

# INTERNATIONAL E-COMMERCE IN AFRICA: THE WAY FORWARD





# INTERNATIONAL E-COMMERCE IN AFRICA: THE WAY FORWARD

## Abstract for trade information services

ID=43172

2015

C-10 000 INT

International Trade Centre (ITC)

### **International E-Commerce in Africa: The Way Forward.**

Geneva: ITC, 2015. xii, 47 pages (Technical paper)

Doc.No. EC-15-364.E

The paper discussing the barriers hampering development of e-commerce in Africa - gives an overview of the e-commerce potential throughout Africa; explores common barriers grouped into four broad areas - financial, infrastructure, socio-political and digital divide, each of which is discussed in a separate chapter; seeks to identify the reasons for these barriers, using insights provided by e-commerce entrepreneurs in several African countries; presents examples of local successes such as Nigeria, alongside examples which illustrate the challenges to replicating such successes elsewhere on the continent; suggests avenues for reducing the obstacles and facilitating international e-commerce on the continent; includes endnotes and sources (pp. 45-47).

Descriptors: **Africa; Electronic Commerce, Information and Communication Technologies, SMEs.**

For further information on this technical paper, contact James Howe (howe@intracen.org).

---

English

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations.

ITC, Palais des Nations, 1211 Geneva 10, Switzerland (www.intracen.org)

The designations employed and the presentation of material in this paper do not imply the expression of any opinion whatsoever on the part of the International Trade Centre concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of firms, products and product brands does not imply the endorsement of ITC.

Digital image on the cover: © Shutterstock

© International Trade Centre 2015

ITC encourages the reprinting and translation of its publications to achieve wider dissemination. Short extracts of this technical paper may be freely reproduced, with due acknowledgement of the source. Permission should be requested for more extensive reproduction or translation. A copy of the reprinted or translated material should be sent to ITC.



## Foreword

The landscape of trade is constantly evolving. And the way that goods and services cross borders is transforming. Businesses today can use the Internet to manage almost every business process, from product sourcing and purchase to financial management, sales, marketing and distribution, cutting down on costs and reaching new markets.

The growth of e-commerce is a unique opportunity to open access to international markets for small and medium-sized enterprises (SMEs) in developing and least developed countries (LDCs). E-commerce – estimated at over US\$15 trillion for annual business-to-business transactions and well over US\$1 trillion for annual business-to-consumer trade – is now business as usual in developed countries. However, this is not the case in many developing countries where use of e-commerce remains low. The current share of consumer e-commerce by African enterprises, for example, is below 2%, and has enormous potential. By 2018, the African e-commerce market is projected to soar to US\$ 50 billion, from just US\$ 8 billion in 2013.

Field experience in developing countries and LDCs confirms that to realize this potential, additional support is required to help SMEs overcome the barriers to trading through online channels and marketplaces. These barriers are not new, but take on greater importance when transactions become digital.

Receiving international payments is a key part of trade, whether online or offline. Without an international bank account or credit card enterprises may not be able to list products on well-known online marketplaces. Some (in particular those for digital goods) may allow enterprises to list products, but exclude them from having an account to receive payments. These restrictions are not the result of government policy or company weakness but are decided by private owners of e-marketplaces and payment platforms, who determine transaction risks. Work is also needed to better position Africa as a new source of opportunities and growth for their platforms.

Selling online requires enterprises to master information and communications technologies, and develop suitable packaging, attractive product descriptions and well-managed inventory of stock, production and orders. For small enterprises, especially from LDCs, the learning curve is very steep. Getting it wrong can have serious consequences.

In a virtual marketplace, meeting consumer needs and expectations becomes even more important. Word of mouth, electronic messaging and buying on the basis of personal recommendation can make or break commercial reputations. These reputations are quickly built and destroyed on the Internet. But using the platforms offers a great opportunity for African businesses, given that many African countries have been quick to adopt mobile technologies, with a young and innovative population of enthusiastic social media users. There is great potential here.

This is why ITC's interventions on e-commerce have evolved in recent years, from general awareness-raising to specific support and coaching: taking groups of enterprises through the steps of preparing their goods and services for sale, and accompanying them as they develop their trade through online channels.

We sought to learn from the testimonial of managers from across Africa. Their own words outline their challenges in selling products and services online. We identified recurrent issues and proposed some practical actions that African firms can take, collectively or with the help of international partners. Access to better training and coaching can reduce some barriers. More comprehensive solutions require new forms of partnership and innovative approaches from government, trade and investment support institutions, and enterprises themselves. This paper provides insights to shape such solutions. We hope that businesses in Africa interested in taking advantage of e-commerce will be inspired by it.



Arancha González  
Executive Director, International Trade Centre

## Acknowledgements

ITC would like to acknowledge the support of its parent organizations, UNCTAD and WTO, in their efforts to disseminate understanding and advance the agenda for improving access to e-commerce, in developing countries and beyond. It further acknowledges the work of UNCTAD's ICT Analysis Section in producing the *Information Economy Report 2015: Unlocking the Potential of E-commerce for Developing Countries*, and UNCTAD's work with ITC on e-business in the context of the World Summit on the Information Society.

ITC wishes to thank Usman Ahmed, Head of Global Public Policy at PayPal, for his expert comments and review.

The case studies for this paper were developed by Abdel Basset Boulelouah and Mohamed Es Fih, International Trade Centre. The paper was written by consultant Kim Andreasson under the supervision of James Howe, International Trade Centre, with writing and editorial contributions from Erica Meltzer.

Editorial management and production was led by Natalie Domeisen with Evelyn Seltier. Serge Adeagbo and Franco Iacovino provided digital printing services.

**Contents**

<b>Foreword</b>	<b>iv</b>
<b>Acknowledgements</b>	<b>iv</b>
<b>Abbreviations</b>	<b>ix</b>
<b>Executive Summary</b>	<b>xi</b>
<b>Chapter 1: Africa's e-potential</b>	<b>1</b>
The global context	1
Rising e-potential for Africa	4
Nigeria, a regional e-commerce leader	6
<b>Chapter 2: Challenges to international e-commerce in Africa</b>	<b>9</b>
SME readiness	9
Connectivity	10
SMEs cite barriers	10
<b>Chapter 3: Addressing financial and related barriers</b>	<b>13</b>
International payments	13
Regional cross-border initiatives	14
Compliance with financial regulations	15
Gaining consumer trust	17
<b>Chapter 4: Tackling infrastructure barriers</b>	<b>23</b>
Access to affordable broadband	23
Road barriers	25
International logistics	26
<b>Chapter 5: Moving beyond sociopolitical barriers</b>	<b>29</b>
Government commitment	29
Sociocultural concerns	30
Access to enabling services from abroad	32
<b>Chapter 6: The remaining digital divide</b>	<b>35</b>
Access to ICTs	36
Using ICTs	37
Digital opportunities: The ultimate barrier?	38
<b>Chapter 7: The way forward</b>	<b>41</b>
<b>Appendix: Methodology</b>	<b>43</b>
<b>Endnotes</b>	<b>45</b>

**Tables**

Table 1: ICT indicators for developed and developing countries	3
Table 2: Regional average values in the UNCTAD B2C E-commerce Index	9
Table 3: B2C e-commerce sales, by region	15
Table 4: B2C e-commerce buyer penetration, by region	15
Table 5: Secure Internet servers, by categories (2014)	18
Table 6: African countries in UNCTAD's B2B index ranking	19
Table 7: Lack of G2B e-commerce and government commitment	30
Table 8: Language disparity in terms of users and content	30
Table 9: A selection of different digital divides facing SMEs in developing countries	35

**Figures**

Figure 1: Global B2C growth, 2014–2020	2
Figure 2: Internet contribution to GDP in selected countries, 2012	4
Figure 3: M-commerce opportunities and concerns in Nigeria	6
Figure 4: The link between e-commerce and concerns about security in Nigeria	17
Figure 5: Data records breached, by sector (2013, %)	18
Figure 6: Fixed-broadband subscription, by level of development	23
Figure 7: Fixed-broadband subscription, by region	24
Figure 8: Modes of mail delivery, by region	26

**Boxes**

Box 1: Defining e-commerce	1
Box 2: A snapshot of SME e-commerce barriers in Tunisia	11
Box 3: A domestic payment solution in Nigeria	14
Box 4: Concerns about cybercrime impeding e-commerce in Africa	20
Box 5: Transparency and trust in payments	21
Box 6: Broadband costs in Kenya	25
Box 7: Costly B2C order fulfilment in Morocco	27
Box 8: Finding B2B success but still facing sociocultural barriers	31
Box 9: Made in Morocco: Building an online market presence through resource-sharing	33
Box 10: Unique products, niche markets: Artisans from Ghana	36
Box 11: Working with local businesses in Rwanda to address the enterprise-level digital divide	37
Box 12: E-payment training can open business opportunities	39

## Abbreviations

The following abbreviations are used:

AfDB	African Development Bank
B2B	Business-to-business
B2C	Business-to-consumer
BRIC	Brazil, the Russian Federation, India and China
C2C	Consumer-to-consumer
COD	Cash on delivery
Coop2Coop	Cooperative-to-cooperative
EU	European Union
FNEM	Fédération Nationale du E-commerce du Maroc
G8	Group of Eight
G2B	Government-to-business
GDP	Gross domestic product
GIFEC	Ghana Investment Fund for Electronic Communications
GNI	Gross national income
ICT	Information and communications technology
iGDP	Internet's contribution to the gross domestic product
ITC	International Trade Centre
ITU	International Telecommunication Union
LDC	Least developed country
PPP	Purchasing power parity
SME	Small and medium-sized enterprise
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
VAT	Value added tax
WTO	World Trade Organization



## Executive Summary

E-commerce has great potential to become a significant part of the economic activity of countries throughout Africa. Increasing digital literacy and unprecedented new demand are occurring at the same time as breakthrough developments in infrastructure and technology.

News of successful investment rounds for local e-commerce platforms, the increasing adoption of mobile money, and the reach of Internet connectivity to a significant percentage of the population all suggest a dynamic continent that is developing new ways of conducting business digitally. Innovations abound as African entrepreneurs devise solutions to low consumer trust and limited access to formal banking.

There are, however, a number of barriers to the fulfilment of this potential. This paper examines the reasons for these barriers, using insights provided by e-commerce entrepreneurs in several African countries. It then suggests avenues for reducing the obstacles and facilitating international e-commerce on the continent. Although the focus is on Africa, the paper's findings can apply to the many practical challenges to digital trade for small and medium-sized enterprises (SMEs) in developing countries more generally. Africa is extremely diverse, and examples of local successes are presented such as Nigeria, which is seen by many as a leader in regional e-commerce, alongside examples which illustrate the challenges to replicating such successes elsewhere on the continent.

The paper, launched to coincide with the 10<sup>th</sup> Ministerial Conference of the World Trade Organization (WTO), draws on the growing body of work in this area, including UNCTAD's *Information Economy Report 2015* and an ITC survey of Tunisian SMEs, along with ITC interviews and case studies.

### Domestic e-business thrives: International e-commerce remains marginal

There are two competing stories in Africa: vibrant domestic digital businesses, and feeble development of international e-commerce. Several domestic e-commerce businesses in large African countries (such as Nigeria, Kenya and South Africa) are strong and growing, even if similar platforms are currently absent from smaller countries. While considerable innovation is applied to serving local markets, international digital entrepreneurialism in Africa would appear to be blocked. This paper identifies six main issues, which also represent the greatest obstacles to international trade more generally:

- **Difficulties with international banking transactions.** Some African countries place domestic restrictions on the amount of money that can be transferred across borders. Furthermore, a number of countries in the region may only receive payments from foreign credit card holders through costly intermediaries, because the domestic banking system lacks the necessary international links. Although global e-commerce platform providers offer integrated payment solutions, many African companies cannot actually use them because they lack the requisite foreign bank account or subsidiary. Compliance with banking regulations and related private-sector rules are yet another challenge, as are trust and perceived security issues.
- **Exclusion from international e-marketplaces.** Negative risk/return calculations, and negative perceptions about doing business in Africa, mean that the SMEs of many African countries are blocked from listing their products on international marketplaces. This only compounds the banking barriers, since even if their goods were listed and sold, the companies would be unable to be paid for them.
- **Infrastructure deficit.** Poor domestic and regional physical infrastructure, such as roads, ports and air transportation as well as the reliability of electricity supply are serious obstacles to e-commerce in much of Africa. While this can be overcome to some extent by local solutions, such as motorbike delivery, international logistics are far more complicated and costly, which puts many African companies at a particular disadvantage when competing globally.
- **Inexperience with sales tax and import duties.** It is a common mistake for inexperienced African SMEs to export through e-commerce channels without accounting for sales tax or import duties, and few local transportation partners can offer Delivered Duty Paid services. The consequences can be a costly return shipment or a loss of business.

- **Sociopolitical barriers.** Many governments and local institutions are not doing enough to create local services and structures in support of small businesses. And companies themselves are often challenged by the cultural requirements of doing business abroad, such as foreign language skills and customer service orientation.
- **The remaining digital divide.** Internet connectivity in Africa continues to lag behind other regions, although the gap is closing rapidly thanks to mobile Internet. ITC's *SME Competitiveness Outlook 2015* found that limited access to broadband widens an already significant digital divide and noted that this gap deprives many businesses of economic development opportunities, such as business process outsourcing services. The ultimate digital divide for e-commerce may be a lack of awareness and understanding on the part of small enterprises.

E-commerce platforms have emerged as an equalizing force between large and small companies and offer the tantalizing potential for enterprises from Africa to reach profitable segments in international markets. For the reasons identified in this paper, these opportunities remain difficult and costly to access and have effectively stifled the growth of international e-commerce originating in Africa.

A substantial amount of work is under way at the international level to simplify customs and tax arrangements and deal with trade restrictions and network security, as described in this paper. The paper also outlines ongoing efforts at both the national and international level to build bandwidth and reduce the digital divide. However, all of these efforts are for the long term, and even when they have been completed, they will not address the more practical challenge faced by small African enterprises to increasing their competitiveness. In the meantime, players from outside the continent are building their market positions in international e-marketplaces, including Africa itself. What is the best strategy?

The new digital era calls for new approaches, as proposed in the concluding chapter. New types of partnerships, involving governments, local institutions and competing companies, are needed, and should be involved in a series of well-targeted practical initiatives to develop international e-commerce from Africa:

- **Working with policymakers: Useful public-private sector** initiatives include enabling laws for the creation of e-commerce cooperatives, reviewing currency exchange controls on digital trade, adopting the Model Law on Electronic Signatures and promoting a conducive environment for e-commerce.
- **Institutional capacity-building:** Traditional business associations need to support the collective access of small enterprises to international e-commerce, by operating marketplaces, sharing ownership of technologies and pooling promotional budgets. They should help local enterprises comply with international fiscal transparency requirements and work with international specialists to create "e-trust" and enable electronic transactions.
- **Enterprise capacity-building:** Enterprises need training on the potential opportunities of e-commerce and how to overcome barriers. They need to know how to package, market and serve customers for international e-commerce, and how to comply with developed countries' trading requirements.
- **Corporate structure-sharing:** SMEs can set up collective representative structures abroad to handle import duties and sales taxes and provide access to finance and banking facilities in international markets.
- **Technology-sharing:** Groups of local enterprises can, with the support of international partners, create locally owned and managed platforms and use open source software libraries and other technologies to list their products on international sites.
- **Improved access to international transport and logistics:** Logistics partners in developed countries can develop optimized transport and logistics solutions, including e-commerce-enabled storage and handling ("e-fulfilment") in international markets. Such solutions should be tailor-made to the type of goods and marketing strategies of the African firms.

## Chapter 1: Africa's e-potential

Today's estimated African population of 1.1 billion represents about 15% of world's total: this will rise to 1.5 billion by 2025, or around 18% of the world's total population (Population Reference Bureau, 2013). Many African countries qualify as developing or least developed countries: GNI per capita in Africa at \$3,010 (at PPP) is about one quarter of the world average gross national income (GNI). Estimates of e-commerce activity for the continent point to a very low participation in international trade through digital channels. According to eMarketer (July 2014) the total international B2C trade from the entire Africa and Middle East region represented only about 2.2% of the world's total in 2013.

### The global context

The rise of e-commerce (Box 1) has been rapid and can be quantified by the amounts of money changing hands electronically. In 1999, e-commerce transactions among the world's 300 million Internet users totalled US\$ 110 billion<sup>1</sup>. In 2013, global business-to-business (B2B) e-commerce was estimated at about US\$ 15.5 trillion, with business-to-consumer (B2C) e-commerce accounting for another US\$ 1.2 trillion, according to UNCTAD.<sup>2</sup>

#### Box 1: Defining e-commerce

This paper uses the definition provided by UNCTAD: "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 organizations. To be included are orders made over the web, extranet or electronic data interchange. The type is defined by the method of placing the order. To be excluded are orders made by telephone calls, facsimile or manually typed e-mail."

There are five distinct categories of e-commerce:

- Business-to-business (B2B): a transaction between companies
- Business-to-consumer (B2C): a transaction between a company and an individual
- Consumer-to-consumer (C2C): a transaction between individuals, often conducted via an e-commerce platform, although not necessarily
- Government-to-business (G2B): a transaction between a company and a government, often in the form of electronic government (e-government) procurement
- Coop2Coop: An emerging form of e-commerce that takes place between cooperative organizations, which are autonomous associations of persons united voluntarily to meet their common goals

In addition to these categories, subsumed within the definition of e-commerce are mobile commerce (m-commerce) and social commerce (s-commerce):

- M-commerce is e-commerce conducted over mobile devices and networks.
- S-commerce is e-commerce promoted over – or potentially even conducted via – social networking platforms, such as Facebook.

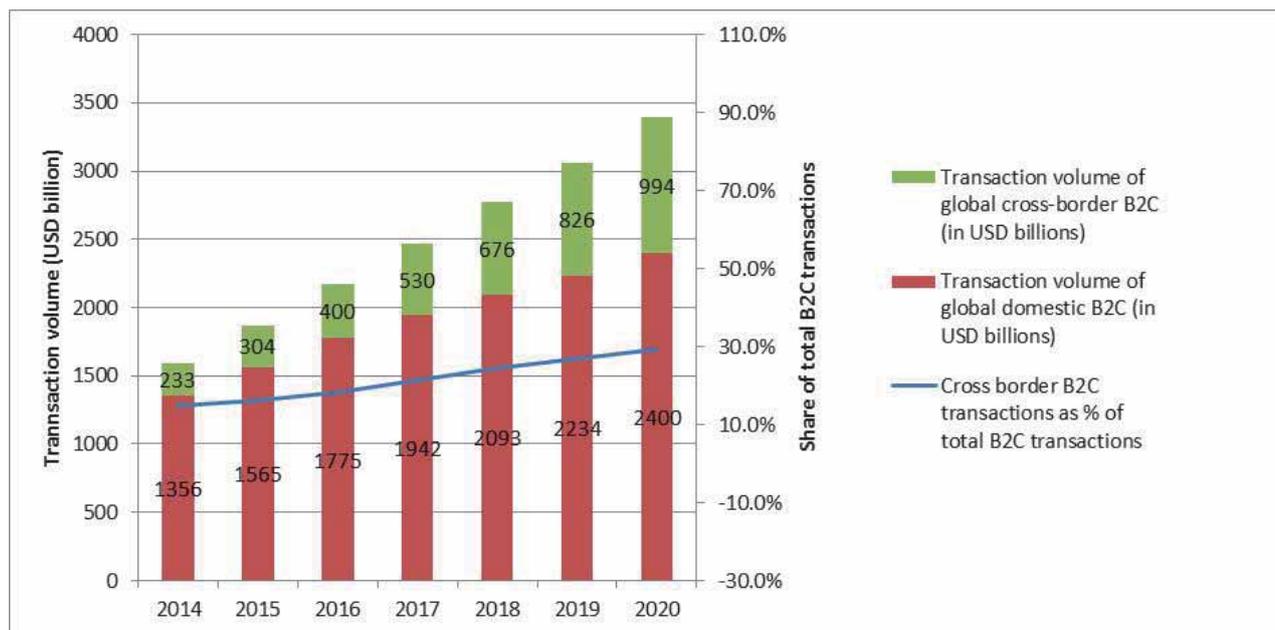
**Source:** UNCTAD Information Economy Report 2015: <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1146>.

The growth of e-commerce can also be illustrated by the emergence of global platform providers that serve as the link between sellers and buyers. When Alibaba, the Chinese e-commerce giant, listed on the New York Stock Exchange in 2014, it was initially valued at more than US\$ 200 billion, making it one of the 20 biggest companies by market capitalization in the United States.<sup>3</sup> In 2013, Alibaba had 231 million active users, each of whom made an average 49 purchases a year, for more than 11 billion orders annually.<sup>4</sup>

Today anyone with Internet access should be able to buy or sell goods and services with relative ease, globally, thanks to online platform providers. Alibaba is just one example of how e-commerce has opened up a new world of trade. An idea that might until recently have seemed far-fetched – the notion that small suppliers can make money selling products on a global scale – has become a reality in many parts of the world.

Joint research from Accenture, a consultancy, and AliResearch, Alibaba Group’s research arm, shows the value of the global B2C market rising from about US\$ 230 billion in 2014 to US\$ 1 trillion in 2020 (Figure 1).<sup>5</sup>

**Figure 1: Global B2C growth, 2014–2020**



**Source:** Alizila. 11 June 2015. Cross-border E-commerce to Reach \$1 Trillion in 2020. Available at: <http://www.alizila.com/report-cross-border-e-commerce-reach-1-trillion-2020-charts>

E-commerce therefore holds great promise for enabling buyers and sellers from developing countries to reap the benefits of global markets. By the end of 2015, there will be 3.2 billion people using the Internet, two billion of them in developing countries.<sup>6</sup> There will also be more than seven billion mobile cellular subscriptions, corresponding to a global penetration rate of 97% (Table 1).<sup>7</sup>

The proportion of the population covered by 3G (third-generation) mobile telecoms technology – which is essential for conducting more complex transactions – has risen from 45% in 2011 to 69% in 2015. This enables mobile commerce (m-commerce), as individuals can circumvent the need for a traditional computer connection to sell their goods, while also creating a larger pool of prospective customers.

**Table 1: ICT indicators for developed and developing countries**

	Per 100 inhabitants									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
<b>Mobile cellular subscriptions</b>										
Developed countries	82.1	92.9	102.0	107.8	112.1	113.3	113.5	116.0	119.2	120.8
Developing countries	22.9	30.1	39.1	49.0	58.2	68.5	77.4	82.1	87.6	90.2
World average	33.9	41.7	50.6	59.7	68.0	76.6	83.8	88.1	93.1	95.5
<b>Active mobile broadband subscriptions</b>										
Developed countries	N/A	N/A	18.5	27.5	36.6	44.7	56.8	66.4	75.1	83.7
Developing countries	N/A	N/A	0.8	1.6	3.0	4.5	8.3	12.4	16.8	21.1
World average	N/A	N/A	4.0	6.3	9.0	11.5	16.7	21.7	26.7	32.0
<b>Fixed (wired) broadband subscriptions</b>										
Developed countries	12.3	15.5	18.0	20.4	22.0	23.5	24.6	25.7	26.6	27.5
Developing countries	1.3	1.8	2.3	2.9	3.5	4.2	4.9	5.4	5.8	6.1
World average	3.4	4.3	5.2	6.1	6.9	7.6	8.4	9.0	9.4	9.8
<b>Individuals using the Internet</b>										
Developed countries	50.9	53.5	59.0	61.3	62.9	67.1	70.5	73.1	75.7	78.3
Developing countries	7.8	9.4	11.9	14.6	17.4	21.2	24.3	27.4	29.9	32.4
World average	15.8	17.6	20.6	23.1	25.6	29.4	32.5	35.5	37.9	40.4

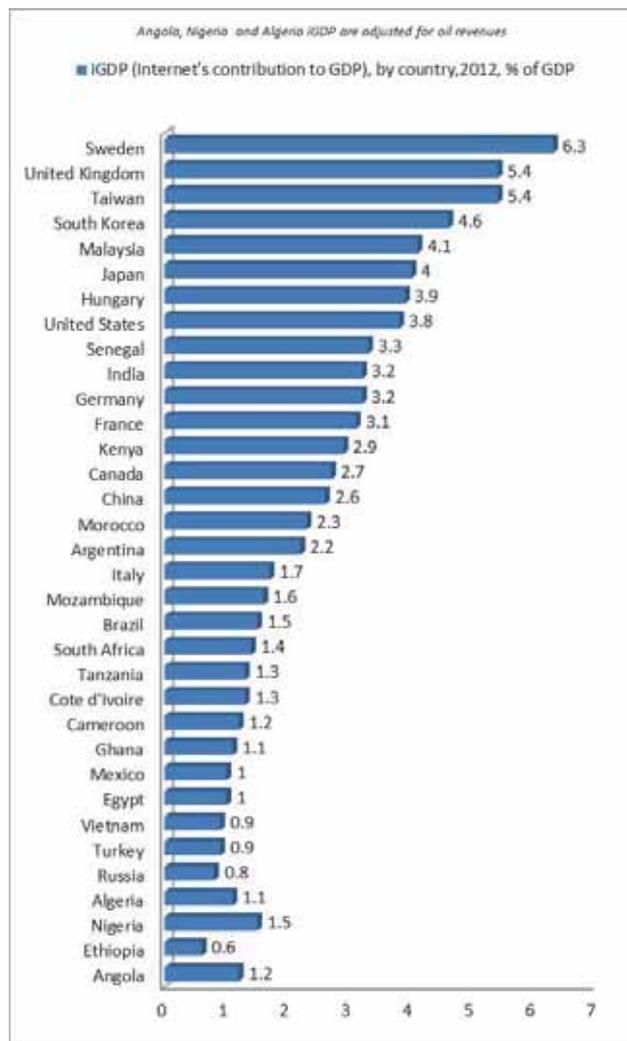
**Source:** ITU World Telecommunication/ICT Indicators database.

The table shows that mobile cellular subscriptions in developed countries now exceed 100 per 100 inhabitants – meaning that many users have more than one subscription each.

In parallel with the continuing growth of e-commerce is the increasing contribution of the Internet more generally to national economies. According to a study by the McKinsey Global Institute, the Internet's contribution to the gross domestic product (iGDP) accounted on average for 3.4% of GDP in the Group of Eight (G8) countries (Canada, France, Germany, Italy, Japan, the Russian Federation, United Kingdom, United States) and Republic of Korea, Sweden, Brazil, China and India.<sup>8</sup>

Differences between countries are significant. In the Russian Federation, for example, the Internet accounts for only 0.8% of GDP, while in Sweden the estimated contribution to GDP is 6.3%. Between 2004 and 2009, that contribution averaged 21% among the mature economies, but only 3% in Brazil, the Russian Federation, India and China (the BRIC countries).

In a more recent report, McKinsey found that Africa's iGDP was just 1.1% in 2012, or about half the level seen in other emerging economies (Figure 2).<sup>9</sup> This has very positive implications for the potential growth of e-commerce on the continent.

**Figure 2: Internet contribution to GDP in selected countries, 2012**

**Source:** McKinsey (2013). Lions go digital: The Internet's transformative potential in Africa.

[http://www.mckinsey.com/insights/high\\_tech\\_telecoms\\_internet/lions\\_go\\_digital\\_the\\_internets\\_transformative\\_potential\\_in\\_africa](http://www.mckinsey.com/insights/high_tech_telecoms_internet/lions_go_digital_the_internets_transformative_potential_in_africa).

## Rising e-potential for Africa

Hopes are high that African countries and companies will be able to seize the opportunities presented by the global rise of e-commerce to enhance their economic fortunes. Frost & Sullivan, an American market research and consulting company, estimates that the African e-commerce market will rise from US\$ 8 billion in 2013 to US\$ 50 billion by 2018.<sup>10</sup> There are several reasons why this projection is realistic.

First, Africa's e-potential is as yet untapped. Currently only 26.5% of the continent's 1-billion-plus people are connected to the Internet, compared to a global average of about 45%. This means there is considerable potential for expansion, assuming that the continent can develop its information society broadly, starting with growth in the number of Internet users and mobile connections.

Second, increasing use of the Internet (and related technologies) is typically accompanied by a rise in e-commerce activity, and this is likely to apply to Africa as well. Traditional retailers in the developed world have moved online, and in the 27 member States of the European Union (EU), the share of enterprise receipts from sales through electronic networks as a percentage of total turnover reached 15% in 2014.<sup>11</sup>

A McKinsey & Company report (July 2014) indicated that e-commerce could account for 10% of retail sales in Africa's largest economies by 2025, which would translate into US\$ 75 billion in annual revenue.<sup>12</sup> In part, this will be the result of a decade of expected rapid economic growth on the continent, with consumer spending projected to exceed US\$ 1 trillion annually by 2020.

African e-commerce will be boosted by this rising affluence and by the tendency of newly created retailers to prefer investments in e-commerce infrastructure over physical retail space. Jeremy Doute, co-CEO of one of Africa's largest e-commerce enterprises, Nigeria-based Jumia, explains that the group's strategy is to build large general retailing businesses online serving consumers for their everyday needs in the manner that supermarket chains (such as Carrefour) do in developed countries.<sup>12</sup> In effect, industry observers (including Doute himself) predict that the development of e-commerce in Africa will outstrip that of traditional retail space – and could grow at a faster rate than in developed countries.

This prediction is supported by the Digital Africa survey conducted in 2014 by Ovum (a London-based advisory group): 46% of the respondents believe that e-commerce will be the most important digital service to generate increased revenue for African industry over the next five years.

### **African platforms on the rise**

A third reason for believing that e-commerce will soon start to have a major impact on Africa is the growing number of e-commerce platforms developed from within the continent itself, supported by foreign investment. In 2014, American hedge fund Tiger Global Management invested US\$ 100 million in South African online shopping company Takealot.<sup>13</sup> Nigeria's Jumia was valued at nearly US\$ 550 million, including a EUR-120 million investment in November 2014 by Rocket Internet, a German-based global e-commerce investment company.<sup>14</sup>

Eventually such platforms may enable local African businesses to participate in global e-commerce. There is, however, a long way to go, given that the majority of goods on such sites are sourced from multinational brand owners, and that the largest platforms limit their service to individual domestic markets.

The three trends discussed above – increased use of the Internet, a natural gravitation towards e-commerce among shoppers, and investment in online platforms – are not new to Africa. What is new is the convergence and acceleration of these trends. In Tunisia, for example, Internet retailing grew at 113% in real terms over the four years from 2009 (the first year that data were available) to TND 24.1 million (US\$ 15.0 million). The country's Internet retail sales are expected to more than double again by 2018. This is one of the highest growth rates in the Middle East and Africa region, exceeding those of Egypt (53.7%), Kenya (32.5%) and Nigeria (74.0%).<sup>15</sup>

In UNCTAD's B2C E-commerce Index (a new tool for measuring the e-commerce readiness of countries), five African countries are in the top 75 globally. Mauritius ranks as the most e-commerce-ready country in the Middle East and Africa region, holding 54<sup>th</sup> place worldwide, followed within the region by South Africa (67<sup>th</sup> place), Egypt (68<sup>th</sup>), Tunisia (74<sup>th</sup>) and Morocco (75<sup>th</sup>). Many African countries have particular strengths that are not clearly reflected in this index. Kenya, for example, is a world leader in mobile payment solutions and has a vibrant ICT sector, even if it ranks relatively low (114<sup>th</sup> place) on the UNCTAD index. Similarly, Nigeria ranks only 101<sup>st</sup>, but has many assets that favour its rapid development as a leader in regional e-commerce (Reportlinker, September 2015).

## Nigeria, a regional e-commerce leader

Nigeria is Africa's largest economy in terms of nominal GDP and one of its leading e-commerce markets. While its huge population and relative wealth differentiate it from many other countries on the continent, some aspects of its experience provide useful lessons. About 1.5% of its GDP can be attributed to Internet-related technologies and activities.<sup>16</sup> Of its 175-million population, 60 million enjoy regular access to the Internet. Some 65% of the 60 million have shopped online, according to a recent study by Ipsos, a global market research company, on behalf of PayPal.<sup>17</sup> One quarter of the Internet users who have not shopped online expect to do so in the future, according to the same study.<sup>18</sup>

Nigeria is not only populous; it also has a growing middle class: GDP per capita (purchasing power parity, or PPP) is estimated to have reached over US\$ 6,200.

In 2013, the total value of Internet retailing stood at US\$ 4 billion, an expansion of 216% in real terms over 2008.<sup>19</sup> Food and drink retailing was the fastest-growing category, increasing by 368% in real terms over 2008 and driven by food establishments launching online ordering platforms. The value of Internet retailing is set to expand by 74% in real terms over the 2014–2018 period, according to Euromonitor International (2014).

There are several explanations for Nigeria's success in e-commerce, chief among which may be a commitment to developing an enabling technological environment. Research conducted in 2014 by Cisco and World Wide Worx, a South African consultancy, indicates that the country is becoming a leader in the adoption of cloud computing.<sup>20</sup> An impressive rate of Internet and mobile connectivity among the local population is reported in data provided by Euromonitor.<sup>21</sup> Advanced e-banking services are cited as yet another key factor by experts interviewed for this paper.

In July 2015, the mobile penetration rate in Nigeria was about 108 per 100 people.<sup>22</sup> In the first half of 2015, almost 93 million mobile users accessed the Internet from their devices.<sup>23</sup> Research shows that 90% of online shoppers who own a smartphone or a feature phone have used it to shop online; 51% do so at least once a month (Figure 3).<sup>24</sup>

**Figure 3: M-commerce opportunities and concerns in Nigeria**



**Source:** Ventures Africa. 20 February 2015. <http://venturesafrica.com/nigeria-is-africas-leading-e-commerce-market/>.

On the supply side, analysts cite high levels of competition and innovation from dynamic new private-sector players as another reason for success. Jumia, Konga, iROKING, OLX and DealDey are prominent examples of e-commerce platforms in the country, several of which have received long-term backing from foreign investment groups.

But even in a leading e-commerce country such as Nigeria, there are barriers to e-commerce growth. The logistics involved in the delivery of goods, especially to rural or remote areas, are complex, and payment methods remain largely cash-based.<sup>25</sup>

In a survey of 500 adults, about one half (53%) of those who have shopped online said that faster delivery of goods would encourage them to do so more often. Some 40% of online shoppers also cited security of payments as an area of concern.<sup>26</sup> This applied to mobile users as well: 30% of mobile shoppers restrict their purchases due to worries about the security of purchasing from a mobile device, while another 30% flagged concerns about Internet usage costs on mobiles.<sup>27</sup> These and other issues arise throughout the continent and are discussed in the next chapter.



## Chapter 2: Challenges to international e-commerce in Africa

Global e-commerce is set to expand rapidly, including in developing countries. However, there are major barriers to be overcome – especially high for micro- and small businesses<sup>28</sup> – before their growth rates can rival those of developed countries. Africa in particular is lagging behind other regions in UNCTAD's B2C E-commerce Readiness Index (Table 2), primarily due to a range of domestic barriers.

### SME readiness

UNCTAD's analysis shows that Africa lags in a number of domains that are contributory to the development of a vibrant e-commerce sector, including private usage of email and the Internet, ownership of credits cards and the availability of secure servers on the continent.

**Table 2: Regional average values in the UNCTAD B2C E-commerce Index**

Regional Average values in the UNCTAD B2C E-commerce Index					
	Share of population having mail delivered at home (2012 or latest, per cent)	Share of individuals with credit card (15+, 2011, per cent)	Share of individuals using Internet (2013 or latest, per cent)	Secure servers per 1 million people (normalized, 2013)	UNCTAD B2C E-commerce Index Value
Africa	27	4	13	43	22
Asia and Oceania	60	14	34	57	41
Latin America and the Caribbean	70	12	44	67	48
Transition economies	94	9	45	59	52
Developed economies	98	42	79	90	77

**Source:** UNCTAD.

**Note:** Includes all countries for which data for any indicator is available.

B2B e-commerce on the continent remains largely underdeveloped. A 2003 study by the London School of Economics and Political Science and the Institute of Development Studies found that the Internet was being used primarily to exchange information, and hardly at all to sell goods and services for local firms.<sup>29</sup> More than a decade on, this situation has barely changed.

While global B2C sales will double by 2018, the share of this trade going to Africa and the Middle East will barely rise, from 2.2% today to 2.5% by 2018.<sup>30</sup>

Small businesses, which make up the majority of businesses in Africa, are insufficiently supported in developing e-commerce, and that too little attention is being given to bringing down some of the barriers that can in fact be addressed immediately.

While it is relatively easy to create a website to showcase goods and services, it is a very different and more challenging proposition to enable sales transactions or deals to be completed online. An ITC survey

of Tunisian SMEs conducted for this paper, for example, shows that a number of barriers – ranging from a lack of digital skills, and knowledge of how to set up an e-commerce business, to expensive or inadequate payment solutions and logistics – continue to hamper the development of e-commerce there (Box 2). The same observations no doubt apply to other African countries.

## Connectivity

Connectivity issues, while remaining a challenge throughout the continent, are becoming less so. One reason for rising connectivity is the falling price of getting connected. According to the International Telecommunication Union's ICT Development Index and ICT Price Basket, which track the cost and affordability of access in more than 160 countries over time, mobile cellular subscriptions in Africa represented 6.2% of gross national income (GNI) per capita in 2013, down from 11.8% in 2008.

There are other barriers to African e-commerce start-ups, as summarized in a recent article in the *Harvard Business Review*: a lack of trust, the cost of Internet access, logistics, lack of an open market, and digital divides, such as literacy rates.<sup>31</sup> Notably absent from the list is low Internet penetration rates, which, despite being the lowest in the world, are steadily rising.

Nigeria, for example, had some 60 million Internet users in 2013, 161% more than in 2008, as mentioned earlier. Another reason for the increase in connectivity worldwide is the rapid rise in mobile devices, which are near saturation levels in many markets. By late 2013, mobile cellular penetration had reached 66% in Africa, and growth continues to be stronger than in other regions. In many countries mobile Internet is supplementing traditional wired access. In Nigeria, total mobile Internet subscriptions reached 21.6 million in 2013, an increase of more than 8,000% over 2008.<sup>32</sup>

## SMEs cite barriers

If many of the foundations for a vibrant e-commerce economy – including increased connectivity – are in place in a number of African countries, more work is needed to translate this into successful exports from SMEs. African e-commerce platforms need to be developed in key domestic markets such as Ghana, Kenya, Morocco, Nigeria and South Africa before any attempt is made to build regional or other international trade.

Tunisian companies cite common difficulties in relation to e-commerce (Box 2):

- Promoting awareness of goods and services internationally (cited by 14 of 48 respondents);
- Receiving international payments (13)
- Paying value added tax (VAT) and custom duties in export markets (11);
- Sending goods internationally (9);
- Managing the return of goods internationally (9), and storing goods internationally (8);
- Domestic payments (6); logistics (1) and storage (1) are cited far less frequently.

Although Africa is both large and diverse, with specificities that vary by region and country, the common challenges or barriers have been grouped into four broad areas, each of which will be discussed in the following chapters:<sup>33</sup>

- Financial and related barriers, such as a lack of international payment systems, compliance with the legal and fiscal requirements of import markets and the development of trust and security for potential customers;
- Infrastructure barriers, such as broadband penetration and logistics for the storage and delivery of goods or the provision of services;

- Sociopolitical barriers, such as a lack of government commitment and cultural and regulatory hurdles;
- Digital divides that encompass inadequate awareness, knowledge and skills for using information and communications technologies (ICTs), among consumers and providers alike.

### **Box 2: A snapshot of SME e-commerce barriers in Tunisia**

ITC conducted a perception survey of 48 Tunisian SMEs in mid-2015 in order to assess their readiness for e-commerce. The findings underline the perceived importance of this sales channel, despite the limited number actually making use of it – and indicate that concerns about its cost and feasibility dissuade many enterprises from attempting it. While Tunisia's e-profile is unique, the findings have implications for SMEs in other developing countries and regions on what small businesses perceive as challenges to integrating e-commerce in their business. Their main obstacles are financial and cultural.

All of the surveyed companies had less than 100 employees and represented a mix of services, finished goods and food products (for full details see the Appendix on Methodology). While most of the enterprises (44) believe that e-commerce is important, less than half (21) of them currently sell their goods online, and only just over half of those which do sell online (11) do so internationally.

When asked about the main reasons for not selling their goods and services online, most cited a lack of finances to invest in e-commerce (mentioned by 10 out of 48 respondents), a lack of understanding of how to set up an e-commerce business (9), the high costs of e-commerce services (9), expensive or unreliable payment solutions (9), expensive or poor transport options (8) or being unaware of sales opportunities for goods and services in international markets (7).

None of the enterprises reported Internet connectivity as an issue, or raised concerns about the quality of goods and services in relation to international requirements. They felt that their goods were of a suitably high standard.

Almost all companies that currently sell their goods and services online do so through their own website (cited by 20) or via social networks (19). Only half (8) of the companies selling internationally do so through e-commerce marketplaces: an indication of the difficulty of achieving successful transactions through these channels.

The most commonly mentioned difficulties in relation to e-commerce are: promoting awareness of goods and services internationally (14), receiving international payments (13), paying VAT and custom duties in export markets (11), sending goods internationally (9), managing the return of goods internationally (9) and storing goods internationally (8). Domestic payments (6), logistics (1) and storage (1) are cited as challenges far less frequently.

Most of the enterprises ship internationally via postal services (14), and some use international couriers (9). The respondents judge the price/quality ratio of the various international transportation options to be poor. Only 2 respondents said that value for money was good, and almost half said it was bad (11 for postal services and 9 for international couriers).

With respect to international logistics challenges, about one quarter of the respondents said they had no clear advance knowledge of the full costs of international door-to-door shipping; they did not know what the applicable VAT charges and custom duties were; they were unfamiliar with the required export documents and procedures; or they found it costly or difficult to return goods internationally.

*Source:* ITC research (2015).



## Chapter 3: Addressing financial and related barriers

For this report, ITC reviewed 100 articles; conducted seven one-on-one interviews with experts from Rwanda, Morocco, Tunisia, Kenya, Ghana and Nigeria; and surveyed 48 Tunisian SMEs. The key challenges that emerged concern:

- International payments
- Regional cross-border initiatives
- Compliance with financial regulations
- Gaining consumer trust

### International payments

Receiving payment for goods and services can be a complicated problem in developing countries due to a lack of advanced financial infrastructure.<sup>34</sup> However, the extent of the problem differs greatly between domestic and cross-border e-commerce.

A common local solution is the use of cash on delivery (COD), in which the transaction is completed at the moment the good is delivered to the buyer. In Nigeria, TracList, an e-commerce platform provider, has created an integrated payment and delivery system using COD (Box 3).

Mobile money has started to be used in many African domestic markets and several local e-commerce applications. In Kenya the oft-cited M-PESA (a mobile payment system designed and created for Safaricom, a mobile operator) makes domestic payments easy. Launched as a way to simplify funds transfers between people, users soon began using it in new ways, viewing the application as a ubiquitous payment solution in a country where access to banking is limited.

Supermarkets began to accept payments through M-PESA, as did retail shops and various institutions, including local schools. It has been an astounding success. Directly after M-PESA launched in March 2007, it had 19,671 active mobile users.<sup>35</sup> The service now has about 15 million active users, one third of the country's population.

To extend the benefits to domestic e-commerce, Safaricom subscribers can now pay for goods and services on local online trading platforms through a service known as Lipa na M-Pesa, which charges a 1% fee on the value of goods bought through the mobile money transfer service.<sup>36</sup> The initiative is also spreading to other countries. In the United Republic of Tanzania, FastJet airlines is said to be among the first companies to offer M-PESA payments for online bookings.<sup>37</sup>

**Box 3: A domestic payment solution in Nigeria**

Payment for goods and services is often a barrier to e-commerce because the financial infrastructure needed to make and receive payments is lacking, and because customers have security concerns that make them reluctant to pre-pay goods. In Nigeria, for example, only about 8% of orders are paid for online. Instead, over 80% of shoppers prefer to pay when receiving the goods.

Local companies are responding through innovative solutions. Traclist, a Lagos-based online marketplace for fashion items sourced from all over Nigeria, partnered with four logistics companies prepared to collect COD. The solution has the added benefit of combining payment with delivery in a country suffering from inadequate road and transport infrastructure. To encourage its adoption across Nigeria, Traclist offers a reduction in shipping costs for locations outside Lagos.

“Traclist allows small-scale Nigerian retailers to expose their stock inventories through an online shopping portal and allows shoppers to buy from different stores on the same order and get them delivered anywhere in Nigeria,” says co-founder Olusegun Afolahan. The company does not charge retailers for selling on its platform, instead preferring to charge a fee for every item sold.

Starting out in a local business start-up incubator (popularly referred to as a CCHUb, or Co-Creation Hub), the company shared office space and was helped by a grant of US\$ 5,000 from the Tony Elumelu Foundation. The real boost, however, came in 2014 when part of its equity was sold for US\$ 25,000, enabling the company to expand its workforce and advertise. Traclist now has its own office space with 17 employees, generating over 20 orders per day.

Source: ITC research (2015); [www.traclist.com](http://www.traclist.com).

**Regional cross-border initiatives**

M-PESA holds promise as a regional payment solution. However, an UNCTAD comparative study of existing mobile money platforms and regulations in the East African Community highlights the challenges and opportunities of such integration.<sup>38</sup> It would, for instance, require cooperation between mobile network operators, financial institutions and governments. Hence, the barriers to innovative regional payment channels are not only technical but also regulatory.

Despite the policy challenges of creating a cross-border e-payment system, progress is being made. The Electronic Transaction Bill 2014, an initiative by Kenya, Rwanda and Uganda which the United Republic of Tanzania has also joined, would encourage electronic-based transactions linking the private sector and governments in the region. The idea is to harmonize regulations and payment standards so that mobile money can be used for cross-border transactions.<sup>39</sup> Each participating country appears to be moving the initiative forward within their respective political processes, although as yet no specific start date has been set for implementation of an agreement.

Adding more countries to such arrangements can be a long and difficult process. Even if the initiative expands further, it does not resolve the larger issue of being able to address opportunities in the global

marketplace, such as reaching customers in Europe, Asia and the Pacific, and North America, who are expected to account for over 90% of global B2C e-commerce for several years to come (Tables 3 and 4).

**Table 3: B2C e-commerce sales, by region**

<i>% of total</i>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
North America	34.9%	32.9%	31.7%	31.1%	30.7%	30.6%
Asia Pacific	28.3%	31.2%	33.4%	35.1%	36.4%	37.4%
Western Europe	26.4%	25.4%	24.6%	23.9%	23.3%	22.7%
Latin America	4.2%	4.3%	4.2%	4.1%	3.9%	3.7%
Central and Eastern Europe	4.1%	1.0%	3.8%	3.5%	3.3%	3.2%
Middle East and Africa	2.2%	2.3%	2.3%	2.4%	2.4%	2.5%

**Source:** eMarketeer July 2014. Numbers may not add up to 100% due to rounding.

**Table 4: B2C e-commerce buyer penetration, by region**

<i>% of internet users</i>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
North America	72.0%	73.6%	74.9%	76.3%	77.7%	78.8%
Western Europe	64.0%	65.2%	66.3%	76.3%	68.2%	69.0%
Asia Pacific	42.1%	44.1%	46.8%	48.9%	50.4%	50.9%
Central and Eastern Europe	41.6%	43.3%	44.3%	44.4%	44.6%	44.6%
Middle East and Africa	31.3%	33.1%	34.0%	35.0%	60.0%	37.0%
Latin America	28.2%	29.9%	30.9%	31.8%	32.7%	33.7%
<b>Worldwide</b>	<b>41.3%</b>	<b>42.7%</b>	<b>44.3%</b>	<b>45.4%</b>	<b>46.4%</b>	<b>47.3%</b>

**Source:** eMarketeer, July 2014. Numbers may not add up to 100% due to rounding.

The ability to receive payment for goods and services from international customers is therefore of critical importance to African e-commerce enterprises. Some countries (including those with foreign exchange controls) may have specific restrictions on receiving foreign payments. There are, however, a number of barriers that are shared across several countries. The common denominators are compliance with international financial transparency rules, the cost of operating in certain jurisdictions and concerns about trust and security.

### Compliance with financial regulations

The nature and extent of the barriers to online payments differ between countries and can also be domestic or international in origin. Local banks often charge high fees to conduct transactions on behalf of retailers. An additional disadvantage for e-commerce companies is that they – unlike their informal competitors – are penalized by the sales tax system, as it is easy for government auditors to verify whether 18% VAT has been added to sales.<sup>40</sup>

An eBay report notes that South African sellers using its marketplace reach 118 different markets around the world.<sup>41</sup> The company has only 24 “country-specific marketplaces” (such as [www.ebay.de](http://www.ebay.de) for

Germany), which are a primary entry point for consumers in the specific market. However, a seller can also access eBay's global marketplace from almost any country in the world, and listings will be crosslisted both on eBay's global platform and on the "international listings" of eBay's country-specific websites. A business must nonetheless have access to a regulated bank account in order to accept payments.<sup>42</sup>

Similarly, Amazon, the world's largest online platform, is available only in the 23 countries where bank accounts are supported by Amazon Pay, Amazon's payment processor. This means that African businesses without an account in one of those countries cannot use the platform.

The reason for these restrictions – and it is one that is likely to become more important in the coming years – is the need to ensure transparency in international financial transactions. Institutions such as Amazon Pay are subject to increasingly stringent international agreements that require them to know the identity of their counterparts.

From the consumer's standpoint, Amazon looks like a retailer with an e-commerce site. For the financial regulator, the activities of firms like Amazon – and their payment processing divisions in particular – are subject to similar reporting requirements as international financial institutions. The result is that countries with inadequate systems for verifying an individual's identity and tracking the actions of corporate officers are largely excluded from international payment solutions which are managed from overseas – because the data do not exist, they are not reliable or they cannot easily be accessed and verified by an international financial institution.

The payment platform providers do not offer merchant accounts to countries where they cannot readily perform "due diligence" on the identity and background of individuals and businesses.

The result is that African businesses typically try to circumvent the restrictions by relying on banking arrangements of expatriate friends or family: a common situation is for a business to use the bank account of a relative in Europe or the United States.

Local restrictions can exacerbate the problems of companies conducting international e-commerce. In Tunisia, for example, individuals are forbidden to have a foreign bank account, and there are strict foreign exchange controls on the amount of money that can be sent abroad, both of which limit the ways in which local SMEs can interact with international e-commerce marketplaces. This is confirmed by the survey of Tunisian companies conducted for this paper: almost all the companies that currently sell their goods and services online do so through their own websites (cited by 20 of the 21 firms that sell online) or through social networks (19). Despite the promise of e-commerce platforms, less than half (8) sell via international marketplaces. Similar observations were made by other SMEs working with ITC on e-commerce projects in Côte d'Ivoire, Morocco and Tunisia.

African companies may therefore face two forms of barriers to using online payment solutions. First, domestic regulations and local banking costs may hamper their ability to use local payment platforms. Second, international platforms may refuse to open accounts for businesses registered in most African countries; hence the rise of third-party payment providers.

PayPal, an international payment solution platform used by various marketplaces, can overcome some of these transaction barriers. It has about 152 million active accounts in 200 markets and processed 9 million payments per day in 2014. There are, however, limitations. Although it enables individual transactions in 26 currencies, business accounts for SMEs are available in only 73 countries. In Africa, PayPal is available in 50 countries, but in only 13 of them can an SME have a business account in which it can receive payments.

Third-party payment providers such as PayPal also face a mix of regulatory and commercial challenges in deciding which markets to serve. The cost of obtaining regulatory licences and building technical capabilities to serve a country's business customers may simply outweigh the commercial benefits.

A potential compromise is to register a representative office in the target market. Subsidiaries of foreign firms need not worry about the restrictions on access to payment solutions in African markets: they can set up payments through international accounts outside the continent. A solution suggests itself: what if the African firms could share a foreign representative office and use it to set up banking in the target markets?

Historically such arrangements have been costly or difficult to arrange and considered opaque by local fiscal authorities. However, this is changing as various innovations are developed by intermediaries that can offer fiscal and legal representation on behalf of groups of foreign companies. In effect, it should be possible for an African company, operating within a consortium of similar companies, to share a virtual business subsidiary in a foreign market and in so doing access a foreign bank account, register for taxes and create the potential to sell through the large international marketplaces in full compliance with registration requirements.

For such arrangements to work, the African SMEs would also have to be supported in their compliance with financial reporting and legal liabilities in the jurisdiction where the shared entity is registered.

### Gaining consumer trust

Gaining customer trust is especially important in an online environment where reputation relies to a great extent on perception. As evidence of the potential market to be captured by getting trust right, a 2011 study by the consultancy firm Booz & Company estimated that the value of social commerce, in which e-commerce is promoted over social networks like Facebook, would reach US\$ 30 billion globally by 2015.<sup>43</sup>

Anecdotally, cyberfraud in West Africa is undermining the adoption of e-commerce in the region.<sup>44</sup> In Nigeria, EuroMonitor International cited fear of fraud and a general lack of trust in online transactions by Nigerian consumers as holding back e-commerce (Figure 4).<sup>45</sup> Another problem facing companies in Africa is limited access to electronic trust tools and services, such as Qualified Digital Signature and EV SSL Certificates, which can reassure foreign customers that security is taken seriously.

**Figure 4: The link between e-commerce and concerns about security in Nigeria**

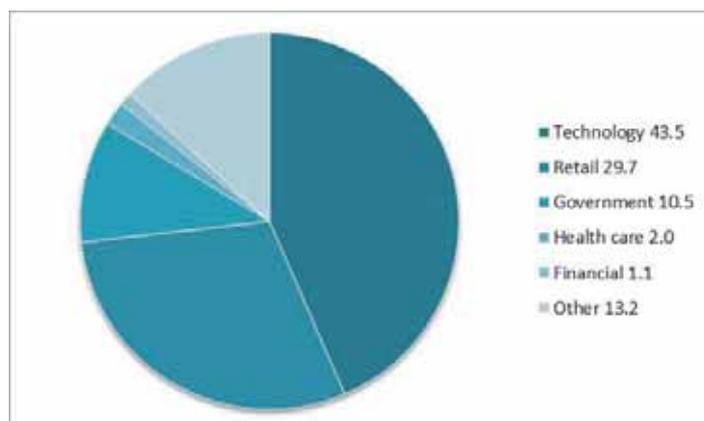


**Source:** Ventures Africa. 20 February 2015. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.

From a consumer perspective, online fraud is a real concern. A commonly cited estimate of the magnitude of financial losses resulting from online fraud is the Norton Report from Symantec. The 2012 edition, which is based on a survey of 13,018 online adults aged 18–64 across 24 countries, estimates the global cost of consumer cybercrime at US\$ 110 billion annually.

It also notes that almost half (46%) of the adult online population surveyed have been victims of some sort of attack, defined as everything from malware and viruses to fraud and theft.<sup>46</sup> Worryingly, retail is one of the sectors with the highest level of cyberbreaches (Figure 5, Box 4).

**Figure 5: Data records breached, by sector (2013, %)**



**Source:** Breach Level Index.

The Norton Report also notes that the rise of mobile access is a problem, as people typically do not use a security solution for mobile devices; in fact, almost half (44%) of those surveyed globally are not even aware they exist. This lack of security, and the low prevalence of e-payments, is one of the impediments to the development of e-commerce in Africa.

Two comparisons between Africa and other regions make it possible to gauge the extent of the problem: the number of secure Internet servers and the level of government commitment to improving cybersecurity.

**Table 5: Secure Internet servers, by categories (2014)**

<b>World</b>	<b>190</b>
<b>Low income</b>	<b>1</b>
<b>Middle income</b>	<b>14</b>
Lower middle income	6
Upper middle income	23
<b>Low &amp; middle income</b>	<b>13</b>
East Asia / Pacific	9
Europe / Central Asia	47
Latin America / Caribbean	47
Middle East / North Africa	5
South Asia	5
Sub-Saharan Africa	9
<b>High income</b>	<b>930</b>
Euro area	830

**Source:** World Bank (2014).

The ITU-ABI research Global Cybersecurity Index provides the data for the second type of comparison, government commitment to cybersecurity. It finds that the seven most committed African countries are Mauritius, Uganda, Rwanda, Nigeria, Cameroon, Kenya and South Africa, in that order.<sup>47</sup> This list is similar to the UNCTAD ranking of e-commerce markets in Africa (Table 6).

**Table 6: African countries in UNCTAD's B2B index ranking**

Country	UNCTAD B2C ranking	ITU GCI ranking *
Mauritius	54	9
South Africa	67	16
Egypt	68	9
Tunisia	74	11
Morocco	75	10
Sierra Leone	89	27
Zambia	93	24
Madagascar	96	26
Zimbabwe	97	26
Mali	100	26
Nigeria	101	14
Angola	105	26
Swaziland	108	27
Ghana	109	19
Mozambique	110	27
Botswana	111	23
Senegal	112	23
Gabon	113	28
Kenya	114	15
Rwanda	115	11
Uganda	116	10
Comoros	117	28
Togo	118	20
Benin	119	23
Liberia	120	22
Sudan	121	14
United Republic of Tanzania	122	22
Malawi	123	23
Lesotho	124	29
Burkina Faso	125	18
Democratic Republic of the Congo	126	28
Burundi	127	25
Niger	128	26
Central African Republic	129	29
Guinea	130	28

**Source:** UNCTAD, *Information Economy Report 2015*.

**Note:** Only includes countries who appear in both rankings.

\* Many countries share the same ranking which indicates that they have the same level of readiness.

**Box 4: Concerns about cybercrime impeding e-commerce in Africa**

Cybersecurity concerns are a global barrier to e-commerce that resonate particularly strongly in Africa. Companies and consumers alike are often worried about online reputations, the security of payments, and the measures taken to improve data security. Many simply decide to stay offline – perhaps without fully understanding how to properly evaluate and reduce the risks.

GreenBell Communications Limited, a Nairobi-based digital marketing agency with 22 staff members, has found many local SMEs to be unaware of the relevance of e-commerce; the firms also cite concerns about cybersecurity as a barrier to their investments in e-commerce. GreenBell seeks to help local enterprises with website solutions, online marketing strategies and lead generation, in which its essential first task is to address security concerns.

Managing Director Rose Maghas believes that overcoming fears about cybersecurity is one of the key challenges for GreenBell in developing more local business.

Source: ITC research (2015).

**Security tools: Why African entrepreneurs may not have access to the latest and best**

One consequence of the inadequate nature of due diligence information in African markets is that e-commerce entrepreneurs cannot access the most up-to-date high-security forms of verification.

As with international financial institutions, the providers of e-commerce trust tools often lack reliable information about the identities and activities of individuals in African countries. Because of the difficulties in obtaining such information – or the costs entailed in verifying it locally – many of the international firms that issue trust or security tools are unable or unwilling to do so for potential African clients.

**Understanding market requirements and doing the right thing by customers**

Imported goods are subject to import duties in most markets, unless they are below a threshold value (the de minimis rates, which can vary by import market). In EU countries this de minimis rate is currently set at €22. Knowing this rate is crucial: many African e-commerce entrepreneurs are able to sell goods in Europe at a lower price and legally avoid import duties. However, the total import value includes the cost of transport, and customs authorities often decide that an imported good is worth more than the declared amount of €22, imposing additional import duties and taxes.

In most cases the typical African e-commerce SME is not sufficiently informed about customs requirements and does not send goods under the Incoterms “Delivered duty paid” rule developed by the International Chamber of Commerce. In the absence of an appropriate fiscal representation in the EU, the customs authorities simply pass the additional charges on to the customer receiving the goods.

This generates high levels of customer dissatisfaction and may also violate the regulations of the e-commerce marketplace. The result is a loss of reputation and possible blacklisting from the platforms (Box 5).

In the survey of Tunisian companies conducted for this paper (Box 2), one quarter of respondents identified the main challenges they face as advance knowledge of the full door-to-door costs of shipping

goods internationally; knowledge of the applicable VAT charges, custom duties, required export documents and procedures; and the costs or difficulty of managing returned goods internationally.

### Box 5: Transparency and trust in payments

The screenshot displays an eBay seller profile for 'giftsdecoration2012'. The profile includes a 'Top Fiabilité' badge and a 100% positive feedback rate. Below this, there are two tables: 'Evaluations récentes' and 'Evaluations détaillées du vendeur'.

	3 mois	6 mois	12 mois
Positive	15	54	180
Neutre	1	1	2
Négative	0	0	0

Critères	Note moyenne	Nombre d'évaluations
Objet conforme à la description	★★★★★	114
Communication	★★★★★	114
Délai de livraison	★★★★★	114
Frais d'expédition et de service	★★★★★	114

E-Commerce Bouhlel International is a small online B2C seller of Tunisian handicrafts and associated items, such as spices, traditional clothes, Oriental decoration items and olive wood products. In 2012, the company decided to expand to international e-commerce platform providers and opened an account on Amazon.fr, which also enabled access to Amazon's German, Italian, Spanish and British markets.

However, European VAT and customs duties on goods of a certain value (depending on destination) pose a barrier, as E-Commerce Bouhlel International cannot make these payments from Tunisia. The Tunisian Post Office, which the company uses to ship goods, does not handle destination duties. As a result, any goods valued above the European de minimis rate for import duties and which are checked in customs will result in the receiver having to pay additional duties. This actually happened on several occasions and generated negative feedback on Amazon from customers in Germany. As a consequence the platform withdrew the company's account from its German site.

The loss of access to the German market was unfortunate as it represented the highest sales turnover for E-Commerce Bouhlel International. "Unlike other markets, Germans show a genuine interest in my products. Fortunately, I still have access to other European markets," says Oussama Bouhlel, the company's founder.

Source: ITC research (2015).



## Chapter 4: Tackling infrastructure barriers

A second major category of barrier facing African SMEs wishing to compete in global e-commerce is poor infrastructure, including the availability of reliable and cost-effective broadband as well as transportation. The form and importance of these infrastructure barriers vary by country, sector of activity and shipping destination.

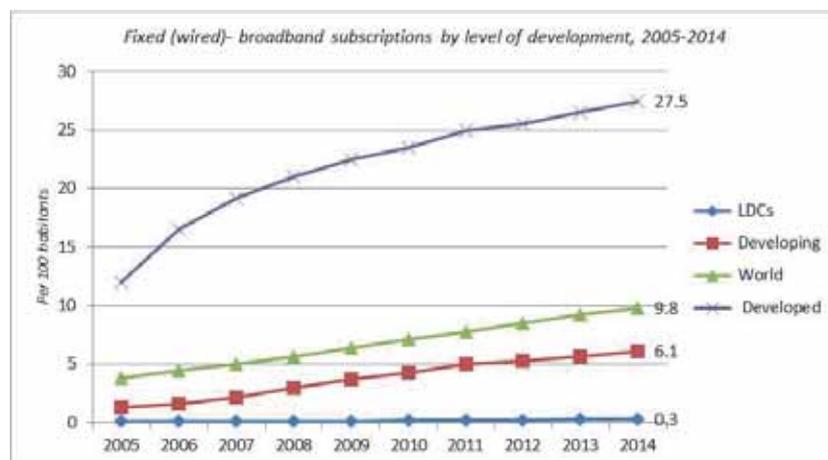
### Access to affordable broadband

Broadband provides a fast Internet connection, whose reliability and speed is greater than the traditional method of dial-up access, and can therefore support more advanced usage. A commonly cited World Bank report, *Information and Communication for Development 2009*, noted that low- and middle-income countries could raise economic growth by 1.4% for every 10% increase in broadband penetration.<sup>48</sup>

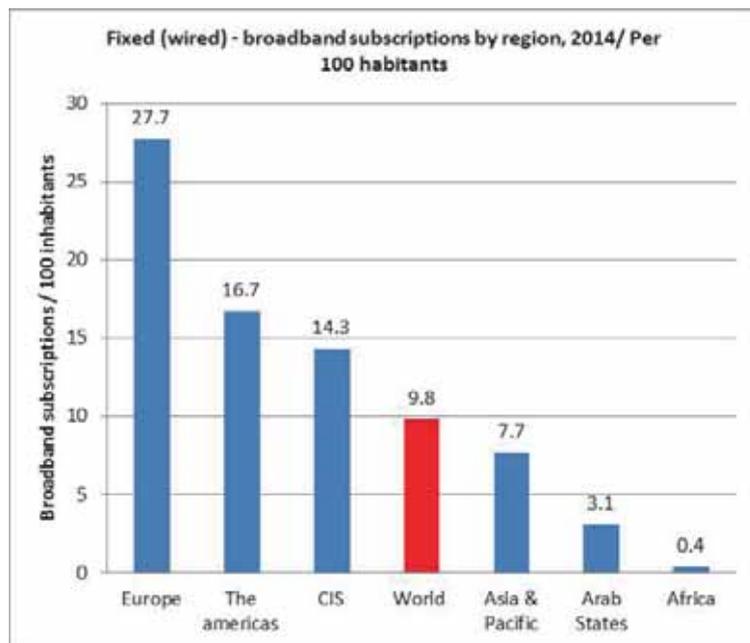
With specific regard to e-commerce, high broadband speeds are often necessary to take advantage of emerging technologies that can support e-commerce initiatives, such as cloud computing. The quality and speed of connections are also of particular importance to e-commerce firms that provide services. In a globally competitive landscape, broadband is often required to transfer large files faster, and hence the lack of such connections can be a serious barrier to services companies engaged in the B2B market.

Although broadband subscriptions have increased significantly worldwide, there are still far more people without access than with it. The situation is particularly dramatic in Africa, where the broadband penetration rate was estimated in late 2014 at only 0.4% of the population (Figure 6 and 7).<sup>49</sup> ITC's *SME Competitiveness Outlook 2015* also found that limited access to broadband is widening an already significant digital divide in this area, which is depriving many businesses of economic development opportunities, such as business process outsourcing services.<sup>50</sup>

**Figure 6: Fixed-broadband subscription, by level of development**



**Source:** ITU World Telecommunications / ICT Indicators database.

**Figure 7: Fixed-broadband subscription, by region**

**Source:** ITU World Telecommunications / ICT Indicators database.

However, there are two reasons to believe that Africa's broadband penetration gap will narrow. First, the International Telecommunication Union (ITU) has called mobile telephony in Africa a "game-changer", projecting that at the end of 2014 there will be 630 million mobile subscriptions on the continent, 27% of them offering broadband connection rates.<sup>51</sup> Although this figure lags behind that of other regions, it will offset the larger gap in fixed-broadband connections.

Second, adoption is rising, and in some countries rapidly. In 2013, 54.1% of Tunisian businesses used fixed broadband, compared to 28.9% in 2008. The proportion of businesses using local area networks also increased, from 48.5% in 2008 to 64.8% in 2013.<sup>52</sup> And a number of African countries have recently initiated fixed-broadband development programmes in order to catch up with the rest of the world.

In 2013, South Africa announced its broadband policy, South Africa Connect, which called for a universal average download speed of 100 Mbps by 2030 and an average user speed of 5 Mbps to be available to half the population by 2016.<sup>53</sup> In the same year Kenya launched its national broadband strategy, aimed at covering 35% of households by 2017 with a minimum speed of 5 Mbps in rural and 40 Mbps in urban areas.<sup>54</sup> And the national broadband policy of Rwanda aims for a broadband penetration rate of at least 40% by 2017.<sup>55</sup>

Although some of these targets might seem ambitious, given current penetration rates, they mark a shift in policy by African governments to prioritize investments in fixed broadband. Making broadband affordable appears to be the next frontier in supporting domestic e-commerce providers (Boxes 6 and 7).

**Box 6: Broadband costs in Kenya**

High broadband speed is considered a prerequisite for B2B companies to compete internationally, as they often need to send and receive large files or significant quantities of information, and increasingly use videoconferencing and bandwidth-hungry applications over the cloud to interact with international clients. In Kenya, while broadband access is more and more available, its cost is often prohibitive for most SMEs.

Adept Technologies Ltd is a business process outsourcing company based in Nairobi that offers solutions in transcription, document management, data processing, validation and verification. The company positions itself as an international low-cost and highly reliable partner that enables enterprises to save costs, time and effort by outsourcing non-core tasks. Currently about 95% of its clients are international, with the United States being the main market. Much of the work Adept does is as a subcontractor; it would like to eliminate the intermediaries and establish more direct client relationships.

However, the cost of a suitably fast broadband connection remains unaffordable for Adept, and the slower speeds it has to accept put it at a disadvantage in the international market, according to Mercy Meguro, Director. The competition is fierce from online work portals, on which freelancers with lower overheads can offer their services at very low rates. When these competitors are in Asian locations, with excellent and low-cost broadband connections, it is even more difficult to compete.

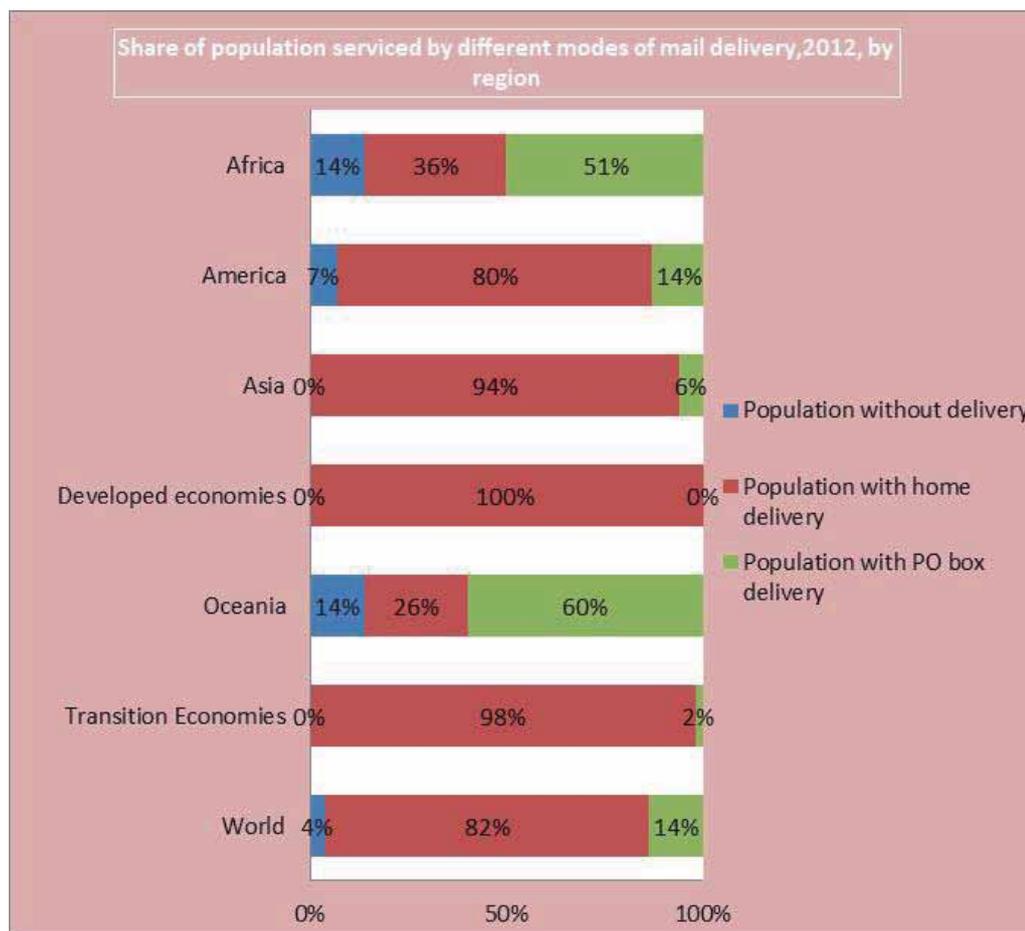
Source: ITC research (2015).

**Road barriers**

African countries generally fare poorly in international comparisons on physical infrastructure, such as roads, ports and air transportation. Indicative of this, Namibia is the highest-rated African country in terms of quality of overall infrastructure, according to the World Economic Forum's *Global Competitiveness Report 2014-2015*, but still lags behind international standards, ranking only 42nd worldwide.<sup>56</sup>

This transport infrastructure affects the competitiveness of intraregional and domestic e-commerce. In East Africa, for example, the African Development Bank (AfDB) found that surface transportation costs associated with logistics are higher than in any other region. The bank attributes this mostly to administrative and customs delays at ports and national borders along the road networks.<sup>57</sup>

In many parts of the continent, road infrastructure and the lack of proper street names and signage hamper efficient and cost-effective delivery. Addressing the need for better addresses, Ghana is currently spearheading an initiative to improve and extend street naming. In international terms only Oceania has lower rates of availability for home deliveries (Figure 8).

**Figure 8: Modes of mail delivery, by region**

**Source:** Adapted from UPU Postal statistics database.

**Note:** Geographical regions refer to developing countries only.

As a result of regional and domestic deficiencies in infrastructure, many e-commerce platform providers have developed their own delivery networks to circumvent local conditions. In Nigeria, for example, Jumia has created a logistics infrastructure with more than 500 motorbikes and trucks that deliver to customers in the country's eight largest cities, while also taking COD to overcome the payment barrier.<sup>58</sup>

## International logistics

An offshoot of the growth in online commerce is an increase in demand for reliable and cost-effective transportation and logistics. While local service providers have begun to appear in African domestic markets, competing with post offices or other incumbent transporters and in doing so generating innovation and lowering costs, international transportation and logistics remain expensive. With poor road and sea facilities, many countries are dependent on air freight. Given that target markets in Europe or elsewhere are far away, the costs of this are inevitably high.

The only way to reduce airfreight costs would be to consolidate among shippers, paying less urgent forwarding rates and sharing the cost of containers. This would entail increased collaboration among smaller business, which would have to agree to transport a small stock to markets and modify their production and order processes to permit larger batches to be sent at one time.

The postal system is of particular importance to African e-commerce businesses. Once a declining industry in many countries, it is now witnessing resurgence due to international e-commerce. UNCTAD cites the ability to connect to the international postal network as a cost-effective way of engaging in global e-commerce, especially for smaller enterprises that are unable to build their own distribution networks.<sup>59</sup>

Within international markets like the EU, local firms have access to a wide range of logistics providers – including services offered by the e-commerce platforms themselves (such as Amazon Fulfilment Services). These facilities make e-commerce considerably easier, as e-fulfilment partners handle stocks of goods, do picking and packing, and negotiate the best rates with local transporters.

E-fulfilment centres are typically connected to cloud-based data services that share information on orders and sales with the producer. None of this, however, is well known to the majority of African enterprises, which are in the main excluded either because they lack a formal European legal identity or because the initial volumes of their business fall below thresholds. The answer may once again be to increase awareness and understanding and to organize greater collaboration among African enterprises.

### Observations on shipping practices in Tunisia

In the ITC survey of 48 Tunisian companies, most firms shipping internationally (14) reported using postal services, although many also use international couriers (9). Few are pleased with the deal they get from transporters. The price/quality ratio of international logistics partners is not perceived as particularly good. In fact, when asked about value for money, only 2 respondents said it was good for either type of provider, and almost half said it was bad (11 for postal services and 9 for international couriers).

#### Box 7: Costly B2C order fulfilment in Morocco



Transportation costs from Africa can simply be too high to support the development of direct B2C business. SMEs need to be advised on alternative logistics strategies that can support the development of B2C channels, such as managing a satellite stock of commonly sold items in a European fulfilment centre and directly shipping only the more expensive items.

Morocco-based SLM Pharma (also known as Synergic Aroma) offers a wide range of aromatherapy products for cosmetic and therapeutic use, which are 100% natural and made in Morocco. In 2012 the company created a website with an integrated payment solution through Maroc Telecommerce. In 2014, SLM Pharma started to export, primarily through B2B channels.

Expanding to the B2C market, however, has proven much more difficult. “The company’s website was restyled many times without getting significant results,” says Mohamed Lamrini, a company co-founder. He attributes the lack of B2C transactions to the cost of promoting the website via online advertising and more directly to the costs of international shipping. “Nationally, pricing is acceptable; as a consequence we offer free shipping for orders exceeding EUR 35. Internationally, prices are very high and it is almost impossible to sell online. For example, a Norwegian customer willing to buy an item costing EUR 15 has to pay around EUR 30-35 for shipping. We see this from abandoned shopping carts: many customers proceed to buy items but they cancel at the final step when they realize how high the shipment fees are.”

Source: ITC research (2015).



## Chapter 5: Moving beyond sociopolitical barriers

Although international payments and cost-effective logistics are the most pressing concerns for African SMEs wishing to develop international trade through e-commerce, a range of other sociopolitical challenges exist. These include government commitment to promoting access to e-commerce; a sociocultural context that may inhibit the development of online business; a lack of awareness, knowledge and skills; and the absence of a vibrant support and services network.

### Government commitment

In ITC's Tunisian SME survey, respondents pointed to a lack of export incentives for small enterprises. Only one of the 21 companies that currently sell online said it had been helped by government-sponsored programmes or training workshops; the other 20 said there had been no such support whatsoever.

Another way for governments to show commitment to e-commerce is to use it for domestic procurement. Since 2003, the now-biennial United Nations report on e-government has been measuring "the willingness and capacity of national administrations to use online and mobile technology in the execution of government functions".<sup>60</sup>

Although government agencies do not technically engage in B2C or B2B e-commerce, they do conduct transactions with both businesses and citizens. In fact, G2B transactions are defined by the United Nations Department of Economic and Social Affairs (UNDESA) as involving business-specific transactions (e.g. payments, sale and purchase of goods and services).<sup>61</sup>

G2B procurement through electronic channels (e-procurement) can provide significant stimulus for the development of local capabilities for digitally savvy businesses, particularly if it is part of a consistent effort to move towards e-government. E-procurement limits the potential for corruption in the awarding of such contracts. Transparency International, a non-governmental organization tracking global perceptions of corruption, has noted that e-procurement is a tool for efficiency but can also ensure high standards of transparency.<sup>62</sup>

E-procurement systems can greatly reduce the costs incurred by governments in the traditional offline procurement process. They also reduce the time and expenses incurred by firms in submitting their bids. This is particularly important for small local firms, which often find the traditional procurement process too expensive and time-consuming, given their limited resources.

The Tunisian Government has identified public procurement as one of the four public-sector areas most exposed to potential corruption. One of the main reforms has been the introduction of an electronic public procurement system, TUNEPS, which is intended to enhance transparency and integrity in public procurement.

Use of the Internet is needed to reduce red tape and make public procurement more efficient.<sup>63</sup> However, there is a lack of e-procurement globally, according to UNDESA, although it does not specify which countries this applies to (Table 7).

**Table 7: Lack of G2B e-commerce and government commitment**

Countries providing procurement announcements, evaluations and results		
National portals providing an e-procurement platform or a link to e procurement announcements for bidding process	63	33%
National portal(s) providing information about results of procurement / bidding process	55	28%
National portal(s) providing any information about monitoring and evaluation of existing procurement contracts	33	17%
National portal(s) indicating an online tracking system for transactions such as applying for grants, permits etc.	54	28%

**Source:** United Nations (2015). United Nations E-Government Survey 2014: E-Government for the Future We Want. <http://unpan3.un.org/eqovkb/en-us/Reports/UN-E-Government-Survey-2014>.

### Sociocultural concerns

An ability to get products known and recognized in international markets may be the biggest barrier of all. The cost of promoting goods through online channels in developed countries rises inexorably as e-commerce becomes just “commerce” and digital marketing becomes the mainstream form of all marketing communications.

There is limited space in this for an African enterprise to stand out. Even more fundamentally, the use of English, and cultural understanding of how to communicate to target markets, can put African firms at a disadvantage.

Barriers to accessibility in own-language content are significant as well, according to UNDESA (Table 8). More than half (56%) of all Internet content is in English, although only one quarter of all users can understand it. In the Tunisian survey, 3 people said their company's ability to handle enquiries in foreign languages was low; 6 said it was satisfactory; and 12, good. This mixed picture points to a small but persistent cultural barrier to selling globally (Box 8).

**Table 8: Language disparity in terms of users and content**

<i>Language</i>	% of Internet users by language	% of content on the Internet
English	27	56
Chinese	25	4
Spanish	8	4
Portuguese	4	2
German	4	6
Arabic	3	1
French	3	4
Russian	3	6

**Source:** Language by content statistic by W3Techs 13 September 2013 and data for Internet users from World Internet Users Statistics 30 June 2012.

**Box 8: Finding B2B success but still facing sociocultural barriers**

B2B providers can find success in the international marketplace without relying on global platform providers. However, they will usually face linguistic and cultural barriers to further expansion.

Tunisia-based Biosca Tamara specializes in producing and exporting dates and has launched a strategy to penetrate new markets in Europe, Asia and North America. A key initiative was to create a professional multilingual website to reach international B2B merchants. "Having an attractive website has helped us to present ourselves professionally to potential buyers; it is our principal tool for international trade," says Fahd Ben Ameer, the company's marketing manager. He points out that it is important regularly to update the website with interesting news and features so as to maintain a high presence in search engine listings. Biosca Tamara shows up on Google searches as one of the top 10 Tunisian dates vendors.

In part because of the success of its own website, Biosca Tamara has rejected the idea of selling through e-commerce platforms. "We are aware of many opportunities to build our sales through B2B websites, such as Alibaba.com," says Mr Ben Ameer. "But senior management decided to focus exclusively on our website. We have realized significant business growth through our own online channel and we are satisfied."

In addition to the website, the company is looking to build a larger online presence through blogs, specialized websites, professional directories and yellow pages. "The challenge is to know how best to present our communications to foreign audiences: language and cultural barriers are sometimes significant, especially when it comes to a regional product like dates," says Ben Ameer.

*Source:* ITC research (2015).

The language disparity also extends to customer service. Even if the product can be sold in the first instance, international consumers expect any post-transaction interactions to be conducted either in their own language or in English. Another issue facing many African SMEs is the lack of rapid response to customer enquiries.

For example, in the Tunisian survey only about half (11) of respondents say they have an automated system for tracking customer orders. Monitoring transactions manually often means slower processing times, leading to a loss of productivity and potential orders as well as lower levels of customer satisfaction.

Finally, a common reason people are not shopping online is the impossibility of "touching and feeling" the products as one can in a physical shop. Although this is obviously true for all forms of e-commerce, in developed countries customers typically buy products online with which they are highly familiar, or which they are able to see in physical shops before completing a purchase. Clearly this is a challenge when ordering goods from as distant a location as Africa.

## **Access to enabling services from abroad**

Because of a lack of awareness, unavailability of funds or local restrictions on the international transfer of funds, enterprises in developing countries are not making full use of the large and increasing number of e-commerce support services available in developed countries. Such services include cloud-based solutions for analysing web traffic and targeting campaigns, facilitating product listings on multiple e-commerce sites, and more general business applications in customer relationship management and financial management.

Although many of the cloud-based solutions are initially free of charge, they require either a credit card to register for the free version, or a fee to be paid for more advanced applications. In many cases the entrepreneur either does not see the usefulness of these solutions or lacks the means to pay for them.

In Morocco, for example, the Government allows a maximum annual foreign transfer of only EUR 1,000, which does not go very far when it must be used to pay for web hosting services and other administrative costs needed to operate in the European market.

The national e-commerce association has successfully launched a platform which is mutually owned by its SME members; among other advantages, "Made in Morocco" is able to pool the financial resources of its member enterprises in developing communications campaigns and organizing international distribution.

Morocco is an example of a thriving domestic e-commerce market still facing significant barriers to international e-trade (Box 9).

**Box 9: Made in Morocco: Building an online market presence through resource-sharing**

"Made in Morocco", a platform launched by the Fédération Nationale du E-commerce du Maroc (FNEM), shows how small businesses can group together, pooling their investments in communication and technical infrastructure to launch a successful online marketplace.

For Oriperle, a Moroccan company specialized in producing and distributing natural beauty products (natural oils, essential oils, aromatic and medicinal herbs, natural creams, natural herbal powders, skin care and hair care products), the company's website essentially acts as an online catalogue, as it generates only a few business opportunities. "Only one or two sales are generated through our website per month," says Faiza Hafdane, a company co-founder. Attending international trade fairs to boost business is not an option due to limited financial resources. "I would like to obtain some support from export promotion institutions to attend international trade fairs in my field," she adds.

Oriperle has attracted almost all its clients through B2B e-commerce platforms. "We have a basic subscription with Alibaba, Globalsources and other platforms, although the online presence was very helpful for our business, and we closed many sales," says Ms Hafdane. Despite the usefulness of such platforms, Oriperle did not opt for premium subscriptions. "Virtual platforms generate a lot of important business opportunities, but our limited financial resources do not allow us to enjoy their full services," she notes.

Now the company is keen on selling directly to consumers and hopes that the Made in Morocco e-commerce platform initiative will help. "I've heard positive feedback about the initiative; it helped local businesses to get online. I think – and I hope – that this will be my case after my catalogue goes online," says Ms Hafdane. "I want to understand the rules of virtual marketplaces, such as e-payments, logistics and marketing. I think that Made in Morocco is a good opportunity."

Made in Morocco is technically an economic interest group in which the sellers own the organization. It currently has more than 400 exporting SMEs as members. This construct allows them to consolidate marketing efforts under one brand and save money through shared technical services.

By combining the modest funding available to the SMEs, and with the support of the Moroccan Ministries of External Trade and Digital Economy, the site was able to tap into the latest technologies and conduct a multimedia promotional campaign, attracting significant local interest. On the day of the launch, the site registered a phenomenal 800,000 visitors, a success that initially resulted in its servers crashing.

Without specifically targeting international e-commerce, the site has generated considerable interest from customers in Europe. No arrangements had been made for responding to this unexpected demand, however, and shipments were made directly from Morocco to Europe through the local post office and logistics firms. This turned out to be a costly oversight: the costs of shipping returned items back to Morocco, which must be borne by the seller, are high, and the export business is losing money.

ITC is currently helping FNEM to develop its legal and commercial presence in such target markets as the United States, United Kingdom, France and United Arab Emirates, opening up international payment solutions and optimizing logistics.

Source: ITC research (2015).



## Chapter 6: The remaining digital divide

The “digital divide”: education and access to the tools of the digital age in developing and least developed countries (LDCs) remain a challenge, despite better connectivity. It is estimated that of the 940 million people living in the LDCs, only 89 million use the Internet, corresponding to a 9.5% penetration rate.<sup>64</sup>

The digital divide is apparent when one compares small business owners in Africa with their developed-country counterparts: experience shows that African entrepreneurs are well aware of the difficulties but less so of the opportunities for reducing the barriers and breaking into new marketplaces online.

Digital inclusiveness (or “e-inclusion”) has an important social impact on the ability of a population to take advantage of the opportunities of the digital age; increasingly, what might be called “e-commerce inclusiveness” deserves the attention of policymakers.

The following table summarizes a selection of different digital divides facing SMEs in developing countries. From an enterprise perspective, the digital divide can be classified into three main areas: access (having access to ICTs in the first instance); usage (the ability and interest to use them); and useful usage (the capacity to take advantage of e-commerce in order to reap the full benefits of the information society).<sup>65</sup>

**Table 9: A selection of different digital divides facing SMEs in developing countries**

Divide	Description
Affordability	The gap between large companies and SMEs in terms of affordability of ICTs is important, especially when it comes to accessing foreign markets.
Access	The digital divide starts with access or the lack thereof: although Internet penetration has increased, it continues to be a fundamental barrier, as many SMEs are still completely offline.
Bandwidth and broadband	The lack of international bandwidth and speed restricts the capacity to transmit and receive information over networks, hence limiting the potential for e-commerce services companies.
Content	The creation of content in foreign languages is important, as “useful usage” (see below) can depend on context and language.
Education	Good education and literacy rates are fundamental to using ICTs for e-commerce.
Gender	There is a small but persistent difference in online usage between men and women globally.
Location	Rural and remote areas are often at a disadvantage compared to their urban counterparts when it comes to the speed and quality of services.
Mobile	Mobile devices provide opportunities to bridge the access gap but can also introduce new forms of divides in terms of technology, speed and usage.
Useful usage	“Useful usage” – what enterprises actually do with their access, or how productively they use ICTs – is a key factor in the digital divide.

**Source:** Economist Intelligence Unit “Smart policies to close the digital divide: Best practices from around the world” (2012).

**Box 10: Unique products, niche markets: Artisans from Ghana**

By understanding and focusing on niche opportunities to serve business customers in developed countries, it is possible to create a sustainable online business for artisans from Africa.

eShopAfrica.com is one of the oldest e-commerce sites to originate in Africa. Based in Ghana since its founding in 1999, and trading online since 2001, the site proposes a number of goods made by local artisans: items such as jewellery and beads, baskets, cloth and musical instruments, as well as a very successful line of handmade wooden coffins are proposed for purchase and delivery to international markets. The enterprise is a member of the World Fair Trade Organization. Payments are accepted for large items through bank transfer and, thanks to the PayPal account of one of its founders, through PayPal.

Over the years of trading the founders have learned that the best approach is to target niche segments in international markets and to create close working relationships between the foreign buyer and the Ghanaian artisan. At its best, this “B-to-niche-B” approach generates predictable orders of a reasonable size that can be handled by the local artisans, and minimizes the costs and hassles of selling B2C.

Logistics costs are critical and determine whether a particular good can be sold or not in a target market. Bulky items such as drums end up being especially costly to ship.

The individualized and highly creative coffin designs are available for funerals, but also for everyday use as storage boxes. Coverage in international media and comments in social media ensure a high level of awareness in international markets for this unique product.

Through this focus on innovative design, personalized contact between buyer and seller and niche markets that generate a high level of awareness, eShopAfrica has overcome traditional barriers of awareness and trust and to justify its relatively high international prices, including logistics costs.

*Source:* ITC research (2015).

**Access to ICTs**

Across Africa, old challenges, such as differences in access and adoption, remain key hurdles to greater participation in the digital economy. The continent has the lowest Internet penetration rate in the world, and even when access is available it can be limited. Indeed, a previous ITC study of SMEs around the world found that a main reason for their underperformance – especially in poorer countries – is that they make too little use of the Internet.<sup>66</sup>

Even in a large economy like Nigeria, low incomes and high prices for telecom services continue to limit usage of digital services.<sup>67</sup> According to the 2014 ICT Price Basket, which measures the prices of telecom services as a percentage of GNI per capita, Nigeria ranked 124th out of 161 countries for the affordability of local services, which was among the weakest in Africa. This was a modest improvement over its 131st place in 2008, out of 150 countries.

Mobile phones have emerged as a driving force for extending access to digital services. To take one example of where this has made an impact: in Ghana a partnership between the Government and the private sector to promote increased use of ICTs in the agricultural sector saw the launch of a programme called Esoko, an e-agriculture mobile application.

Although farmers cannot sell their products through Esoko, the application does share general information such as weather alerts and identifies the most competitive prices for crops in local markets. It also provides direct access to information in real time from subject matter specialists through standard phones, at no cost to the farmer.<sup>68</sup> Interactions are based on a multilingual interactive voice response system, which reduces the need for elaborate digital skills.

Esoko has attracted over 40,000 active subscribers and an average 2,000 users a day, who are accessing the service on their mobile phones in various Ghanaian languages. The initiative may fall short of the

narrow definition of e-commerce, but it has helped farmers sell their goods at better prices and also illustrates the need to improve usage to a level at which the goods could also be sold via mobile devices.

## Using ICTs

With connectivity rates improving, largely as a result of the increased ubiquity and inexpensiveness of mobile devices, there is a new opportunity for enterprises and potential buyers alike to engage in “m-commerce”.<sup>69</sup>

According to Nielsen, a global analysis firm, the world’s highest rate of shopping via mobile phones is to be found in the Middle East and Africa, where 55% of respondents in a global survey say they use their device for online shopping – 11% more than the global average of 44%.<sup>70</sup>

Selling to African customers will increasingly be focused on mobile platforms: e-commerce platform providers, such as Jumia and Konga in Nigeria and OLX and Kalahari in South Africa, have all rushed to create mobile versions of their stores. In Rwanda, GO Ltd, a web service provider uses mobile application development to offset a lack of Internet connectivity (Box 11).

### Box 11: Working with local businesses in Rwanda to address the enterprise-level digital divide



The availability of mobile devices and connectivity has risen rapidly in Africa. Although this would seem an obvious opportunity for enterprises to reach out to their local markets, SMEs need support to understand and capture the potential.

GO Ltd is a Rwanda-based company in Kigali that aims to help local SMEs get online and do digital business. The business is based on a subscription model, and the company hopes that by helping customers to undertake e-commerce, it will also benefit in the long term. The cheapest package, known as #GoConnect, costs RWF 30,000 per year (about US\$ 42) and provides a free domain name, a website with annual hosting and monthly content development. The firm has been supported by the Ministry of Trade and Industry, Educat (a business and education accelerator) and kLab (an innovation “tech space”). To date, it has attracted about 100 customers.

Fixed-line Internet penetration is low in Rwanda and GO accordingly focuses on promoting mobile web development.

“Although mobile penetration rates are relatively high – now at around 72% in Rwanda – we still have a battle to convince enterprises of the importance of an online presence,” says Shikama Dioscore, founder and CEO, who is driven by a mission of closing the enterprise-level digital divide: “We’re not making any money from this business at the moment but we’re taking the lead in putting local business online.”

*Source:* ITC research (2015).

The Rwandan Ministry of Youth and ICT is actively supporting countrywide programmes to improve digital literacy.<sup>71</sup> As described in Box 11, the Government is partnering with the private sector to ensure that the digital divide is also addressed at the enterprise level.

In Ghana, the Government has worked for over a decade to improve digital access across the country: the Ghana Investment Fund for Electronic Communications (GIFEC), an agency of the Ministry of

Communications, was established in 2004 to facilitate the spread of ICT and its use in rural and other underserved communities.<sup>72</sup> Despite continued efforts, a 2013 GIFEC report confirmed that there remain significant access gaps along multiple sociodemographic dimensions, most notably geography, age, gender and income.<sup>73</sup>

Africa is not uniform in this regard. In Tunisia the majority of enterprises now have an online presence. In 2013, 93.4% of businesses used a computer, compared to 77.5% in 2008 – and the vast majority of these computers are connected to the Internet. At 84.9%, the proportion of businesses using the Internet in 2013 has grown as well, up from 65.3% in 2008. In 2013, one quarter of all Tunisian businesses placed orders online, compared with less than 10% in 2008. The proportion of businesses receiving orders online also soared, from 7.4% in 2008 to 22.8% in 2013.<sup>74</sup>

### **Digital opportunities: The ultimate barrier?**

As access to and use of the Internet increases in Africa, the question arises as to whether this results in “useful usage” (or what people actually do with their connected devices). Based on current trends it would appear that e-commerce may not be the priority for these new African users of the Internet: the share of global B2C e-commerce sales from Africa and the Middle East is expected to increase by only 0.2 percentage points by 2018, to a meagre 2.5%.<sup>75</sup>

Many SMEs lack the digital literacy needed to use ICTs, particularly for productive purposes such as e-commerce. As a result, platform providers and similar initiatives that help people without the requisite ICT skills to enter e-commerce markets have begun to flourish. Some of these initiatives are led by international companies.<sup>76</sup>

Microsoft’s Microsoft4Afrika initiative was founded on the premise that many SMEs across the continent lack the skills or capacity to bring their business online. Microsoft created an online platform through which African SMEs can access relevant Microsoft products and services for free. The platform also aggregates a number of services for local enterprises to help them identify new business opportunities outside their immediate geographical area.

The challenge will be to ensure that such initiatives meet genuine local needs and can be adopted by the population. As the somewhat disappointing results from Ghana on the remaining digital divide show, efforts need to target what the true local needs are, and to be sustained over the long term. Local farmers are happy to use the Esoko tool but may be more reluctant to formalize their trading through a platform that will impose taxes on them.

Participants have also to be convinced that a move to e-commerce will add sufficient value to make up for the apparent costs of formalization. Rather than viewing online trading simply as a means of increasing tax revenues, local government needs to show how it can create a larger and more profitable market, benefiting enterprises, consumers and tax authorities alike.

**Box 12: E-payment training can open business opportunities**

Many companies want to transform their offline success into online opportunities but do not know how. A lack of digital skills and unawareness of online processes are frequent barriers to e-commerce.

Tuline is a Tunisian company specialized in restoring and recycling vintage traditional textiles, furs and handicrafts as decorative accessories and unique pieces of furniture, such as armchairs, sofas and cushions. Initially, founder and CEO Neïra Hamza Khouaja opened a physical store and created a website. "At the start, I had my focus on the local market; the Tuline website was not an important tool for communication and marketing," she says.

In 2011, Ms Khouaja participated in her first handicraft trade show abroad, in the United States, thanks to the Tunisian Office of Crafts, which sponsored her and other artisans' participation in several international trade shows. Since late 2012, Tuline has focused on the international market. Around the same time, Ms Khouaja developed the "wood sheep" (see picture), which she describes as "Tuline's darling product. It's sold everywhere!"

Almost all of Tuline's clients are businesses; the company has few individual customers. In view of the high profit margins retailers make on her products, Ms Khouaja wants to sell directly to consumers through B2C e-commerce, but she is unsure how to go about it. "I'm poorly informed about e-payments. I find procedures to be very complicated and there isn't much assistance in Tunisia.... I rely exclusively on bank transfers for my transactions with international clients." Ms Khouaja is therefore looking for technical assistance and training in e-commerce. Most recently, she was selected to be part of the World Bank's Virtual Market Places project in Tunisia, which she believes may help her to fulfil her products' potential. "I want to sell directly to my clients online....I want to succeed in the international marketplaces."

*Source:* ITC research (2015).



## Chapter 7: The way forward

### New digital partnerships needed...

The new digital era – with the attendant challenges and opportunities created by fast-moving technologies and the opening of new market channels – calls for new approaches. Small enterprises are powerless on their own to challenge their exclusion from international e-commerce and payment platforms. New types of partnerships, involving governments, local institutions and competing companies, are called for, and should be involved in a series of well-targeted practical initiatives. Such partnerships are beginning to emerge and bear fruit in Africa, from the technology investment holding company developed by Rwandan CEOs to the “Made in Morocco” platform launched by the national e-commerce association, both with government support.

### ...along with practical initiatives

Based on input from African firms, this paper proposes the following types of initiatives which new partnerships could immediately implement to develop international e-commerce from Africa:

- **Working with policymakers:** Useful and practical initiatives that could be developed through public-private sector collaboration include enabling laws for the creation of e-commerce cooperatives, reviewing currency exchange controls on digital trade, adopting the Model Law on Electronic Signatures of the United Nations Commission on International Trade Law and promoting a conducive environment for e-commerce.
- **Institutional capacity-building:** Local institutions need greater capacity to support the collective access of small enterprises to international e-commerce. In particular, this calls for traditional business associations to take responsibility for operational activities in marketplaces, share ownership of technologies and pool promotional budgets. Local institutions should also be enabled to help enterprises comply with international fiscal transparency requirements – for example, through training on the verification of business partners’ identity and credentials. And by working with international providers of compliance databases and electronic identity maintenance, local institutions can also be trained to overcome the compliance barriers and sign up local enterprises. Such efforts would contribute to the creation of “e-trust”, a prerequisite for the growth of electronic transactions.
- **Enterprise capacity-building:** This should involve raising awareness not just about the potential opportunities of e-commerce, but also about how to overcome barriers and engage in international trade. Capacity-building at the enterprise level should cover effective organization for e-commerce – including packaging, marketing and customer service skills. In addition, it should help enterprises to comply with legal and fiscal requirements for trading in developed countries.
- **Corporate structure-sharing.** A number of innovative solutions are available to African SMEs that group together to share a business entity. They could, for example, set up representative structures abroad to handle import duties and sales taxes correctly and potentially provide access to finance and banking facilities, as is done by large international firms. This opens many possibilities for trade in these markets, while the revenue and exports would still be recognized in the SME’s country of origin.
- **Technology-sharing:** By using open source software libraries, and with the support of international partners, groups of local enterprises can be helped on their first entry into e-commerce from within shared platforms that are locally owned and managed. Technologies are available to enable products from these locally managed portals to be relisted on large international sites.
- **Improved access to international transport and logistics:** Logistics partners in developed countries can develop optimized transport and logistics solutions, including e-commerce-enabled storage and handling (“e-fulfilment”) in international markets. Such solutions should be tailor-made to the type of goods and marketing strategies of the African firms.



## Appendix: Methodology

ITC undertook four activities for this report to identify barriers to e-commerce in Africa and potential solutions, as follows:

**Research:** More than 100 relevant articles and reports were collected during a background research and literature review. This resulted in a broad overview of the state of the field, and many of the materials gathered are cited throughout the report.

**Survey:** A web-based survey of SMEs in Tunisia was conducted to understand the practical barriers facing companies. Representatives of 48 companies responded to the survey; about one fifth (9) were based in the Tunis region. Three quarters (36) of the respondents were from very small companies with under 10 employees, and the remainder from companies with between 10 and 100 employees. The largest share of respondents (20) sold non-food finished goods (e.g. clothes, handicrafts, cosmetics). This was followed by about one third (17) in the services sector. Another 6 respondents worked with perishable food products (fruits, fresh meat or fish). About half (21) sold their goods and services online; the other half (27) did not.

**Interviews:** To better understand the current environment for e-commerce, seven one-on-one interviews with experts from Rwanda, Morocco, Tunisia, Kenya, Ghana and Nigeria were conducted in August 2015. In some cases, written answers were provided due to language difficulties; otherwise, interviews were conducted by phone. The participants were Dioscore Shikama, El Amine Serhani Al Idrissi, Oussama Bouhlel, Happiness Uwase, Esther Muchiri, Johanna E. Awotwi and Adegboyega Ojo.

**Case studies:** In order to illustrate potential opportunities and the practical barriers to those opportunities, ITC prepared case studies of several African SMEs. They are dispersed throughout the paper to show the perspective on the ground for those who stand potentially to benefit from improved e-commerce.

**Drafting and peer review feedback:** The outcome of the four activities was used in drafting this paper, which was written by an independent consultant. ITC and external experts provided feedback during several rounds of review.



## Endnotes

- <sup>1</sup> WTO (2013). E-commerce in developing countries: Opportunities and challenges for small and medium-sized enterprises. [https://www.wto.org/english/res\\_e/publications\\_e/ecom\\_devel\\_countries\\_e.htm](https://www.wto.org/english/res_e/publications_e/ecom_devel_countries_e.htm).
- <sup>2</sup> UNCTAD (2015). Information Economy Report: Unlocking the Potential of E-commerce for Developing Countries. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1146>.
- <sup>3</sup> The Wall Street Journal. 19 September 2014. Alibaba Debut Makes a Splash. <http://online.wsj.com/articles/alibaba-shares-trade-higher-in-ipo-1411142120>.
- <sup>4</sup> The New York Times. 6 May 2014. Alibaba, by the Numbers. [http://bits.blogs.nytimes.com/2014/05/06/alibaba-by-the-numbers/?\\_php=true&\\_type=blogs&\\_r=0](http://bits.blogs.nytimes.com/2014/05/06/alibaba-by-the-numbers/?_php=true&_type=blogs&_r=0)
- <sup>5</sup> Alizila. 11 June 2015. Cross-border E-commerce to Reach \$1 Trillion in 2020. <http://www.alizila.com/report-cross-border-e-commerce-reach-1-trillion-2020-charts>.
- <sup>6</sup> ITU (2015). Facts and figures. [https://www.itu.int/net/pressoffice/press\\_releases/2015/17.aspx](https://www.itu.int/net/pressoffice/press_releases/2015/17.aspx).
- <sup>7</sup> ITU (2015). Facts and figures. [https://www.itu.int/net/pressoffice/press\\_releases/2015/17.aspx](https://www.itu.int/net/pressoffice/press_releases/2015/17.aspx).
- <sup>8</sup> McKinsey (2011). Internet matters: The Net's sweeping impact on growth, jobs, and prosperity. [http://www.mckinsey.com/Insights/MGI/Research/Technology\\_and\\_Innovation/Internet\\_matters](http://www.mckinsey.com/Insights/MGI/Research/Technology_and_Innovation/Internet_matters).
- <sup>9</sup> McKinsey (2013). Lions go digital: The Internet's transformative potential in Africa. [http://www.mckinsey.com/insights/high\\_tech\\_telecoms\\_internet/lions\\_go\\_digital\\_the\\_internets\\_transformative\\_potential\\_in\\_africa](http://www.mckinsey.com/insights/high_tech_telecoms_internet/lions_go_digital_the_internets_transformative_potential_in_africa).
- <sup>10</sup> The Next Web. 23 December 2014. Why success in African e-commerce is all about scale and biding your time. <http://thenextweb.com/insider/2014/12/23/success-african-e-commerce-scale-biding-time/>.
- <sup>11</sup> Eurostat. Accessed 18 November 2015. Share of enterprises' turnover on e-commerce. <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tin00110&plugin=1>.
- <sup>12</sup> Interviewed at the UNCTAD expert meeting on cyber laws and regulations for enhancing e-commerce, Geneva, 27 March 2015.
- <sup>13</sup> CNBC Africa. 30 October 2014. Africa, the future for e-commerce industry. <http://www.cnbc africa.com/news/technology/2014/10/30/africa-e-commerce/#>.
- <sup>14</sup> Takealot.com. Undated. Takealot.com raises over \$100 million led by Tiger Global Management. <http://www.takealot.com/company-news/takealot-com-raises-over-100-million-led-by-tiger-global-management>.
- <sup>15</sup> Forbes. 29 November 2014. \$500M E-Commerce Platforms Emerge in Africa, Middle East. <http://www.forbes.com/sites/elizabethmacbride/2014/11/29/black-friday-spreads-to-africa-and-the-middle-east/>; Reuters. 12 February 2015. Browse, click, pay - African retail finds growing outlet online <http://finance.yahoo.com/news/browse-click-pay-african-retail-finds-growing-outlet-221428336--finance.html>.
- <sup>16</sup> Euromonitor International. 5 March 2014. Technology, Communications and Media: Tunisia.
- <sup>17</sup> The Next Web. 23 December 2014. Why success in African e-commerce is all about scale and biding your time. <http://thenextweb.com/insider/2014/12/23/success-african-e-commerce-scale-biding-time/>.
- <sup>18</sup> VenturesAfrica.com. 20 February 2015. Nigeria is Africa's leading e-commerce market. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.
- <sup>19</sup> VenturesAfrica.com. 20 February 2015. Nigeria is Africa's leading e-commerce market. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.
- <sup>20</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>21</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>22</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>23</sup> Nigerian Communications Commission. [http://www.ncc.gov.ng/index.php?option=com\\_content&view=article&id=125:subscriber-statistics&catid=65:industry-information&Itemid=73](http://www.ncc.gov.ng/index.php?option=com_content&view=article&id=125:subscriber-statistics&catid=65:industry-information&Itemid=73).
- <sup>24</sup> IT News Africa. 28 August 2015. Nigeria: Mobile internet users up by 13.6 percent. <http://www.itnewsafrica.com/2015/08/nigeria-mobile-internet-users-up-by-13-6-percent/>.

- <sup>25</sup> VenturesAfrica.com. 20 February 2015. Nigeria is Africa's leading e-commerce market. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.
- <sup>26</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>27</sup> VenturesAfrica.com. 20 February 2015. Nigeria is Africa's leading e-commerce market. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.
- <sup>28</sup> VenturesAfrica.com. 20 February 2015. Nigeria is Africa's leading e-commerce market. <http://venturesafrica.com/nigeria-is-africas-leading-ecommerce-market/>.
- <sup>29</sup> UNCTAD (2015). Information Economy Report: Unlocking the Potential of E-commerce for Developing Countries. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1146>
- <sup>30</sup> Humphrey, John, and others. March 2003. The Reality of E-commerce with Developing Countries. <https://www.ids.ac.uk/ids/global/pdfs/e-commreport.pdf>.
- <sup>31</sup> eMarketer (July 2014).
- <sup>32</sup> Harvard Business Review (2015). The Challenges Facing E-Commerce Start-ups in Africa. <https://hbr.org/2015/03/the-challenges-facing-e-commerce-start-ups-in-africa>.
- <sup>33</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>34</sup> Adapted from Kshetri, N. Volume 6, Issue 4, Winter 2007, Pages 443–452. Electronic Commerce Research and Applications. "Barriers to e-commerce and competitive business models in developing countries: A case study".
- <sup>35</sup> PayGate. Undated. E-commerce in Africa: Not quite ready for take-off. <https://www.paygate.co.za/content.php?paygateneews&articleid=189#.VbY3pfkuxDQ>.
- <sup>36</sup> Safaricom Limited. Undated. [http://www.safaricom.co.ke/mpesa\\_timeline/timeline.html](http://www.safaricom.co.ke/mpesa_timeline/timeline.html).
- <sup>37</sup> BDAfrica. 4 December 2013. Online traders sign up to M-Pesa for payment. <http://www.businessdailyafrica.com/Corporate-News/Online-traders-sign-up-to-M-Pesa-for-payment/-/539550/2099188/-/ixal1tz/-/index.html>.
- <sup>38</sup> PayGate. Undated. <https://www.paygate.co.za/content.php?paygateneews&articleid=195#.Ve71xJcuxDQ>.
- <sup>39</sup> UNCTAD (2012). Mobile money for business development in the East African Community: A comparative study of existing platforms and regulations. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=139>.
- <sup>40</sup> The East African. 14 August 2015. EALA to debate Bill on regional electronic transactions next week. <http://www.theeastafrican.co.ke/news/EALA-to-debate-Bill-on-regional-electronic-transactions/-/2558/2832498/-/ej2njcz/-/index.html>.
- <sup>41</sup> Harvard Business Review. 2015. The Challenges Facing E-Commerce Start-ups in Africa. <https://hbr.org/2015/03/the-challenges-facing-e-commerce-start-ups-in-africa>.
- <sup>42</sup> eBay. 2013. Commerce 3.0 for development. [www.ebaymainstreet.com/sites/default/files/eBay\\_Commerce-3.0-Development.pdf](http://www.ebaymainstreet.com/sites/default/files/eBay_Commerce-3.0-Development.pdf).
- <sup>43</sup> UNCTAD (2015). Information Economy Report: Unlocking the Potential of E-commerce for Developing Countries. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1146>.
- <sup>44</sup> Booz & Company (2011). Turning "Like" to "Buy" Social Media Emerges as a Commerce Channel.
- <sup>45</sup> Presentation by Albert Antwi-Boasiako, Founder of e-Crime Bureau, at the UNCTAD Expert Meeting on Cyberlaws and Regulations for Enhancing E-Commerce: Including Case Studies and Lessons Learned, 25-27 March 2015. E-commerce Development in Ghana/West Africa & Cyber Security Challenges. [http://unctad.org/meetings/en/Presentation/CII\\_EM5\\_P\\_AAntwi-Boasiako\\_en.pdf](http://unctad.org/meetings/en/Presentation/CII_EM5_P_AAntwi-Boasiako_en.pdf).
- <sup>46</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>47</sup> Norton (2012). Cybercrime report. [http://nowstatic.norton.com/now/en/pu/images/Promotions/2012/cybercrimeReport/2012\\_Norton\\_Cybercrime\\_Report\\_Master\\_FINAL\\_050912.pdf](http://nowstatic.norton.com/now/en/pu/images/Promotions/2012/cybercrimeReport/2012_Norton_Cybercrime_Report_Master_FINAL_050912.pdf).
- <sup>48</sup> Cybersecurity has a wide field of application that cuts across many industries and sectors. Each country's level of development is therefore analysed within five categories: Legal Measures, Technical Measures, Organizational Measures, Capacity Building and Cooperation. <http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx>.
- <sup>49</sup> World Bank. 2009. Economic Impacts of Broadband. [http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D\\_Broadband\\_35\\_50.pdf](http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D_Broadband_35_50.pdf).

- 
- <sup>50</sup> ITU (2014). State of Broadband. [www.broadbandcommission.org/publications/pages/sob-2014.aspx](http://www.broadbandcommission.org/publications/pages/sob-2014.aspx).
- <sup>51</sup> The Guardian. 28 October 2015. Internet gap stifles economic growth in developing countries. <http://www.nguardiannews.com/2015/10/internet-gap-stifles-economic-growth-in-developing-countries/>.
- <sup>52</sup> ITU (2014). State of Broadband. [www.broadbandcommission.org/publications/pages/sob-2014.aspx](http://www.broadbandcommission.org/publications/pages/sob-2014.aspx).
- <sup>53</sup> Euromonitor International. 5 March 2014. Technology, Communications and Media: Tunisia.
- <sup>54</sup> South African Government. 25 October 2013. South Africa's Broadband Policy South Africa Connect: Creating opportunities, ensuring inclusion, Yunus Carrim, Minister of Communications. <http://www.gov.za/south-africas-broadband-policy-south-africa-connect-creating-opportunities-ensuring-inclusion-yunus>.
- <sup>55</sup> Communications Authority of Kenya (2013). National Broadband Strategy. <http://www.ca.go.ke/index.php/national-broadband-strategy>.
- <sup>56</sup> Republic of Rwanda. July 2013. National Broadband Policy for Rwanda. [www.myict.gov.rw/fileadmin/Documents/DRAFT\\_NATIONAL\\_BROADBAND\\_POLICY\\_FOR\\_RWANDA\\_7.22.13.doc](http://www.myict.gov.rw/fileadmin/Documents/DRAFT_NATIONAL_BROADBAND_POLICY_FOR_RWANDA_7.22.13.doc).
- <sup>57</sup> World Economic Forum. 2 September 2014. The Global Competitiveness Report 2014–2015. <http://www.weforum.org/reports/global-competitiveness-report-2014-2015>.
- <sup>58</sup> AfDB State of Infrastructure in East Africa.
- <sup>59</sup> Forbes. 16 June 2014. How Jumia Is Adapting E-Retail To Africa. <http://www.forbes.com/sites/marcbabej/2014/06/16/how-jumia-is-adapting-e-retail-to-africa/>.
- <sup>60</sup> UNCTAD (2015). Information Economy Report: Unlocking the Potential of E-commerce for Developing Countries. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1146>
- <sup>61</sup> United Nations (2010). United Nations. 2010. United Nations E-Government Survey 2010: Leveraging E-government at a Time of Financial and Economic Crisis. <http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2010>.
- <sup>62</sup> United Nations (2010). United Nations. 2010. United Nations E-Government Survey 2010: Leveraging E-government at a Time of Financial and Economic Crisis. <http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2010>.
- <sup>63</sup> Transparency International. 16 February 2011. Combating corruption in the EU through e-procurement. <https://blog.transparency.org/2011/02/16/combating-corruption-in-the-eu-through-e-procurement/>.
- <sup>64</sup> OECD and CleanGovBiz (2013). Integrity scan of Tunisia.
- <sup>65</sup> ITU (2015). Facts and figures. [https://www.itu.int/net/pressoffice/press\\_releases/2015/17.aspx](https://www.itu.int/net/pressoffice/press_releases/2015/17.aspx).
- <sup>66</sup> Andreasson, Kim (2015). Digital Divides: The New Challenges and Opportunities of e-Inclusion.
- <sup>67</sup> The Guardian. 28 October 2015. Internet gap stifles economic growth in developing countries. <http://www.nguardiannews.com/2015/10/internet-gap-stifles-economic-growth-in-developing-countries/>.
- <sup>68</sup> Euromonitor International. 12 June 2014. Technology, Communications and Media: Nigeria.
- <sup>69</sup> Ghana News Agency. 27 February 2014. Government Develops 24/7 Free Call E-Extension Platform
- <sup>70</sup> ITU (2014). