

E-TRADE FOR DEVELOPMENT

Opportunities, Challenges, and Policy Considerations for Developing Countries



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E-trade is a critical aspect of trade and competitiveness for developing countries. Participation in e-trade offers significant economic benefits, including diversification in export markets and products and lowering trade costs of goods and services. By contributing to productivity gains the positive impacts extend not just to firms participating directly in trade, but to the economy as a whole. Increasing competitiveness in e-trade requires supportive policies and programs across the e-trade environment, from the infrastructure that allows basic digital connectivity, to the enabling conditions in regulation, e-trade logistics, and skills; and the data management capacities that support growth and innovation in e-trade. Importantly, countries at all levels of economic development, as well as industries at different stages of development in the same economy, have something to gain from the different types of e-trade. This is either through higher competitiveness for all sectors of the economy, including traditional sectors like agriculture; as a tool for developing niches for exports of high value-added goods; or as a channel for business-to-business services that link into global value chains. The international community and policy makers in developing countries should ensure that the force of e-trade can be leveraged to promote inclusion and prosperity where it is needed the most.

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CHAPTER

1

Introduction

The digital revolution has had, and continues to have, a transformative impact on almost every aspect of life. It is also bringing radical changes to another, more ancient, channel of globalization: international trade. Digital technologies are creating new trade opportunities by opening up markets to firms of all sizes in any location. By reducing communication and information costs, the Internet also contributes to lowering trade costs and expanding the variety of goods and services that can be traded internationally.

The Internet creates new opportunities for e-trade in at least two ways:

- By offering a global marketplace for 'traditional' goods and services ("e-commerce") from shoes to design services, and
- By providing an environment for the development of "new trade" of digital goods such as e-books, streamlined music, digital services like data services, and online payment systems ("digital trade").

a) What is E-trade?

The dynamic environment of the digital economy, bringing about continuous innovation in business models and forms of trade, makes defining e-commerce a difficult task. In essence, e-trade is one component for a modern digital economy, which focuses on how the Internet serves as a market for cross-border transactions of trade in goods and services. As such, e-trade relates closely to policies on international trade in goods and services, but links only indirectly to other areas of the digital economy, such as e-government, virtual currencies, and governance of the Internet itself. A range of definitions exists that tries to capture the different angles of e-trade with greater precision.

For instance, while the United States International Trade Commission (USITC) defined digital trade in 2013 as "the delivery of products and services over either fixed-line or wireless digital networks" (USITC, 2013), it later broadened that definition to include all "U.S. domestic commerce and international trade in which the Internet and Internet-based technologies play a particularly significant role in ordering, producing, or delivering products and services" (USITC, 2014). In an attempt to measure electronic transactions, the Organisation for Economic Co-operation and Development (OECD) has been revising its definition of e-commerce, currently referring to it as:

An e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or

placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations. (OECD, 2011)

UNCTAD (2015) adopted the OECD definitions, updating them to include transactions over devices other than (personal) computers, such as laptops, tablets, and mobile phones.

The Swedish National Board of Trade (NBT) more succinctly defines e-commerce as “the sale of goods and services over the Internet” (NBT, 2015), but it acknowledges that such a definition may exclude business-to-business (B2B) transactions that are often conducted through electronic data interchange (EDI), as noted by the OECD (2013).

With small differences, the main focus of most definitions of e-trade seems to be **on the sale of goods and services through digital networks, with the explicit or implicit exclusion of orders made by telephone calls, facsimile or manually typed e-mail** (OECD, 2011). This concept is adopted for the purpose of this analysis.

However, in order to more accurately capture the different types of transactions involved in the digital economy, this analysis makes further specifications in the language:

- The term **“e-trade”** is used for all forms of goods and services (both traditional and digital) **traded internationally** through electronic means, in line with our working definitions cited above;
- The use of **“e-commerce”** is reserved to describe the purchase of *traditional* goods and services through digital means; whereas
- The **transactions involving digital goods and services are referred to as “digital trade.”**

In this sense, both “e-commerce” and “digital trade” appear as subgroups of e-trade, as further explained in the section below and illustrated in Figure 1.¹

E-trade, however, is not the only aspect of the digital economy. Digital technologies also support a number of interactions and business opportunities that, while connected, pose different challenges and policy considerations. Some examples may help illustrate the boundaries of e-trade: the use of digital technologies to facilitate transparency of government action and interaction between the government agencies and citizens and firms in aspects like payment of taxes, voting, and consultations on new regulations (e-government), while undoubtedly influential on the general business environment, is not generally a matter of trade policy. Similarly, while the use of virtual currencies² such as bitcoins can support transactions related to e-trade, the regulatory challenges of those instruments go beyond the scope of e-trade—much like financial markets regulation, while related, is not an area of trade policy. Aspects like the governance of the Internet itself, as conducted by bodies like Internet Corporation for Assigned Names and Numbers (ICANN), also exceed the scope of e-trade.

1 In addition, while most findings and discussion below can be applied to domestic digital sales as well as international sales, we use the terms e-trade and e-commerce to refer to *international* trade of goods and services, unless otherwise specified.

2 A virtual currency or virtual money has been defined in 2012 by the European Central Bank as “a type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community.” (Wikipedia, https://en.wikipedia.org/wiki/Virtual_currency visited October 2016).

b) Types of E-trade

Transactions such as initiating a wire transfer online, watching the latest episode of a television program in a paid platform, renting the processing power of the world's most advanced supercomputers, or selling a used bicycle on eBay—a global e-commerce platform—are all part of the diverse universe of e-trade. Each of those transactions, however, entails very different trade relations.

Observing the multiple types of transactions that occur in the space of e-trade, there are at least four different categories: The Internet both facilitates trade in 'traditional' goods and services ("traditional e-commerce"), and provides a platform for trading entirely "digital" goods and services (digitally produced, delivered, and consumed).

E-commerce of Goods and Services: The Internet as an Enabler of Traditional Trade

In the first place, as captured by most definitions of e-commerce, electronic transactions can entail the sale of either goods or services. Transactions relating to goods entail the transfer of ownership of a product, which is typically delivered in physical form from the merchant to the buyer. From then on, the new owner holds the right to use that good. In this sense the Internet offers a platform that expands the markets of existing goods and services. Like other mass communication channels, the Internet allows sellers to reach consumers located at great distances with their offers of goods and services. In addition, and beyond other media like TV, the Internet facilitates the conclusion of the transaction by allowing customers to agree on the contractual conditions and to pay remotely. Alibaba, eBay, and Amazon allow for sellers and buyers of products like computers or shoes to interact seamlessly despite distance and language barriers. Similarly, websites such as Elance/Upwork, Freelancer, and other freelance marketplaces offer a similar platform for services: providers of, say, translation or accounting services can offer their services to consumers located anywhere, conclude the transaction, get paid, and often also deliver the services in a digital form.

In this context, the Internet acts as a sophisticated, global "billboard" that enables remote transactions of goods and services that would otherwise be sold in brick-and-mortar stores, or through other remote means such as catalogs and telephones.

These e-commerce platforms instantly create global markets for business, to a large extent eliminating for sellers the distinction between a domestic sale and an export. A clothing retailer may ship its merchandise anywhere in the world. A professional editor who reviews a document and e-mails it back to his client may in fact be completely ignorant of where the client is located. However, these platforms do not alter the nature of the business that the sellers are conducting: the clothing remains in essence a textile, and the editor remains an editor. A (hopefully far-fetched) thought experiment can help us clarify the distinction. If, following an alien invasion, all digital telecommunications were disrupted, the clothing store and the editor could still go about their businesses relatively undisturbed—if somewhat inconvenienced by the alien presence. Figure 1 provides additional examples of e-commerce platforms for trade in both goods and in services in its quadrants I and II.

Digital Trade: The Internet as a Market for New Digital Goods and Services

Digital technologies not only expand the possibilities for trade in existing goods and services, but also offer a completely new environment for new "digital" goods and services to be developed—and traded. Contrary to traditional ones, "digital goods and services" do not have an actual physical form nor can they exist

Figure 1. The Types of E-trade

	Goods	Services
E-commerce	<p><u>Farmia</u> <i>eBay</i> <i>Amazon (merchandise)</i> <i>Alibaba</i></p>	<p><u>E lance</u> <u>Freelancer</u> <i>Professional services</i> <u>BPO–KPO</u> <i>E-banking</i> <u>Consulting</u></p>
Digital trade	<p><i>App stores (software, music, video, mobile apps)</i> <i>Amazon (e-books, videos)</i> <i>YouTube/Vimeo</i> <u>3-D printed goods?</u></p>	<p><u>PayPal</u> <u>web advertisement</u> <i>E-medicine</i> <u>IT outsourcing</u> <u>Amazon Web Services</u> <u>Cloud-based services</u></p>

The horizontal top row shows instances of digital trade where digital technologies facilitate the purchasing of 'traditional' goods and services, whereas the horizontal bottom row shows trade in products that exist and are delivered digitally, e.g., when digital products are downloaded/streamed/viewed online.

Business-to-consumer (B2C) goods and services are shown in *italics*, while B2B are underlined—note that some such goods and services can often overlap as they serve both B2C and B2B markets.

beyond electronic means. Computer games and mobile applications have little value outside the device in which they are programmed to run. Similarly, services such as web hosting and online advertisement are inherent to the digital environment. Sellers of digital goods and services would hence be out of luck in the case of an Internet-disruptive alien invasion.

Figure 1 illustrates trade in digital goods and services in quadrants III and IV, respectively. Business reality, especially in the digital environment, however, often blurs these conceptual lines. Software, for example has been historically traded as a merchandise (embodied in the shipping of physical media such as floppy disks or CDs), but is currently often being provided as a service, based on a subscription fee, that includes the right to updates, technical support, and ancillary digital products. Similarly, some services such as IT consumer support can blur the lines between “traditional” and “digital” services, reflected in quadrants I and IV in Figure 1. Finally, some business can be used by final consumers or by other businesses, making a challenge of a clear distinction between B2C and B2B activities.

The difference between e-commerce of traditional goods and services and digital trade is not only of intellectual value. On the contrary, realizing these different phenomena as part of the broader e-trade or even digital economy analysis has practical implications. For instance, for collecting statistics: e-commerce goods transactions are normally captured by customs as they cross the border in the form of parcels and fall under the goods sections of the current account. However, digital goods such as software or an e-book, should in principle also be captured as a good under the current account, but the fact that they do not cross physical borders because they are digitally delivered means that customs information will not be available, and that such information should be looked for elsewhere—e.g., in the international payments for goods and services as recorded by the central banks. More importantly, the different expressions of e-trade also face different challenges and call for a *different policy response*: the logistical challenges of international parcel shipping faced by the online retailers are not necessarily relevant to traders of digital goods and services, who, instead, may be much more concerned with intellectual property rights and contract enforcement.

CHAPTER

2

How E-trade Boosts International Trade and Increases Competitiveness

E-trade, in its multiple facets, offers the potential to boost international trade and to multiply the economic and social benefits that it entails. It does so through two main channels:

- It increases exports of goods and services and promotes diversification, by allowing traders to tap into new markets, expand the export basket of both traditional and digital goods and services, increase the number of exporters, and develop links with global value chains.
- It increases competitiveness by reducing the costs of goods and services, thus increasing quality, expanding variety, and reducing costs of inputs for domestic firms.

a) Export Expansion and Diversification

E-trade's strong growth prospects can offer a valuable boost to exports. International trade based on digital technologies remains a small fraction of global trade, but it is growing much faster than traditional trade. For instance, China's cross-border e-commerce (i.e., international sales of traditional goods and services conducted through digital means, captured in quadrants I and II of Figure 1) has been estimated as USD 97.3 billion in 2015 sales compared to its USD 2,600 billion exports of goods and services in 2014. Yet, China's cross-border e-commerce sales grew at a whopping annual growth rate of 63 percent between 2010 and 2014, and are still expected to double by 2019, whereas its exports of goods and services grew around 10 percent per year in the same period.³

However, these "Chinese growth" figures of e-commerce are not reserved to Chinese sellers only. E-commerce is expected to grow by double digits worldwide. Table 1 reflects the annual growth of e-commerce sales (both domestic and international) in selected developed and developing countries. In 2014, for instance, (domestic and international) e-commerce sales worldwide grew at over 20 percent—compared to a global GDP growth of less than 3.5 percent (IMF, 2015).

An initial direct contribution that e-trade delivers to an economy is that of expanding export opportunities, both in the terms of size and composition of the export basket. In addition, e-commerce brings the value added of offering a channel to export to small and medium enterprises (SMEs) that otherwise would not be able to sell to foreign markets.

³ E-commerce data based on Mintel, as reported by Alizila, 2016, <http://www.alizila.com/strong-growth-seen-for-chinas-cross-border-e-shopping/>. Traditional trade figures based on WTO Trade Profiles 2015.

Table 1. E-commerce Sales (domestic and international) Growth
B2C E-commerce Sales Growth Worldwide, by Country, 2012–2017 (% change)

	2012	2013	2014	2015	2016	2017
China*	93.7%	78.5%	63.8%	43.3%	34.4%	29.4%
Indonesia	85.0%	71.3%	45.1%	37.2%	26.0%	22.0%
India**	35.9%	34.9%	31.5%	30.3%	24.5%	20.0%
Argentina	31.1%	6.3%	24.0%	18.0%	12.0%	10.0%
Mexico	55.8%	41.9%	20.0%	14.5%	10.0%	5.0%
Brazil	21.8%	16.5%	19.1%	8.5%	6.9%	6.0%
Russia	34.4%	19.4%	17.1%	10.8%	6.9%	5.2%
Italy	17.0%	16.8%	15.3%	13.5%	12.0%	10.6%
UK	14.5%	16.3%	14.2%	12.2%	9.2%	8.2%
Canada	15.0%	14.2%	14.0%	13.5%	12.5%	11.5%
Spain	10.0%	10.0%	13.8%	11.9%	10.0%	8.0%
Sweden	18.4%	16.2%	13.3%	10.3%	9.0%	8.4%
US***	14.2%	13.4%	11.8%	11.4%	10.9%	10.4%
Norway	14.9%	12.7%	11.0%	10.8%	8.1%	7.2%
Denmark	14.3%	12.4%	10.6%	8.9%	6.5%	5.9%
France	32.3%	10.3%	10.0%	9.8%	7.6%	7.1%
Netherlands	12.7%	11.4%	9.4%	8.4%	6.3%	5.3%
South Korea	12.7%	9.6%	7.4%	4.8%	4.3%	3.6%
Germany	25.6%	5.7%	7.4%	6.9%	6.5%	6.1%
Japan	12.3%	-10.2%	7.1%	6.7%	5.6%	5.0%
Australia	10.5%	6.0%	5.7%	5.1%	5.0%	4.2%
Finland	4.3%	4.4%	3.7%	3.2%	2.7%	2.5%
Worldwide	22.3%	18.3%	20.2%	17.7%	15.9%	14.8%

Note: Includes products and services ordered and leisure and unmanaged business travel sales booked using the internet via any device, regardless of the method of payment or fulfillment; *includes sales from businesses that occur over C2C platforms; excludes Hong Kong; **digital travel sales represent roughly 70% of B2C e-commerce sales; ***excludes event tickets.

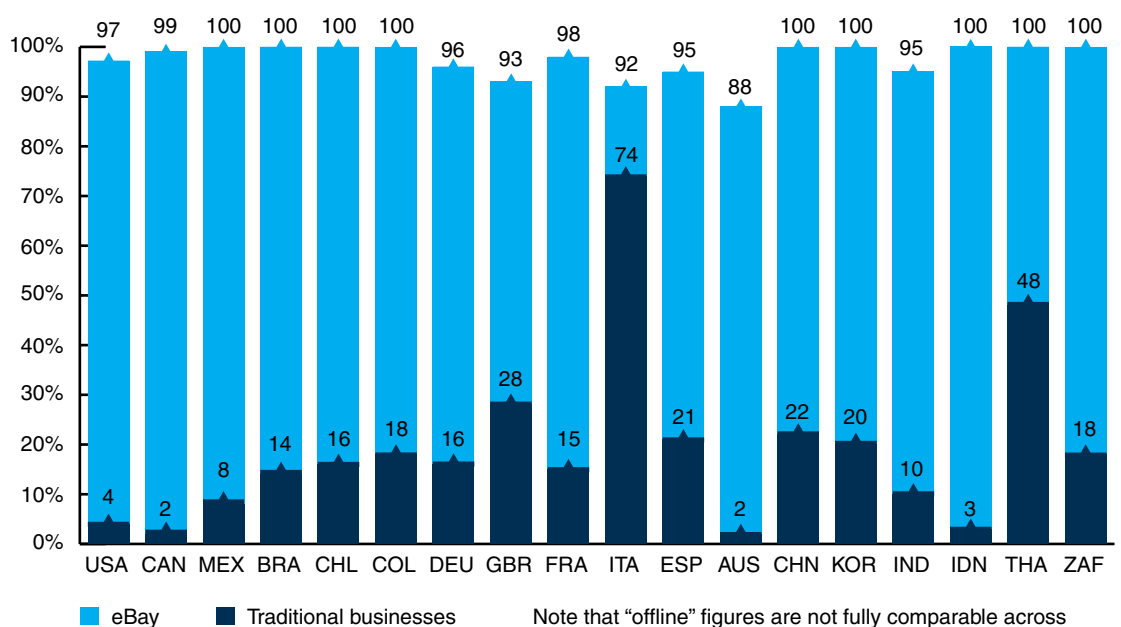
Source: eMarketer, Jan 2014.

Expanding Access to Foreign Markets

The digital environment expands trade opportunities by allowing producers, retailers, and service providers to reach and interact seamlessly with customers located in remote markets. Shop Soko, for example, is a Kenyan start-up that has developed a platform to link local artisans of jewelry and fashion accessories with global markets. Through Soko's e-commerce website, producers are able to reach foreign consumers and expand their export destinations beyond the tourists visiting handcrafts markets in Nairobi. In addition, the e-commerce website adds appeal in the form of branding to the products, and provides support to consumers should any dispute arise, thus adding value in the form of services to the transaction. Similarly, rural artisans in Morocco, some of whom are illiterate, have set up Anou, a web shop for their products that has attracted customers from all over the world (World Development Report 2016).

E-commerce platforms are particularly valuable for exports from small and medium, and even micro, enterprises who would otherwise lack the means of reaching foreign markets. In addition, firms selling on eBay in Chile, Jordan, Peru, and South Africa are younger than firms in offline markets (Figure 2). In a study conducted by eBay (2016), focusing on sales by SMEs, they observed that, in practice, any online seller

Figure 2. Exports by SMEs: Online-Based SME vs Traditional Businesses



Note: eBay’s study defines SMEs by the revenue of online sales through their own platform, capturing any seller with less than USD 10,000 revenue in their first year as an SME. This approach may capture firms that are not necessarily SMEs as they may have much greater sales offline, or, on the contrary it may fall short of including firms that are SMEs by number of employees or revenue, but that exceed the threshold of USD 10,000/year of online sales.

Source: eBay, 2016.

can be de facto an exporter. As the website creates a seamless environment for sales, it effectively blurs the difference between domestic and international sales. In that sense, the research finds that nearly every eBay based SME sells to foreign markets, compared to a median of around 20 percent of traditional brick-and-mortar firms.

The potential for increased exports, particular by SMEs, is not limited to the realm of physical goods. The intangible nature of services fits well with the capacity of the digital environment to capture and share information. “Online outsourcing” refers to contracting services of suppliers to perform tasks via Internet-based marketplaces or platforms. E-commerce platforms such as Upwork, Freelancer, and Amazon Mechanical Turk (AMT) connect service suppliers with customers around the globe—like eBay, Alibaba, and Mercado Libre do for trade in goods. Services traded through online outsourcing include two broad types of activities: a) microwork, where project and tasks are broken down to microtasks that can be completed in minutes, like image tagging, text transcription, and data entry; and b) online freelancing, where clients contract professional or other highly skilled services with remote providers, usually through a dedicated online platform, including services like graphic design, translation, and market intelligence.

Expanding Offers of Tradable Services

The ability to unbundle tasks through digital technologies is creating a booming market for services of e-commerce. From a gross revenue of about USD 2 billion in 2013, the online outsourcing industry is expected to grow to between USD 15 and 20 billion by 2020. While some of these, especially those of higher value-added are “traditional” services like legal services, accounting, and human resources, which benefit from the new communication technologies, a number of these services are a product of the digital revolution and an example of how e-trade is expanding the export opportunities by creating new tradable assets. Table 2 provides an example of services commonly traded through online outsourcing platforms.

Table 2. Common Services Traded through Online Outsourcing Platforms

Low Complexity	Medium Complexity	High Complexity
Sign-up websites		
Search + click		
Bookmark webpages		
Watch videos		
Vote		
Download app + install		
	Post tweets	
	Post comments on blogs/websites/forums	
	Write a review	
	Data entry & administrative support	
	Translation & languages	
	Write an article	
	Sales & marketing	
	Design & multimedia	
	Writing & content	
	Product sourcing and manufacturing	
	Customer service	
		Web & software development
		Network & information systems
		Engineering & science
		Business, accounting, HR & legal

Source: Kuek et al., 2015.

The seamless communication possibilities offered by digital technologies naturally link online outsourcing to international trade in services. It is estimated that the great majority of global demand for online services comes from four countries: Australia, Canada, the United Kingdom and the United States, but countries such as Finland, China, France, Russia and Sweden are the ones with the fastest growth in demand. Nevertheless, only two of those countries feature in the top five providers of online outsourcing (i.e., the United States and the United Kingdom, while the rest are developing countries exporting services to those destinations, as portrayed in Table 3. Like e-commerce traders of goods, service suppliers through online platforms are also predominately small and medium enterprises, or even individual entrepreneurs.

The expansion of the base of potential exports of goods and services benefits the economy by diversifying exports and creating jobs. Most importantly, however, by reaching SMEs, including microenterprises and individual sellers, e-commerce promotes inclusion—in new and existing markets, in social interaction, or in government service delivery systems. Inclusion for the individual usually means expansion of a market by those on the other side of the transaction, such as a firm or a government that now serves more citizens (Word Bank, 2016).

Table 3. Top Five Online Outsourcing Services Suppliers

Position	Global Online Workforce (%)
1	United States 23.9
2	India 21.5
3	Philippines 18.6
4	Pakistan 5.8
5	United Kingdom 4.2

Source: Kuek et al., 2015.

b) Increasing Country Competitiveness and Reducing Trade Costs

E-trade contributes to economic growth not only by providing new channels for expanding export-oriented business, but also by enhancing competitiveness of the economy more broadly. It does so by reducing costs for trade of goods and services, and by increasing efficiency through the use of cloud-based services.

Reduced Costs to Trade in Goods and Services

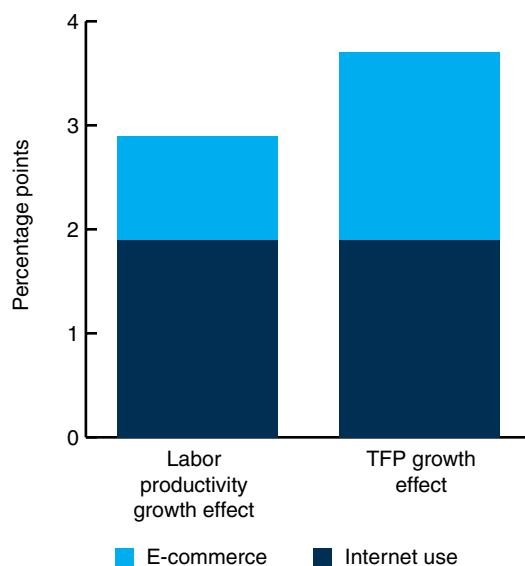
Perhaps the greatest contribution to growth comes from the Internet's capacity to lower costs, helping boost efficiency and labor productivity in practically all economic sectors. Lendle et al. (2012), using a dataset on eBay cross-border transactions and comparable offline trade flows, estimate a distance effect on trade flows about 65 percent smaller online than offline. Using various measures of information asymmetries at the product and country level, the authors argue that the difference in distance effects was due to online technologies that reduce information and trust frictions associated with geographic distance. Importantly, Lendle et al. find that the largest cost-reducing effects of e-commerce are observed in countries where they are most needed, i.e., in countries which are not very well-known, have corrupt governments, high levels of income inequality, little Internet penetration, and inefficient trade infrastructure.

Reducing the Cost of Accessing and Using Information

Better access to and use of information through technology helps companies make better use of existing capacity, optimizes inventory and supply chain management, cuts downtime of capital equipment, and reduces risk.

For example, in the airline industry, sophisticated reservation and pricing algorithms increased load factors by about one-third for U.S. domestic flights between 1993 and 2007. The parcel delivery company UPS famously uses intelligent routing algorithms to avoid left turns, saving time and about 4.5 million liters of petrol per year. Many retailers now integrate their suppliers in real-time supply chain management to keep inventory costs low. Vietnamese firms using e-commerce had on average 3.6 percentage points higher TFP growth than firms that did not use it (Figure 3). Chinese car companies that are more sophisticated users of the Internet turn over their inventory stocks five times faster than their less savvy competitors. And Botswana and Uruguay maintain unique ID and trace-back systems for livestock that fulfill requirements for beef exports to the EU, while making the production process more efficient (World Bank, 2016). Similarly, surveying 3,250 SMEs in 11 countries, Boston Consulting Group finds that SMEs that are heavy web users

Figure 3. Vietnamese Firms Using E-commerce Have Higher TFP Growth, 2007–12



Source: World Bank 2016. Data at http://bit.do/WDR2016-FigO_1.

have a larger market—they are almost 50 percent more likely to sell products and services outside of their immediate region and markets (Suominen, 2014).

Increased Efficiency Through Cloud Computing

Services acquired from the “cloud” (fitting in quadrant IV in Figure 1) can boost productivity at the firm level by reducing costs in areas like stock and logistics organization, accounting, website design and administration, communications, process management, and data processing to the core business activities of the firm. For example, Augmedix, a Bangladeshi start-up that provides innovative back-office support to medical providers in the United States, supports its own IT systems on a Google-based platform that underpins the entire remote interaction. The platform, by offering both off-the-shelf solutions and customizable options, guarantees Augmedix access to the advanced technologies at a fraction of its development cost.

Cloud computing provides the ability to access IT resources on demand without the need for significant capital expenditure. The nature of cloud computing itself, where shared infrastructure and technologies allow for significant economies of scale, also lowers costs. Cloud computing thereby significantly lowers the entry barriers for new entrants in multiple sectors, stimulating innovation and the development of new products and services. Cloud computing also facilitates online collaboration on a global scale. By lowering entry barriers and ongoing costs, SMEs are among the key beneficiaries of cloud computing. SMEs save on investment costs and at the same time, benefit from gaining access to cutting edge technology and services, including software updates (OECD, 2014).

CHAPTER 3

Challenges for Leveraging E-trade

Despite the impressive growth in the last decade, there has been little systematic analysis of the drivers of e-trade competitiveness, and what policies and others aspects of the e-trade environment are most relevant. While it can open new channels for export and increase competitiveness, few countries systemically address e-trade as a matter of trade policy. While e-traders can overcome a number of barriers faced by offline business through the digital technologies, certain essential foundations for the digital economy, as well as specific e-trade enabling conditions are necessary.

A flourishing environment for e-trade must be, for starters, a conducive environment for the digital economy more broadly, where business and consumers can leverage digital technologies for improved competitiveness and increased welfare. The foundations of the digital economy rest on a modern telecommunications infrastructure, a favorable environment for domestic and foreign investments, and an educated population who can engage and contribute to the information society.

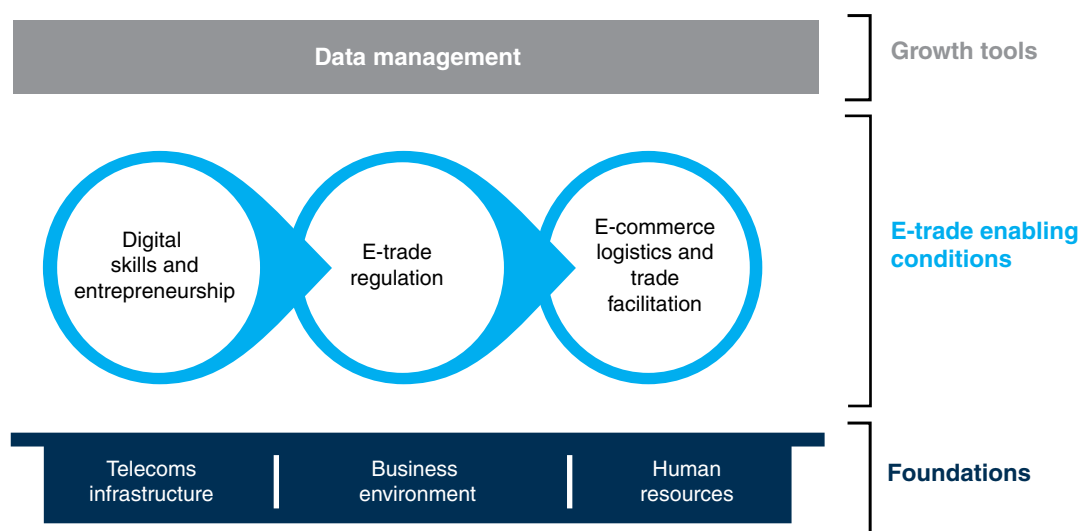
E-trade, as a specific component of the digital economy, requires specific enabling conditions that build on those foundations. Businesses require specific digital skills and entrepreneurship to engage in e-trade, as well as a sound regulatory framework that addresses challenges like digital documentation signature and data flows, and 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. Figure 4 reflects these basic components of the e-trade environment and each aspect is discussed in more detail below.

a) Foundations

The supportive foundations for e-trade rely on three essential pillars: a modern, reliable and affordable telecommunications infrastructure; an open, transparent and predictable business environment; and the availability of high-skilled human resources. These components go beyond the mere foundations of e-trade, to be, in fact, essential components of a modern digital economy that can support not only international trade, but also other essential aspects of economic growth, such as increasing firm productivity, and social inclusion, including facilitating public services delivery.⁴

4 For instance, in the justice sector (Gramckow and Ebeid, 2016).

Figure 4. E-trade Environment Components



Telecommunications Infrastructure

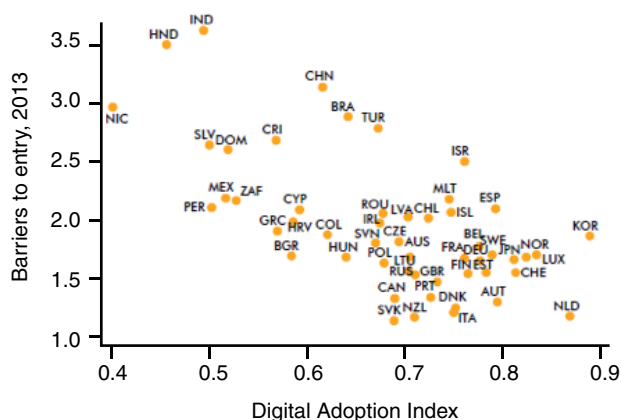
At a global scale, the first hurdle for the expansion of e-trade remains the lack of access to digital connectivity. As noted by the World Development Report 2016, the lives of the majority of the world’s people remain largely untouched by the digital revolution. Only around 15 percent can afford access 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 then, nearly 2 billion people do not own a mobile phone, and nearly 60 percent 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 in the recently approved 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 sector (World Bank, 2016).

Business Environment

A conducive business environment, based on transparent and pro-competitive policies, is a necessary pillar of e-trade, and of a 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 a fundamental role not only in allowing businesses to access digital technologies, but also in motivating them to leverage such tools for greater competitiveness.

Barriers to market access and domestic or foreign competition reduce firms’ incentives to invest in digital technologies or complementary skills and reorganization. Without competitive pressure, private firms lack incentives to invest in costly or risky new technologies (World Bank, 2016). To capture the full growth potential of digital globalization, 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. Regulatory barriers to the services, for instance, as captured by the OECD’s Product Market Regulation, show a negative correlation with firms’ investments in digital technologies (Figure 5).

Figure 5. Restrictions in Services and Business IT Use



Note: The y-axis shows the barriers to entry subindex of the Product Market Regulation (PMR) Index (OECD, various years) for service sectors. The x-axis shows the Digital Adoption Index, as computed for this Report. The PMR index is available for 47 OECD and large developing countries, as well as for eight smaller Latin American countries.

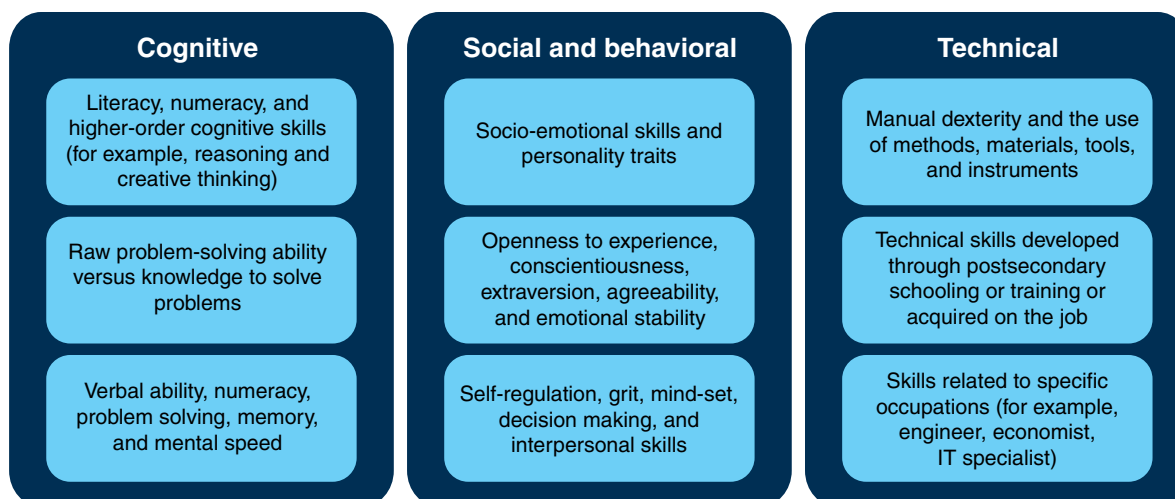
Source: World Bank, 2016, based on OECD and Digital Access Index.

Human Resources

Education is at the basis of 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 their needs. Yet the education systems of many countries, including middle-income countries, fail to provide basic skills such as literacy and numeracy: in countries like Albania, Indonesia, Jordan, Kazakhstan, Malaysia, and Peru, for instance, more than half of 15-year-olds are functionally illiterate (World Bank, 2016).

