E-commerce and Digital Trade

A Policy Guide for Least Developed Countries, Small States and Sub-Saharan Africa

Paul R Baker

The Commonwealth

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Contents

Abbreviations and Acronyms

3D	three-dimensional
3G	third generation
AANZFTA	ASEAN-Australia-New Zealand Free Trade Area
AISI	African Information Society Initiative
ASEAN	Association of Southeast Asian Nations
B2A	business-to-administration
B2B	business-to-business
B2C	business-to-consumer
B2G	business-to-government
BSA	Business Software Alliance
C2B	consumer-to-business
C2C	consumer-to-consumer
C2G	consumer-to-government
CARIFORUM	Caribbean Forum
CPC	Central Product Classification
CTD	Committee for Trade and Development
DAI	Digital Adoption Index
DCs	developing countries
E-commerce	electronic commerce
EC	European Commission
EDI	Electronic Data Interchange
EPA	Economic Partnership Agreement
EU	European Union
G2B	government-to-business
G2C	government-to-consumers
G2G	government-to-government
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
ICT	information and communications technology
IPR	intellectual property right
IT	information technology
ITA	Information Technology Agreement

ITC	International trade Centre UNCTAD/WTO
ITU	International Telecommunication Union
LDCs	least developed countries
M-PESA	mobile phone-based money
MFN	most favoured nation
MLPS	Multi-Level Protection Scheme
MSMEs	micro, small and medium enterprises
NICI	National Information and Communication Infrastructure
OECD	Organisation for Economic Co-operation and Development
PC	personal computer
PMA	Preferential Market Access
PTAs	Preferential Trade Agreements
S&D	Special and Differential
SAFTA	Singapore–Australia Free Trade Agreement
SIDS	small island developing states
SMEs	small and medium enterprises
SSA	sub-Saharan Africa
SSE	small state economies
TBT	Technical Barriers to Trade
TFA	Trade Facilitation Agreement
TPP	Trans-Pacific Partnership
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TTIP	Transatlantic Trade and Investment Partnership
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNICTRAL	United Nations Commission on International Trade Law
UNIDO	United Nations Industrial Development Organization
US	United States
US$	United States dollar
USITC	United States International Trade Commission
WIPO	World Intellectual Property Organization
WTO	World Trade Organization
WPEC	Work Programme on E-commerce

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.

Chapter 2

Relevance of e-commerce for development and growth

2.1 Scope of e-commerce

2.1.1 Definitions

A major challenge in defining e-commerce lies in its intangible nature and the rapid changes to the environment in which it exists (Krogman and Khumalo, 2016). A series of definitions have been proposed by different organisations in an attempt to cover the full range of what e-commerce is:

> According to the OECD (2000), 'in loose terms e-commerce means doing business over the Internet, selling goods and services which are delivered offline as well as products which can be "digitised" and delivered online, such as computer software'.
>
> In more technical terms, contextualised by the WTO Work Programme on E-commerce (WPEC), it is defined as 'the production, distribution, marketing, sale or delivery of goods and services by electronic means' (WTO, 1998).
>
> UNCTAD expands the scope of definition to cover purchases and sales conducted over computer networks using multiple formats and devices, including the web and electronic data interchange, using personal computers, laptops, tablets and mobile phones of varying levels of sophistication (UNCTAD, 2015a).

Much like the trade in services, e-commerce adds value through a non-physical form. Beyond its intangible nature, it is also challenging to identify exactly where an economic activity has taken place or how value was created. Nevertheless, the identified definitions have a common element: e-commerce transactions always require the exchange of data over a computer network (Krogman and Khumalo, 2016). However, it is worth clarifying that even though goods or services are ordered electronically, the payment and the ultimate delivery of the goods or services do not have to be conducted online (UNCTAD, 2015a).

2.1.2 Types of e-commerce and their economic implications

An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations. Included in these electronic transactions are orders made over the web, extranet or electronic data interchange. The type of transaction made is defined by the method of placing the order. Normally excluded are orders made by telephone call, fax or manually typed emails (WTO, 2013).

While various permutations and combinations exists, the main types of e-commerce are business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), consumer-to-business (C2B), business-to-administration (B2A), and consumer-to-government (C2G).

There is more trade among B2B and between B2C due to the internet's wide scope and spectrum of potential commercial activities and information exchanges. In B2G transactions, governments have utilised e-commerce as a platform for the management of public procurement systems while in government-to-business (G2B) and government-to-consumers (G2C) e-commerce and the internet technology is being used by governments for the transmission or receipt of information, and the convenience and cost reduction of payment systems and tax compliance (C2G).

E-commerce is characterised by some salient features, namely it (i) is ubiquitous, such that it is available everywhere, at any time; (ii) enjoys a global reach, by crossing cultural and national boundaries; (iii) is built on universal standards; (iv) is interactive, by allowing online merchants to engage a consumer in ways similar to a face-to-face experience, but on a much more massive global scale; (v) enjoys information density, by reducing information collection, storage, communication and processing cost; (vi) permits personalisation and customisation; and (vii) enables new marketing channels through social media platforms (Cudjoe, 2014).

The rapid migration of supply chain management from relatively expensive closed electronic data interchange (EDI) networks towards the internet (OECD, 2000) has led to increased B2B transactions and drives the potential for businesses to link and deal directly with suppliers. The leverage of technology in cross-border transactions offers firms as well as individuals an electronic infrastructure that creates virtual markets for goods and services where previously they did not exist. For example, eBay provides a consumer-to-consumer (C2C) platform and consumer-to-business (C2B) with a variety of functions offered by the traditional marketplace, in addition to other added services.

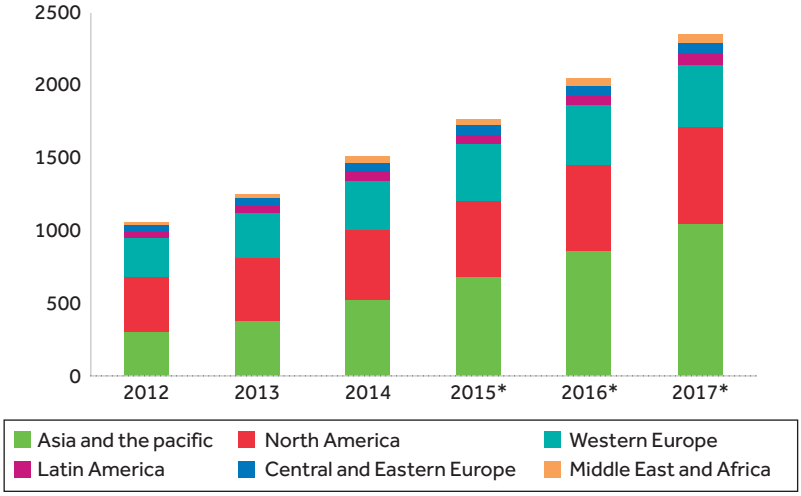
Business-to-consumer e-commerce was estimated to be US$1.2 trillion in 2013, and is forecast to expand to over US$2 trillion by 2017. In developing countries, particularly in Asia and Africa, business-to-consumer e-commerce is expanding rapidly.

Table 2.1 Channels for e-commerce

	Government	Business	Consumer
Government	**G2G** *e.g. co-ordination*	**G2B** *e.g. information*	**G2C** *e.g. information*
Business	**B2G** *e.g. procurement*	**B2B** *e.g. e-commerce*	**B2C** *e.g. e-commerce*
Consumer	**C2G** *e.g. tax compliance*	**C2B** *e.g. price comparison*	**C2C** *e.g. auction markets*

Source: OECD (2000)

Figure 2.1 Global B2C e-commerce marketplace, 2012–17 (US$ billion)



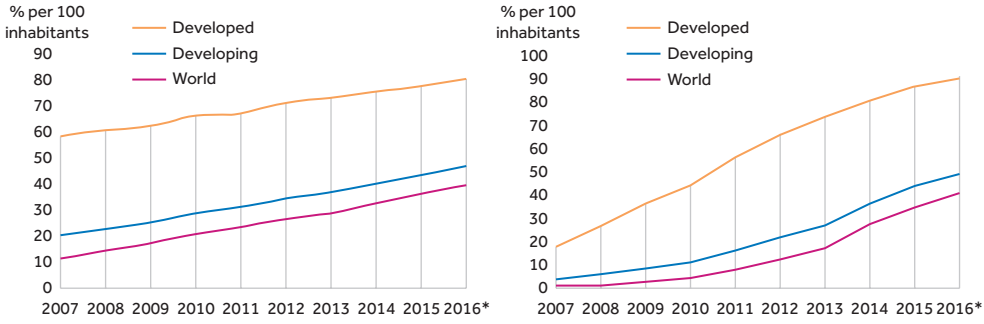
* = forecast

Source: WTO (2015)

The number of internet users has more than tripled in a decade – from 1 billion in 2005 to an estimated 3.2 billion at the end of 2015 (World Bank, 2016). The influence of e-commerce marketplaces on international trade is significant – and still growing. Today some 16 per cent of B2C e-commerce transactions are cross-border, and that share is projected to reach almost 30 per cent by 2020, when international sales could hit US$1 trillion. Cross-border B2B e-commerce is even bigger. In 2014, it was an estimated US$1.8 trillion to US$2 trillion market.

