

Efficiency for Equity and Success: Utilising Artificial Intelligence in Trade at National and International Levels

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Efficiency for Equity and Success: Utilising Artificial Intelligence in Trade at National and International Levels

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Abstract

This paper discusses how Artificial Intelligence (AI) can be utilised to ensure efficiency in trade for equity and success. The paper observes that AI has emerged as a powerful solution that can strengthen trade at both national and international levels towards Sustainable Development. It examines the specific ways through which AI is reinvigorating trade at all levels. In addition, the paper also discusses some of the challenges associated with the use of AI in trade. In light of its positive and negative impacts, the paper suggests how AI can be appropriately utilised in trade at national and international levels towards promoting efficiency for equity and success.

1.0 Introduction

Trade is one of the fundamental drivers of human progress and development. Trade usually involves the voluntary exchange of goods and services between individuals, businesses or nations¹. By facilitating the voluntary exchange of goods and services, trade plays an important role in satisfying human needs and wants². It has been observed that trade is conducted not only for the sake of earning profit but also towards providing essential goods and services to consumers³.

It has been observed that trade has positive economic and social impacts including through supporting export-led economic growth, promoting economic diversification and restructuring, fostering industrialization, ensuring efficient resource allocation, enhancing positive income effects, promoting technological innovation and poverty alleviation⁴. In addition, international trade has positive impacts on the environment by improving efficiency, increasing the scale and diffusion of environmental-friendly/green technologies, as well as indirect benefits on the environment by improving incomes and living standards which in the long-term result in better

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¹ Trade in Finance: Benefits, Function, and Insights., Available at <https://www.investopedia.com/terms/t/trade.asp> (Accessed on 28/09/2026)

² What is Trade? Meaning and Nature., Available at <https://bgc.ac.in/pdf/study-material/trade.pdf> (Accessed on 28/09/2026)

³ Ibid

⁴ United Nations Trade and Development., 'Better Trade for Sustainable Development: The role of voluntary sustainability standards' Available at https://unctad.org/system/files/official-document/ditctab2021d2_en.pdf (Accessed on 28/09/2026)

environmental standards⁵. In the quest towards Sustainable Development, trade has been identified as an engine of growth that creates jobs, reduces poverty and increases socio-economic opportunities for human progress and prosperity⁶. In addition, it has been observed that effective trade policies and systems can accelerate progress towards Sustainable Development by connecting individuals, organisations and nations all over the world to markets, environmentally-sound technologies, finance and investments required to unlock the Sustainable Development Goals (SDGs)⁷.

The *2030 Agenda for Sustainable Development*⁸ recognises the role of trade in driving global progress towards the SDGs. In particular, the Agenda notes that international trade is an important tool for inclusive economic growth and poverty reduction, and a crucial means of attaining the SDGs⁹. It seeks to promote a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable multilateral trading system under the World Trade Organization (WTO); enhance meaningful trade liberalization; provide trade-related capacity building for developing countries; and foster regional economic integration and interconnectivity in order to harness trade as a means of implementing the SDGs¹⁰.

Despite its role in driving Sustainable Development, the current landscape of international trade raises several concerns. For instance, inequalities and imbalances between developed and developing countries undermine the role and influence of the Global South in international trade¹¹. In addition, it has been observed that vulnerable groups including women, the youth and small businesses face several barriers such as limited access to finance, trade information and markets raising trade inequalities especially in Africa and the Global South¹². In addition, heavy

⁵ World Trade Organization., 'Re-Globalization to Promote Environmental Sustainability' Available at https://www.wto.org/english/res_e/booksp_e/wtr23_e/wtr23_ch5_e.pdf (Accessed on 28/09/2026)

⁶ World Bank Group., 'Trade' Available at <https://www.worldbank.org/en/topic/trade> (Accessed on 28/07/2026)

⁷ Opinion: The role of trade in Sustainable Development., Available at <https://www.devex.com/news/sponsored/opinion-the-role-of-trade-in-sustainable-development-92250#:~:text=Trade%20furnishes%20people%20across%20the,and%20to%20achieve%20food%20security> (Accessed on 28/09/2026)

⁸ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 28/09/2026)

