Journal of Knowledge Learning and Science Technology
ISSN: 2959-6386 (Online)
2024, Vol. 4, No. 2, pp. 150–156
DOI: https://doi.org/10.60087/jklst.v4.n2.014

Review

Geo-Techno Politics and E-Commerce in the BRICS Countries: A Path Toward Digital Integration

Oma Ranga[1*]

[1]Independent Researcher, Syosset High School, New York, United States

Abstract

E-commerce, the digital exchange of goods and services, is vital in shaping global trade. Its implementation varies significantly across the BRICS nations due to the differences in technological advancement, political structures, and economic development. Investigating how these disparities influence the geopolitical dynamics of the digital economy is coined by the term Geo-Techno politics, yet the impacts are rarely mentioned. While e-commerce promises increased connectivity and innovation, contrasting regulatory approaches such as Russia's Data Localization Law and Brazil's relatively open market demonstrate deep-rooted tension in digital cooperation. Using comparative policy analysis and review of government frameworks, this study explores how state-driven agendas, data sovereignty, and inconsistent consumer protections contribute to the growing mistrust between nations and consumers and hinder the development of a unified global commerce framework. The results show that while all BRICS countries have made great strides in the development of e-commerce, diverging national priorities and regulatory models create friction in cross-border trade, affect consumer confidence, and limit collaborative innovation. This fragmentation amplifies global political divisions and highlights the need for harmonized digital policies. By identifying the geopolitical consequences of disjointed e-commerce ecosystems, this study calls for strategic cooperation among BRICS nations to develop aligned frameworks that promote trust, interoperability, and sustainable growth.

Keywords

Cross-border trade, BRICS, Techno-Politics, E-commerce, Consumer Trust

1. Introduction

E-commerce is expanding in BRICS countries (Brazil, Russia, India, China, and South Africa), changing and challenging how consumers shop, offer, and expand international trade despite infrastructure and digital access challenges. In 2017, China was preceded in global business-to-consumer (B2c) sales, raking in $682 billion. India similarly saw a 74% jump in cross-border e-commerce, which was the highest among its BRICS peers [1]. In South Africa, the average amount spent online more than doubled from $78 to 157 per consumer between 2015 and 2018. Meanwhile, Brazil and Russia are also growing their digital markets by increasing investments in digital infrastructure. After the COVID-19 pandemic, e-commerce advanced, playing an essential role in economic recovery, encouraging collaboration between BRICS

[*]Corresponding author: Oma Ranga

Email addresses: rangaoma0@gmail.com (Oma Ranga)

Received: 03-03-2025; **Accepted:** 11-04-2025; **Published:** 15-05-2025

countries, and enhancing trade and industrial transformation. In recent years, this sector has been a trailblazer in job creation and improving trade, thanks to innovations in e-trading, payment systems, internet banking, and online services [2]. As e-commerce is assimilated into our daily practices, its importance in driving economic growth is becoming more apparent [1]. One major factor behind this growth is how consumer interaction on e-commerce platforms boosts efficiency and trust in trade. E-commerce platforms are recognized for offering economic benefits such as price discounts, promotions, and preferential activities. These incentives generate positive emotional responses and increase online purchase intention, especially during times of uncertainty [2]. However, the situation becomes even more intricate when considering geopolitical issues, like different political DNA, cultural backgrounds, and a lack of trust between suppliers and buyers. This is the intersection where technology and politics meet in e-commerce [1]. This claim holds in situations such as disinformation campaigns often backed by illiberal movements(China and Russia), which can disturb trust in digital platforms, affecting consumer behavior and corporate responsibility. These movements undermine science, journalism, and civil society organizations, potentially skewing how information and trade flow [3]. Furthermore, the interdependence between BRICS nations, illustrated by Russia's reliance on Chinese products for 90% of its online purchases, exposes vulnerabilities in cross-border e-commerce and highlights the need for regulatory intervention [3] [2]. Despite these challenges, BRICS countries are actively exploring frameworks such as CyverBrICS and the BRICS Digital Economy Partnership Framework, and the new development Bank to foster a more secure and efficient digital economy [4] [1]. In a different yet relevant vein, current research explores broader policy recommendations and growth strategies instead of diving deep into how techno-politics affects e-commerce development. While it's great to emphasize the benefits of e-commerce, like boosting international trade, growing GDP, and improving trade efficiency [2], there's often a lack of exploration into the actual impact these dynamics have in the real world, especially considering geopolitical tensions and misinformation [5]. This study is necessary to identify the potential benefits and challenges posed by e-commerce growth, allowing for more informed policy-making and strategic investments in the digital economy. By addressing the gaps in current research, we can better navigate the complex dynamics of e-commerce and ensure that it continues to drive sustainable economic growth and political cooperation in the BRICS bloc.

