



DIGITAL TECHNOLOGIES AND THE FUTURE OF TRADE

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The 4IR is marked by unprecedented technological change, and digital technologies such as the internet of things (IoT), artificial intelligence (AI), 3D printing and blockchain will have a significant impact on trade. These developments can open up many opportunities for both developed and developing countries alike, but they are not guaranteed. Successfully navigating structural changes brought about by technology change is necessary to ensure that everybody benefits, while minimising the risks associated with technology disruptions by putting in place complementary policies.

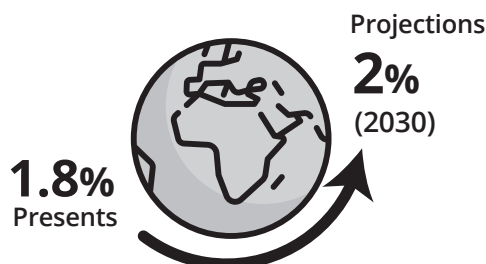
Implications for the cost of trading, the composition of trade and Sri Lanka

New technologies can help to reduce the cost of trading. Between 1996 and 2014, technological innovation is estimated to have lowered international trade costs by 15 per cent, while projections show that

trade could grow by 1.8 to 2 percentage points more annually till 2030, as a result of falling trade costs, brought about by technological change.

Technological advances can cut transport and logistics costs, by optimising route planning through the use of GPS and autonomous driving capabilities, with AI applications. Smart robots and AI can also reduce storage and inventory costs, while speeding up distribution. 3D printing has the potential to lower transport and logistics costs by decreasing inputs traded along the value chain and locating production closer to end markets. New technologies, such as blockchain and AI, promise to further slash the costs related to crossing borders. While simple technologies, such as mobile phones, have significantly reduced information and transaction costs and boosted trade, on-line platforms help cut down the costs of matching buyers and sellers, obtain market information, and provide information about potential consumers.

Expansion of trade due to technological change



Advances in digital technologies can also bring changes to the composition of trade in goods and services. The importance of services in the composition of trade is expected to rise, with the share of services

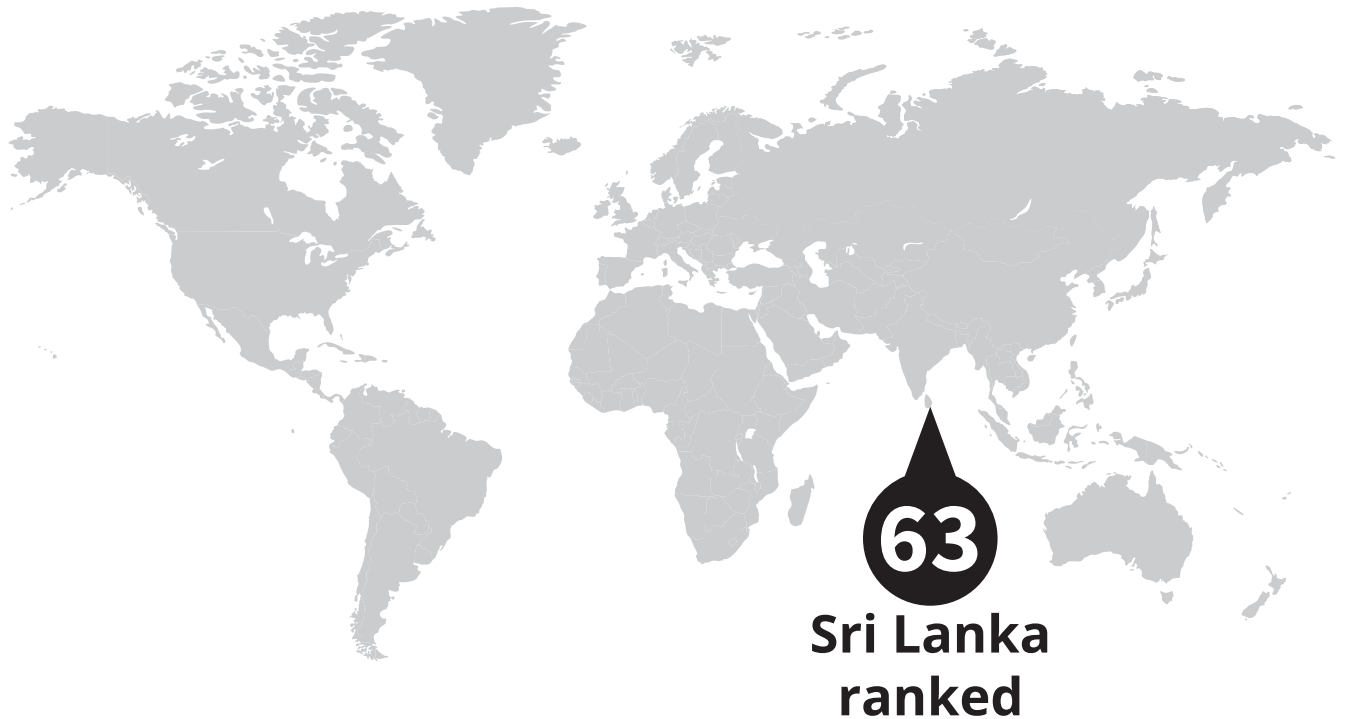
in total trade predicted to grow to 25 per cent by 2030. A preliminary evaluation by WTO suggests that new sources of comparative advantage will allow high-income economies to become net exporters of digital intensive sectors and reinforce existing trade patterns. At the same time, developing countries may gain comparative advantages in industries most affected by the shift to

