

CHAPTER 6

IMPROVING THE E-TRADE ENVIRONMENT

Contributed by the World Bank

Abstract: For many governments, making the most of e-trade to generate opportunities for economic growth, job creation and poverty reduction is a priority. Upgrading e-trade competitiveness requires an understanding of the diverse elements of the e-trade environment, from the foundations of connectivity to the key enabling conditions, as a basis for policy reform and aid for trade. This chapter surveys the key reasons why e-trade matters for developing country participation in trade. It examines the key elements of the e-trade environment, including the foundations for connectivity. It looks at the enabling conditions for e-trade, with examples of World Bank projects. The chapter introduces a new approach being piloted by the World Bank for assessing the e-trade environment at the country level, in order to assist developing country governments in undertaking reform and identifying priority areas for assistance from the World Bank and other partners.

INTRODUCTION

For many governments, making the most of e-trade¹ to generate opportunities for economic growth, job creation and poverty reduction is a priority. The rise of e-trade results in new opportunities for participation in trade, but also presents new challenges to governments in upgrading their e-trade competitiveness. This requires an understanding of the diverse elements of the e-trade environment—from the foundations to connectivity to the key enabling conditions—as a basis for policy reform and aid for trade.

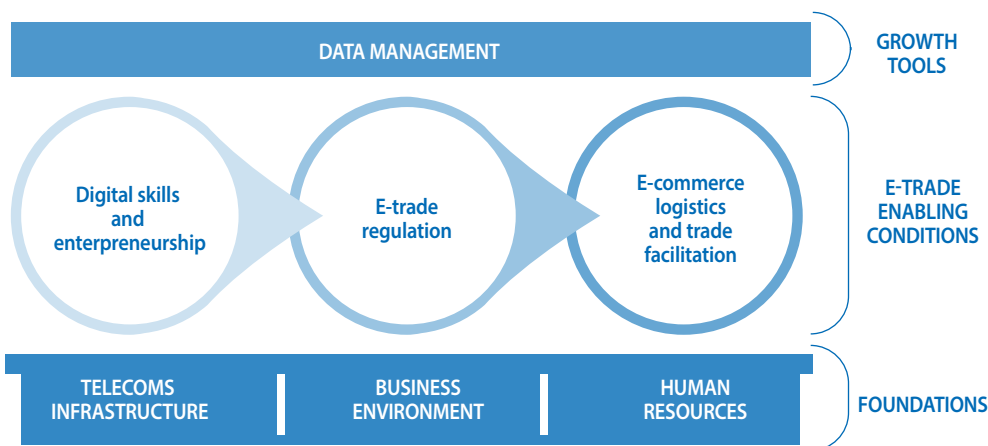
This chapter surveys the main reasons why e-trade matters for developing country participation in trade. The first section of the chapter provides detail on the central elements of the e-trade environment, including the foundations for connectivity and the enabling conditions for e-trade, with some examples of World Bank projects. The second section introduces a new approach being piloted by the World Bank for assessing the e-trade environment at the country level, in order to assist developing country governments in undertaking reform and identifying priority areas for assistance from the World Bank and other partners.

THE E-TRADE ENVIRONMENT SHOULD BROADLY SUPPORT THE DIGITAL ECONOMY²

A flourishing environment for e-trade requires, more broadly, a favourable environment for the digital economy, where businesses and consumers can leverage digital technologies for improved competitiveness and increased economic welfare. The foundations of the digital economy rest on a modern telecommunications infrastructure, a favourable environment for domestic and foreign investments, and an educated population that can engage in and contribute to the information society.

E-trade, as a component of the digital economy, also requires specific enabling conditions that build on those foundations. Businesses require digital skills and entrepreneurship to engage in e-trade, as well as a sound regulatory framework that addresses challenges such as digital documentation, signatures and data flows. They also depend on efficient trade facilitation and logistics suited to e-commerce deliveries. Finally, reaping the full benefits of e-trade requires the capacity to embrace data as a tool for growth, although this is not addressed in detail in this chapter. Figure 6.1 reflects these basic components of the e-trade environment.

Figure 6.1. Basic components of the e-trade environment



Source: World Bank

E-TRADE IS FOUNDED ON INFRASTRUCTURE, A GOOD BUSINESS ENVIRONMENT AND HUMAN RESOURCES

The supportive foundations for e-trade comprise three main components: 1) a modern, reliable and affordable tele-communications infrastructure; 2) an open, transparent and predictable business environment; and 3) the availability of highly skilled human resources. These components are not foundations for e-trade only. They are requirements of a modern digital economy that can support not only growing international trade, but also other essential aspects of economic growth, such as increasing firm productivity and social inclusion, including by facilitating the delivery of public services.³

Telecommunications infrastructure

On a global scale, the first hurdle for the expansion of e-trade is the lack of access to digital connectivity. As noted by the *World Development Report 2016*, the lives of the majority of the world's people remain largely untouched by the digital revolution. Only around 15% can afford access to broadband Internet. Mobile phones, reaching almost four-fifths of the world's people, provide the main form of Internet access in developing countries. But even so, nearly 2 billion people do not own a mobile phone, and nearly 60% of the world's population has no access to the Internet. Making the Internet universally accessible and affordable should be a global priority. The unfinished task of connecting everyone to the Internet—one of the targets of the Sustainable Development Goals (SDGs)—can be achieved through a judicious mix of market competition, public-private partnerships, and effective regulation of the Internet and telecommunications sectors (World Bank, 2016a).