2. Methods

2.1. E-commerce & Technopolitical Framework in BRICS Countries

The BRICS relationship with e-commerce has evolved over the years, in conjunction with technology. As the internet and online presence became more developed, e-commerce has been heavily developed and as a result has been a fruitful addition to the economy of BRICS countries. Currently, global e-commerce is estimated at around US$ 25.3 trillion in 2015, including both business-to-business, with China being at the global forefront with US$ 617 billion sales at volume [6]. In South Africa, the share of cross-border e-commerce in 2018 was 50% of the entire economy, and interesting customers of South Africa spent in cross-border e-commerce on the marketplaces of China, spending about US$ 15.5 billion [2]. India topped the list in terms of percentage rise in volume of cashless payments in 2018, with a 55% increase [7]. The history of e-commerce in BRICS countries dates back to the 1990s, starting with Brazil. Enacted in 1990, the Consumer Protection Code includes provisions that apply specifically to e-commerce, such as the right to information and privacy, and the ability to withdraw from a purchase within seven days.Approved in 2014, the Brazilian Civil Rights Framework for the Internet [Marco Civil da Internet] lays down the principles, guarantees, rights, and duties for internet users and providers in Brazil. It addresses key issues such as net neutrality, data protection, and privacy [8].With the amalgamation of politics and regulation of e-commerce, it's one of the first few instances where there is an intermingling of Geopolitics, connected via e-commerce. In the early 2000s, Russia introduced Omnichannel E-commerce(multiple channels of e-commerce). Before that, Russian e-commerce began with basic online stores like Ozon (often dubbed the “Amazon of Russia”), founded in 1998. These were primarily single-channel operations. In the 2010s, as internet penetration grew and smartphones became widespread, multichannel retail started to emerge. Retailers like M.Video, Eldorado, and Lamoda developed both brick-and-mortar and online presences. Companies began to allow online ordering with in-store pickup or inventory visibility, laying the foundation for omnichannel strategies. In the latter half of the 2010s, there was the introduction of Wildberries, Russia’s largest e-commerce platform, which launched self-service pickup points, merging digital and physical convenience. Such omnichannel allowed for more websites to gather data on consumers and create a more personalized experience, the effects of such technologies allowed Russia to have in 2018, 23.4% of Russian users made purchases through