The digital economy requires, first and foremost, the human resources of any modern society. Basic cognitive skills to the “old economy,” such as literacy and numeracy, knowledge-based problem solving capacity, verbal ability and mental agility, are indispensable in the information society. In addition, essential and behavioral skills are needed to participate in modern labor markets that require creativity, teamwork, problem solving, and critical thinking in ever-changing environments. Figure 6 summarizes the fundamental set of cognitive, social, and technical skills that underpin a functioning modern economy.

Figure 6. Skills for a Modern Economy



Source: World Bank, 2016, adapted from Pierre, Sanchez Puerta, and Valerio 2014.

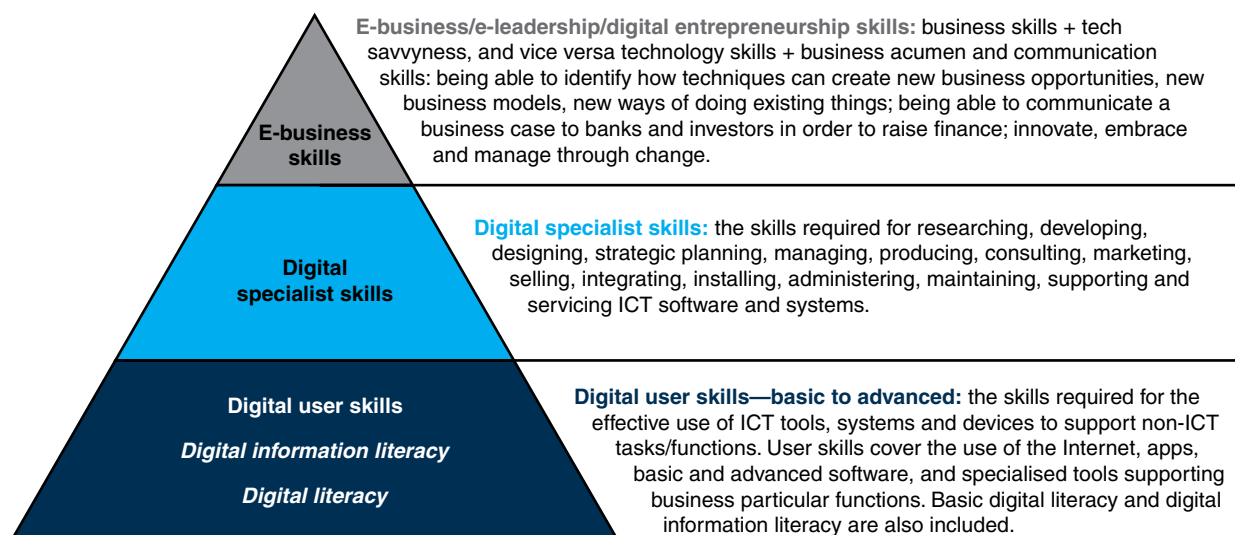
b) E-trade Enabling Conditions

Building on the foundations of a modern digital economy, e-trade further requires a number of specific enabling conditions. Talent and entrepreneurship to develop digital business are often missing, even where basic education and skills do exist. In addition, the legal and regulatory environment can support e-traders, or can introduce formal and informal barriers that inhibit the digital economy by restricting means of electronic payments or introducing regulatory barriers to information flows, for example. When e-commerce involves the movement of physical goods across borders, reliable transport and logistics services are needed 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

Benefitting from e-trade requires expanding modern education programs with the development of skills and entrepreneurship for the 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, each spanning a spectrum from basic to more advanced skills, and including or combining different complementary skills, as depicted in Figure 7. 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/invent innovative business models and uses of digital/ICT tools.

Figure 7. The Digital Skills Pyramid



Source: Based on European Commission (2004), van Welsum and Lanvin (2012).⁵

5 The OECD PIAAC (Programme for International Assessment of Adult Competencies) database classifies computer use/skills in the following categories:

- Straightforward computer use includes basic routines such as data entry or sending and receiving e-mails.
- Moderate computer use refers to word processing, use of spreadsheets or database management.
- Complex computer use encompasses developing software or modifying computer games, programming or maintaining a computer network.

The full range of digital skills is required for the different types of digital trade to occur. Basic user skills are needed 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 needed for imagining and offering online products, services, and tasks. And e-leadership/innovation/business skills are needed to come up with new business models related and/or based on different types of digital trade, and to innovate in markets, products, delivery, process, and organization.

The importance of some of these roles and skills will change over time. For example, as the Internet of Things becomes more ubiquitous, data scientists will become far more central and strategic in operations of many firms. Such roles will then 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 obsolete regulatory framework can create barriers to e-commerce, obstruct the development of the “digital environment” for e-commerce, or hamper the development of needed supporting services. An adequate legal and regulatory environment for e-trade involves a coordinated effort from different legal and regulatory fields to operate together by preventing regulatory restrictions and enabling key regulatory conditions for e-traders.

Regulatory restrictions on data flows can have a chilling effect on e-trade. 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 in 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 for the privacy of its citizens over information that is no longer under its regulatory purview. Regulation must thus strive to achieve a careful balance between consumer privacy and an enabling environment for e-trade. The negative effect of restrictions on data flows in international trade is being recognized in trade agreements, which increasingly feature substantial provisions on e-trade, with a view to ensuring that data flow limitations pursue legitimate policy goals and do not introduce unnecessary burdens to international trade and investment.

However, the impact of trade rules on the e-trade environment extends well beyond data flows. The tariff regime applying to technology goods affects the cost of providing digital connectivity, as do the technical standards and regulations that apply to these goods when traded across borders. The services trade regime affects the capacity of foreign service suppliers to operate in another market, whether these services are accessed through electronic or other means. The services regime also has a role in shaping the availability of infrastructure and the provision of services for basic digital connectivity—for example, in many countries the right of foreign operators to enter the domestic market has been a key factor in the availability and affordability of mobile telephone services. The legal framework for intellectual property protection is another factor with potential impact on the e-trade environment, both in terms of how it influences decisions to make technology-related investments in foreign markets, as well as how it supports the transfer of knowledge and technology. Box 1 provides an overview of the main disciplines on e-trade included in trade agreements.

In addition to avoiding unnecessary barriers to e-trade in the form of data restrictions, a number of laws and regulations are needed to promote a healthy environment for e-trade. UNCTAD (2015) focuses on laws and regulations for B2C e-commerce, particularly with regard to the movement of goods. UNCTAD highlights laws in four legal areas that are essential for increasing confidence in e-commerce: e-transactions involving electronic signatures and documents; consumer protection; privacy; and cybercrime. Their

Box 1. Rules on E-trade in International Trade Agreements

Trade rules at the multilateral, regional and bilateral levels addresses e-trade in different ways.

In multilateral trade talks at the World Trade Organization (WTO), e-commerce has been on the agenda formally since 1998, with the launch of the Work Programme on Electronic Commerce. Although the only concrete deliverable of the work programme has been a moratorium on the imposition of customs duties on electronic transmissions, which was recently extended until 2017, different aspects of the WTO rules are relevant to e-trade. For example, the Information Technology Agreement (ITA) has led to the elimination of tariffs on a wide range of technology goods, helping lower the cost of acquiring the technology necessary to connect to e-trade. The services trade disciplines in the General Agreement on Trade in Services are relevant to e-trade transactions, with specific commitments and disciplines applying to telecommunications, for example. However, there has been no concerted effort by WTO members to identify the gaps in these multilateral disciplines where they do not address e-trade frictions. Because of the difficulty in making progress so far in the WTO on this, many countries have turned to bilateral and regional agreements to fill these gaps.

Bilateral and regional trade agreements are increasingly focusing on the regulatory aspects of digital trade not specifically addressed in the WTO. The Trans-Pacific Partnership Agreement (TPP), signed by twelve Pacific countries in 2015, features the deepest and broadest rules to date on e-trade. Although the status of the TPP itself is now in question, it is worth examining the e-trade provisions that were negotiated by participating countries. The Electronic Commerce chapter of the TPP seeks to promote electronic commerce, the free flow of data, and the prevention of “localization requirements” of technologies and servers, subject to legitimate public policy objectives such as personal information protection.

Building upon the WTO moratorium, TPP’s Electronic Commerce chapter prohibits the imposition of customs duties on digital transmissions, including on products distributed electronically, such as software, music, videos, e-books, and games. A similar provision prevents TPP countries from favoring national producers or suppliers of such products through measures such as discriminatory taxation or outright blocking or other forms of content discrimination.

To facilitate electronic commerce, the chapter includes provisions encouraging TPP Parties to promote paperless trading between businesses and the government, such as electronic customs forms, and providing for electronic authentication and signatures for commercial transactions. In addition, the agreement requires TPP members to maintain a legal framework for electronic transactions consistent with the principles of the UNCITRAL Model Law on Electronic Commerce 1996 or the United Nations Convention on the Use of Electronic Communications in International Contracts.

