue to experience a considerable lack of digital-skills acquisition, although Kenya, Rwanda, and South Africa have seen a positive trend (Aker & Mbiti, 2021; Adam & Graham, 2021). In the field of digital-skills development, Latin America has improved, but there are still concerns about the quality and equity of the educational systems and the mismatch of graduate skills and the need in the digital industry (Katz & Cal-lorda, 2020; Herrera, 2022). According to Rodrik (2022), the digital transformation demands labor-market policies that would guarantee that the diffusion of technologies would be accompanied by capacity building and inclusion of the workforce.

In addition to these structural dimensions, the findings also bring out the effect of global shocks on the digital-trade paths. COVID-19 pandemic (2020-2022) served as a catalyst as every region was speeding up its digital adoption. Remote employment, distance education, electronic money transfers, and online shopping were increased tremendously, which generated increased pressure on digital services (UNCTAD, 2021; Myovella et al., 2020). Asia took advantage of this flood by increasing the infrastructure of digital-payments and cloud ecosystems and African economies took advantage of mobile money to stabilize financial transac-

tions in the case of lockdown disruptions (Signé, 2022). The e-commerce in Latin America rose at an exponential rate, and such platforms as Mercado Libre, Rappi, and Nubank became the leaders of digital services in the continent (ECLAC, 2023). Therefore, the pandemic contributed to the enhanced role of digital trade as a resilience mechanism, which confirms the previously made arguments that digitalization can serve as a buffer in times of world economic crisis (Dau & Cuervo-Cazurra, 2020; Meltzer & Loveless, 2021).

And the findings also indicate new trends of digital disparities on a regional level. Although the average penetration of the internet is high, there is still a significant level of socio-economic inequity between affluent and underprivileged households, metropolitan and rural regions, and small and large enterprises (Galperin & Mariscal, 2022). In Asia, the presence of high-tech metropolitan areas of Bangalore, Kuala Lumpur or Manila is way ahead of the rural margins, and in Africa, there are sharp income-based disparities in the smartphone ownership and broadband affordability (Aker & Mbiti, 2021). Latin America is characterized by the long-standing gap between high-income and digitally advanced markets (Chile, Uruguay, Argentina) and low-income countries where competition and affordability issues are low (da Silva & Perez, 2022). These results highlight the importance of these results as they may hide vulnerability and overall disproportionate benefits of digital-trade integration.

The other major finding of the descriptive analysis is regarding the role of platform ecosystems. Big domestic players (e.g., Flipkart, Gojek, Grab, Shopee, Paytm) in Asia have created digital ecosystems which include mobile payments, e-commerce, logistics, cloud computing, and digital lending. These platforms play a critical role in digitizing trade as they lower the cost of search, standardizing transactions, and have network effects that appeal to SMEs (López-González & Jouan-jean, 2017). The dominance of mobile-money services in Africa (especially in Kenya, Ghana, and Tanzania) is a variant of digital integration based on financial inclusion instead of exporting digital-services (Ndung'u & Signe, 2020). Over in Latin America, digital platforms like Mercado Libre, Despegar, Rappi, and Nubank have become the digital champions of the region but a lack of coordinated policies on digital still constrains the growth of cross-border platforms (Katz & Callorda, 2020; Bustelo, 2021). These cross-regional variations show that platform ecosystems change based on local institutional, infrastructural and market conditions (Table 5).

Table 5. Mobile broadband subscription growth (per 100 inhabitants) growth driven by 3G-4G-5G diffusion, private telecom investment, and affordability changes.

Year	Asia	Africa	Latin America
2010	~20	~5	~30
2015	~55	~18	~60
2020	~100	~45	~90
2024	~130	~75	~115

Through analysis, it is also found that the involvement in ICT-goods value chains is very concentrated. The growth in the export of Asian economies of ICT-goods (Malaysia, Vietnam, and Thailand) over the period 2010-2024 was highly supported by the regional production networks, as well as foreign direct investment inflow in the electronics and semiconductor production (Park & Kim, 2021). In contrast, Africa and Latin America display minimal growth in the exports of ICT-goods, which indicates structural limitations, including low manufacturing base, little depth of the supply chain, and a high rate of dependency on imported inputs (Foster, 2022; da Silva & Perez, 2022). This supports the opinion that although digital trade can increase opportunities in the services and platforms sector, hardware-related export diversification has been challenging to many emerging economies without a long-term industrial policy and technological modernization (Rodrik, 2022; Sebestyén, 2023) (Table 6).