the website, highest it has been ever for the country of Russia(not including years after) [9]. In India, e-commerce exploded in popularity shortly after the internet was launched in India in 1995. In the mid-to-late 1990s, E-commerce primarily consisted of B2B client administrations and executive openings. By the late 1990s, moreover, it had expanded its scope to include business-to-consumer, matrimonial, and online employment gateways [7]. Later on, to complement this, the Draft National E-commerce Policy of the Government of India was drafted to promote and regulate e-commerce activities in India. Its main objective is to create an environment that fosters growth, enhances consumer trust, and ensures fair competition in the digital economy. Its main goals are to: regulate Cross-Border E-commerce, enhance Consumer Protection, ensure fair Competition, promote data Privacy and security, and lastly promote Growth of E-commerce. The Foreign Direct Investment board was in disagreement with the clauses, and this was a major enhancer and enricher of e-commerce in the country. This fostered the growth of technology in India with the formation of mobile apps that have become central to e-commerce in India, with platforms like Flipkart, Amazon India (M-commerce), and digital payment solutions such as the UPI (Unified Payments Interface) [7]. In South Africa, while it lags behind its other BRICS neighbors due to a lack of digital literacy, e-commerce still grew a lot from its beginnings in the 1990s, due to the limited internet access ss, slow connection speeds, low consumer trust in online transactions, and a lack of robust payment infrastructure. Many South Africans still preferred shopping in brick-and-mortar stores due to security and fraud concerns. Currently, in South Africa, e-commerce's share in GDP is only 0.91%. An increase of the e-commerce share in GDP can become an economic growth driver, and Programs like the National E-commerce Strategy and SAEC are laying the foundation for further growth, while private sector players are driving innovation and offering new solutions to meet consumer needs [2]. Finally, China, the country with the highest amount of e-commerce use, and the leading country in e-commerce, as mentioned earlier. Chinese e-commerce emerged in 1997-1998, when IT vendors and media dominated the industry. During 1999-2000, the main adopters of electronic commerce were e-commerce sites. In 2001, e-commerce enterprises took on the role of taking advantage of mass internet adoption and dominated the market. The Electronic Signature Law of the People's Republic of China was later adopted in 2004, which signaled an awareness from the Chinese government of the growth prospects of e-commerce. Currently, China's e-commerce is rapidly growing, with online transactions totaling 576.6 billion yuan, proving that China's e-commerce is the most diverse and vast compared to the other BRICS countries **[10]**.Table 1 presents a chart of countries, their political systems, key policies/initiatives, and, most importantly, their impact on E-commerce. Most notably, ⅘ of the BRICS countries focused their Key Policies and initiatives on mandating and standardizing their e-commerce systems. In contrast, India focused its policies on expanding technology, making E-commerce more accessible. This indicates that there is more focus on regulation rather than growth.

Reference	**Country**	**Political System**	**Key Policy/Initiative**	**Impact on E-commerce**
[7]	India	Democratic	Digital India and Bharat Net projects	The BharatNet Project, a government program in India to bring high-speed internet to rural areas, aimed to provide high-speed internet to nearly 150,000 villages. $1.24 billion(8,000 Crore rupees) was invested into the project. This allows Rural penetration, and e-commerce leads to wider adoption.
[9]	Russia	Authoritarian	Data Localization Law	This introduces entry barriers for international companies by increasing compliance costs and legal risks for foreign companies, making operating in the Russian market harder and less attractive. This conflicts with the interests of economic integration and cooperation of its fellow BRICS members.
[8]	Brazil	Constitutional republic	E-Commerce Decree	Specifically, it mandates that e-commerce platforms provide clear and accurate information about products, services, prices, and terms of sale. This encourages consumer confidence and promotes transparency and consumer protection
[11]	China	Single-party socialist republic	E-Commerce Law 2019	A comprehensive legal framework to regulate online transactions, safeguard consumer rights, and ensure accountability among e-

				commerce platforms like Alibaba and JD.com
[12]	South Africa	Parliamentary republic with an executive presidency	The Electronic Communication and Transactions Act	It aims to provide universal access to technology and promote a national e-strategy.

Table 1: Overview of countries and their key policies/initiatives' impact on e-commerce.