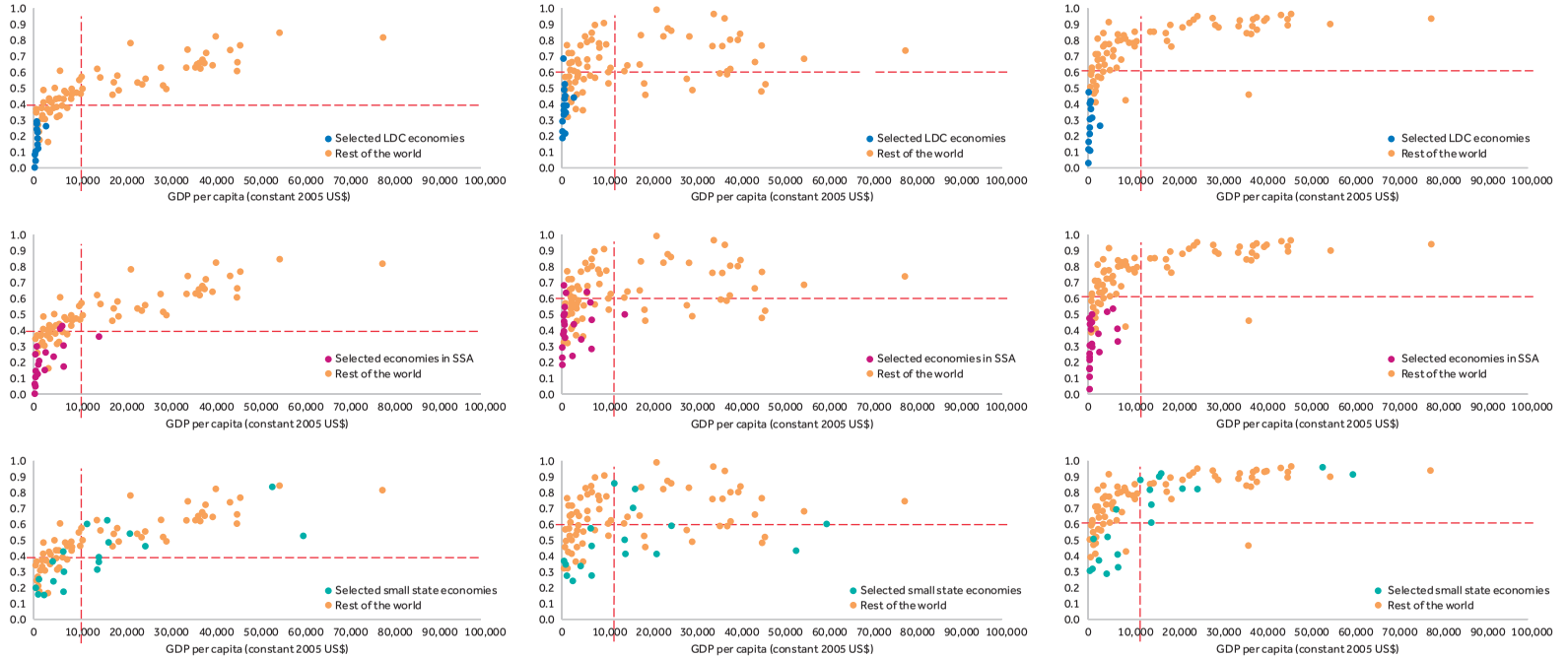
Although, businesses, people and governments are more connected than ever before, the digital adoption index is low for selected economies in LDC, SSA and small state economies (SSE) as compared to the rest of the world. Figure 2.3 highlights the results for selected economies. In particular, the green dots in the first figure (upper left hand

Figure 2.2 Citizens using the internet (left) and active mobile-broadband subscriptions (right)



Source: ITU; Note: estimates

Figure 2.3 Digital adoption in LDCs, sub-Saharan Africa and small states



Note: The Digital Adoption Index (DAI) (Business) is the simple average of four normalised indicators: the percentage of businesses with websites, the number of secure servers, the speed of download, and 3G coverage in the country. The DAI – Governments is the simple average of three normalised sub-indexes: core administrative systems, online public services, and digital identification. Data for online public services are provided by the UN's Online Service Index. The DAI – People is the simple average of two normalised indicators from the Gallup World Poll: mobile access at home and internet access at home
Source: World Bank (2016); International Economics Ltd

side) reveal that the businesses based in LDCs, SSA and small states are not adopting the digital opportunities as quickly as other economies of the world. In that sense they need 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 appears a strong correlation between per capita income and digital adoption, even if 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, we see a range of positions across the LDC, SSA and small state countries. Based on an average of the three sub-indicators mentioned above, the World Bank have revealed a clear upward relationship between these factors and the technology performance of countries. Broken down by the three groups of states, we reveal the low levels of technology adoption and readiness in sub-Saharan Africa and LDCs. Small states on the other hand perform in a similar manner to the rest of the world, indicating that whilst being small, they have invested to create the critical conditions to realise technology adoption (Figure 2.4).

2.2 Links between e-commerce and economic growth

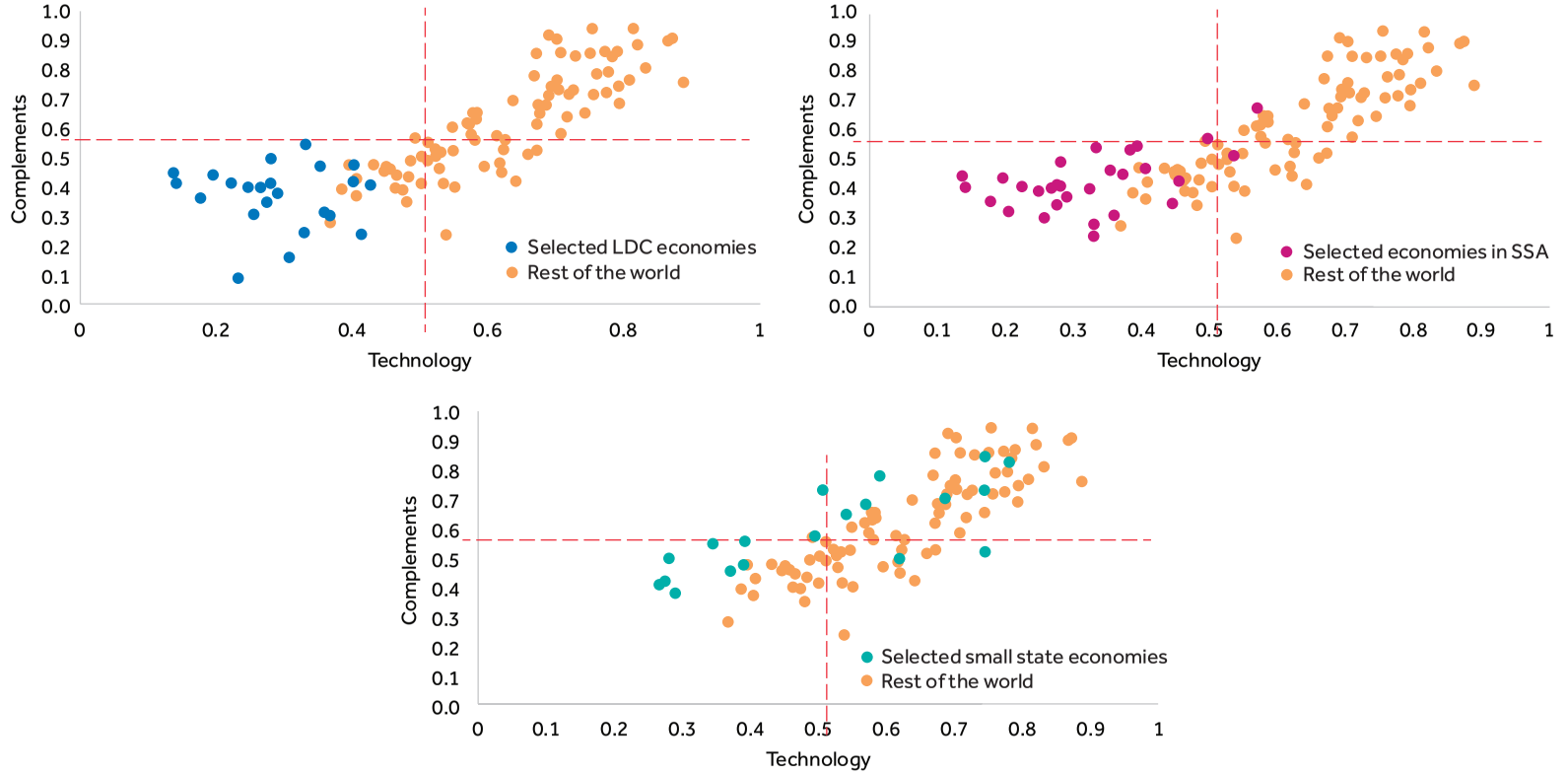
Electronic commerce depends on the combination of synergies available from different service sector infrastructures, namely communications systems, financial payment systems, and distribution and delivery systems designed to integrate within an interoperable framework. Liberalisation of these different channels, including independent regulation, provides for a competitive access that ensures a safe and real-time online payment system, and timely and reliable distribution system from seller to buyer for products purchased online (IIE, 2000).

Both the access to the internet infrastructure, including mobile hubs, and the legislation in place for regulating payments systems and disputes must be developed for the industry to grow and flourish. Barriers to access either of the service sector infrastructures linked to e-commerce would inhibit its growth. While a diminished role of government in the internet marketplace is usual, government policies in general affect the rate at which e-commerce develops, whether through the removal of barriers or the facilitation through incentives.

E-commerce creates job in the ICT sector and in enterprises that become more competitive due to online procurement and sales. A recent study of EU firms also found that engaging in e-commerce increases labour productivity and that e-commerce accounted for 17 per cent of EU labour productivity growth between 2003 and 2010. A 2014 study by the US International Trade Commission (USITC) calculated the productivity gains from the internet by surveying US businesses and found that the productivity gains from the internet have increased US real GDP by around 3.5 per cent (MGI, 2016).

The internet has the potential to be a source of macro-economic growth as well as providing solutions to public policy challenges, as it can be accessed from any location as long as the basic infrastructure has been established. With e-commerce and the

Figure 2.4 E-readiness frameworks and technology adoption



Note: Dotted red lines represent world average; 'Technology' is measured by the Digital Adoption Index (DAI). DAI is based on three sectoral subindexes covering businesses, people, and governments, with each subindex assigned an equal weight: DAI (Economy)=DAI (Businesses)+DAI (People)+DAI (Governments). Each subindex is the simple average of several normalised indicators measuring the adoption rate for the relevant groups. Similarly, 'Complements' is the average of three subindicators: starting a business; years of education adjusted for skills; and quality of institutions
Source: World Bank (2016); International Economics Ltd

new technologies that come with it, suppliers can access markets without physically crossing their country's borders and participate in global cross-border trade. The benefits of joining the e-commerce marketplace are immediate, large and involve relatively low costs since the physical network has already been set up. E-commerce supports economic growth by improving on how governments and businesses perform their core functions and allows for policy customisation and alignment to local preferences and priorities (IIE, 2000).

E-commerce is poised to promote consumption, generate income and employment, not only in less developed economies and sub-Saharan Africa, but for the global economy. For example, in the EU single market cross-border e-commerce has significantly reduced trade costs compared to traditional offline trade. The combined macro-economic effect of these transmission channels is generally positive for EU Member States, ranging between 0.07 and 0.25 per cent of GDP (Francois *et al.*, 2014).