⁹ Ibid

¹⁰ Ibid

¹¹ United Nations Economic and Social Commission for Asia., 'Trade and Sustainable Development' Available at <https://www.unescap.org/sites/default/d8files/knowledge-products/Session%201%20Trade%20and%20sustainable%20development%20v.2.pdf> (Accessed on 28/09/2026)

¹² Chelangat. F., 'Boosting Trade in Africa: Inclusion of Marginalized Trade Actors in Development Financing' Available at <https://www.afronomicslaw.org/category/analysis/boosting-trade-africa-inclusion-marginalized-trade-actors-development->

reliance on natural resources, high energy consumption, and transportation over long distances in international trade can lead to environmental degradation, biodiversity loss, pollution and climate change undermining environmental sustainability¹³. Consequently, it is imperative to ensure efficiency in trade at both national and international levels in order to effectively harness its role as a driver of Sustainable Development.

This paper discusses how Artificial Intelligence (AI) can be utilised to ensure efficiency in trade for equity and success. The paper observes that AI has emerged as a powerful solution that can strengthen trade at both national and international levels towards Sustainable Development. It examines the specific ways through which AI is reinvigorating trade at all levels. In addition, the paper also discusses some of the challenges associated with the use of AI in trade. In light of its positive and negative impacts, the paper suggests how AI can be appropriately utilised in trade at national and international levels towards promoting efficiency for equity and success.

2.0 Artificial Intelligence in Trade at National and International Levels: Promises and Pitfalls

Technology progress is ensuring efficiency in trade at national, regional and global levels. For instance, the World Trade Organization (WTO) posits that technology is enhancing trade all over the world by providing numerous benefits including efficiency, cost-reduction, access to global and regional markets and the growth of digital commerce¹⁴. WTO further notes that technological advancements, over the past decades, in information and communications technology (ICT) have significantly impacted the way in which goods, services and information are bought, sold and exchanged including through the use of digital markets and platforms¹⁵. Technology has led to the digitalization of global trade thus enhancing equity, efficiency and inclusivity¹⁶. In particular, technology is enabling digital trade which entails trade in goods and services through the internet, and other ICT platforms¹⁷.

[financing#:~:text=To%20ensure%20that%20trade%20genuinely,in%20trade%20finance%20and%20development. \(Accessed on 28/09/2026\)](#)

¹³ Mpuure. D et al., 'The environmental impact of international trade in Sub-Saharan Africa: Exploring the role of policy and institutions for environmental sustainability' *Research in Globalization.*, Volume 9, December 2024

¹⁴ World Trade Organization., 'The Impact of Digital Technologies on Developing Countries' Trade' Available at https://www.wto.org/english/res_e/booksp_e/05_adtera_chapter_01_e.pdf (Accessed on 29/09/2026)

¹⁵ Ibid

¹⁶ World Economic Forum., 'TradeTech is revolutionizing global trade' Available at [¹⁷ European Commission., 'Digital Trade Agreements' Available at \[5\]\(https://policy.trade.ec.europa.eu/help-exporters-and-importers/accessing-markets/goods-and-services/digital-trade/digital-trade-agreements_en#:~:text=What%20are%20Digital%20Trade%20Agreements,safe%20online%20environment%20for%20consumers \(Accessed on 29/09/2026\)</p></div><div data-bbox=\)](https://www.weforum.org/impact/revolutionizing-global-trade-through-technological-transformation/#:~:text=Technology%20is%20playing%20a%20pivotal,solutions%20into%20global%20supply%20chains. (Accessed on 29/09/2026)</p></div><div data-bbox=)

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Embracing technology is therefore key towards ensuring equity and success in trade at national and international levels. WTO notes that most cross-border trade is now digital in nature, a trend that is likely to continue in the future¹⁸. In the recent past, technology has become the most powerful force transforming how trade operates at national and international levels by redefining efficiency, access to markets, transparency and competitiveness¹⁹. In particular, E-commerce has emerged as a defining feature of modern trade allowing businesses of all sizes including small and medium enterprises to access global markets²⁰.