2.2. Consumer Behavior and Trust

This section aims to explore how consumer behavior and trust influence the development and success of e-commerce, particularly in rural and BRICS contexts. During the COVID-19 pandemic, there was a rapid digital transformation, especially for business and consumers in BRICS countries, leading to increased online shopping and more digital services, aka increased usage of E-commerce (via Consumer Digitalization). As a consequence, it was established that consumers demonstrated two behaviors: an increase in the number of uncharacteristic purchases and consumer trust in the government, as well as suffering from economic anxieties, mental health issues, and hygiene concerns [13]. These factors contributed to nearly 45% of respondents(people who use online platforms to make purchases) in a survey stating that they would be switching to E-commerce permanently. However, this could be a benefit in increasing the use of e-commerce, due to the swift proliferation of scandals involving companies, brands, and their ambassadors [13] . Alongside image-related controversies that impacted consumers' perceptions of brands, including trust, there was also a heightened consumer concern about issues like data breaches. This can be proven as a Key Barrier to the development of digital services in BRICS countries [13]. The breach of such trust is an enabler for consumers, along with the adoption of mobile marketing and new technologies, which is also moderated by consumer trust, risk perception, and personal characteristics such as propensity to trust [1].

2.2.1. Consumer Behavior and Trust

BRICS countries are key targets for mistrust between both suppliers and buyers; four out of the five main BRICS countries prefer cash over delivery(lack of digital literacy propagates and incites mistrust) [2]. Countries such as China, due to concerns over data privacy and scams; Brazil, with issues related to delivery and general trust; Russia, where trust and low transaction volume pose challenges; India, affected by trust issues and information gaps; and South Africa, struggling with trust and logistical barriers, all face significant trust-related obstacles in their e-commerce environments.

2.2.2. Recommendations for Building Trust

Standardizing legal, administrative, and technical regulations is essential to fostering safer e-commerce environments across BRICS nations. Strengthening data protection and privacy measures will help address growing consumer concerns, while promoting transparent information sharing and reliable dispute resolution mechanisms can enhance trust [13]. Encouraging the adoption of innovative technologies such as blockchain, IoT, and Big Data will further improve transparency and logistics.

2.3. Government-to-Government Cross-Border E-Commerce

The BRICS countries have recognized the strategic importance of cross-border e-commerce and the importance of interacting with other governments to enhance one of the most important drivers of global economic growth. Development of cross-border e-commerce fosters international trade in goods and services, ensures foreign investment flows, and facilitates innovation [14]. Yet less emphasis is placed on the study of government-to-government (G2G) cooperation. But in recent years BRICs countries have wanted more research done on the government to government cooperation especially on its ability to facilitate and regulate cross-border e-commerce; more specifically research about global trends, current status of e-commerce in BRICS, measuring dynamism in e-commerce, regulatory and legal frameworks in BRICS related to e-commerce, participation of MSMEs, existing barriers to cross-border e-commerce among BRICS, the development aspects of e-commerce and recommendations for strengthening e-commerce cooperation within BRICS. While further research into G2G cooperation remains critical, especially in areas such as legal frameworks, MSME participation, and e-commerce dynamism, research alone is not sufficient to unlock the full potential of cross-border e-commerce within BRICS [14]. With a stronger understanding of the challenges and opportunities through research, the next step is to develop actionable strategies that enhance cross-border cooperation, improve infrastructure, and harmonize digital policies. This can be seen with the growing recognition that the importance of G2G cooperation is evident in key

BRICS milestones. In 2015, the BRICS leaders endorsed the Framework for BRICS E-commerce Cooperation, aimed at enhancing integration across member states' e-commerce markets The following year, the 2016 BRICS Trade Ministers' Communiqué reaffirmed the need for deeper collaboration, which was further solidified in the Goa Declaration, where leaders committed to strengthening e-commerce cooperation across the bloc [15]. These developments signify an important shift, recognizing the need for research to initiate frameworks for practical collaboration while establishing strategies to encourage measurable progress.