International development assistance has proved a valuable tool for supporting the development of telecommunications infrastructure in developing countries. Aid for trade in support of digital connectivity averages between USD 650 million and USD 700 million annually. The largest share of this support (35%) goes to financing telecommunication projects, followed by investments in information and telecommunications technology (24%), policy and management (17%), and finally research and development (10%). The 2017 aid-for-trade monitoring and evaluation exercise suggests that demand for aid-for-trade support for connectivity is growing, and is expected to rise further. Among donors, 11 respondents highlighted significant growth in demand in this area over the past five years. Of the 41 donor respondents, 31 anticipated growth in future demand from both partner countries and regional partners. This expectation looks well-founded: 57 of the 63 developing and least developed country (LDC) governments responding to the aid-for-trade monitoring exercise anticipated a need for future assistance in order to meet their e-commerce strategic objectives. The exercise also highlighted the multifaceted engagement of the private sector in e-commerce, and in the development of information and communications technology (ICT) more broadly. Case stories submitted by partner countries and donors through the exercise indicated significant collaboration between the public and private sectors. Among the donors, 54% stated that they work with the private sector to support growth in e-commerce in partner countries and regions.

Importantly, development assistance funds act as a key catalyst for private investment in connectivity, since large-scale infrastructure projects often require the involvement of both the public and private sectors, including investments in infrastructure as well as reforms in the regulatory environment. This is demonstrated by examples of projects involving the World Bank in Africa and the Pacific Islands:

- The World Bank supported a Regional Communications Infrastructure Program in Africa in a series of projects beginning in 2007. Together with the International Finance Corporation (IFC), it developed the Eastern Africa Submarine Cable System (EASSy), illustrating how both public and private sector approaches are needed in ICT infrastructure development. Two projects underline this need. The first was a USD 424 million World Bank programme that supported improvements in the enabling environment and the regional integration of telecommunications terrestrial networks through financing

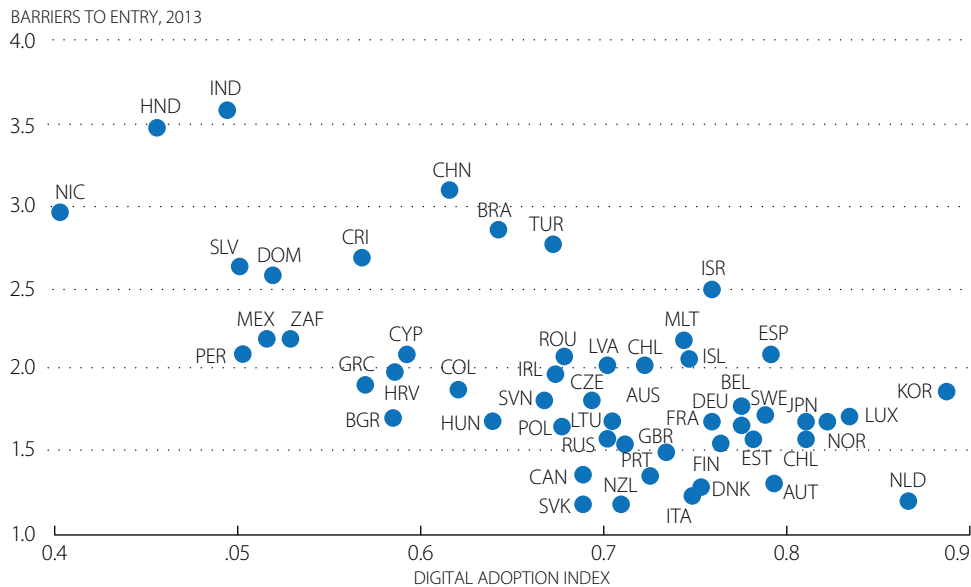
of public-private partnerships and broadband capacity purchases. The second was a USD 240 million investment through IFC in the EASSy submarine cable, connecting the east coast of Africa (from South Africa to Sudan) to Asia and Europe. These projects contributed to a 90% reduction in wholesale capacity prices in East Africa. In Kenya, this helped to increase the number of Internet users to 14 million in 2012, up from 2 million in 2007. Similar approaches are underway in other parts of Africa, bringing together the public and private sectors in infrastructure investment while also supporting the regulatory reform necessary for a competitive environment in ICT services.

- In Southeast Asia, the World Bank has been supporting the development of Myanmar's ICT sector by creating an enabling policy, regulatory and legal environment for a competitive telecommunications market. In early 2013, the World Bank, together with the Public-Private Infrastructure Advisory Facility (PPIAF), provided assistance to the Myanmar Post and Telecommunications Department in building a regulatory framework to enable the liberalisation of the telecommunications market. PPIAF also supported the PTD in developing a roadmap for the operational sector, and in designing and implementing a regulatory framework. Finally, PPIAF worked to increase the PTD's technical and administrative capacity to manage the reform process. This work was supported by International Development Assistance (IDA) financing, in the form of a credit for USD 31.5 million. The assistance from the World Bank and PPIAF led to the finalisation of the key regulations, providing a legal basis for implementation of sector liberalisation. With the regulatory framework and capacity-building initiatives in place, the PDT launched a competitive, transparent process for issuing licenses to the selected bidders. Telenor (Norway) and Ooredoo (Qatar) obtained their licenses in January 2014 and launched commercial services later that year, with a projected investment in infrastructure development of over USD 1 billion. This contributed to a drastic reduction in the cost of SIM cards—from USD 300 in 2012 to USD 1.50 in 2015—bringing mobile phone technology within reach of most of the population.