Less developed economies, landlocked economies and small island states are likely to benefit most from e-commerce in comparative terms, since their geography creates higher traditional trade barriers in these countries. Moreover, e-commerce has the potential to promote new industrial organisations, enable countries to leapfrog certain technological barriers, and rebalance the power relations in the supply chain between producers, consumers and business partners. By emphasising comparative advantages built on information, knowledge, education and culture, e-commerce has the potential to integrate these countries into the global economy, and in accessing a large market base for traditional offline goods that will be listed online. Examples of successful sectors include the worlds of finance and travel, which have thrived through e-commerce transactions. E-commerce has the potential to provide information on services (including tourism) opportunities in sub-Saharan Africa and give leisure seekers the ability to compare prices and choose from an array of service providers, in addition to opening up an online auction platform.

According to UNCTAD, while finance has long been a major user of electronic data interchange (EDI) using intranets and extranets and ensuring electronic communications, e-commerce has spurred households to utilise electronic banking and online trading of financial securities. For less developed economies, e-commerce would provide a platform for both access to financial activities and banking (UNCTAD, 1999). A recent example of this is the success of mobile banking through telecom providers, such as M-PESA in Kenya, which within just six years of existence had 25 per cent of Kenya's GDP flowing through its cash transfer network (Economist, 2013).

Nevertheless, e-commerce is not a panacea for technology transfer and ease of business. Whilst it is true that traditional barriers to trade may be removed, new barriers emerge, including access to the technology, research and development, and the repository of cloud computing services. With those services predominantly headquartered in advanced economies, catching up will be a challenge to capture the greatest benefits from the infrastructure linked to e-commerce. Despite the immense opportunities that e-commerce presents, developing countries are not able to utilise or maximise electronic trade due to several challenges, most of which are interconnected. These challenges were identified over a decade ago, yet are still valid.

Box 2.1 Potential challenges for developing countries in e-commerce

Full utilisation of e-commerce in developing countries is hindered by, among other factors: (I) In most developing countries, access to high-speed broadband for businesses and to computer internet is still not possible for a majority of the population due to its high costs and inadequate procedures for electronic payments. Collaborative efforts between government and private sector can liberalise the environment, allow for competition and open up the market; (II) **limited resources** in terms of human knowledge in information-intensive activities. Capacity building and investments in information dissemination and technical skills should be prioritised; (III) **inadequate local content** produced domestically and that can be used in global networks have resulted in developing countries being primarily consumers of e-content and not producers; (IV) **insufficient legal and regulatory safeguards** to regulate and ensure secure online transactions and foster trust in e-commerce; (V) **financing** remains a major issue for developing countries in embracing and participating in e-commerce. In particular, there are few linkages with foreign capital and expertise to include developing countries in the global marketplace via the internet; and (VI) **issues of security, power and governance** of matters relating to e-commerce, as well as the monopoly practices of existing operators.

Source: UNCTAD (1999)

The most critical barrier, however, has been ascribed to the limited information and communication infrastructure available in most developing countries, especially in sub-Saharan Africa. For the telecom agencies, inadequate competition, resources and public policy expertise is prevalent.

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Chapter 3

Policy frameworks for e-commerce

3.1 Salient features of early adopters

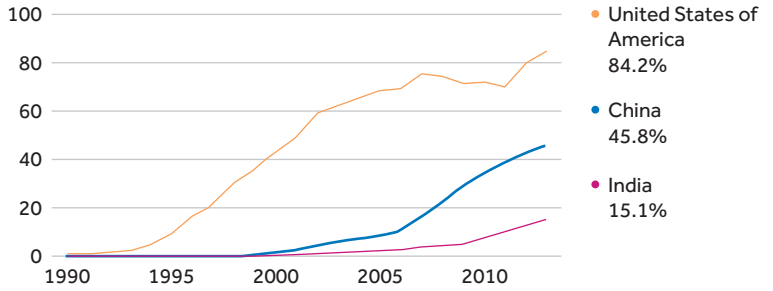
Early adopters of e-commerce include mainly developed countries led by the United States and Europe, where e-commerce has contributed to massive economic growth. China is among the early adopters of e-commerce in the case of developing countries, and Chinese internet trade has grown extensively over the years since its first adoption in the 1990s. Early adopters of e-commerce invested in setting up infrastructures that laid down the platform for e-commerce, for example by improving the telecommunication infrastructure, leading to increased access to the internet and liberalising the technology required for e-commerce, such as on IT products. Liberalisation of telecommunications, financial services, and trade and investment regimes opened the market for competition, encouraging private sector participation in e-commerce and internet services.

In the 1990s China was ranked second, after the United States, in wired and wireless electronic consumers, doubling the number of fixed and mobile phones as well as PC and internet host penetration every two to three years. Whilst in 1999 the number of internet users in China was approximately four million (UNCTAD, 2000), nowadays around 700 million internet users are based in China, which is home to one of the world's biggest online marketplaces, Alibaba.

The OECD, taking its members' experience as best practices, developed a series of policy recommendations to be considered by developing countries. While these features are not a single approach to be adopted by late e-commerce adopters, they provide a policy starting point for policy-makers in charge of devising diffusion policies and ecommerce regulations. While creating an environment that supports and encourages e-commerce, policy-makers should bear in mind that:

- **Internet diffusion** requires a stakeholder-based approach and involving several actors – private sector, government, research institutions and international and multilateral development agencies. A stakeholder-based approach would ensure that that a liberalised market does not result in a change from state monopoly to private sector monopoly and that there is no service interruption resulting from a change in sector control;
- While private sector initiatives foster trust in online transactions, a **strong government regulatory framework** addressing consumer protection, privacy, security of transactions, cyber crime, and other concerns, can greatly reinforce those efforts;
- E-commerce **taxation** is not an immediate concern in the short term, but it may become one in the longer term. Given the strong import-bias of e-commerce in

Figure 3.1 Internet users as % of the population



Source: World Bank *World Development Indicators*

most developing countries and developing countries' heavy reliance on import duties for revenue generation, developing countries should play an active role in e-commerce deliberations at the WTO, and international fora on technical standards for the internet; and

- **Cooperation** among developing countries will be critical in pooling technical resources to ensure familiarity with e-commerce and technology in general.

3.2 Policy framework

Economic, financial and legal policy frameworks must be drafted to tap the full potential of e-commerce. Collaborative policy efforts between government and private sector are necessary when designing the policy framework for e-commerce, since government policies always affect investment decisions made by private agents. Governments could, for example, develop national information and communication infrastructure (NICI) planning processes to address the wide variety of policy issues emanating from e-commerce, as various elements of electronic commerce-related policies are usually in different departments and limited collaboration between the departments results in little progress and inconsistency in policy-making. The NICI would support the process for development of a coordinated strategy for consistent set of policies from different government departments. African Ministers have in the past endorsed the African Information Society Initiative (AISI), which identified the need for multi-stakeholder groups to formulate and develop a national information and communication infrastructure driven by national development priorities in every country (Panagariya, 2000).

UNCTAD has proposed eight critical policy areas that should be covered in a national e-commerce strategy, and that should be informed by the readiness test that precedes the national policy development process (UNCTAD, 2015a):

a. **Provision of affordable ICT infrastructure and services** by improving access to reliable and affordable ICT, implementing effective communications regulations, and ensuring access to reliable power;

b. **Strengthening the logistical and transport infrastructure services** as smooth transport of goods is imperative for both domestic and cross-border e-commerce,

adopting universal address and postcode systems since a national address system is important for facilitating e-commerce, and adopting efficient trade facilitation measures that prevent the forming of critical bottlenecks that may arise in cross-border e-commerce related to physical goods, such as complex export procedures and documentation;

c. **Fostering an environment for e-commerce and online payment solutions** by strengthening the environment for online payments, since enhanced use of electronic payment systems is important for facilitating e-commerce and promoting the availability of e-commerce solutions that are tailored to suit local needs, such as the use of mobile payment systems;

d. **Strengthening the legal and regulatory framework** by implementing and enforcing the relevant e-commerce laws and regulations and raising awareness and understanding of e-commerce laws through capacity building;

e. **Promoting skills development** by enhancing e-literacy and consumer awareness programmes, building e-commerce skills among small businesses and exploring the scope for women entrepreneurs to engage in e-commerce;

f. **Promoting government e-procurement** as a way of incentivising enterprises to use the internet. Making e-procurement a requirement for public tenders provides an incentive for SMEs to increase use of the internet as a business tool; and

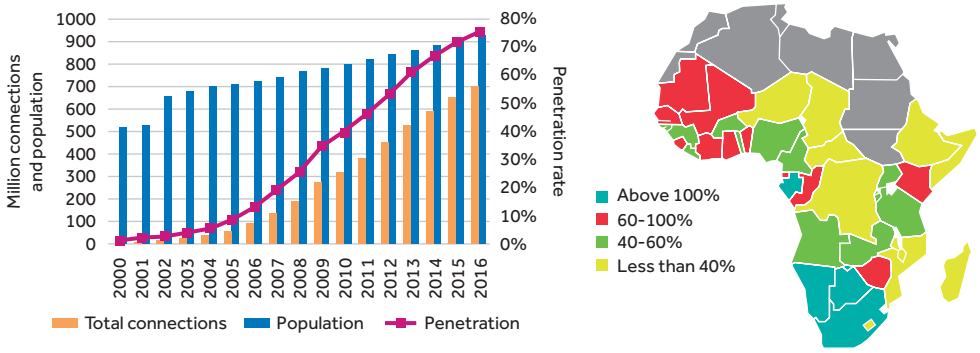
g. **Promoting stakeholder awareness on e-commerce**, as a lack of awareness and inertia may hamper the transition from traditional and habitual ways of doing business and place e-commerce at a disadvantage.

Market-oriented policies should be developed to improve and encourage investment and participation in e-commerce and increase the diversity of information and channels on the internet. Developing countries will have to invest in, for example, policies promoting exports that are likely to yield higher returns depending on the pool of skills available in that sector. The implementation of an economic framework that promotes e-commerce will require action at three levels. The actions proposed remain valid for the majority of countries that lag behind in e-commerce (Panagariya, 2000):

First, making available the hardware and software necessary to develop electronically sellable services at reasonable prices. Parties to the Information Technology Agreement (ITA) have embraced the liberalisation of key IT equipment. Only one country in sub-Saharan Africa is a party: Mauritius.

The second action is to put in place the basic infrastructure necessary for the smooth functioning of internet, where 'infrastructure' encompasses facilities to conduct financial transactions on the internet, and ultimately negotiating access to developed country markets in e-commerce service exports. Investments in telecommunication infrastructure will lower costs and increase the user base. In Africa, for example, participation in national and global electronic commerce is hindered by the low levels of basic telephone service penetration, although mobile phone penetration has reached new heights, even if it remains very uneven across countries.

