Chapter 33
Artificial Intelligence as an Emerging Technology in Global Trade: The Challenges and Possibilities

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ABSTRACT

With Industry 4.0 and now 5.0 technologies, the entire globe is embracing these changes. Artificial intelligence-powered systems have immense potential to eliminate international geographical barriers and prove to influence global trade worldwide. The present study highlights how AI increases productivity, economic development, and provides international trade with new horizons. The global value chains, prediction of future trends like changes in consumer demand, risk management, supply chain links are some of the key applications of AI in the sector. AI empowers international trade negotiations to analyze economic trajectories of negotiating partners, adjustments of trade barriers at different rates and scenarios. The chapter will cover the support of AI to access global trade data, its response to diverse challenges, international expansions through digital platforms, support in translations, mechanism of demand prediction, automation of administration with increased efficiency and utility, smart manufacturing, barriers, and influences.

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INTRODUCTION

The science of generating intelligent machines is known as artificial intelligence and it is touching all facets of human life from medicine to healthcare, environment, climate, education, security, trade, global services, and global trade; hence every sector would witness improvement with launch of number of AI based machines. AI can solve the difficult and unsolvable problems, but to make that a successful process, human involvement is required. There is still lack of any common opinion that what extent the social norms and ethical principles be followed in Artificial Intelligence now. It is utmost essential that ethics become vital part of human behaviour. There may be serious concerns on security, privacy and ethical concerns, which may draw lot of attention.

AI and Industry 4.0 with new tools and processes is one of the highly accredited Industry revolutions. Recent intelligent computing such as artificial intelligence (AI), big data, blockchain, drones, robots, augmented reality,, 3D technology printing, the Internet of Things (IoT), 5G, and biometrics are already changing the way people produce and provides a mechanism, as well as the relationships between logistics networks and society as a whole (Wamba et al,2021).The requirement of an extraordinary platform of system integrations within organizations, smart investments between partners for future collaborations based on data sharing, labor and capital market reforms, all are attentions of experts worldwide. It has been forecasted that the various activities in direction of Industry 4.0 are going to be the main drivers behind economic, industrial, technological and industrial revolution for global markets in near future. Every country in the world must build a technology-based economy and culture to be sustainable in the twenty-first century. This necessitates a society and infrastructure capable of both generating ideas and converting a significant portion of them into new business opportunities. Business, money, and a higher standard of living are the incentives (Sanchez,et al,2007).

Socio-economic effects of digital trade and AI are transforming global trade. The facilitations of new development models, reduction in geographic barriers are ushering new phase of globalization. The new era of globalization and global trade driven by AI would be more focused on services. The AI powered technologies are proving influential to have their applications in International Trade in the following areas,

- *Global Value Supply Chain*
- *Digital Platform based trades*
- *Trade Negotiations*
- *Data Management*
- *Language Barriers*
- *Source code for Investment purposes*
- *Intellectual property protection purposes*
- *Good trading*
- *Maintaining Privacy Standards*
- *New Range of standards*

Value Chains on Global Platforms: Artificial intelligence is already having an impact on the growth and extension of world trade. It has got wide application on predicting future trends, customer data, customer demand and future forecasting sales management for better handling supply chain systems. Artificial intelligence, of which everyone is being used to work on a broad range of problems, including suggestions for products and customization, Order shipment delays and inventory shortages are