Business environment

A favourable business environment, based on transparent and pro-competitive policies, is necessary for e-trade and for the digital economy more broadly. Laws and regulations that ensure easy entry and exit of firms, and an open trade regime that exposes companies to foreign competition and investment, play fundamental roles in allowing businesses to access digital technologies and use them for greater competitiveness.

Barriers to market access and domestic or foreign competition reduce firms' incentives to invest in digital technologies or complementary skills and reorganisation (Figure 6.2). Without competitive pressure, private firms lack incentives to invest in costly or risky new technologies (World Bank, 2016a). To capture the full growth potential of digital globalisation, countries need to cultivate a healthy business environment that nurtures start-ups, allows inefficient firms to exit, ensures a level playing field, and establishes a solid legal framework for intellectual property and property rights. The existence of regulatory barriers to entry in the services sector—as captured by the OECD's Product Market Regulation—correlates negatively with firms' investments in digital technologies (Figure 6.3). This implies that lowering barriers to entry in services could facilitate greater investment by firms in technology.

Figure 6.2. Restrictions in services and business IT use

Note: The y-axis shows the barriers to entry for service sector, sub-index of the Product Market Regulation (PMR). The PMR index is available for 47 OECD and large developing countries, as well as for 8 smaller Latin American countries. The x-axis shows the Digital Adoption Index, as computed for the *World Development Report 2016*.

Source: OECD (2017), "Economy-wide regulation", OECD Product Market Regulation Statistics (database).

DOI: <http://dx.doi.org/10.1787/data-00593-en>; World Bank (2016b), "Digital Adoption Index", *World Development Report 2016: Digital Dividends* (database), www.worldbank.org/en/publication/wdr2016

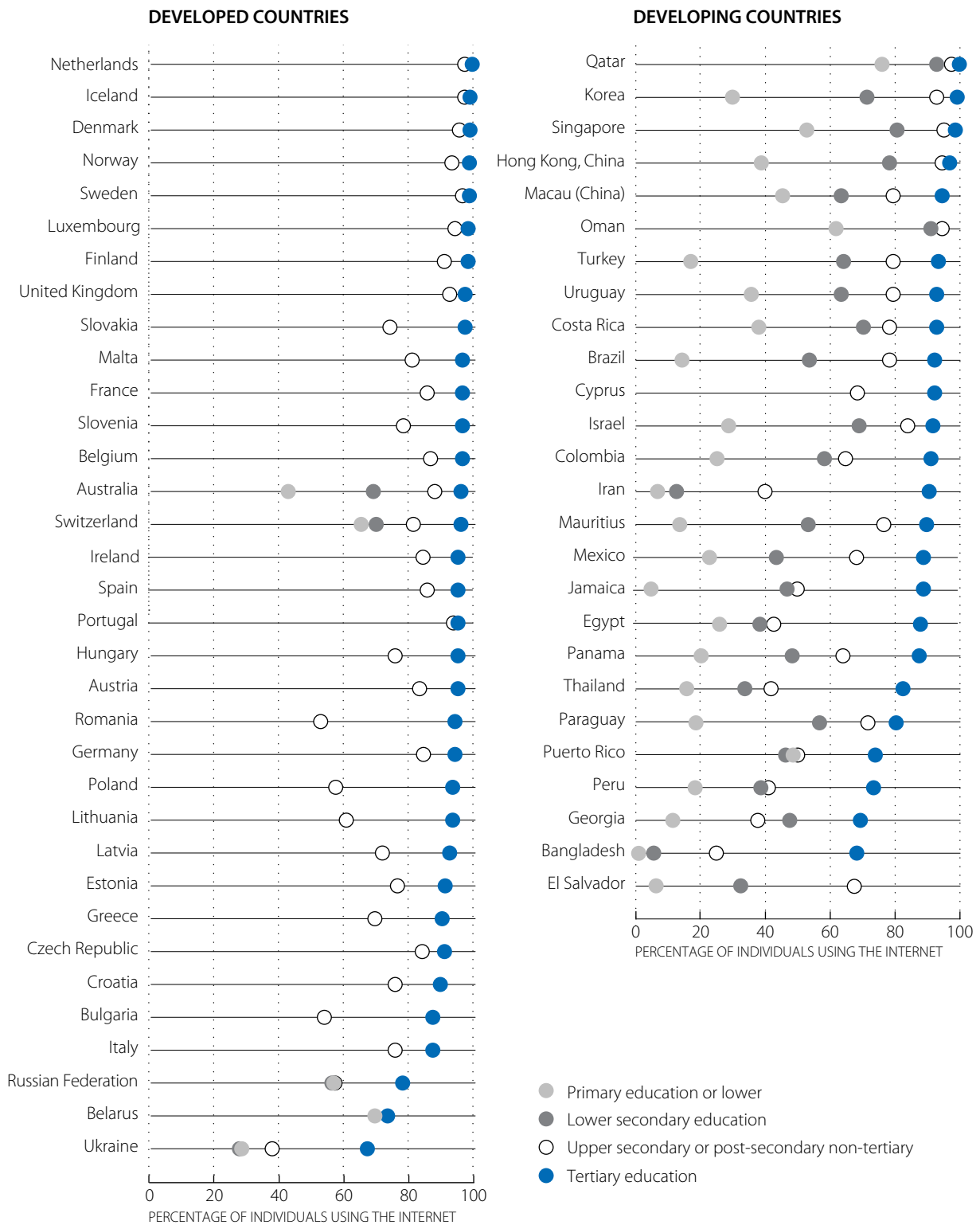
Human resources

Education is central to any competitive, modern economy. Digital technologies facilitate access to remote markets and create opportunities even in local and traditional ones, but only for a skilled population that can engage with digital technologies and adapt them to meet their needs. In fact, education appears to be one of the most important indicators of whether or not people are Internet users. Internet use in most developed countries is almost universal among people with tertiary education, but a large proportion of citizens with lower educational attainment remain unconnected, despite similar access to infrastructure and services (Figure 6.3).

Yet the education systems of many countries, including middle-income countries, fall short in providing basic skills, such as literacy and numeracy, to all members of the population on a universal basis. For example, in countries like Albania, Indonesia, Jordan, Kazakhstan, Malaysia and Peru, more than half of the 15-year-olds are functionally illiterate (World Bank, 2016a).

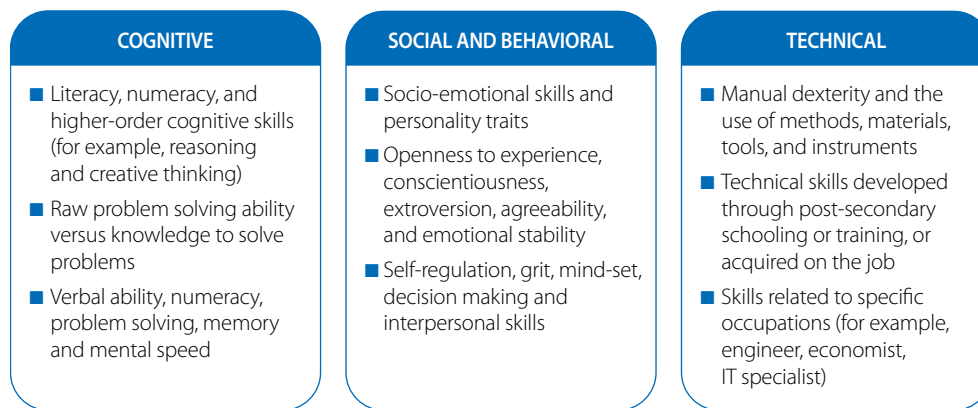
Specific types of skills are also relevant for e-trade, including basic cognitive skills, social and behavioural skills; and technical skills. Basic cognitive skills associated with the "old economy", such as literacy and numeracy, knowledge-based problem solving, verbal ability and mental agility, remain indispensable in the information society. In addition, social and behavioural skills are needed to participate in modern labour markets, including creativity, teamwork, problem solving, and critical thinking in ever-changing environments. Figure 6.4 summarises the fundamental set of cognitive, social, and technical skills that provide the most relevant foundations for participation in e-trade.

Figure 6.3. Proportion of individuals using the Internet, by education level



Source: ITU (2016), *Measuring the Information Society Report 2016*.

StatLink <http://dx.doi.org/10.1787/888933526538>

Figure 6.4. Essential skills for the e-trade environment

Source: World Bank (2016a), *World Development Report 2016: Digital Dividends*, adapted from World Bank (2014), *STEP skills measurement surveys: innovative tools for assessing skills*.

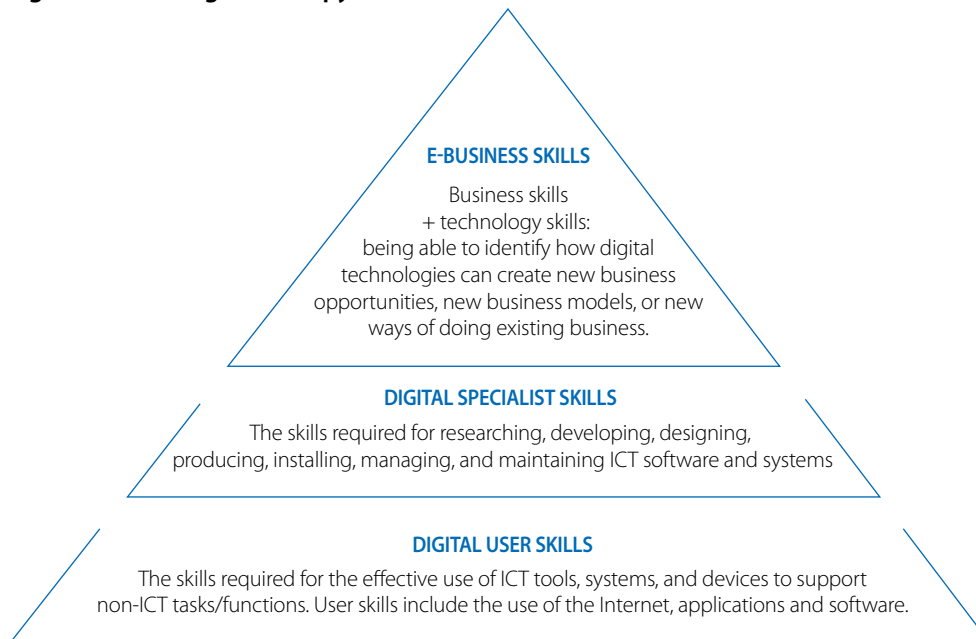
E-trade enabling conditions

Building on the foundations of a modern digital economy, e-trade also requires a number of specific enabling conditions. The talent and entrepreneurship required to develop digital business are often missing, even where basic education and skills do exist. In addition, the legal and regulatory environment may support e-traders, but on the other hand it may introduce formal and informal barriers that inhibit the digital economy, for example by restricting means of electronic payment or introducing regulatory barriers to information flows. When e-commerce involves the movement of physical goods across borders, reliable transport and logistics services are critical to ensure that the traded goods make their way from the warehouse of the merchant to the hands of the customer abroad. Finally, reaping the full benefits of e-trade and the digital economy requires being able to understand and process vast amounts of data in order to improve efficiency and tailor responses to the relevant markets.

Digital skills and entrepreneurship

To benefit from e-trade, modern education programmes need to be expanded to include the development of skills and entrepreneurship for digital markets. In addition to basic literacy and numeracy, e-trade participants must be proficient in digital literacy and business development, adapting cognitive, social, and technical skills to the digital business environment. There are three main layers of digital skills (Figure 6.5), each spanning the spectrum from basic to advanced and including or combining different complementary skills.⁵

For the most effective participation in e-trade, all of these layers of digital skills are required. Basic user skills are essential for consumers to be able to go online and perform online/mobile transactions. Specialist skills are needed to build applications, web sites and platforms. Combinations of technical and other skills (communication, design, occupation-specific skills) are required for conceptualising and offering online products, services, and tasks. Finally, e-leadership, innovation and business skills are needed to come up with new business models related to and/or based on different types of digital trade; and to innovate in markets, products, delivery, processes and organisation.

Figure 6.5. The digital skills pyramid

Notes: The bottom layer corresponds to users of digital/ICT tools; the next layer corresponds to producers of digital/ICT tools; the top layer corresponds to those who apply, create and invent innovative business models and applications of digital/ICT tools.

Source: Based on European Commission (2004), van Welsum and Lanvin (2012).

The importance of some of these roles and skills will change over time. For example, as connectivity of products and appliances continues to grow (the Internet of Things), data scientists will become far more central to the operations of many firms. Such roles will also require broader skills sets, combining analytic, software, and analytics architecture skills with business acumen and communications skills (evolving towards the next layer in the pyramid).

Legal and regulatory framework

The legal and regulatory environment can be an enabler or a barrier to e-trade. A weak or outdated regulatory framework can create direct barriers to e-trade, as well as hindering the development of the necessary enabling environment (for example, barriers to trade in services that are relevant for e-trade). Providing a supportive legal and regulatory environment involves a co-ordinated effort across fields in order to prevent restrictions and provide the key regulatory enabling conditions for e-traders.

An enabling regulatory framework also is essential in order to promote consumer trust in digital markets. Such regulations include:

- laws and regulations for electronic documents and e-signatures
- regulations for electronic payments (Box 6.1)
- consumer protection measures, such as the restriction of spam, right of withdrawal (e.g. procedures for returning products acquired through e-commerce), and online dispute resolution
- cybersecurity
- rules on intermediary liability, addressing the legal responsibility of digital platforms for the goods and services traded by their users
- privacy and data protection regulations, ensuring that reasonable safeguards exist for the use of personal information, including consent to use by third parties, and the “right to be forgotten”.

However, regulations can also introduce excessive burdens or unwarranted restrictions. In particular, regulatory restrictions on data flows can have a chilling effect on e-trade. For instance, a McKinsey report estimates that the free flow of data can enable increases in GDP growth between USD 250 billion and USD 450 billion annually—approximately equivalent to the GDP of Finland or Norway (McKinsey Global Institute, 2014). E-commerce platforms, cloud computing systems, and general online business transactions rely on the ability of consumers and traders to share information across borders. Regulations requiring the storage of information on local servers can have the effect of barring certain types of international transactions or inhibiting the use of certain digital technologies, thus obstructing e-trade. On the other hand, a government may be concerned about the privacy of its citizens when information is no longer under its regulatory purview. The challenge lies in achieving the balance between regulatory policies that enable and promote trust in the digital market, while avoiding unwarranted restrictions to international trade.

The use of international standards can help governments strike this balance. Domestic regulation on privacy and data protections, for instance, can be informed by international standards set out in the Asia-Pacific Economic Cooperation (APEC) Privacy Framework of 2005 and the OECD Guidelines on Protection of Privacy, as well as by lessons from the implementation of the European Union Data Protection Directive. Similarly, the OECD Consumer Protection Recommendation of 2016 reflects internationally recognised standards for online consumer protection. The United Nations Commission on International Trade Law (UNCITRAL), in turn, has developed model laws for electronic signatures and documents that seek to reduce regulatory divergence for e-traders.

E-TRADE LOGISTICS AND TRADE FACILITATION

While e-commerce facilitates international transactions, physical goods bought digitally still need to travel a certain distance and arrive at the consumer's location. E-commerce of goods is, in this sense, just another expression of international trade. E-commerce goods, just as other goods, need to be transported and cross physical borders; and as is the case for traditional trade in goods, e-commerce goods that cross borders are subject to customs and border management procedures.

Box 6.1. Improving the environment for e-payments

An enabling regulatory environment is essential for expanding access to online payments. A large body of World Bank data and research helps identify the key issues involved in reforming payment systems, including through large data projects such as the Global Findex Database and the Global Payments Systems Survey.

With World Bank assistance, Rwanda made rapid strides toward a modern payment system in support of a growing economy and a more inclusive financial system. In February 2011, an automated transfer system—infrastructure that combines the management of high-value and retail payment transactions—was implemented. The cost of sending money to Rwanda—once the highest-cost country for international remittances, worldwide—dropped by 7 percentage points, from 19% in 2010 to 12% in 2014, largely as a result of improvements in the infrastructure for the payment system. In Indonesia, the World Bank supported the nation's central bank in developing policies and shaping a regulatory environment conducive to expanding access to payment services (e.g. e-money, the use of agents and fund transfers) as part of the reform of its national payment system.

With government assistance programmes generally operating at large volumes, distributing public benefits electronically can expand the ways in which recipients can obtain social assistance at lower cost; at the same time, it also supports the development of online payments. As a result, financial access is increased and programme expenses for the government are reduced. In Mexico, World Bank support to the Bansefi development bank helped create an electronic distribution channel for Oportunidades, the country's signature conditional cash transfer programme, lowering transaction costs for more than six million low-income families.

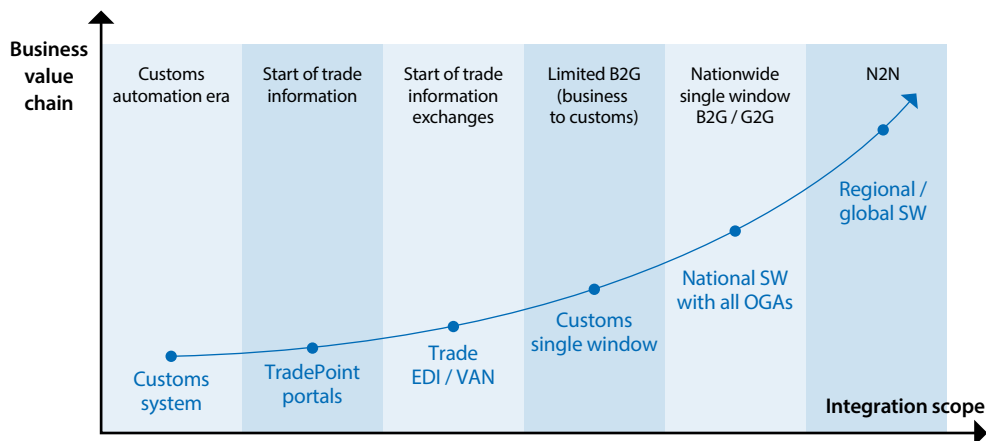
Source: Adapted from World Bank (2017b), Project Examples on Payment Systems and Remittances, www.worldbank.org/en/topic/paymentsystemsremittances (accessed 22 May 2017).

However, because e-commerce often involves the shipping of small quantities of merchandise—often, indeed, one single product—in individual shipments, it faces additional challenges compared to traditional trade in goods, which is normally conducted in larger volumes per shipment. In developing countries, the costs of transportation and logistics are high because of poor transport infrastructure, the high costs of monopolistic service provision and other inefficiencies. Meeting these costs is especially onerous for small businesses shipping small parcels, which is the hallmark of business-to-consumer (B2C) e-commerce in goods. Given the limited size of individual shipments, small and medium enterprises (SMEs) have higher fixed costs per parcel (or “per unit”) than large exporters shipping large volumes (Suominen, 2014).

The scale of growth in e-commerce is putting pressure on regulators to consider the relevant challenges. In Europe alone, 4 billion parcels were sent in 2014. As the number of shipments, exporters and consignees increases exponentially, policy makers will have to start considering the pressure exerted on distribution systems and the resulting impact on urban traffic congestion, emissions, reliability and costs, among many other things. This will require a coherent approach to urban logistics planning, combining “soft” measures (such as restrictions on vehicle weight, size, emissions; zoning; driving and load/unload times, etc.) and “hard” measures (creation of extra parking bays, public-private partnerships (PPPs) approaches to infrastructure development; logistics zones, etc.)

Lowering the border costs associated with e-commerce in goods requires more effective trade facilitation: in other words, the simplification, harmonisation, standardisation and modernisation of trade procedures. Trade facilitation seeks to reduce trade transaction costs at the interface between business and government and is a priority for many customs-related activities (Grainger, 2007). Enabling automation and reducing the friction in cross-border trade are essential to lowering trade costs and connecting producers to markets and value chains. This can be especially relevant for e-commerce in goods, due to the importance of these costs for the typical SME or individual trader participating in e-trade.

Figure 6.6. Stages of automation in trade facilitation



EDI/VAN = Electronic Data Interchange/Value Added Network; B2G = Business to Government; SW = Single Window; OGA = Other Government Agencies; N2N = Nation to Nation)

Source: Koh Tat Tsen (2011).

The automation of border management brings about specific legal and regulatory challenges in areas that govern the relationship between government and traders. Automation of trade facilitation and logistics in developing countries and the LDCs requires addressing numerous aspects of the border regime in order to lower costs (Figure 6.6). The first is the level of automation among the trade-related agencies that regulate cross-border trade. The second is the interconnectivity within agencies and their offices, among agencies, and with agencies of neighbouring countries, particularly where there are regional communities and customs unions. The third is network access and bandwidth, which relates to national telecommunications infrastructure, as borders, though vital, are often off the grid.⁴

The fourth is the importance of addressing legal issues (see discussion below) to ensure an effective trade facilitation system. Finally, the level of sophistication of the business community, and in particular the logistics providers,⁶ is critical in allowing them to take advantage of electronic developments. The challenges to and capacity for ICT access among SMEs, and in many cases women traders, deserve special attention.

The submission of trade data to governments by commercial entities, and the processing and storage of that data in automated trade transaction systems, entail a number of regulatory challenges. While some of these have to do with broader regulations on data and electronic transactions, as mentioned above, a number of additional regulation-related concerns have to do, precisely, with the automation of trade. These include: the legal implications involved in the submission of a single declaration to multiple government agencies; the ownership and control of data obtained by government authorities; the legal and regulatory provisions concerning rights of access to government information systems; and whether the reviews take into account best practices under the UNCITRAL Model Law on Electronic Commerce and the United Nations Convention on the Use of Electronic Communications in International Contracts, and are cognizant of international agreements like the recent WTO Trade Facilitation Agreement (TFA).

While some of these legal issues may need to be addressed at an economy-wide level, trade facilitation reform often brings them to light and places them in a specific context, acting as a catalyst for addressing the overall legal framework, particularly during the implementation of automation systems like electronic single windows and port community systems. For developing countries, setting up the enabling legal and regulatory frameworks also requires investing in new institutional mechanisms and systems which, for example, enable electronic record management and archiving, provide the legal certainty and basis for electronic messages; create and empower entities to emit electronic signatures; put in place systems for protection of data; or work with the banking sector to enable electronic receipts and notices of payments.

ASSESSING CHALLENGES AT THE COUNTRY LEVEL IS A PRIORITY FOR AID FOR TRADE

As in other areas of trade, governments need a clear overview of the key challenges they face and the priority areas for reform as a basis for co-ordinating across government, engaging with the private sector and other stakeholders, and seeking development assistance. There has been little systematic analysis of the drivers of e-trade competitiveness at the country level and doing more on this front needs to be a priority for the Aid for Trade Initiative in the years ahead.

To facilitate better policy making and more targeted aid for trade, the World Bank, the United Nations Conference on Trade and Development (UNCTAD) and other organisations collecting data relevant to e-trade—including the International Telecommunications Union (ITU), the United Nations Office on Drugs and Crime (UNODC), the Universal Postal Union (UPU) and the World Economic Forum (WEF)—have developed a new tool for assessing the e-trade environment at the country level. It is now available online on the World Bank's TCDATA360 and World Integrated Trade Solution portals (tcdata360.worldbank.org and wits.worldbank.org and respectively).

The new tool includes around thirty indicators grouped under the following pillars of the e-commerce environment:

- ICT infrastructure and services
- payment solutions
- trade logistics and trade facilitation
- e-commerce skills readiness
- legal and regulatory frameworks
- access to finance
- e-commerce readiness assessment and strategy formulation

These indicators can help to assess the key enabling conditions that underpin e-trade, including connectivity and skills, as well as the regulatory and policy frameworks that affect e-trade. They are available for a large number of countries, and they enable international comparisons.

Robust evidence-based policy making would involve bringing these indicators into contact with data on the extent to which different countries engage in e-commerce—for example, metrics on B2C e-commerce, and on the share of e-commerce sales in overall retail sales. At present, such data only exist for a few dozen countries, all but a few of which are high-income countries. Moreover, the information that does exist is widely scattered, and in some cases only available from private vendors. The development of systematic, internationally comparable and publicly available metrics of e-commerce itself is an emerging and important priority for the international statistical community.

The limited availability of data on the extent of e-commerce can be supplemented by public trade data, including services trade data at the lowest level possible to more accurately reflect e-trade transactions, and private data related to data flows.

Even in the absence of precise measures of e-commerce, the available indicators of the e-commerce enabling environment can play a useful role in fundamental analytical work. They can point to where more in-depth analytical work is needed, helping to identify the need for—and support the implementation of—key trade-related reforms for e-trade competitiveness. They can also identify critical reforms whose implementation can be driven by ministries of trade/commerce, as a stepping stone or complement to the wider, more complex reforms that require efforts across government agencies (and are therefore likely to be more time-consuming). The tool also aims to highlight where reforms and programmes may be needed in “non-trade” areas, such as infrastructure or skills development.

An assessment of the available e-trade indicators can be used, together with several analytical toolkits that have been extensively applied by the World Bank, to analyse, at the national level, the trade environment and its challenges, providing a basis for policy reforms and programmes implemented by the World Bank and other partners.

These toolkits include:

- The Regulatory Assessment Toolkit (<http://hdl.handle.net/10986/17255>), which looks at regulations affecting services sector competitiveness; it has been implemented in seven countries, both at the sector-wide and sector-specific levels.
- The Trade Competitiveness Diagnostic Toolkit (<http://hdl.handle.net/10986/2248>), which sets out a modular approach to determining and improving trade competitiveness; it has been implemented in more than nine countries.
- The World Bank Group Trade Facilitation gap analysis approach, which has been implemented in more than 40 countries through the Trade Facilitation Support Program.

While policy assessments of e-commerce ideally will contain more in-depth analysis of key policy and regulatory issues affecting the e-trade environment, the ease of obtaining information on policies and regulations varies. For example, at-the-border policies applied to trade in goods related to e-trade will be relatively easy—including tariffs on imported IT equipment or the existence of a *de minimis* regime applying to imports of goods. Similarly, data on some aspects of services, such as the commitments taken through the General Agreement on Trade in Services (GATS) or free trade agreements (FTAs) in sectors relevant to e-trade, are relatively easy to obtain, although information on applied regimes is more difficult. The most complicated situation is in the area of domestic regulatory policies affecting e-trade. As noted above, these assessments often require a more in-depth review of regulations in sensitive policy areas, such as consumer and privacy protection, as well as evaluations of how such regulations are applied in practice by the regulatory bodies as well as by the courts.

Such reviews should be conducted through desk-based analysis as well as in-country data collection and validation. The resulting country-level detailed analysis would allow policy makers to assess their performance in e-trade and identify the main challenges to increased participation in global e-trade. This kind of analysis supports more coherent policy making by governments. Rather than focusing on specific elements of the e-trade environment in isolation, it enables countries to develop e-trade strategies that bring together the wide range of government agencies involved. Malaysia, for example, has developed a national e-commerce council, chaired by the Ministry of International Trade and Industry, which brings together 21 government agencies working on e-trade. The idea is to implement a national strategy aimed at doubling e-commerce growth from around 10% in 2016 to 20% in 2020. Of course, mechanisms like this need to be backed up by effective implementation of reforms in order to be effective, but having a strong co-ordination mechanism across government, and an evidence base on which to ground decisions, is an important starting point.

As well as assessing the e-trade environment more systematically in developing countries, it is important to develop a stronger understanding of the potential e-trade holds for countries at different levels of development. This is important in addressing any misconception that e-trade opportunities exist only for advanced economies.

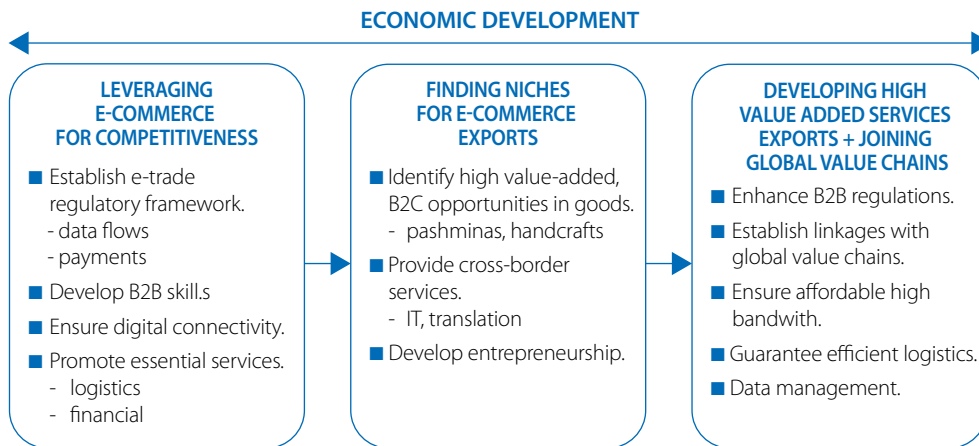
CONCLUSIONS

The strong growth of e-trade presents a number of opportunities for developing countries. First, the lowering of trade costs through e-trade creates opportunities for new firms and entrepreneurs to participate in trade, as well as for entry into new markets. It also has the potential to help the extreme poor overcome some of the typical constraints faced in maximising trade opportunities, although poverty still presents many challenges to involvement in e-trade and traditional trade barriers remain relevant.

The growing e-trade sector has the potential to act as a force for economic growth, expanding and diversifying exports, and fostering inclusion by facilitating access by SMEs to international markets. Importantly, these benefits are not reserved to global leaders in innovation and digital technologies; rather, they are available to countries at all levels of economic development, as well as industries at different stages of development in one same economy. Figure 6.7 provides a stylised breakdown of what economies at different levels of development can gain from the different types of e-trade, as summarised below:

- First, e-trade can increase competitiveness for countries at all levels of development, providing productivity gains for all sectors of the economy. This includes traditional sectors, such as agriculture, through the use of specialised services traded online; these range from market and weather information to tools for remote soil analysis and stock management.
- Second, developing countries and even LDCs are increasingly benefitting from e-trade as a tool for creating niches for high-value goods, sold and delivered directly to consumers across the globe, such as Pakistani pashminas and Kenyan jewellery.
- Finally, more advanced economies, as well as more e-trade savvy industries in developing countries, can offer high-value-added business-to-business services that link into global value chains.

Figure 6.7. A stylised model of benefits of e-trade at different levels of economic development



Source: World Bank

High- and low-income countries alike have good reasons to address the many challenges that e-trade brings with it. Important laws and regulations for e-trade, such as those on privacy, consumer protection or intermediate liability, are still unclear and inconsistently applied, even in high-income countries. This, in turn, brings uncertainty to international digital markets. Countries at all development levels still face substantial trade costs, which disproportionately affect e-trade shipments. Access to digital connectivity, as well as solutions for digital payments, remain patchy and often inequitable, in particular in developing countries. Also, many developing countries, and particularly the LDCs, face an important shortage of digital skills—especially of capacity for digital entrepreneurship.

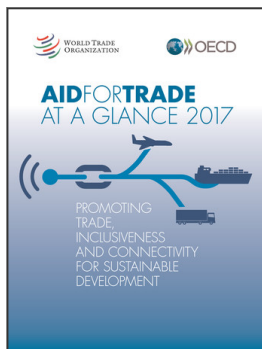
Taking advantage of e-trade opportunities requires a solid understanding of the diverse types of e-trade and better data on e-trade flows. It also requires thorough analysis of the drivers of e-trade competitiveness, including the basic foundations for connectivity and the enabling conditions for participation in e-trade. There has been little systematic analysis of the drivers of e-trade competitiveness at the country level, underlining the need for more engagement in this area by the World Bank and other partners in the Aid for Trade Initiative over the coming years. ■

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NOTES

1. The term “e-trade” is used for trade in all forms of goods and services (both traditional and digital) traded internationally through electronic means. The authors use the term “e-trade” as an equivalent to “e-commerce”.
2. This Section draws on World Bank (2017a).
3. For instance, in the justice sector (Gramckow and Ebeid, 2016)
4. The OECD Programme for International Assessment of Adult Competencies (PIAAC) database classifies computer use/skills in the following categories:
 - straightforward computer use, which includes basic routines such as data entry or sending and receiving e-mails
 - moderate computer use, which refers to word-processing, use of spreadsheets or database management
 - complex computer use, which encompasses developing software or modifying computer games, programming or maintaining a computer network.
5. Utilities, particularly electricity, also are crucial enablers. Lack of power is often one of the major reasons for a border to go offline.
6. The professionalisation of logistics service providers and customs brokers is often a determinant.



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