Table 6. Human capital indicators related to digital trade (2024). Derived from World Bank Education Indicators (2024) and UNESCO UIS database.

Indicator	Asia	Africa	Latin America
STEM Enrollment (%)	20 - 35	5 - 15	12 - 25
Digital Skills Index	Moderate - High Low - Moderate		Moderate
ICT Professionals per 10,000 Workers	45 - 120	5 - 30	20 - 60

Lastly, the results indicate that policy congruence is a resolute determinant of enduring integration in digital-trade. The early adoption of national digitalization strategies, regional governance coordination, and the patchy nature of African digital-policy landscape, in turn, is due to different priorities and resource limitation, respectively (Gelb et al., 2022; Wanjala, 2023). The digital-trade development in Latin America is obstructed by the lack of consistency in implementation, the graduality of regulatory modernization and the lack of regional alignment (Arbache, 2021; Bárcena et al., 2020). The main idea in the recent literature is confirmed by descriptive evidence: the digital trade is an ecosystem phenomenon, which must be aligned in terms of infrastructure, skills, governance, and regional cooperation (Burri, 2021; Gurumurthy & Chami, 2023). In the absence of such alignment, a good performance in digital indicators might not be converted to good results in digital trade.

Altogether, the findings indicate that since 2010 the digital-trade preparedness in the Global South has increased significantly, but there are significant gaps. Asia is the leader in infrastructure and digital-services exports; Africa is the most mobile-financial-innovative country without connectivity and institutional preparedness; and Latin America is the most promising with an uncoordinated governance. As evidenced by the discussion, digital trade is not just a technological phenomenon but also a problem of governance, a problem of skills and a problem of coordination. These patterns offer a basis of policy implications that are discussed in the following section as they offer the avenues in which emerging economies

can become stronger in engaging in global digital trade. **Figure 7** also supports those results by identifying the difference between the level of STEM enrollment, digital-skills proficiency, and ICT-professional density by region, revealing the huge human-capital discrepancies that still underlie digital-trade preparation in Asia, Africa, and Latin America. This number estimates three fundamental indicators of human-capability that have a direct impact on the performance of digital-trades: the enrollment rates in STEM programs, digital-skills capability, and the concentration of ICT professionals per 10,000 employees. Asia is the country with the highest human-capital base, which indicates the long-term investment in STEM education and technical skills. Latin America is moderate, and Africa is far behind with even lower values of all indicators, which indicates a consistent shortage of skills. These differences substantiate the thesis statement that human capital is a determinant variable in the capacity of emerging economies to engage in the global digital trade effectively. These regional differences indicate that digital-trade preparedness translates into sustainable economic gains only when supported by coordinated regulatory reforms, such as cross-border data-flow facilitation, interoperable digital-payment systems, and regionally aligned e-commerce rules, rather than isolated national initiatives.