Acknowledging the legitimate regulatory concerns surrounding e-trade, TPP members agree to adopt and maintain consumer protection laws related to fraudulent and deceptive commercial activities online and to ensure that privacy and other consumer protections can be enforced in TPP markets. Parties also are required to have measures to stop unsolicited commercial electronic messages (spam). The agreement recognizes that governments have different ways of implementing privacy protections, and TPP promotes interoperability between those diverse legal regimes.

More importantly, data flows and even localization requirements may be imposed for a “legitimate public policy objective,” including the protection of privacy, to the extent that that measure is not a disguised restriction to trade, or that it imposes restrictions “greater than required” to achieve the policy objective. These provisions set out a sort of “necessity test” for measures impinging on the cross-border movement of data or the requirements for local servers. Also the chapter on financial services (Chapter 11) advocates for the cross-border flows of financial data, but allows countries to introduce additional conditions, such as the need for regulatory authorization, and privacy protection, which amounts to stricter disciplines on financial data, compared to other data flows.

There is a need for more detailed work to survey the landscape of trade rules and how they facilitate or create barriers to e-trade, as well as defining the rules that are most relevant for different types of e-trade.

Source: Authors.

research shows that while developed countries generally have these laws and regulations in place, this regulatory framework is generally inadequate in the developing world (UNCTAD 2015).

Further, the Swedish National Board of Trade brings attention to the impact of regulatory heterogeneity in a relatively free environment for e-trade such as in the European Union. It observes, in that sense, that beyond formal restriction, divergence in consumer information requirements, regulatory conditions for payments contracts, tax regimes, and intellectual property regimes can add heavy regulatory burdens on e-commerce sellers, especially SMEs (NBT, 2012).

Finally, an adequate regulatory framework for electronic payments is a necessary component of e-trade. In a number of developing countries, stringent “know your customer” regulations that do not take account of the local conditions—where, for instance, not everyone has a physical house address—prevent potential consumers from accessing banking services, and, thereby, online payment systems. Regulations on electronic payments, however, must be coordinated with broader financial market policies and balanced with prudential regulation for financial stability.

E-trade Logistics and Trade Facilitation

While e-commerce facilitates international transactions, it remains a fact that physical goods bought digitally still need to travel a certain distance and arrive to the consumer’s location. E-commerce of goods is, in that sense, just another expression of international trade.

E-commerce goods need to be transported and cross physical borders.

Like traditional trade in goods, e-commerce goods crossing borders are subject to customs and border management procedures. However, because e-commerce often involves the shipping of small quantities of merchandise—often, indeed, one single product—it faces additional challenges to traditional trade in goods, which is normally conducted in larger quantities and has specific customs and border management procedures. In particular, there are a number of logistics and trade facilitation procedures specific to goods traded through e-commerce.

Especially in developing countries, the costs of moving trade and trade-related service providers (shippers, logistics, warehousing, etc.) are significant, given poor transport infrastructure, monopolistic service provision, and other inefficiencies. These costs are especially high for small businesses shipping small parcels, the hallmark of B2C online trade. Given their limited shipments, SMEs have higher fixed costs per parcel (or “per unit”) in shipping their products than do large exporters shipping large volumes (Suominen, 2014).

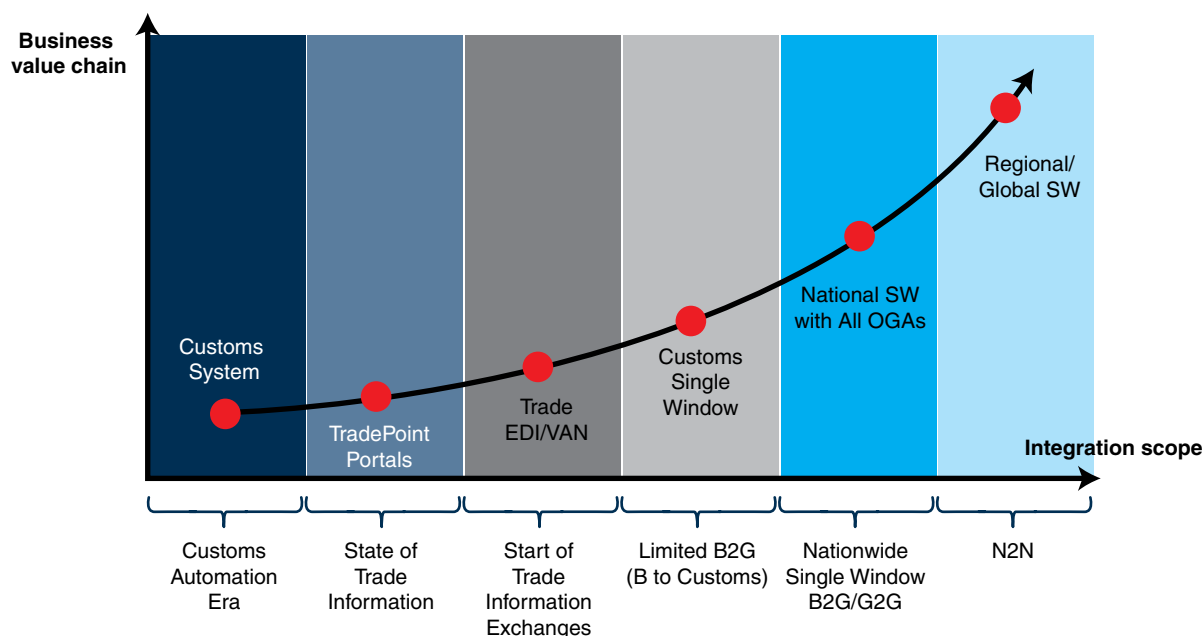
As e-commerce is booming in certain emerging economies, it is not completely immune in terms of compliance and efficiency associated with transportation and logistics of small parcels. In Europe alone, 4 billion parcels were sent in 2014. As the number of shipments, exporters and consignees exponentially increase, policy makers will have to start considering the pressure exerted on distribution systems—their impact on city traffic congestion, emissions, reliability and monetary costs, among many other things. It would also require a coherent approach in terms of urban logistics planning that combines soft measures (regulations such as vehicle restrictions on weight, size, emissions, zoning restrictions, driving and load/unload times, etc.) and hard measures (extra parking bays, public private partnerships (PPP) infrastructure approaches to logistics zones, etc.).

Trade facilitation is the simplification, harmonization, standardization, and modernization of trade procedures. It seeks to reduce trade transaction costs at the interface between business and government and is an agenda item within many customs-related activities (Grainger, 2007). As such, enabling automation and reducing the friction in cross-border trade is essential to lowering costs to trade and connecting producers to markets and value chains.

The automation of border management brings about specific legal and regulatory challenges governing the relationship between government and traders. The automation environment, particularly in trade facilitation and logistics in developing countries and LDCs, requires the addressing of numerous different facets if consumers and businesses are to benefit from a lowering of costs. Figure 8 depicts the steps of automation in border management. The first is the level of automation among trade-related agencies that regulate cross-border trade; the second is their interconnectivity within agencies and their offices and between agencies of neighboring countries, particularly where there are regional communities and customs unions; the third is often network access and bandwidth which relates to telecommunication infrastructure nationally as borders, though vital, are often off the grid⁶; the fourth is the importance of addressing legal issues (see discussion below) to ensure an effective trade facilitation system; and finally, the sophistication of the business community and in particular the logistics providers⁷ to take advantage of electronic developments. The challenges and capacity of SMEs, and in many cases women traders to ICT access, 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 matters relate to broader regulations on data and on electronic transactions as mentioned above, a number of additional regulation concerns relate particularly to the automation of trade. These concerns include legal implications of the submission of a single declaration to multiple government agencies; ownership and control of data obtained by government authorities; legal and regulatory provisions on 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 UN Convention on the Use of Electronic Communications in International Contracts (ECC) and are cognizant of international agreements like the recent WTO Trade Facilitation Agreement (TFA).

Figure 8. Steps of Automation in Trade Facilitation



Source: Koh Tat Tsen, 2011.

6 Utilities, particularly electricity, also are crucial enablers. Lack of power is often one of the major reasons for a border to go offline.

7 Logistics service providers and Customs Brokers professionalization is often a determinant.

While some of these legal issues often need to be addressed at an economy wide level, trade facilitation reform brings them to light and places them in a specific context, acting as a catalyst that requires the overall legal framework to be addressed, 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 framework also requires investing in new institutional mechanisms and systems which, for example, enable electronic record management and archiving, provide legal certainty and a basis for electronic messages, create and empower entities that can 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.

Digital Data

Data is at the core of the e-commerce value chain, and the use of digital data assets is having a transformative impact on firms, industry sectors, and countries. Digital data comes in several flavors:

- Digitalization—the process of transforming traditional or analog data and businesses processes into digital versions.
- Big data—data that is notable for its size, its nontraditional sources, its immediacy, and its uses (analytics, machine learning, and other artificial intelligence oriented techniques).
- Internet of Things—mostly machine-to-machine data exchange that is gradually evolving to become machine-to-machine decisions and actions.
- Open data—mostly from the government but increasingly also from the private sector, essentially data that is legally free to reuse and designed to be machine readable.

Digitally smart firms outperform peers. Similar benefits accrue to national economies, which are fostering the development of national digital strategies as components of trade and economic policies. For instance, a McKinsey report⁸ estimates GDP growth increases between \$250 billion and \$450 billion annually—approximately equivalent to the GDP of Finland or Norway—when data flows freely. McKinsey estimates that countries that are better connected to cross-border data flows experience up to 40 percent higher GDP growth than less connected countries.⁹

Digital data savvy firms (including start-ups and established firms) typically derive benefits through one or more of the following:

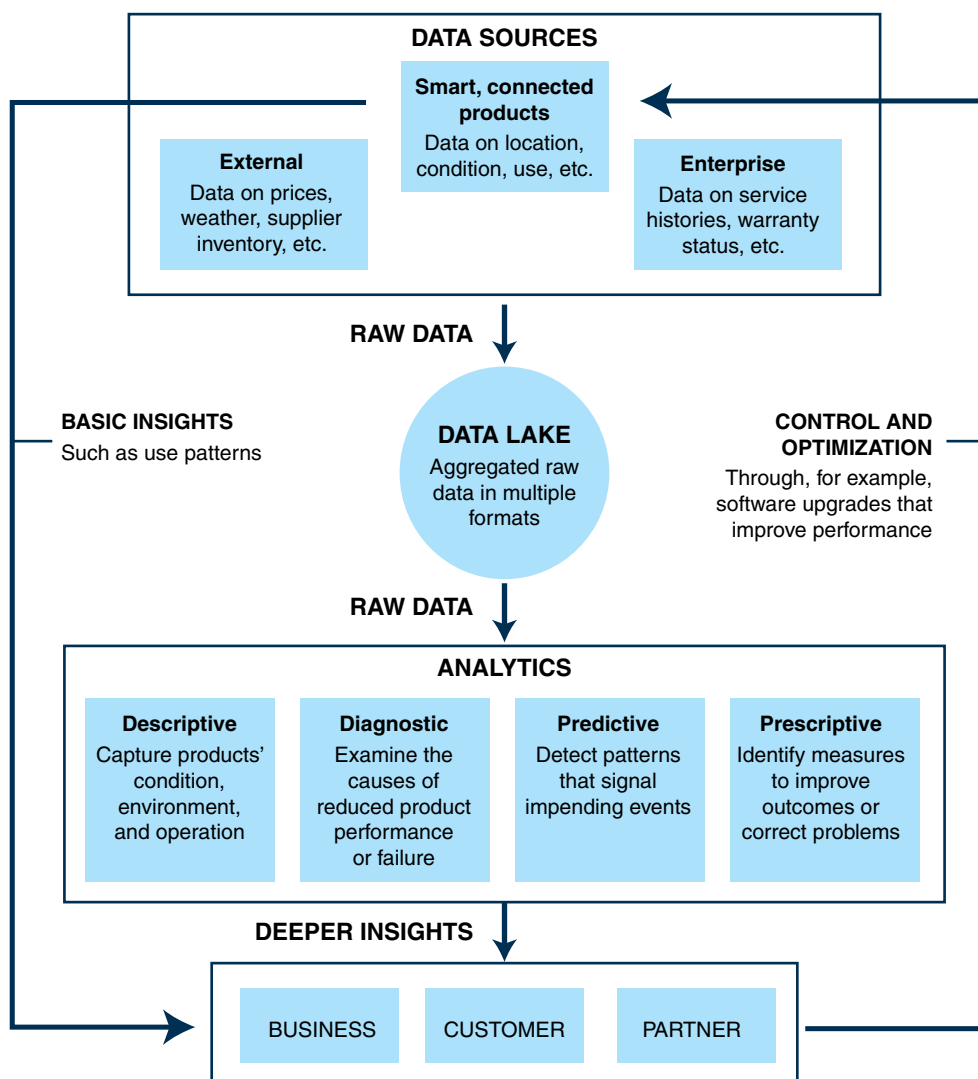
- New business models—firms such as Uber, Alibaba, and AirBnB have changed the business models of ‘traditional’ industries such as taxis, shopping platforms, and hotels.
- Efficiency and process optimization—this is where the first wave of business gains have been most widely felt.
- Consumer surplus—firms such as GE estimate that ‘the data flowing off its machines in use will jump a hundredfold. That should enable far more detailed analysis, giving GE a chance to sell its customers not machines but “business outcomes,” like fuel savings’ (Lohr, 2016). E-trade has facilitated similar surpluses in a wide range of industries including health care, travel, and education.

Figure 9 illustrates one model of how firms are realigning around data/information assets and tools to increase their competitiveness. In this model, data from inter-connected products help optimize

8 See McKinsey report on ‘Global flows in a digital age’ at <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/global-flows-in-a-digital-age>.

9 Ibid. 6–7.

Figure 9. Data-Centered Business Models



Source: Porter and Heppelman, 2015.

performance, with many decisions handed over to the products. The graphic also makes the point that customers, businesses, and partners all gain when insights are based on data from a variety of sources, both internal and external. The model is applicable not only to purely digital products but also increasingly to traditional products that have been ‘datafied’ using Internet-of-Things technologies.

In this context, some questions that governments need to consider include:

- Who owns data and what are their rights to use/reuse this data? Concomitantly, what are their obligations to store, release, and protect this data?
- Can or should governments provide platforms for safe use and reuse of data assets?
- How can governments help develop digital capacity in digitally smart ways? Does digital capacity mean merely the development of data literacy and digital skills, or should the government also focus on skills that help workers navigate the more open, more collaborative workspaces that are becoming the norm in data-intensive businesses?
- What new financing models work best in the data-driven world?

CHAPTER

4

Implications for E-trade Policy

E-trade, in its dual role of promoting export diversification and reducing trade costs, can be a valuable tool for leveraging international trade, in order to reduce poverty and foster inclusive growth. This section focuses on the policy implications and various entry points for ramping up e-trade activities to meet specific objectives.

Entrepreneurship Support

A key policy objective for governments is to support entrepreneurship, often through the development of digital incubators, accelerators, and early-stage funding programs. These are designed to support the digital entrepreneurs on the path “from mind to market,” that is, from the idea stage of a business or product line to the building of a prototype to launching a new product and to growing the business at home and abroad. Incubators provide technical training, targeted business mentoring, and opportunities to network with peers, investors, research institutes, and established firms, along with free or subsidized office space and Internet connectivity. Accelerators focus on helping start-ups that are already earning revenues to enter a high-growth stage through intensive training and equity-based investment. These approaches can be combined with financial support during the riskiest early stages of a start-up’s development.

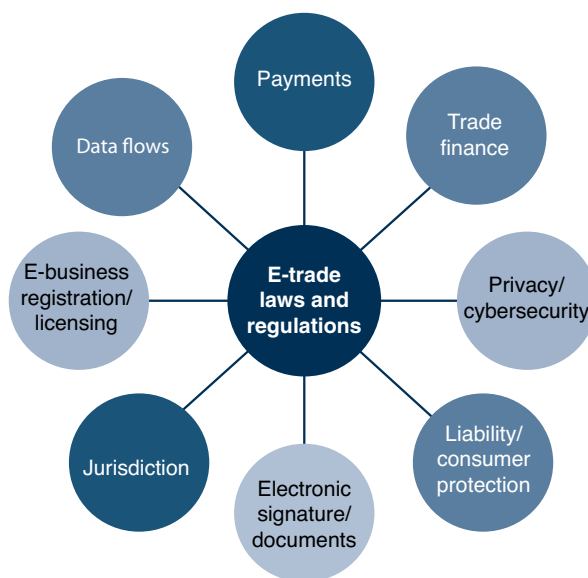
Policy and Regulatory Assessments and Reform

To provide a conducive regulatory environment, governments may need to assess and tackle reform on laws and regulations pertaining to e-trade of goods and services, as well as horizontal disciplines that affect all sectors of the economy. Figure 10 points to the main regulatory areas relevant to e-trade.

Regulation on Data Flows

General laws and regulations on e-trade can address critical aspects like data flows and protection of online consumers. Assessing data localization requirements and data flow restrictions requires addressing a careful balance between social policy goals such as privacy protection and the promotion of free flow data as an enabler for digital transactions. Different governments may grant a higher priority to one or the other policy goals, but they should consider all regulatory options available to ensure that neither valuable business opportunities or citizens’ privacy are hampered by poor regulation.

Figure 10. Policy Considerations of E-trade Laws and Regulations



Regulation on Trade in Goods

E-trade regulation can promote trade in goods by providing for faster and more efficient cross-border procedures. Regulations related to data messages, electronic documents, and electronic records (and their legal status in courts), electronic signatures and certification authorities, the binding nature of electronic communications, the ability of government entities to share data with each other, privacy and related requirements for retention and archiving, and the legal basis for e-payments, among many others, is an integral part of traditional trade facilitation, and can provide the basis for the automation of customs and border procedures, while setting the basis for a broader e-commerce framework. National laws like the customs code often need to include a definition of a good that is digital or digitally traded and consider issues around taxation of a digital good. Automation projects to facilitate trade (i.e., single windows, etc.) straddle multiple agencies. Trade policies should thus take account of both realities and design interventions in both trade facilitation and e-commerce with an eye on maximizing the spillovers on the other.

Global standards have already been created, such as UNCITRAL's Model Law on Electronic Commerce (MLEC) and the UN Convention on the Use of Electronic Communications in International Contracts (ECC) which enable and facilitate commerce conducted using electronic means by providing national legislators with a set of internationally acceptable rules aimed at removing legal obstacles and increasing legal predictability for electronic commerce and communications. There are also issues related to the kind of information and communication technology (ICT) infrastructure, including for e-payment, which need to be in place to support digital trade.

Regulations on Key Services for E-trade

In addition, a comprehensive assessment of the e-trade environment needs to take into account policies and regulations that may affect key services related to e-trade. In particular, the regulatory framework for trade logistics and express delivery services plays a determinant role for e-commerce for goods. Assessing services sectors key to the e-trade entails identifying the specific regulatory measures that may hamper logistics of small-parcel trade and last mile connectivity, including regulations on customs *de minimis*, delivery addresses or facilities, warehousing, and access of express delivery providers.

The importance of regulation of electronic payments as a determinant of e-trade cannot be underestimated. Yet, assessing e-payments solutions requires considering e-trade policies with financial market regulations. Developing country policy makers should strive to ensure that reforms on these regulatory aspects of e-trade bring effective benefits to the domestic trade environment.

E-trade Logistics

For SMEs engaged in e-commerce, postal services have partly addressed the logistics gaps faced by small traders. They have provided public Internet access points, and in some countries, the post office is one of the few Internet access points for people in remote areas. Some postal services have catered to the e-commerce market by providing Webstore services to support e-commerce shops, online information regarding shipping services and fees, services that enable different levels of secure and trusted customer identification, payment services and packaging, collection and transport, and shipping services. Postal services have also helped online traders with the challenges around returned shipments. Postal services will continue to play a vital role in the e-commerce value chain to bridge the current gaps in the logistics industry in developing country contexts.

Trade Facilitation

E-commerce is based on the premise that goods travelling in small (and not so small) parcels can move seamlessly and quickly through borders. Until the entry in force of the WTO Trade Facilitation Agreement (TFA), there was no binding agreement on what type of expedited treatment this type of trade should get as opposed to general cargo—other than recommended practices like the Immediate Release Guidelines of the World Customs Organization. The TFA contains specific provisions (under Article 7.8) to allow for the expedited release of those goods entered through air cargo facilities, including reduced documentary requirements for clearance, the implementation of a *de minimis*, or single information submission from traders or its agents. The rapid clearance of high-value and time-sensitive goods is also dependent on the ability of customs to effectively process information submitted ahead of arrival, to determine its risk and if further examinations are needed, and the ability to separate the physical release of goods from fiscal clearance. Developments over the past few decades have seen a rapid automation for trade facilitation expanding the sophistication of complex systems and T&C trade facilitation, and logistics teams are helping countries provide solutions across a variety of automation levels.

CHAPTER

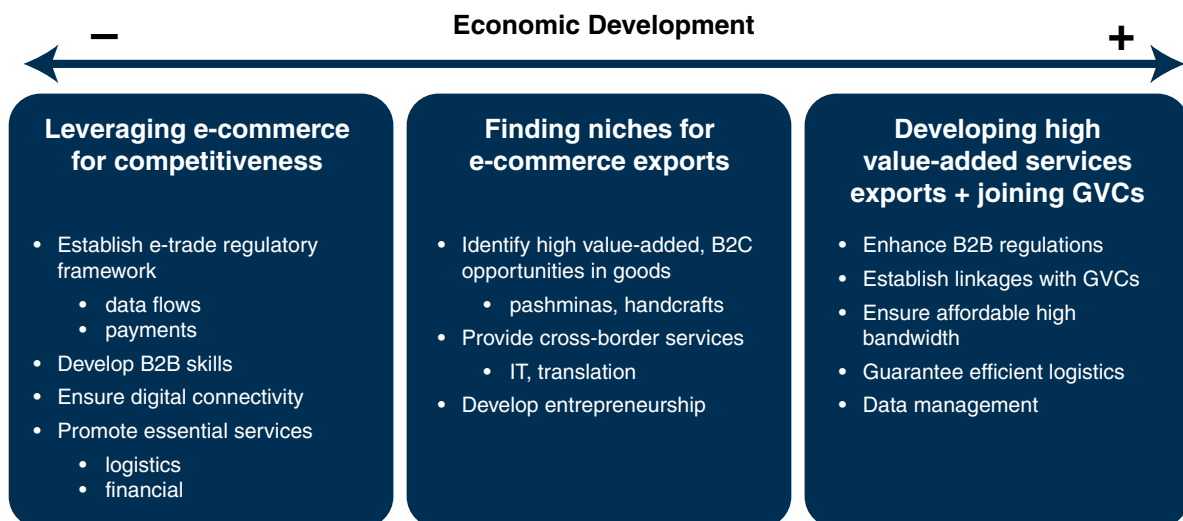
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Way Ahead

A 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 of SMEs to international markets. Importantly, these benefits are not reserved only for global leaders in innovation and digital technologies, but countries at all levels of economic development. Industries at different stages of development in one same economy, also have these things to gain from the different types of e-trade (see also Figure 11):

- First, e-trade can increase competitiveness for countries at all levels of development, providing productivity gains for all sectors of the economy, including traditional sectors like agriculture, through the use of specialized services traded online, ranging from market and weather information, to tools for remote soil analysis and stock management;
- Developing countries and even least developed countries (LDCs) are increasingly benefitting from e-trade as a tool for developing niches for high-value goods, sold and delivered directly to consumers across the globe, such as Pakistani pashminas and Kenyan jewelry; and
- 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 11. Benefits of E-trade at Different Levels of Economic Development



High- and low-income countries alike have thus good reasons to address the many challenges that e-trade brings about. 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, bringing uncertainty to international digital markets. Many 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, remains patchy and often inequitable, in particular in developing countries. Also, people in many developing countries, and particularly LDCs, face an important shortage of digital skills and, especially, capacity for digital entrepreneurship.

The challenges of building strong foundations and keeping digital skills, regulations and logistics up with the constant evolving nature of e-trade may seem daunting, especially for small economies with limited resources and capacity. The international community, including donors, international organizations, and private entities, has thus a key role to play in promoting e-trade for growth and inclusiveness, especially for the developing world. “E-trade for All,” for instance, is a multistakeholder initiative that aims to improve the ability of developing countries to use and benefit from e-trade by scaling up global collaboration in the field. Organized by UNCTAD, it brings together the efforts of multiple international organizations involved in e-trade policy, including the World Bank Group, the International Communications Union, the World Trade Organization, the World Customs Organization, and the Universal Postal Union.¹⁰ The World Bank also contributes in this field with broad expertise in the different elements of e-trade, including digital infrastructure, financial inclusion, digital skills and entrepreneurship, and the promotion of modern and transparent policy and regulatory frameworks.¹¹ The OECD has developed substantial guidelines for policy makers to support the adoption of regulatory framework that promotes digital trade while protecting privacy and consumers’ rights.¹² In the multilateral context, WTO Members have revamped discussion on e-commerce, raising the question of whether global rules on e-trade may be warranted. Other organizations, including private actors such as Microsoft and Google are also working together with governments in developing countries on ways of expanding digital connectivity to rural and remote areas.¹³

New technologies can strengthen international trade as an engine for economic growth for countries at all levels of development. While important challenges remain, especially with regard to connectivity, skills, and regulation, many developing countries are already actively engaged in e-trade through its different forms. As technology continues to advance, creating new opportunities for the expanding businesses and creating new ones, e-trade is bound to become a central element of trade policy. The international community and policy makers in developing countries should ensure that the forces of e-trade can be leveraged to promote inclusion and prosperity where it is the most needed.

10 See http://unctad.org/en/Pages/DTL/STI_and_ICTs/eTrade-for-All.aspx.

11 See “E-trade for Development: Solutions from the World Bank Group” for a detailed description.

12 See <http://www.oecd.org/development/electroniccommerce.htm>.

13 See <https://info.internet.org/en/story/connectivity-lab/>, and <https://x.company/loon/>, respectively.

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