3. Discussion

As a complex topic, BRICS countries have been studied in their relations with E-commerce since its invention in the 1990s. Despite the increasing body of literature exploring e-commerce in BRICS nations, significant limitations continue to hinder a holistic understanding of the region's digital trade landscape, along with a lack of understanding and prediction of impacts. Often causing the subject to be misinterpreted overall, often forecasts a thoughtful implication that is often not accurately presented due to the aforementioned significant limitations. These shortcomings are primarily driven by several recurring challenges, chief among them being data inconsistency and a lack of standardization across the five nations, seen with an emphasis on growth in e-commerce, such as with 31.7% projected growth from India and 23% from China [16]. Another of the primary challenges is data inconsistency and a lack of standardization across the five countries. While China and India have frequently updated statistics on user engagement, platform sales, and logistics networks, comparable data from Brazil, Russia, and South Africa is often outdated, fragmented, or not publicly accessible [17]. For example, Russia has its Data Localization Law[9], and South Africa has evolving and complex digital taxation frameworks outlined by the OECD [18]**.** On a more analytical note, most research is conducted through analysis on specific domains or provides a good general overview of the topic, for example, only investigating the dynamics of digitalization in these countries, focusing on the three major parameters of digitalization- internet penetration, cost of internet, and digital payment but does not identify barriers to wider digital inclusion and inform policy interventions to enhance digital economies' efficiency and reach within the BRICS framework [19] focusing on current applications due to the lack of effective planning, considering the range of possible outcomes [16]. Table 2 presents each BRICS country and/or multiple countries that have faced challenges that impede E-commerce development overall. The most common problems were either logistical and maintenance problems or certain laws that impede e-commerce development, and a lack of standardized cybersecurity.

Reference	Country	Challenge	Description	Impact on E-commerce Development
[20] [21]	China	Logistics and supply chain management, especially in cross-border e-commerce.	High logistics costs, complex international shipping procedures, and difficulties in managing supply chains across different regulatory environments, partly due to tariffs and different workforce regulation requirements around the world.	Companies are currently facing delays and shortages in transportation capacity, which deters customers from Chinese E-commerce.
[22]	Brazil	Brazil has high taxation and complicated customs procedures on imported goods.	Brazil imposes a 6.4% tax on all international payments and a steep 60% flat import tax on products valued between US$50 and US$50.	These taxes can double the final price of imported products, discouraging consumers from using e-commerce platforms.
[23]	South Africa	Small and Medium enterprises struggled to keep up with the surge in online orders due to logistical challenges and the underdevelopment of the e-commerce sector in South Africa.	Many SMEs (small and medium-sized enterprises) struggled to keep up with the surge in online orders, leading to shipment delays, poor communication about stock levels, and inadequate delivery tracking.	This detracts from the quality of e-commerce and limits its scope for expansion.

Table 2. *Challenges; their impact on E-commerce Development.*

Several solutions need to be implemented to address the significant limitations in understanding e-commerce across BRICS countries. First, enhancing data standardization and transparency across all five nations is needed in establishing common metrics and data-sharing frameworks would allow for more accurate cross-country comparisons and richer insights into digital trade patterns, this can be seen with the expansion of BRICS 2015 framework which allowed integration of BRICs [15] and led e-commerce growth all over 20% in nearly every BRICs country growth [16]. Second, expanding research beyond macroeconomic and platform-centric perspectives to include consumer behavior, small business participation, and cultural factors is essential. This approach would help uncover barriers to digital inclusion and identify more effective policy interventions tailored to local contexts. Third, focusing on the core parameters of digitalization, such as internet penetration, cost of access, and digital payment infrastructure, while simultaneously planning for a range of potential future scenarios, can improve strategic readiness. Scenario planning and flexible policy design would enable BRICS countries to adapt quickly to technological shifts and market changes, minimizing risks and maximizing growth opportunities.

3. Conclusion

In the future, the e-commerce landscape in BRICS countries could be impacted greatly, with significant transformations to the industry underway, with examples such as the expansion of internet access in India and China and global integration for these countries by leveraging large domestic markets and growing middle-class consumers to fuel demand [24]. Governments across BRICS are also anticipated to implement more robust regulatory frameworks to address digital taxation, data privacy, and cross-border trade, aiming to balance market growth with consumer protection and national security concern [15], in sparsely technologically advanced BRICS countries (brazil and south africa specifically) there have been plans from both countries to further its technological innovations that make Ecommerce much readily accessible, such as South Africa's National AI Plan and Digital Transformation [25], their ICT Infrastructure and Readiness plan to enhance digital expansion [18] and their new innovation policy that has evolved with new mechanisms for supporting technology-push R&D. Brazil has been implementing its E-Commerce Decree to bolster consumer confidence and promote transparency and consumer protection [8]. However, policymakers and industry stakeholders will need to prioritize digital literacy programs, affordable access, and supportive small business ecosystems to prevent marginalization of vulnerable populations [7]. Additionally, regulatory approaches need to be continued to further enhance cross-border e-commerce integration within the group [14].

References

[1].Dela Press Conference Series: Economics, Business and Management. (2022). Delapress.com. https://dpcsebm.delapress.com/index.php/dpcsebm

[2].Gusarova, S., Gusarov, I., & Smeretchinskiy, M. (2021). E-commerce Trends and Opportunities in BRICS countries. SHS Web of Conferences, 93, 04012. https://doi.org/10.1051/shsconf/20219304012

[3].Jiang, M., & Belli, L. (2024). Digital Sovereignty in the BRICS Countries. Cambridge University Press.

[4].NetMission Ambassador. (2025, February 18). NetMission Digest – Issue #27: BRICS+ in the Digital Age: Expanding Influence in Internet Governance (Tuesday, February 18, 2024) - NetMission.Asia. NetMission.Asia. https://netmission.asia/2025/02/18/netmission-digest-issue-27-brics-in-the-digital-age-expanding-influence-in-internet-governance-tuesday-february-18-2024/

[5].Jackie. (2024, December 27). Abstract: The rapid evolution of global supply chains presents opportunities and challenges for BRICS nations (Brazil, Russia, India, China, and South Africa). This study explores three key dimensions of future research directions for BRICS: technological advancements and geopolitical risk resilience. Linkedin.com. https://www.linkedin.com/pulse/future-directions-brics-supply-chains-technology-cheung-h-f-jackie-xzvwc/

[6].International Trade Centre. (2017). BRICS: E-commerce status, opportunities and challenges. https://www.intracen.org/sites/default/files/uploadedFiles/intracenorg/Content/Publications/BRICS_E_commerce_Status_Opportunities_and_Challenges_22AUG2017_final_1_.pdf

[7].Priya, & Dadwal, N. (2022). The Evolution of the Indian E-Commerce Sector and its Future: An Analytical Study. International Journal of Advances in Engineering and Management (IJAEM), 4, 1224. https://doi.org/10.35629/5252-040412241232

[8].Veiga, C. P. da, Veiga, C. R. P. da, Michel, J. de S. S., Di Iorio, L. F., & Su, Z. (2024). E-Commerce in Brazil: An In-Depth Analysis of Digital Growth and Strategic Approaches for Online Retail. Journal of Theoretical and Applied Electronic Commerce Research, 19(2), 1559–1579. https://doi.org/10.3390/jtaer19020076

[9].Lobacheva, E., & Yadova, N. (2020). The Impact of digital technology on e-commerce development in the Russian Federation. MATEC Web of Conferences, 311, 02016. https://doi.org/10.1051/matecconf/202031102016

[10]. Shen, R. (2020). The Comparative History and Development of E-Commerce in China and the United States. Journal of Mathematical Finance, 10(03), 483–498. https://doi.org/10.4236/jmf.2020.103029

[11]. Huang, W., & Li, X. (2019). The E-commerce Law of the People's Republic of China: E-commerce platform operators liability for third-party patent infringement. Computer Law & Security Review, 35(6), 105347. https://doi.org/10.1016/j.clsr.2019.105347