AI is one of the most important technology breakthroughs that is revolutionizing trade at national and international levels. For example, it has been observed that AI tools are being integrated into various trade-related processes in order to reduce logistical barriers, optimize supply chains, save trade-related costs, and enhance access to digital services²¹. AI has the potential to spur innovation, help businesses create new value from data, and reduce trade costs thus supporting efficiency in trade at all levels²². In particular, the integration of AI into vital trade-related processes including logistics, customs, transport, financial services, and marketing and advertisement is enabling businesses to automate routine tasks, reach wider markets, ensure effective compliance with trade policies and regulations and save costs thus improving efficiency for equity and success in national and international trade²³.

AI therefore holds immense value for trade at all levels. According to WTO, AI is reshaping global, regional and national trade systems and processes through cost reduction, regulatory compliance, and new opportunities for firms of all sizes²⁴. With appropriate digital infrastructure, skills and policies, the integration of AI can enable firms to predict demand, optimize shipping and transportation routes, identify risks to supply chains, and ensure speed and efficiency in delivery of goods and services²⁵. It has been observed that due to the interconnectedness of

¹⁸ World Trade Organization., 'The Impact of Digital Technologies on Developing Countries' Trade' Op Cit

¹⁹ Emerging Trends in Global Trade: How Technology is Reshaping International Markets., Available at <https://www.globaltrademag.com/emerging-trends-in-global-trade-how-technology-is-reshaping-international-markets/> (Accessed on 29/09/2026)

²⁰ Ibid

²¹ World Trade Organization., 'Trading with Intelligence: How AI shapes and is shaped by international trade' Available at https://www.wto.org/english/res_e/publications_e/trading_with_intelligence_e.htm (Accessed on 29/09/2026)

²² Organisation for Economic Co-operation and Development., 'Artificial Intelligence and International Trade: Some Preliminary Implications' Available at https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/04/artificial-intelligence-and-international-trade_9034b5f2/13212d3e-en.pdf (Accessed on 29/09/2026)

²³ Ibid

²⁴ World Trade Organization., 'AI for Trade' Available at https://www.wto.org/english/tratop_e/ecom_e/ecom_ai_for_trade_e.htm (Accessed on 29/09/2026)

²⁵ Emerging Trends in Global Trade: How Technology is Reshaping International Markets., Op Cit

international markets, the integration of AI in trade is a necessity towards maintaining predictability, competitiveness and resilience²⁶.

Despite its transformative role, the integration of AI in trade is also raising pertinent concerns. For instance, while AI has potential to optimize production processes, enhance trade productivity and increase competitiveness in global markets, it also poses significant challenges through shifts in comparative advantage, displacement of labor and potential market and supply chain disruptions²⁷. In particular, it has been observed that developing countries face significant challenges in utilising AI in trade due to limited technological infrastructure and skill gaps²⁸. The digital divide between developed and developing countries can undermine equity, inclusivity and fair competition in global trade, since developed countries are channeling resources into AI development to enhance their trade capacities with developing countries struggling to keep up²⁹. Overreliance on AI models developed in the Global North can also fuel bias and discrimination in global trade by marginalizing the voice and trade needs of the Global South³⁰. Use of technology and AI in trade also raises cybersecurity risks including data breaches and hacks³¹. Further, domestic fragmentation in AI policies and regulations can undermine harmony and predictability in international trade with countries adopting different approaches on the use of AI in trade³².

It is imperative to address the foregoing risks and challenges in order to effectively utilise AI in trade at national and international levels for equity and success.

3.0 Utilising Artificial Intelligence in Trade at National and International Levels towards Equity and Success

Technology and AI provide solutions that can promote efficiency for equity and success in trade at national and international levels. For instance, technology and AI can enable firms achieve success in trade through broader access to global, regional and national markets, automation of routine trade processes towards saving costs, optimizing supply chains, predicting risks for

²⁶ Ibid

²⁷ Jakubik. A., Rotunno. L., & Saini. A., 'Foresee the unseen: Evaluating the impact of artificial intelligence on international trade' *Journal of Policy Modeling.*, Volume 47, Issue 4 (2025)

²⁸ Ibid

²⁹ World Economic Forum., 'Why AI is the new frontier global trade must learn to cross' Available at <https://www.weforum.org/stories/trade-and-investment/ai-global-trade-policymaking/> (Accessed on 29/09/2026)

³⁰ World Trade Organization., 'Adopting AI for Trade: Business Insights to Inform Policy and Practice' Available at https://www.wto.org/english/news_e/news_docs/DTFT_Research_Note_Adopting_AI_for_Trade_Web_E.pdf (Accessed on 29/09/2026)

³¹ Ibid

³² World Economic Forum., 'Why AI is the new frontier global trade must learn to cross' Op Cit

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effective responses, and ensuring regulatory compliance³³. In addition, technology and AI can ensure equity in trade including through enhanced participation of developing countries in global trade, and providing a platform for marginalized populations including women, the youth and Micro, Small and Medium enterprises (MSMEs) to actively participate in global, regional and national trade through access to online trading platforms, availability of financial platforms that facilitate cross-border payments and ability to market their products and services globally³⁴.

It is therefore necessary to harness the positive impacts of technology and AI while addressing their risks and concerns in order to promote efficiency for equity and success in trade at national and international levels. In particular, firms of all sizes, including MSMEs have been urged to adopt AI and other modern technologies in order to enhance their competitiveness, visibility and resilience in global, regional and national trade³⁵. Developing universal trade rules on technology and AI is also key towards ensuring efficiency for equity and success. It has been correctly observed that the fragmented nature of domestic policies and regulations on AI can undermine efficiency in global trade due to difference standards on issues such as data privacy protection and cybersecurity measures³⁶. Consequently, developing universal trade rules on AI under the auspices of bodies such as WTO can ensure uniformity, consistency, and predictability in trade for efficiency, equity and success³⁷.

It is also necessary to ensure that developing countries benefit from the integration of AI in trade especially at the international level. In particular, it is imperative to ensure that AI systems being adopted in global trade are free from bias and trained on high quality and inclusive data in order to avoid discrimination³⁸. In addition, funding, research and development is crucial towards bolstering the capacity of developing countries to harness AI and technology in trade for Sustainable Development³⁹. It is also necessary to support vulnerable groups including women,

³³ World Trade Organization., 'Trading with Intelligence: How AI shapes and is shaped by international trade' Op Cit

³⁴ United Nations Economic Commission for Africa., 'Overview of Africa's digital trade performance and trends' Available at https://indico.un.org/event/1020893/attachments/24247/69075/1st%20UNECA_Module%201_Digital%20Trade%20in%20Africa%20Foundations_EN.pdf (Accessed on 29/09/2026)

³⁵ World Trade Organization., 'Adopting AI for Trade: Business Insights to Inform Policy and Practice' Op Cit

³⁶ World Economic Forum., 'Why AI is the new frontier global trade must learn to cross' Op Cit

³⁷ Ibid

³⁸ World Trade Organization., 'Adopting AI for Trade: Business Insights to Inform Policy and Practice' Op Cit

³⁹ United Nations Economic Commission for Africa., 'Mechanisms to Promote Development and Dissemination of Clean and Environmentally Sound Technologies in Africa' Available at <https://sustainabledevelopment.un.org/content/documents/1247eca.pdf> (Accessed on 29/09/2026)

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the youth and small businesses in Africa and the Global South through access to technology and AI and skills development towards ensuring equity in trade⁴⁰.

Through the foregoing, it is possible to effectively utilise AI in trade at national and international levels towards efficiency for equity and success.

4.0 Conclusion

The emergence of AI promises to ensure efficiency for equity and success in trade at national and international levels. However, it is imperative to regulate this powerful technology including through a universal approach in order to promote harmony, predictability and consistency in international trade⁴¹. It is also necessary to bolster the voice of the Global South in global trade through capacity building in technology and AI and use of fair, inclusive, transparent and quality AI tools and systems⁴². Empowering vulnerable groups including women, the youth and small business through access to technology and AI and skills development is also crucial towards fostering equity and success in trade at national and international levels⁴³. Utilising AI in trade at national and international levels is an effective and efficient approach for equity and success.

⁴⁰ United Nations Economic Commission for Africa., 'Overview of Africa's digital trade performance and trends' Op Cit

⁴¹ World Economic Forum., 'Why AI is the new frontier global trade must learn to cross' Op Cit

⁴² World Trade Organization., 'Adopting AI for Trade: Business Insights to Inform Policy and Practice' Op Cit

⁴³ United Nations Economic Commission for Africa., 'Overview of Africa's digital trade performance and trends' Op Cit

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