

Chapter 3

Policy frameworks for e-commerce

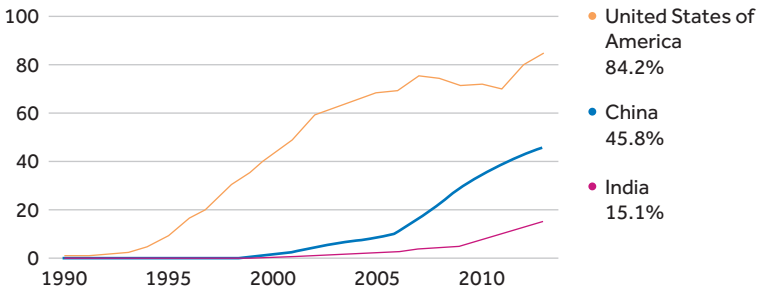
3.1 Salient features of early adopters

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 (AISII), 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):

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

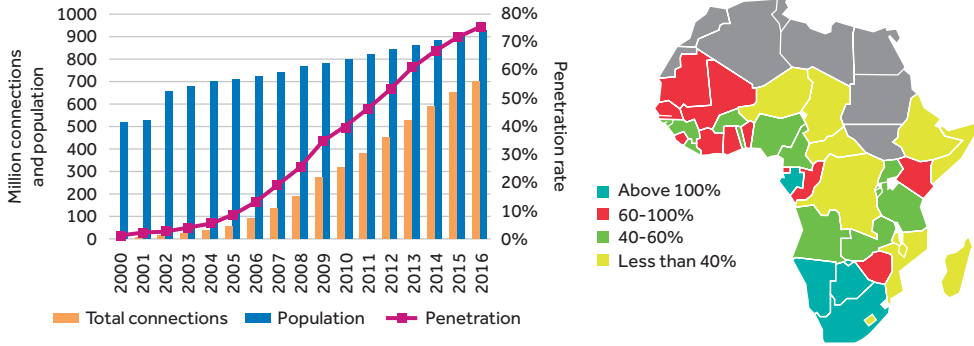
adopting universal address and postcode systems since a national address system is important for facilitating e-commerce, and adopting efficient trade facilitation measures that prevent the forming of critical bottlenecks that may arise in cross-border e-commerce related to physical goods, such as complex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

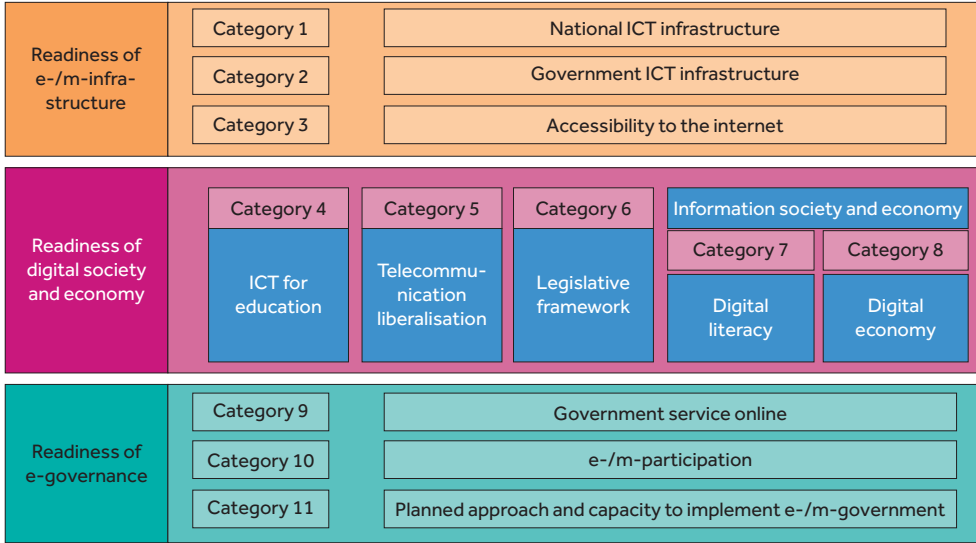
Source: Deloitte GMSA *Mobile Observatory Report 2016/Wireless Intelligence*

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

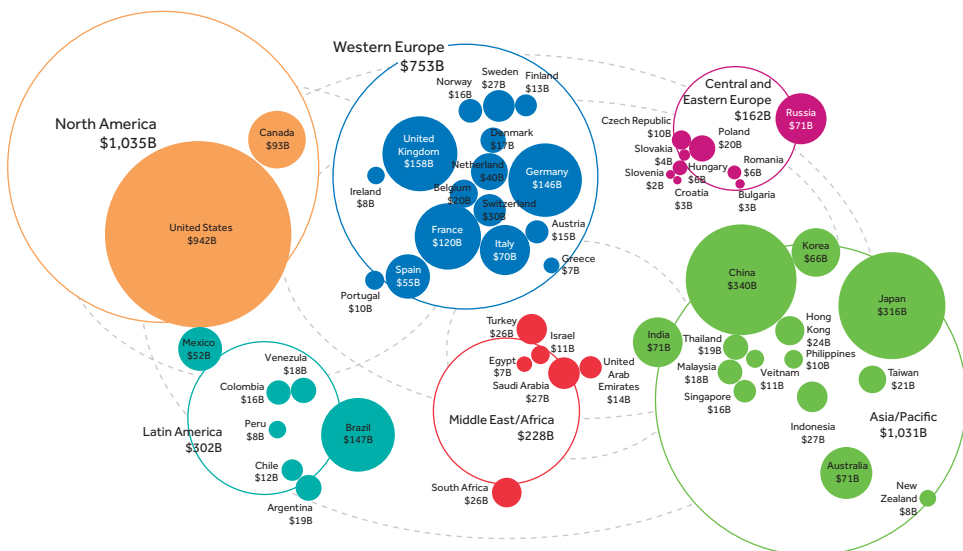
Domestic barriers to e-commerce in Africa include but are not limited to infrastructure, a lack of trust, the cost, reliability and speed of internet access, logistics and customs

measures, market openness, and digital readiness by the population and businesses (Ekekwue, 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-commerce 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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