[12]. Gereda, S. (n.d.). The Electronic Communications and Transactions Act. http://thornton.co.za/resources/telelaw12.pdf

[13]. Berezka, S., Rebiazina, V., & Muravskaia, S. (2021). Changes in consumer behavior in the BRICS countries during the COVID-19 pandemic: The role of trust and anxiety. BRICS Journal of Economics, 2(1), 53–73. https://doi.org/10.38050/2712-7508-2021-29

[14]. Framework for BRICS E-commerce Cooperation, 2017 BRICS E-Commerce Cooperation Initiative, 2018 BRICS Cooperation Framework on Inclusive E-Commerce Development, 2019 Outlines for BRICS Cooperation on E-Commerce, and 2021 Framework for Ensuring Consumer Protection in E-Commerce. (n.d.). https://www.thedtic.gov.za/wp-content/uploads/BRICS_E-commerce.pdf

[15]. BRICS. (2017, July). BRICS e-commerce cooperation initiative. tralac. https://www.tralac.org/documents/resources/external-relations/brics/1602-brics-e-commerce-cooperation-initiative-july-2017/file.html

[16]. Haji, K. (2021). E-commerce Development in Rural and Remote Areas of BRICS Countries. Journal of Integrative Agriculture, 20(4), 979–997. https://www.sciencedirect.com/science/article/pii/S2095311920634517

[17]. Kshetri, N. (2007). Barriers to e-commerce and competitive business models in developing countries: A case study. Electronic Commerce Research and Applications, 6(4), 443–452. https://doi.org/10.1016/j.elerap.2007.02.004

[18]. Organisation for Economic Co-operation and Development. (2019, February 13). Tax challenges arising from digitalisation – Public consultation document (second stage). OECD Publishing. https://www.oecd.org/tax/tax-policy/public-consultation-document-tax-challenges-arising-from-digitalisation-second-stage-2019.pdf

[19]. Nimbalkar, N. (n.d.). Digital Dynamics in BRICS: Exploring Digital Access and Policy Challenges. https://www.ijfmr.com/papers/2024/6/30446.pdf

[20]. Gong, J. (2024). Challenges and Countermeasures for China's Cross-Border E-Commerce in International Market Competition under the Belt and Road Initiative. Advances in Economics, Management and Political Sciences, 111(1), 173–179. https://doi.org/10.54254/2754-1169/2024.17763

[21]. Fodouop Kouam, A. W. (2025). Toward Digital Transformation: Insights into Chinese Cross-Border E-Commerce SMEs During the COVID-19 Pandemic and the Post-Pandemic Era. Sage Open, 15(1). https://doi.org/10.1177/21582440251318792

[22]. Morini, C., Pieri Leonardo, F., Chaudhary, V., & Hintsa, J. (2024). A Paradigm Shift in Cross-Border E-Commerce Regulatory Compliance: Evidence From Brazil. World Customs Journal, 18(2). https://doi.org/10.55596/001c.123504

[23]. Okanga, B., & Groenewald, D. (2015). Effectiveness and efficiency of the delivery systems of the e-retail enterprises in South Africa. Journal of Contemporary Management , 12(1), 838–861. https://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1815-74402015000100039

[24]. OCCASIONAL PAPER SERIES NO 80/JANUARY2008 CHINA'SA ND INDIA'S ROLES IN GLOBAL TRADE AND FINANCE TWIN TITANS FOR THE NEW MILLENNIUM? (n.d.). https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp80.pdf

[25]. Mashishi, A. (2023). SOUTH AFRICA'S ARTIFICIAL INTELLIGENCE (AI) PLANNING: ADOPTION OF AI BY GOVERNMENT. https://www.dcdt.gov.za/images/phocadownload/AI_Government_Summit/National_AI_Government_Summit_Discussion_Document.pdf