Figure 3.2 Mobile phone users and penetration: sub-Saharan Africa



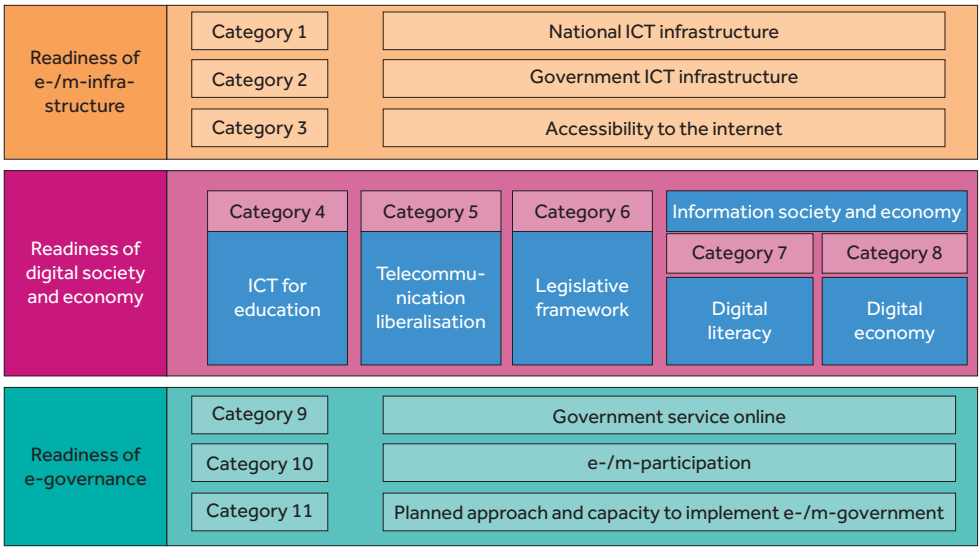
Source: Deloitte GMSA *Mobile Observatory Report 2016/Wireless Intelligence*

Third, a tax, regulatory and policy framework also has to be put in place. This must include policies or regulations that, for example, support and promote acceptance of electronic payments and electronic documents, admissibility of digital evidence in court, and cost-effective delivery of e-commerce products and services and faster customs clearance and licensing procedures. A stable, consistent, clear and predictable legal environment and policies and legal framework will go a long way in promoting e-commerce by increasing certainty while fostering trust in electronic commerce. Furthermore, a legal framework also ensures consistency in standards and addresses concerns over privacy, consumer protection and the reliability of payment systems, in addition to ensuring that operators conform to national and international laws. This is all the more important since there is a shortage of sufficient human resources with skill sets in e-commerce in many countries.

The Commonwealth Secretariat is currently engaged in designing an e-Readiness framework. It defines e-Readiness to mean the degree to which a country has embraced a number of e-services. The e-Readiness framework will assess the state of play with regard to a number of important policy domains which, when viewed holistically, provide a realistic understanding of a country's potential to advance across the e-services maturity value chain. The e-Readiness framework is designed on the basis of various sub-categories that are integrated within four horizontal pillars upon which the achievement of e-/m-Government depends. This is depicted graphically in Figure 3.3.

The **first horizontal pillar** will result in an assessment of the extent of ICT and mobile penetration, the level and presence of the underlying national and government infrastructure which is vital for achieving e-/m-Government and the extent to which the affordability of e-/m-Government is constrained or facilitated by price regimes. The **second horizontal pillar** assesses the degree of readiness of the national capacity, which will determine not only the pace of implementation but, as importantly, the degree of take-up of an e-/m-Government environment. This part of the e-Readiness framework assesses the state of play with regard to the pervasiveness of a digital society and a digital economy, which in turn are

Figure 3.3 Commonwealth Secretariat e-Readiness framework



dependent on the underlying 'soft' infrastructure with regard to ICT for education; ICT human capital development; maturity of the telecommunications sector; and the underpinning cyber legislative framework. The **third horizontal pillar** is designed to result in an assessment of the extent of which e-/m-Government has been introduced as a means to provide citizen (and enterprise) centric service delivery – scaling across a maturity level that ramps up from emerging to sophisticated in terms of G2C; G2B; G2I (intermediaries). This part of the framework also seeks to assess the extent to which a government is leveraging Web2.0 to increase citizen participation and achieve more openness, transparency and responsiveness from the government and the public administration. The **fourth horizontal pillar**, and final pillar, seeks to assess the extent to which a government is prepared to implement e-/m-Government. In this regard the assessment is on the basis of a 'whole of government approach' where e-/m-Government is designed as a component of both the national ICT perspective on the one hand and the public administration's strategic systems approach on the other. It seeks to draw an understanding of the ownership, capacity and financing that is in place to successfully lead an e-/m-Government programme.

Such an assessment framework is being rolled out and in 2017 it is expected that results will be produced for a comprehensive assessment of overall readiness for e-commerce adoption.

3.3 Addressing domestic supply side issues for competitiveness

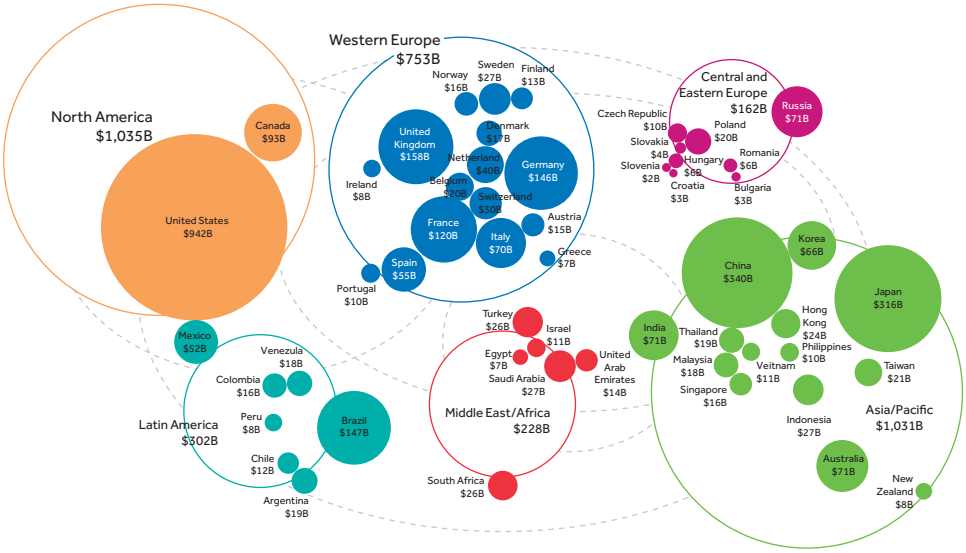
Domestic barriers to e-commerce in Africa include but are not limited to infrastructure, a lack of trust, the cost, reliability and speed of internet access, logistics and customs

measures, market openness, and digital readiness by the population and businesses (Ekekwe, 2015).

Infrastructure remains a major issue hindering developing countries' adoption, development or utilisation of e-commerce. Domestic infrastructural issues in this context broadly include both internet-related communication systems, which are still not developed in most developing countries (even though mobile telephony in SSA for example is being utilised for internet access more than computers), as well as transport and power systems. E-commerce systems such as internet communications infrastructure data transmission and operations rely on availability of power. Power outages in most developing countries could limit or discourage investments in e-commerce in these countries.

While the lack of payment systems in terms of access to credit cards remains a major challenge in some developing countries, increased penetration of mobile telephony in Africa, for example, has led to the development of mobile payment systems that are used to pay for most online transactions. For example, in Kenya M-PESA (a mobile payment system owned by a local telephone operator, Safaricom) has simplified domestic payment systems. Initially launched as a domestic money transfer platform, today it competes with banks and is used to pay for physical purchases in retail shops and supermarkets, and in other institutions including schools. M-PESA supports domestic e-commerce in Kenya by allowing subscribers to pay for goods and services purchased in local e-commerce and other online platforms using a service known as Lipan a M-PESA (pay with M-PESA). It charges a 1 per cent fee on the value of goods bought through the mobile money transfer service (IFC, 2010).

Figure 3.4 Global ICT spending, 2012



Source: BSA/IDC Worldwide Black Book

The lack of e-commerce-related legislation in some countries could limit consumer use of and trust in online trade. Various initiatives can be taken to address these challenges and increase the competitiveness of developing countries' and small states' adoption of e-commerce. In some instances, the virtual environment of the electronic markets makes it difficult to determine who the contracting parties in a transaction are, in addition to concerns over data protection and privacy. Legal recognition of a variety of factors, such as acceptance of electronic signatures for service contracts and enforcement of documents that arise from electronic transactions, will encourage the uptake of e-commerce and increase competitiveness. Blockchain is a secure ledger technology that will increase traceability and transparency in the supply chain of online transactions, but its adoption and use is still limited globally (Reuters, 2016). The presence of legislation will ensure that electronic traders are registered and certified in one country and can be contacted in case a problem arises.

There are further limits on the number, type and nature of goods traded online in less developed economies. In the market of B2B, since many developing countries are still exporters of primary or unprocessed products, much of the trade is in bulk and does not provide the strong value addition and differentiation afforded by e-commerce, even if electronic market exchanges are providing valuable information on prices. Notable exceptions exist, particularly in niche markets, from crafts to cultural tourism to multimedia and software development.

3.4 External barriers in expanding e-commerce

Just like the traditional trade in physical good and services, which has long been subject to protectionist barriers, a new wave of digital protectionism is slowing down digital trade. While these barriers take different forms, they all have the effect of 'balkanising the digital economy, creating inefficiencies and redundancies that diminish its potential' (BSA, 2014). The Business Software Alliance (BSA) identified the most critical barriers to global digital as follows:

a. **Restrictions on cross-border data flows (data localisation):** Several countries have either adopted or are considering adopting policies that restrict the flow of data across their borders or require that data servers be in their jurisdiction for e-ecommerce transactions that take place within, or involve, their territories as a condition for serving their local markets. Data localisation restrictions undercut the enormous efficiencies of scale and economic benefits that come from digital trade, and such measures as, for example, requiring cloud service providers to establish servers in every market they serve will considerably raise the cost of cross-border e-commerce and discourage its adoption by cash-strapped developing countries;

b. **Procurement discrimination where certain governments have enacted policies that restrict foreign companies from serving public sector clients:** Existing examples include India's Preferential Market Access (PMA) policy for government procurement of electronic goods that establishes local content requirements, thus restricting access for foreign products. Additionally, China has recently

announced new software procurement rules that favour domestically produced products over those produced abroad;

c. **Overreaching security regulations:** In an effort to tackle cyber security issues governments are using the pretence of 'security' to impose *de facto* trade barriers that restrict access to their markets, such as restrictions on procurement of products, in particular electronic products, abroad or the imposition of unreasonable compliance standards. For example, China's Multi-Level Protection Scheme (MLPS) mandates the use of Chinese-owned information security and technology products in areas which the government considers as sensitive. Policy-makers take advantage of this policy and broadly define nearly anything state-owned as sensitive, even though it may not directly relate to security; and

d. **National technology standards:** While technology standards play a dynamic role in facilitating global trade in information technology, especially where they are developed through industry-led voluntary processes, there have been instances where certain governments have developed country-specific standards or have manipulated standard-setting processes to favour local companies or locally produced products to discourage foreign competition, for example in China.

While the above barriers presently apply mainly to advanced economies where e-commerce is heavily utilised, they also affect developing nations trying to develop their digital markets. For capacity constrained developing countries, external barriers that would affect the expansion of e-commerce include the lack of standard harmonisation, for example across regions, and the lack of mutual recognition among jurisdictions, which undermines trust; regulatory differences between countries; inadequate mechanisms for settling cross-border disputes for low-value goods; security concerns; and inadequate logistical networks for transporting goods purchased online (Meltzer, 2016).

Since most disputes arising from digital trade are usually outside the scope of the WTO Dispute Settlement Mechanism, inadequate mechanisms for settling cross-border disputes arising from digital trade increase the cost of digital trade. However, e-commerce companies like eBay have responded by creating their own dispute settlement systems.

High trade costs arising from poor transport and logistics networks at both the domestic and regional level, including ports, roads, airports and ICT, which are necessary for transporting online purchased products to consumers will inhibit participation in global e-commerce value chains. For example, a lack of efficient regional air transport infrastructure and corridors continues to hinder express parcel transfer services in most developing countries, especially those in Africa.

Other external barriers include localisation barriers to trade – policies that seek to force foreign companies to produce locally what they otherwise would produce outside a nation's borders and export to a recipient economy; including local requirements in private and/or public procurement; local production as a market access condition, forced technology or intellectual property transfer as condition for market access, and in some cases including forced joint ventures as a condition

of market access (Stephen *et al.*, 2013). Regulatory externalities might also arise, where domestic regulation presents a significant barrier, especially in cases where a domestic government changes regulation as a counter to imports of electronically purchased products into its territory.

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Chapter 4

E-commerce negotiations and interests

Trade negotiation has a vital role to play in addressing external barriers to e-commerce in developing nations. Negotiations at both the bilateral and multilateral level are crucial, 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.

As effective e-commerce policies take regional and international perspectives, negotiations can ensure the development of international laws and regulations for e-commerce, uniform and harmonised standards in areas such as payment systems and postal codes, as well as standards and taxation systems. Negotiators from developing nations need to call for international trade rules that support e-commerce especially in ensuring that their views are addressed; they should call for capacity-building incentives, and address taxation issues and support (UNCTAD, 2015a).

E-commerce already features on the international development agenda in outcome documents on the 'vision beyond 2015' for the World Summit on the Information Society, as well as in the outcome of the Bali Ministerial Conference of the World Trade Organization. Negotiators can call for more e-commerce accords and programmes, and ensure that the scope already featured in the international development agenda is prioritised. This and other initiatives will go a long way in ensuring that the global electronic trade is more inclusive and beneficial to all.

4.1 Taking stock of the status of the work programme at the WTO

Since the products and services supplied through e-commerce may be digitised or tangible goods, or they may be services (access to databases, cloud computing, consulting, etc.), which often are protected by intellectual property rights (Primo Braga, 2005), these are covered by WTO rules under the GATT, the GATS, and the TRIPS Agreement.

Since electronic commerce has emerged after the conclusion of the Uruguay Round negotiations in 1994, the relevant WTO agreements (GATT 1994, GATS and TRIPS) are silent on e-commerce. Soon after the establishment of the WTO, at the Second Ministerial Conference (May 1998), Ministers, recognising that global electronic commerce was growing and creating new opportunities for trade, adopted the Declaration on Global Electronic Commerce (WTO, 1998). The Declaration contained two notable points: (1) the instruction to the General Council meeting in special session (i.e. when it is performing its functions under the Doha Development Agenda negotiations) to 'establish a comprehensive work programme to examine all trade-related issues relating to global electronic commerce, including those issues

identified by Members' (see more detail below); and (2) the declaration that WTO 'Members will continue their current practice of not imposing customs duties on electronic transmissions'. The latter, also known as the 'moratorium on customs duties', has since then been renewed regularly at each Ministerial Conference, and has thus proved to be the single most important tangible result of WTO activities on e-commerce.

Regarding the **Moratorium on customs duties**, one can highlight two notable aspects of the decision. The decision covers only electronic transmissions; goods ordered through electronic means but imported through 'normal' trade channels are explicitly excluded. Second, the decision covers only customs duties and it is silent on other forms of restrictions. However, the bulk of the value of e-commerce, actual and potential, is likely to be services, for which the trade regime is that established by the GATS, '[which] allows countries to decide whether to commit to market access […] and to national treatment, i.e. not to discriminate in any way against foreign services and suppliers'. According to Mattoo and Schuknecht (2000) many countries, developed and developing alike, have not made GATS commitments in a large number of services sectors where electronic delivery is feasible, so in these sectors the moratorium is 'either ineffectual, because countries can still resort to discriminatory internal-taxation, or worse, it may force countries to resort to the inferior instrument of quotas'.

The **Work Programme on Electronic Commerce**, adopted by the General Council on 25 September 1998 (WTO, 1998), defines the issues to be examined by four subordinated bodies, namely the Council for Trade in Services, the Council for Trade in Goods, the Council for TRIPs, and Committee for Trade and Development (CTD), whilst aspects concerning the imposition of customs duties on electronic transmission are examined in the General Council. The Work Programme also provides that further issues may be taken up at the request of Members and that the General Council is to play the central role in the whole process and keep the work programme under continuous review through a standing item on its agenda.

Finally, a key element of the Work Programme is the definition of the term 'electronic commerce': 'exclusively for the purposes of the work programme, and without prejudice to its outcome': it means the production, distribution, marketing, sale or delivery of goods and services by electronic means. As noted, 'such a broad definition encompasses not only electronic transactions over the networks (the Internet), but also electronic data interchange (EDI) over proprietary networks' (Primo Braga, 2005).

Progress reports of the four WTO bodies involved in the work programme and the Secretariat's background papers indicate that many WTO Members believe that various aspects of e-commerce are already addressed by existing provisions of GATT, the GATS and the TRIPS Agreement, and that e-commerce, rather than operating in a legal vacuum, is already governed by the legally binding multilateral principles and rules of WTO agreements. The reports produced under the Work Programme also point to the benefits for e-commerce from several other WTO agreements, e.g. on import licensing, technical barriers to trade (TBT), and government procurement. In

addition, the Work Programme 'highlighted the importance of WTO agreements not only to e-Commerce itself, but also for the facilitation of e-Commerce […] and an added emphasis has been placed on the results of both the Information Technology Agreement [ITA] on tariff reductions on IT equipment under the GATT and the agreement on basic telecommunication services under the GATS on introducing market forces in the sector' (Tuthill, 2000). The ITA, signed on 1996 (ITA I) and recently expanded (ITA II), will be a critical complement to a future e-commerce agreement and especially relevant for developing countries, as they are likely to benefit in three main ways:

1. *reducing tariffs on a broader range of ICT products encourages greater adoption of ICT products that play a key role in spurring economic growth;*
2. *lower prices realised by reducing tariffs on ICTs increases the productivity of all other industries in a developing economy; and*
3. *by lowering the price of a key input, the ITA has undergirded development of the burgeoning ICT software and services industries in many developing countries.* (Ezell, 2012)

The recent Trade Facilitation Agreement also contains some provisions which are relevant to e-commerce (see Box 4.1).

The WTO paper 'Work Programme on Electronic Commerce – Background information by the Secretariat' (WTO, 1998) provides a comprehensive overview of the developments in the Work Programme since its launch in 1998.[1] The programme has produced 156 documents, including 40 collective or individual country proposals[2], but still Members have been unable to translate progress into actions. Indeed, in spite of the analytical works and the positive awareness-raising conclusions highlighted above, the Work Programme, during its 18 years of existence, did not result in any recommendations for action to the Ministerial Conference as requested by the Ministerial Declaration except the periodic (but temporary) renewal of the moratorium on customs duties. Disagreement between WTO Members remains deep on the most important mandated questions: as noted by Wunsch-Vincent and Hold (2012): 'Even on simple issues such as establishing a permanent and clear duty-free moratorium on e-commerce, or confirming the applicability of WTO rules and commitments to electronically traded services, no results have been achieved.'

Box 4.1 E-Commerce and the WTO's Trade Facilitation Agreement

Despite the increases in digital trade, most goods still need to be physically delivered, for which an effective and competitive trade logistics environment is vital for implementing a successful e-commerce strategy. Therefore, national and international trade logistics, as well as cross-border facilitation measures, remain key for the success of any international e-commerce transaction related to trade in goods (UNCTAD, 2016).

(*continued*)

(*continued*)

Notwithstanding the improved trade facilitation indicators and the overall reduction of transport costs, significant connectivity gaps remain in place, with trade costs still being prohibitive in some developing countries. The WTO's Trade Facilitation Agreement (TFA) will play a crucial role to reduce trade costs, as it is expected that its implementation will reduce worldwide trade costs by anywhere between 12.5 and 17.5 per cent, with the greatest benefits accruing in developing countries (OECD, 2015).

Additionally, whilst e-commerce is not directly addressed by the TFA, the relevance and complementarity between both elements has been highlighted, as the TFA is expected to specially benefit comparatively more those frequent and small deliveries, usually ordered online.

In this sense, and despite not being explicitly addressed, TFA's Article 7.8, on expedited shipments, might be of special interest to online trade. This article obliges Member States to adopt or maintain procedures for allowing for expedited release of '*at least*' those goods entered through air cargo facilities. This is a concern for express delivery operators, many of which operate air cargo services and whose services rely on the ability to offer just-in-time delivery. As highlighted by ITC (2013), '[in] modern global supply and value chains, just-in-time delivery helps to keep down business costs such as holding costs for inventory and increases competitiveness.'

In September 2016, the WTO Working Party on Domestic Regulation received a proposal from India for an agreement to ease global services trade, following the example of the TFA. This Agreement on Trade Facilitation in Services (TFS) would result in a reduction of transaction costs associated with unnecessary regulatory and administrative burden on trade in services, by addressing the key issues that are pertinent to facilitating services trade, such as transparency, streamlining procedures, and eliminating bottlenecks. The proposed agreement would, under Mode 1, also facilitate the free flow of data across borders, which would enhance and facilitate e-commerce across countries (WTO, 2016).

4.2 Proposals made in the WTO

Discussions surrounding e-commerce regulation are continuing at the WTO. Specifically, a series of proposals were made by the US, the EU, Brazil, the MIKTA[3] countries, Singapore and Japan. In this sense, the US, Japanese and EU proposals adopt a more liberal approach, whilst the proposal from Brazil (WTO, 1998, Job/GC/98) for example, has a somehow more conservative approach, aiming to include e-commerce into the GATS framework. Some of the issues raised are:[4]

Tariffs and non-discrimination rules: the US (WTO, 1998, Job/GC/94) and Japanese (WTO, 1998, Job/GC/100) proposals call for a prohibition of customs duties on digital products, whilst requesting the applicability of non-discrimination principles to those

products. Nevertheless, this approach might, in the future, render non-agricultural market tariffs duty-free, creating a parallel and non-regulated trade route.

Cross-border data flows: following the example of TiSA and the TPP, the US proposes a framework allowing companies and consumers to move data freely, with certain security exceptions. However, this proposal contradicts the regulations adopted by a series of countries, on the grounds of political, security and economic reasons, requesting data from their citizens to be stored in local servers. Similar to this proposal is the call prohibiting members from requiring the localisation of computing centres as a prerequisite to doing business in their markets.

Technological transfer: the US proposal aims for a prohibition, with exceptions, on the requirement on companies to transfer technology, production processes and other commercial information, in addition to local content requirements, as a market access condition. Nevertheless, this approach might harm the efforts of those countries aiming to foster domestic innovation.

Safeguards on network competition: whilst this is meant to allow digital suppliers to access built networks or similar facilities in third countries to obtain better access to consumer and businesses, there might be a need to include an exception based on a public policy objective, as some countries currently impose certain restrictions to ensure that both urban and rural areas are serviced.

Some of the remaining key outstanding questions are[5]:

1. **Applicability of general GATS rules and specific commitments to the electronic delivery of services**: To date, no clear affirmation concerning the applicability of WTO rules to cross-border electronic services has been forthcoming from WTO Members, although WTO jurisprudence (US – Gambling and China – Audiovisuals) confirmed that WTO rules are indeed applicable to e-commerce and to electronically supplied services.

2. **Classification of electronically traded services as either Mode 1 or Mode 2**: So far, WTO Members have found it difficult to determine whether the electronic cross-border delivery of a service is a service supplied through GATS mode 1 (cross-border supply) or Mode 2 (consumption abroad). WTO case law (US – Gambling) implies that GATS Mode 1 commitments are the ones applicable to the delivery of electronic services.

3. **Classification and scheduling of new services arising in the context of e-commerce**: Since the conclusion of the GATS negotiations in 1994, many new services that can be delivered across borders have appeared, which cannot be clearly captured by the provisional UN Central Product Classification (CPC) that was used for negotiating existing specific GATS commitments. The difficulty stems from that fact that, whilst the CPC has been updated three times to reflect the new services realities, the present specific commitments and the ongoing WTO services negotiations are still based on the provisional CPC of 1991.

4. **Classification of digital products**: One of the most contentious issues in the Work Programme discussions is the question of whether electronically delivered

products, such as software, music and books, represent goods or services according to international trade rules. WTO Members have been unable so far to agree on a decision on the correct classification of digital products, which appears to be the biggest stumbling block in advancing the Work Programme. The issue is whether digital products traded electronically are goods governed by the GATT, services governed by the GATS or some unique category deserving its own set of trade rules. This is not only a technical question, but a highly political matter, which may have serious implications for all internet-related sectors of the economy. The stakes are high since the GATT provides for a much more liberalised regime, while GATS, with its positive list type of commitments, permits more flexibility for the state, including forms of protectionism. In case GATS commitments are found pertinent to digitally downloaded multimedia products, it also needs to be decided which specific commitments apply: those on audiovisual, value-added or basic telecommunications, or computer-related services (Burri, 2014.)

5. **Determining 'likeness' for application of the most-favoured-nation (MFN) and the national treatment obligations**: Here, WTO Members could not conclude their work on two concepts: (1) technological neutrality and (2) 'likeness' of electronic versus non-electronically supplied services.

    - With respect to intra-modal technological neutrality the issue is whether specific commitments (market access and national treatment obligations) for GATS Mode 1 encompass the delivery of services through electronic means. Apparently WTO Members could not agree on this question, although in US – Gambling the dispute settlement Panel confirmed this view when it determined that 'a market access commitment … implies the right … to supply a service through all means of delivery … unless otherwise specified in a Member's Schedule'.

    - Regarding likeness of electronic and non-electronic services, the question is whether electronically delivered services and those delivered by more traditional methods, otherwise found to be 'like services', should be considered 'like services', thus triggering the obligation of applying GATS MFN and national treatment obligations. Some WTO Members hold the view that, on the basis of technological neutrality, services provided electronically and services provided non-electronically were like services. In an explanatory note, the WTO Secretariat also emphasised that 'likeness in the national treatment context … depends in principle on attributes of the product or supplier per se rather than on the means by which the product is delivered'. However, no consensus could be reached on this matter.

6. **Application of GATS Article XIV regarding general exceptions to e-commerce**: Online content regulation as well as measures applied for the protection of privacy and public morals and the prevention of fraud were identified as regulations likely to be permissible under GATS Article XIV. But it was also stressed that measures should be subject to a necessity test and should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade in services.

Although the WTO Work Programme on Electronic Commerce is still ongoing and periodic reports claim a 'reinvigoration' of efforts to move ahead, progress is extremely slow. The most recent review of the Programme was released in July 2015, but no new actions were taken besides the extension of the moratorium on tariffs on electronic transmissions.

4.3 Overview of the negotiations on e-commerce outside the WTO

4.3.1 E-commerce in Preferential Trade Agreements

In parallel with the WTO Work Programme on Electronic Commerce, the international trade policy landscape has been characterised by the proliferation of preferential trade agreements (PTAs), which, in view of the stalled WTO Work Programme, provided the opportunity for major proponents of e-commerce trade regulations to pursue their rule-making objectives in bilateral and regional contexts. These developed and developing countries with offensive e-commerce interests have changed their negotiating strategies in the early 2000s and started to include provisions on e-commerce in bilateral and plurilateral PTAs. Not only have the problems encountered in the WTO prompted these countries to focus increasingly on PTAs, but also to recognise that since cross-border delivery of services is becoming an important issue, PTAs too have to discipline e-commerce – hence the increasing inclusion of chapters on e-commerce in bilateral and regional trade agreements. These new 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 (Wunsch-Vincent and Hold, 2012). According to Weber (2015), e-commerce-related provisions typically concern the field of ICT, transparency obligations, interoperability and non-discrimination, consumer and online personal data protection, as well as the authentication and certification of electronic signatures. In addition to the topics of market access and equal treatment, many PTA partners have sought the conclusion of additional understandings on e-commerce.

The 2003 Singapore–Australia Free Trade Agreement (SAFTA) was the first PTA containing a whole e-commerce chapter. This chapter refers to the general principles of WTO law and the UNICTRAL Model Law on Electronic Commerce; furthermore, it contains a catalogue with definitions, a commitment to transparency and to reduce trade barriers in e-commerce, as well as a duty-free moratorium for digital products. It also addresses issues of e-certification and paperless trading as well as consumer and data protection (Weber, 2015).

The United States has developed its trade policy governing cross-border e-commerce transactions largely through recent FTAs (Bieron and Usman, 2012). A major turning point in US trade policy with respect to e-commerce occurred even earlier, as the Clinton administration included in the FTA concluded with Jordan (2000) provisions on 'free trade in electronic commerce' (Schott, 2006). All FTAs concluded by the US, after the US–Jordan FTA, contain a chapter on electronic commerce with more comprehensive rules and stronger commitments.[6] The trade negotiating objectives

of the US regarding e-commerce in the context of PTAs are well described by a US International Trade Commission (USITC) study on the US–Morocco FTA (USITC, 2004). The US was seeking that Morocco (1) affirms that it will allow goods and services to be delivered electronically, and (2) ensures that it will not apply customs duties on digital products and will not unjustifiably discriminate among products delivered electronically. With respect to the physical delivery of digital products, Morocco has agreed to apply customs duties on the basis of the value of the carrier medium and not its services content, i.e. customs valuation is to be made on the basis of the carrier medium, i.e. the 'box' (the paper or the plastic) and not its content (USITC, 2004).

Comprehensive chapters on e-commerce are also contained in the Canada–Peru FTA (2008) and in the Canada–Colombia FTA (2008) among others. Rules on e-commerce are also part of the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) of 2009 (Tietje, 2012).

The European Union has also pursued since the late 2000s the policy of including separate chapters, or at least certain provisions, on e-commerce in new-generation ('full and comprehensive' and 'deep and comprehensive') FTAs. For example, the EU–Colombia & Peru Regional Trade Agreement (2013), the EU–Singapore FTA (2014)[7] and the EU–Vietnam FTA (2016)[8] all contain a separate chapter on electronic commerce.

Of direct relevance for many Commonwealth developing countries are the Economic Partnership Agreements (EPAs) proposed to be concluded with African, Caribbean and Pacific (ACP) countries.[9] So far, the most elaborate chapters on e-commerce can be found in the EPA concluded between the CARIFORUM States, and the European Community and its Member States.[10] In the CARIFORUM EPA, the parties laid down certain principles on issues on which the WTO Work Programme could not yet deliver:

- the EC and CARIFORUM Parties agreed that the development of electronic commerce must be fully compatible with the highest international standards of data protection, in order to ensure the confidence of users of electronic commerce;
- they also agreed that deliveries by electronic means shall be considered as the **provision of services** (see the issue of classification not yet settled in the WTO), which cannot be subject to customs duties (i.e. a **permanent settlement** of the issue of no-duty which is not yet achieved in the WTO).