All of these above trends can have significant implications on Sri Lanka's participation in international trade and empowering MSMEs. Technological advances can lower the cost of trading and improve the competitiveness of Sri Lankan products and services by slashing transport and logistics costs, reducing the costs of crossing a border, decreasing information /transaction costs, and trade policy/regulatory barriers. Compared with regional peers, Sri Lanka's transport and logistical performance is lower than Singapore, Malaysia and India. Also, a lot more can be done to reduce the time and cost of border and documentary compliances in Sri Lanka. While there are many public and private organisations in the country providing trade information and promotion activities, there are issues in terms of collection, analysis, and dissemination of trade information and trade promotion. Thus, information and transaction costs can be high.

Policy Recommendations

Governments clearly have a role to play in ensuring that individuals and businesses can seize opportunities from new digital technologies. For a start, they should address challenges such as improving digital infrastructure and human capital,

World Economic Forum's 'Networked Readiness Index 2016'



formulating appropriate trade policy measures, and adapting the required regulatory framework to the changes.

First, the need for investment in infrastructure is more acute in developing countries, including Sri Lanka, as they tend to lag behind developed countries. According to the World Economic Forum's 'Networked Readiness Index', Sri Lanka is ranked at 63 out of 139 countries in 2016 and does relatively well compared to other lower-middle income countries. Sri Lanka scored relatively high in terms of ICT skills, affordability, governmental ICT usage, and social impacts, but fared poorly in other pillars especially infrastructure, ranking at 103 out of 139 economies. Support from the private sector is required to develop and facilitate access to affordable digital infrastructure and digital infrastructure services. In addition to the development of digital infrastructure, many governments in developing countries are undertaking substantial investment in human capital through training and skills development to facilitate the uptake of digital technologies.

Second, trade policies covering goods and services can affect the development and performance of both digital infrastructure and digitally-enabled and other

supporting services. Existing research suggests that policies which limit services trade, by restricting market entry and foreign investment in services markets, can constrain the development of the digital economy. International cooperation at the multilateral level or regional agreements can help countries to open up and stimulate competition in their digital infrastructure services. Currently, Sri Lanka has made limited commitments under the WTO GATS in telecommunication, financial services and banking, and tourism, while the inclusion of services in trade agreements among bilateral partners is a recent development. While Sri Lanka has eliminated import tariffs on a majority of informatics and telecommunications equipment, it still maintains tariffs on certain items.

Third, while improving the enabling regulatory framework to promote and facilitate investment in digital infrastructure/services, it is also important to introduce regulations to achieve public policy objectives such as consumer protection, data privacy and cybersecurity. To facilitate digital trade, many countries have undertaken steps to build an adequate legal framework that regulates electronic transactions, and ensure the validity of electronic contracts and signatures. Sev-

enty-one countries, including Sri Lanka, have adopted legislation based on UN-CITRAL Model Law on Electronic Commerce. While the legal framework for a digital economy has improved significantly, institutional arrangements are still lagging, and need to be addressed. For example, Sri Lanka's consumer protection rules require updating to reflect the emergence of electronic commerce. Alongside the need for modernised consumer protection legislation, there is consensus on the need for Sri Lanka to adopt data privacy or data protection legislation. Also much more needs to be done with regard to cybersecurity and to protect IT systems and their contents from cyberattacks.

This Policy Insight is based on the comprehensive chapter on "Digital Technologies and the Future of Trade": State of the Economy 2019 Report' - the flagship publication of the Institute of Policy Studies of Sri Lanka (IPS). The complete report can be purchased from the publications section of the IPS.



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