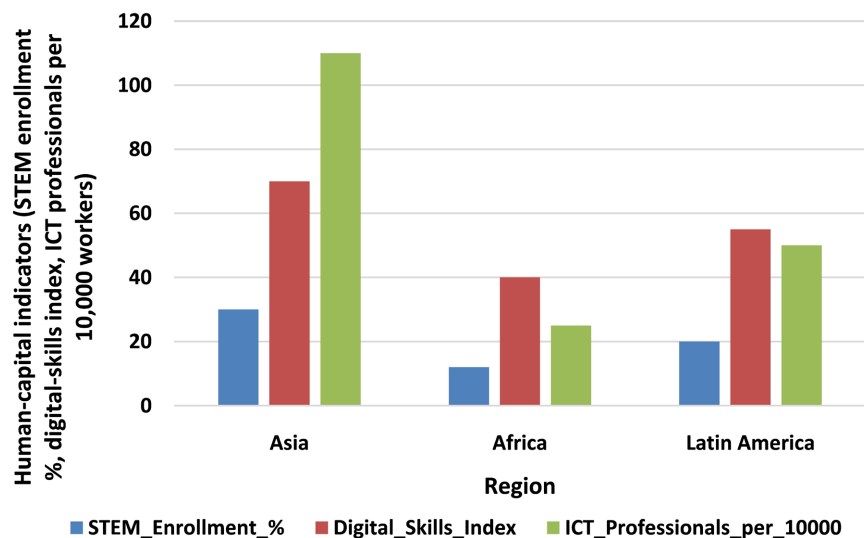


Figure 7. Human capital indicators relevant to digital-trade preparedness in Asia, Africa, and Latin America (2024).

5. Conclusion

The results of this research indicate that digital trade has turned out to be the key to global commerce and an important channel through which economies in the third world can integrate. It can be seen that the trend analysis of the past four years between 2010 and 2024 in Asia, Africa, and Latin America shows that despite all three areas having achieved a lot, the extent, speed, and inclusivity of digital integration differ significantly. Digital infrastructure, institutional preparedness and the capacity to have human-capital predominate in influencing these varia-

tions. The findings support the perspective that digital transformation is not a simple change in technology, but it is a structural and institutional process, which involves continued investment, consistent governance, and the development of strategic capacity (Burri, 2021; UNCTAD, 2023).

Asia is a rapid and widespread digital evolutionary region across the regions. Development of the region in terms of broadband infrastructure, mobile connectivity, and development of digital-skills offered the basis of its export of digital-services and platform-based trade on the global level. Competitive telecom markets, government-led efforts, and involvement in regional harmonisation of digital-policies at least, especially by ASEAN, helped Asia to convert digital-capability benefits into quantifiable trade performance (Nguyen, 2021; Park & Shin, 2022). The Asian experience validates that a synchronized public policy supported by robust systems of the private sector can drive the process of digital industrialization and increase the opportunities of both firms and households.

Although Africa is registering impressive gains, especially in mobile financial service trade, there are more lopses in terms of digital-trade preparedness. Africa through its innovations of mobile money, digital micro-entrepreneurship, and grassroots e-commerce has demonstrated that the region can leap to overcome the traditional development limits. Nevertheless, ongoing shortages in widespread broadbanding systems, excessive data rates, and disjointed regulatory systems remain to put the area at a disadvantage to increase the digital-trade involvement (Adam & Graham, 2021; Signé, 2022). The results indicate that the digital future of Africa lies in closing the gap in infrastructure and aligning digital policies between the nations—which are already being initiated under the AfCFTA Digital Trade Protocol but still need a much more significant level of investment and coordination.

The Latin America region has a middle-range position, as it has a good pace of digital inclusion and platform development but is restricted by structural disparities and decentralized governance. The emergence of regional digital champions like Mercado Libre and Nubank demonstrates the entrepreneurial potential of the region, but there is still an absence of consistent implementation of regulatory reforms and lack of coordination between the regions that de-facto hinder cross-border digital integration (Arbache, 2021; Katz & Callorda, 2020). These findings suggest that Latin America needs to enhance competition policy, lower connectivity gaps, and engage in more intensive collaboration among regulations in order to unleash its full potential in digital-trade.

A comparison of the three regions in totality gives some general findings. To begin with, digital infrastructure is still the most important determinant of digital-trade preparedness. Those countries that had early and stable investments in broadband, mobile networks, and digital public infrastructure recorded better results in digital-trade, which confirms previous studies that report infrastructure as the foundation of the digital integration process (Czernich et al., 2021). Second, the digital-trade performance is overwhelmingly determined by the institutional and

regulatory environment. Those nations whose data-governance policies, cybersecurity systems, and foreseeable digital regulations have highest investor trust and simplified inter-country dealings (Ferracane et al., 2022). Third, human capital serves as the key connector that transforms the digital access into the economic engagement. The absence of proper digital capabilities exposes the countries to the risk of establishing digital divides that would have left substantial portions of the population without enjoying the benefits of digital trade (Sáez et al., 2020). The findings always demonstrate that areas that have stronger STEM education systems and digital-skills programs are characterized by stronger involvement in digital services and value chains. The other big conclusion is that of the significance of resilience. The COVID-19 pandemic highlighted the importance of digital infrastructure and services in keeping the economy going even when it was being disrupted. In all the three regions, the rapid increase in the number of remote work, digital payments, and online services increases the rate of digital adoption, proving that digital trade is not only a growth engine but also a stabilizing mechanism (Dau & Cuervo-Cazurra, 2020; UNCTAD, 2021). The crisis proved the thesis that digital transformation can serve as an insulator in terms of global shocks, and it is a priority of emerging economies.

In spite of such developments, there are major challenges in different regions. These are intra-regional inequalities, digital-skills distribution disparities, domestic value capture suppressed by major global digital platforms, and inequalities in digital entrepreneurial ecosystems. It has also been revealed by the study that the significance of digital sovereignty, data governance and cross-border regulatory alignment will keep growing with the increased integration of countries in global digital markets (Aaronson, 2022; Gurumurthy & Chami, 2023). These problems point to the necessity of continuous policy innovation and investment to be able to make sure that digital trade is a driver of inclusive and sustainable growth as opposed to the origin of new inequalities. In general, the results of this paper support the generalized comprehension of digital trade that can have transformational prospects in the economy of emergent economies, but in the case of sufficient infrastructure, consistent policy choices, and sufficient human-capital base. There can be no economic upgrading without digitalization but it needs to be accompanied with the reforms that will create the fair competition, foster innovation and increase digital possibilities in the society in general. When these conditions are fulfilled, digital trade may substantially increase the export diversification levels, enhance the competitiveness of the SME, advance financial inclusion, and provide new opportunities of integration into global value chains.

From a broader perspective, the results also raise important concerns related to digital colonialism in emerging economies. Although digital trade enhances connectivity and market participation, the dominance of global and regional digital platforms risks reproducing unequal power relations in which data extraction, platform governance, and value appropriation are controlled externally. The evidence from Latin America—and to a lesser extent Africa—suggests that without

strategic policies on data governance, competition regulation, and domestic platform development, digital-trade preparedness may translate into market access without commensurate domestic value creation. Addressing digital colonialism therefore requires not only openness to digital trade but also active policy frameworks that promote digital sovereignty, fair competition, and local capability building.

Altogether, the evidence of the period between 2010 and 2024 proves that digital trade is not only a trend in the sphere of the economy but also a long-term structural change that the emerging economies cannot neglect. Asia, Africa, and even Latin America have much to teach: how effective coordinated policies and investment can be, how risky fragmented governments can appear, and how much it can jumpfrog by means of inclusive digital innovation. The study is valuable to add to the accumulating body of literature since it provides a policy-informed strategic, cross-regional, and holistic understanding of digital-trade preparedness. With the ongoing rapid process of digital transformation in the world, new economies need to develop approaches that allow them to be open, resilient, innovative, inclusive, and grow in an equitable manner. In this way, they will be able to place themselves in a central position to enjoy the full benefits of digital trade and play a more significant role in the changing global economy.

While this study provides a cross-regional, policy-informed assessment of digital-trade preparedness in emerging economies, several avenues for future research remain. First, firm-level analyses are needed to examine how small and medium-sized enterprises adopt digital platforms, respond to regulatory environments, and capture value within platform-dominated ecosystems, particularly in regions where external platforms are prevalent. Second, longitudinal studies could assess the causal impact of regional digital-trade frameworks—such as the African Continental Free Trade Area (AfCFTA) Digital Trade Protocol—on cross-border digital commerce, SME participation, and domestic value creation over time. Third, future work may integrate micro-level data on digital skills, data governance, and platform fees to better understand distributional outcomes and digital inequality within countries. Finally, comparative research combining econometric analysis with qualitative policy evaluation would help clarify how digital-trade policies interact with national development strategies, thereby strengthening the evidence base for inclusive and sustainable digital-trade governance.

Conflicts of Interest

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

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