Moreover, the CARIFORUM EPA provides for **dialogue** on regulatory issues raised by electronic commerce. In comparison with other EU FTAs and with FTAs of the US, one might conclude that the CARIFORUM EPA is not regulating a series of areas related to e-commerce and overall is much less constraining on developing country partners.

The so-called 'mega-regionals' also contain or will contain provisions on electronic commerce. The recently concluded Trans-Pacific Partnership (TPP)[11] states that the provisions on 'electronic commerce' (Chapter 14), apply to measures 'that affect

trade by electronic means'. This broadly includes transmissions of data, information, and digital products over the internet or over private electronic networks. Such transmissions by financial services firms are excluded from coverage under this TPP chapter.[12]

Box 4.2 Technical summary of TPP's electronic commerce chapter

- Commitment to facilitate the use of electronic commerce as a means of trade.
- Enhances the viability of the digital economy by ensuring that impediments to both consumers and businesses embracing this medium of trade are addressed.
- Ensures that the Parties will not discriminate against or impose custom duties or other charges on online digital products.
- Includes provisions protecting the free flow of information across borders.
- Prevents governments in TPP countries from requiring the use of local servers for data storage.
- Prevents governments in TPP countries from demanding access to an enterprise's software source code.
- Includes commitments by the Parties to maintain measures to protect users from the unauthorised disclosure of their personal information, as well as from online fraudulent and deceptive commercial practices.
- Includes commitments by the Parties to maintain measures to protect users from unsolicited commercial electronic messages, or spam, in order to build trust and confidence in the use of electronic commerce.

Source: www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/tpp-ptp/understanding-comprendre/13-E-Comm.aspx?lang=eng

The EU's text proposal on e-commerce (EU, 2015) tabled in the still ongoing TTIP negotiations is more comprehensive than the CARIFORUM EPA's provisions, but also includes exclusions that do not exist in the CARIFORUM EPA. The EU's proposed e-commerce chapter contains eight articles. The first article provides a definition of e-commerce which is much wider in scope than that adopted for the purpose of the WTO Work Programme: accordingly, e-commerce is 'trade enabled by telecommunications and/or other information and communication technologies'. The same article excludes from the scope of the e-commerce disciplines the following: gambling services, broadcasting services, audio-visual services, services of notaries or equivalent professions and legal representation services. (In the CARIFORUM EPA there are no product exclusions.) Under the proposal, the Parties would agree

that electronic transmissions are considered as cross-border supply of services, which cannot be subject to customs duties. It is also proposed to agree on the principle of no prior authorisation. Other principles would include: contracting by electronic means; admissibility of electronic trust and electronic authentication services; and consumers' protection against unsolicited direct marketing communications. Finally, the proposal foresees a dialogue on regulatory issues raised by electronic commerce, similar to the CARIFORUM EPA.

Besides the various PTAs, e-commerce-related international rule-making is also taking place in the framework of **preferential trade areas**. Examples include the harmonisation of ASEAN member states' domestic legislation on e-commerce under the e-ASEAN Framework Agreement of 24 November 2000, and the East African Community's EAC Regional Task Force on Cyber Laws established in 2008 (Tietje, 2012).

To conclude, attention should be drawn to the possible negative effect of the creation of an e-commerce 'spaghetti bowl' that would undermine the prospects for future WTO rule-making in this area (Herman, 2010). Indeed, the proliferation of diverging bilateral/regional trade rules (especially those of mega-regionals) on e-commerce bears a dual risk, especially for the excluded developing small states and LDCs: a general risk for the multilateral system is that consensus on harmonised WTO disciplines will never be achieved, or should WTO rules be established, multilateral rule-making would simply follow the established rules of the 'mega-regionals' thus without the effective participation of non-PTA small countries. Therefore, Commonwealth small developing states' and LDCs' interest is to preserve as much as possible the pre-eminence of WTO rule-making and to participate effectively in the WTO Work Programme on Electronic Commerce and e-commerce-related Doha negotiations. However, small developing countries and LDCs appear not to have shown particular interest in these discussions, possibly because e-commerce is perceived as not being an acute issue for them, the issues discussed seem esoteric, they might lack a deeper understanding of the benefits of e-commerce for their economies, and partly because of a lack of appropriate negotiating capacities.

4.4 Identifying areas that could be reinforced to enhance development

As noted earlier, the 1998 Geneva Ministerial Declaration establishing the WTO Work Programme on Electronic Commerce directed the General Council 'to take into account the economic, financial and development needs of developing countries' (WTO, 1998). While the development dimension of the Work Programme, as a cross-cutting issue, can and should be addressed at the request of developing countries in all bodies in charge of the Work Programme, the *par excellence* WTO organ where developing countries can pursue most fully their trade interests is the Committee on Trade and Development (CTD). And indeed, the Work Programme as adopted by the General Council directed the CTD to examine and report on the development implications of e-commerce, and more particularly on the following issues which were deemed to represent developing countries' areas of interest:

- Effects of e-commerce on the trade and economic prospects of developing countries, notably of their SMEs, and means of maximising possible benefits accruing to them;
- Challenges to and ways of enhancing the participation of developing countries in electronic commerce, in particular as exporters of electronically delivered products: role of improved access to infrastructure and transfer of technology, and of movement of natural persons;
- Use of IT in the integration of developing countries in the multilateral trading system;
- Implications for developing countries of the possible impact of electronic commerce on the traditional means of distribution of physical goods;
- Financial implications of electronic commerce for developing countries.

Despite the fact that e-commerce is a standing item on the CTD's agenda, developing countries have on the whole not been able to steer the many discussions held over almost two decades into action. The CTD's conclusions so far have remained at the level of generalities. For example, as Wunsch-Vincent and Hold, 2012) summarised:

> *There was consensus that e-commerce harboured great potential as a tool for economic growth and development. There was an understanding that the benefits of e-commerce to developing countries include: reducing the physical distance between buyers and sellers, reducing the need to maintain establishments abroad and for middlemen, and increasing efficiency in public procurement. There was concern that the benefits of e-commerce would not flow automatically to developing countries, and that steps must be taken to narrow the digital divide. Delegations recognized that developing countries, either as importers or as exporters, can benefit from the increased trade potential generated by e-commerce and IT, but that e-commerce is not a panacea for all trade problems.*

And there was also consensus that pursuing trade liberalisation under the WTO is not sufficient to guarantee developing countries' participation in global digital trade (Wunsch-Vincent and Hold, 2012).

The CTD's programme on e-commerce, as presently structured, does not seem to be conducive to operational decisions. Indeed, the Work Programme foresees sharing country experiences by inviting 'one or several delegations (developing and/or developed) to present their experiences, either with respect to a particular aspect of e-commerce, or their general approach to e-commerce'. And to allow for a more 'thorough and analytical educational process', the CTD organises regular seminars on various themes on the basis of Members' suggestions such as revenue implications, effects on competitiveness, physical infrastructure needs and development and human infrastructure needs and development, and (in 2013) on 'Electronic Commerce, Development and Small and Medium-Sized Enterprises'. For some unknown reason, the CTD's work has not proved very sustained over the years: as noted in an earlier WTO document (WTO, 2003) 'the issue of e-commerce did not give rise to any substantial discussions at the 37th to the 40th Sessions of the CTD. […] At the 42nd Session of the CTD the Committee proposed that the Secretariat prepare an update

of the work that had been carried out in relation to the CTD's Work Programme on E-commerce. As a result, document WT/COMTD/W/110 was issued for the 44th Session of the CTD.' Members have since not made any specific proposals for further work on e-commerce in the CTD.

A statistical overview of written proposals submitted up to the present to the five WTO bodies in charge of the Work Programme (General Council, CTD, and the three sectoral Councils) reveals a low level of 'written' participation by developing countries in general, and LDCs, small states and sub-Saharan African countries in particular. Of the 40 submissions[13] ten were developing country papers (made individually or jointly) and two were mixed developing/developed country proposals. No developing country written proposal was made in the Services Council and only one developing country – India – has submitted a policy paper to the TRIPS Council. There might be various reasons that may explain this situation, including capacity issues, lack of active interest, overall Doha negotiating strategy, etc.

The group of LDCs, small states and sub-Saharan African countries is a relatively diversified, heterogeneous group in terms of e-commerce infrastructure, access to the internet and availability of an enabling legal and regulatory environment. It is therefore difficult to identify with great detail common interests and common negotiating positions for these countries as a group at the WTO negotiating table. However, these countries might consider joining as co-sponsors the proposal (WTO, 2016) made recently by a no less heterogeneous group composed of Colombia, Costa Rica, Hong Kong, China, Israel, Malaysia, Mexico, Nigeria, Pakistan, Panama, Qatar, Seychelles, Singapore and Turkey. In this collective 'non-paper' related to e-commerce and development the authors note that e-commerce can be and has been leveraged to support development and that it has opened up new opportunities for businesses in developing countries, especially micro, small and medium enterprises (MSMEs). By reducing the cost of doing business, and allowing them to reach a wider market, it still presents a big well of untapped potential, which could boost economic growth and development in developing countries. Moreover, for MSMEs e-commerce presents an opportunity for expansion beyond their own backyards and lowers the high costs usually associated with penetrating foreign markets, which allows non-traditional players, such as home-makers and small handicraft suppliers, to enter the market and offer their products on the global marketplace. Against this background the 'non-paper' proposes to kick-start discussions and identify the e-commerce issues of interest and relevance to developing countries and puts forward some potential areas for discussion, which include:

- **Trade Facilitation and E-commerce** – Cross-border e-commerce often involves low-value shipments and/or digital transmissions over the internet. Once within the borders, logistics players also play a big part in ensuring smooth delivery of products. What can be done to further empower smaller business using e-commerce and lower their cost of conducting trade?
- **Infrastructure Gaps to Enable E-commerce** – Infrastructure gaps in developing countries have posed challenges (e.g. access to broadband) but also provided

innovative opportunities for businesses (e.g. rise of local payment solutions). Is there a way to better target technical assistance towards plugging the critical gaps?

- **Access to Payment Solutions** – Being able to find payment solutions is key to whether a business will go online. In the absence of secure online payment services, payment via mobile phones and the cash on delivery option have been used. How can we improve businesses' and consumers' access to more payment options to better enable them to conduct and access cross-border e-commerce?
- **Online Security** – Trust is a key factor in determining whether consumers are willing to engage in e-commerce. This includes trust in online payment services, the reputation of the online merchant and even whether there is enough legal protection to provide recourse should a transaction go awry. What can be done to build trust in online transactions and e-commerce and improve consumer protection? Is there scope for improved cooperation between countries on cyber crime?

