

Chapter 1

Introduction

Technology enables firms to enter and even dominate markets with limited investment in inventory and physical capital, thereby reducing sunk costs traditionally associated with market entry. Progress will continue to disrupt the way business is conducted through the internet. Some of the cases exemplifying the incorporation of new technologies into our daily life are Airbnb's web and mobile application for booking accommodation; Uber's mobile application for booking car transportation; the creation of digital currencies, such as Bitcoin, among many others for financial transactions outside the banking system; blockchain ledgers for peer-to-peer transactions in supply chain management; and cloud computing in the place of hardware and server infrastructure.

The use of electronic or digital commerce, commonly known as **e-commerce**, has grown in parallel to the increasing use of the internet, allowing buyers and sellers to transact in a more efficient way by eliminating barriers between marketplaces, creating opportunities for the re-organisation of business models and economic processes, and allowing customisation of products, distribution and consumption systems. Technology is disrupting traditional supply chains and threatens more traditional trade flows.

UNCTAD (2015a) estimated that the value of global **business-to-business** e-commerce exceeded US\$15 trillion in 2013, whilst business-to-consumer, another form of e-commerce, was estimated to be US\$1.2 trillion in 2013, and was forecast to expand to over US\$2 trillion by 2016. Global retail e-commerce sales still make up a fraction of the total retail market worldwide according to eMarketer (2015), at around US\$1.7 trillion in 2015 (7.4 per cent of total sales).

Box 1.1 How technology is disrupting traditional manufacturing: the case of 3D printing

Three-dimensional (3D) printing is disrupting manufacturing owing to the ease with which designs can be turned into physical objects through successive layers of different printed materials, mostly plastic or metal. Large 3D printers have been developed for industrial use, and have the potential to circumvent logistics and transport barriers by digitally transferring manufacturing designs to printing sites within a country's border. This technology is expected to affect spare parts, and intra-industry trade patterns, particularly as the speed of production can be accelerated. Empirical results using the OECD measures of transport costs for the different product groups indicate that the introduction of 3D printers predominantly 'takes place in areas with high economic activity that are contemporaneously subject to high transport costs of goods that are being produced with 3D printing'.

Source: Abeliansky *et al.* (2015).

The main difference between e-commerce and other forms of trade is its ability to leverage from advanced technologies and other telecommunication technology to influence cross-border trade and value chains (Preville and Soobramanien, 2016). The technology can be targeted across sectors to boost competitiveness in global value chain as well as in the structural transformation of a country. The virtual nature of e-commerce means that traditional goods can now incorporate a digital component, as they are able to be stored, and used and distributed in digital form.

Since digitisation has dramatically reduced the transaction cost to do business across borders, many small businesses are joining the e-commerce marketplaces to connect with customers and suppliers across the world, with much of it driven by platforms such as Alibaba, Amazon, eBay, Flipkart and Rakuten.

Specifically, e-commerce has been an enabler for small and medium enterprises (SMEs) to access worldwide business resources and reach new markets. According to a recent study (MGI, 2016):

- Amazon now hosts two million third-party sellers, while some ten million small businesses have become merchants on Alibaba platforms.
- Some 50 per cent of the world's traded services are already digitised.
- Across 18 countries analysed by eBay, anywhere from 88 to 100 per cent of the SMEs that use its platform are exporters.

Nevertheless, e-commerce also faces its own particular challenges, such as having the necessary legislation and regulatory framework in place for payments and intellectual property right (IPR) protection, dealing with potential leakages in fiscal revenue, and potentially having to circumnavigate barriers at the border to protect infant or vulnerable industries.

Despite the advance of e-commerce, selected economies in least developed countries (LDC), sub-Saharan Africa (SSA) and small state economies (SSE) have a low use of e-commerce compared to the rest of the world, and have a long way to go to catch up. The governments of these economies are correspondingly less advanced in their adoption of digital technologies than other countries in the world. There seems to be a strong correlation between per capita income and digital adoption, even though there are instances of superior performance by some low-income countries. When specifically looking at the complements required for digital readiness, such as starting a business, years of education adjusted for skills, and quality of institutions, the LDC, SSA and small state countries are at varying levels of advancement. World Bank data reveals a low level of technology adoption and readiness in sub-Saharan Africa and LDCs, while small states on the other hand perform in a similar manner to the rest of the world. This indicates that, although small, they have invested to create the critical conditions to realise technology adoption.

Developing economies face a range of internal barriers to the adoption of e-commerce, most notably the lack of infrastructure and undeveloped internet-related communication systems. External barriers include the lack of harmonisation among different jurisdictions, regulatory differences between countries, inadequate

mechanisms for settling cross-border disputes, security issues, restrictions on cross-border data flows, and inadequate transport and logistics networks for transporting goods bought online. Many of these external barriers are also faced by developed economies in expanding their e-commerce markets. Trade negotiations at multiple levels are vital in addressing these external barriers.

Negotiations at both the bilateral and multilateral level are crucial for developing countries, for example in negotiating access to developed country markets in e-commerce service exports, as well as access to the hardware and software that facilitate e-commerce for countries that do not produce them.

One of the forums chosen to discuss and negotiate a possible agreement on e-commerce is the WTO, through a dedicated Work Programme on Electronic Commerce, which since its creation in 1998 has produced 156 documents, including 40 collective or individual country proposals. While the General Agreement on Trade in Services (GATS) covered some areas of e-commerce, many WTO members now wish to widen the scope in line with developments in e-commerce.

In addition to the WTO forum, the proliferation of preferential trade agreements (PTAs) has enabled major proponents of e-commerce trade regulations to pursue their rule-making objectives in bilateral and regional contexts. These PTAs increasingly innovate in terms of regulating cross-border services delivery, cooperation on ICTs, chapters on e-commerce and TRIPS plus provisions related to e-commerce.

This Policy Guide aims to help capacity development of Commonwealth small state economies, least developed countries and sub-Saharan Africa so that they can participate effectively in the global negotiation work on e-commerce at the multilateral level.

The Policy Guide is structured in the following chapters. Chapter 2 focuses on the macro impact of e-commerce for growth and development. Chapter 3 explores the policy framework adopted by countries to foster e-commerce readiness. Chapter 4 analyses advances in the multilateral framework for facilitating e-commerce. Chapter 5 concludes the report with some policy recommendations.