Developing countries should take advantage of the different Aid for Trade initiatives in the area of e-commerce. In this sense, it is worth highlighting the UNCTAD's 'e-Trade for All' initiative, which is founded on the understanding that greater awareness of e-commerce will create opportunities for MSMEs to grow, become more productive and participate in global value chains, through holistic, cross-sectoral and cross-institutional approaches, making collaboration essential. The initiative focuses on seven key policy areas, considered of relevance to e-commerce development, namely: (1) e-commerce readiness assessment and strategy formulation; (2) ICT infrastructure and services; (3) trade logistics; (4) payment solutions; (5) legal and regulatory frameworks; (6) e-commerce skills development; and (7) access to financing (UNCTAD, n.d.).

Notes

1 Specifically documents JOB/GC/73 and JOB/GC/73/Corr.1
2 A written submission having one or more 'Rev' versions was counted as one.
3 Mexico, Indonesia, South Korea, Turkey and Australia.
4 This section draws heavily on Krogman and Khumalo, 2016.
5 This section draws heavily on Wunsch-Vincent and Hold, 2012.
6 The US FTAs with the following countries contain a chapter on e-commerce: Australia, Bahrain, Dominican Republic-Central America (CAFTA-DR), Chile, Colombia, Jordan, Korea, Morocco, Oman, Panama, Peru TPA and Singapore. NAFTA and the US–Israel FTA do not contain provisions on electronic commerce.
7 Finalised Agreement, not yet applied.
8 Finalised Agreement, not yet applied.
9 Interim EPAs do not contain provisions on electronic commerce.
10 The recently signed EPA with the SADC EPA Group – comprising Botswana, Lesotho, Mozambique, Namibia, South Africa and Swaziland – does not include provisions on e-commerce.
11 The following are members of the TPP: Australia, Canada, Japan, Malaysia, Mexico, Peru, the United States, Vietnam, Chile, Brunei, Singapore and New Zealand.
12 Available at https://ustr.gov/sites/default/files/TPP-Final-Text-Electronic-Commerce.pdf.
13 Revisions of a given proposal were not counted.

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Chapter 5

Conclusions

The benefits of e-commerce and the digitisation of goods and services have been explored in this Policy Guide. Developing countries, especially landlocked and island countries, have a strong interest in adopting economic and social policies that can facilitate the development of the internet economy, of which e-commerce is only one segment. Unlocking its potential will also reduce distance to markets, reduce landlockedness and enable countries to leapfrog certain barriers associated with physical trade. However, as Panagariya (2000) rightly noted, 'Development of e-commerce should not be treated as a goal in itself. Some countries are better positioned than others to achieve a rapid expansion of ecommerce for the same amount of resource invested.' Moreover, e-commerce is not a panacea for developing trade capabilities.

Developing countries which decide to pursue an active internet society policy need first to act on the domestic front in a wide range of policy areas to create the necessary supply side conditions for IT-based activities, including the infrastructure necessary for smooth functioning of the internet, an appropriate telecommunication policy, a reliable power sector, a financial system allowing e-banking and e-payments, and last but not least a modern education system accessible for all. Furthermore, an enabling legal framework also needs to be established in order to protect intellectual property rights, ensure contracts are enforced and guarantee standards. For goods purchased electronically but delivered physically, an efficient transport system and trade facilitation measures are needed to make trade competitive.

On the external front, developing countries need to secure market access for their services that they can export competitively both to developed and developing country markets. Creating regional markets for liberalised telecommunication and ICT services may also be needed in order to create competitive domestic markets. Developing countries may also need to ensure affordable access to computer hardware and software for their businesses and private individuals by liberalising the IT imports. This can be achieved by signing the WTO's Information Technology Agreement or by liberalising imports on an autonomous basis.

Developing countries, in particular LDCs, small states and sub-Saharan African countries, should see in their active participation in the WTO Work Programme on E-commerce an opportunity to seek the reduction and/or elimination of trade policy barriers to e-commerce in their countries. This should also include seeking the inclusion of S&D treatment by developed countries in any outcome of the Work Programme. The recently concluded TFA might be a source for inspiration (see Box 5.1).

Box 5.1 Way forward in the WTO: seeking inspiration from the Trade Facilitation Agreement

The conclusion in December 2013 of the TFA was an historic moment for the WTO, being the first multilateral agreement concluded after 18 years, under the umbrella of the WTO. Specific work on trade facilitation started back in 1996, right after the establishment of the WTO, although it initially faced significant opposition, especially from developing countries, which were not ready to initiate another round of multilateral negotiations and preferred a more gradual approach based on non-binding rules.

The participation of developing countries during the negotiations was remarkable, especially that of the so-called 'Core Group', which worked to shift the focus from an ambitious negotiating mandate to one that emphasised flexibilities and implementation support for developing and least-developed countries, which were also meant to benefit from far-reaching exemptions. The language on special and differential treatment was expanded significantly, as least-developed countries were given a wide-ranging carve out from commitments, holding that they would not be obliged to implement aspects of a TFA when the required technical assistance and overseas development assistance were not forthcoming. This tailor-made approach represented a whole new consultative and transparency dimension to the granting of S&D treatment, indicating a major departure from the WTO's traditional S&D one-size-fits-all, which was granted according to whether a country was either a developing country or an LDC.

The negotiating history of the TFA defied the conventional ways in which WTO Members had approached multilateral trade negotiations, and specially the approach to S&D. The TFA moves away from the traditional practice of largely equating S&D treatment with transition periods and granting flexibilities on whether a country is characterised as a developing or least-developed country, but adopts an individual, country-by-country and measure-by-measure approach.

Additionally, the TFA represents the recognition that improving the way in which trade happens can be at least as important as the need to address explicit trade barriers.

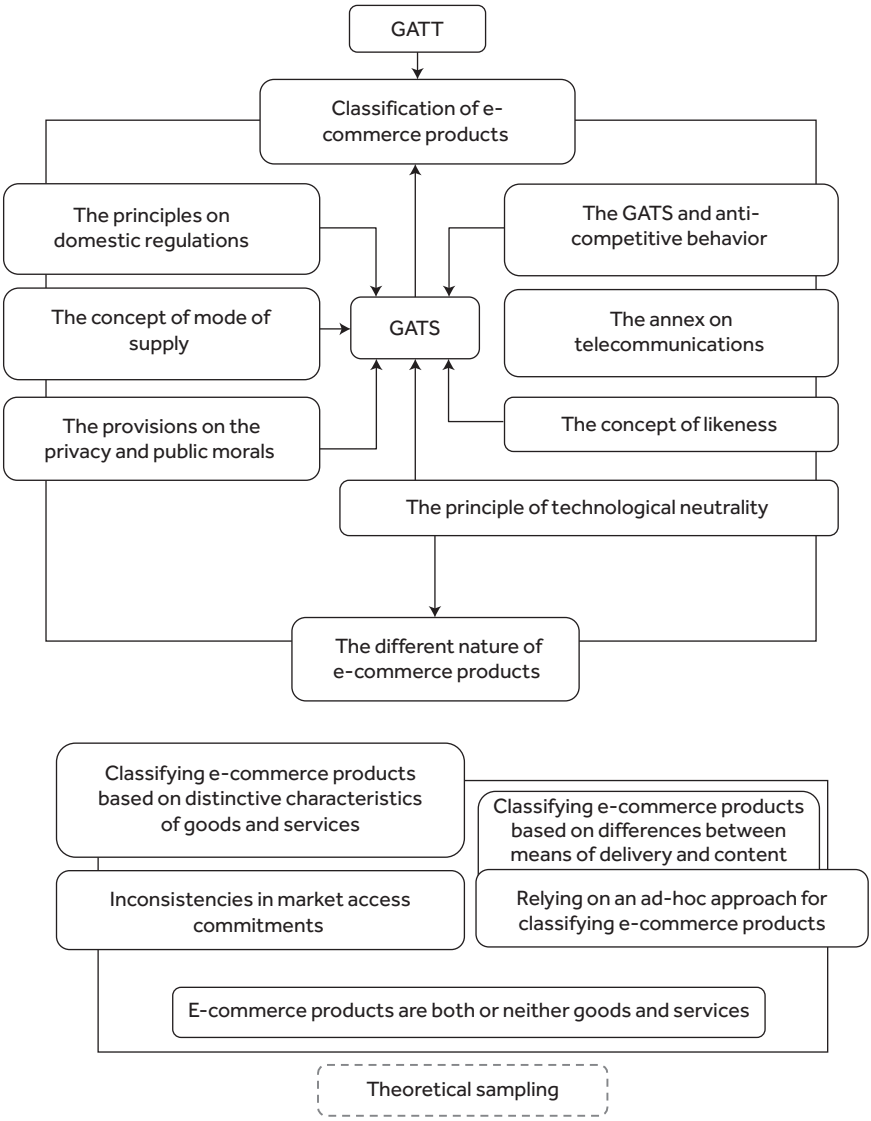
New ground was also broken in the way the negotiations were conducted, as TFA negotiations were carried out in an open-ended and inclusive setting, with national delegations remaining as the main driver throughout the entire process and the Chair functioning primarily as a facilitator.

The success of the Trade Facilitation undertaking makes it likely that it will serve as a benchmark for other negotiating exercises, and especially for the negotiations on e-commerce. It will be difficult, for instance, to define S&D treatment in future agreements without considering the TFA approach. The inclusive, de-centralised way of conducting the talks is also likely to set new standards during trade negotiations.

Source: Based on Neufeld, 2014.

While the group of LDCs, small states and sub-Saharan African countries is a heterogeneous group, a common negotiation position should be sought, or alliance with some of the more active members of the WTO which are seeking to revive e-commerce negotiations under the WTO's Work Programme. At the national level, countries should undertake impact assessments from different negotiation positions, and prepare national e-commerce policies. Surprisingly few countries have an e-commerce strategy, and even fewer have linkages between e-commerce and their national export strategy.

Figure 5.1 Links between issues and concepts related to the classification of e-commerce products



Source: Farrokhnia and Richards, 2016.

LDCs, small states and sub-Saharan African countries need to seek technical and development assistance programmes outside of the WTO, whether from multilateral agencies like UNCTAD, ITC, the ITU, UNIDO and the World Bank, or from bilateral donors.

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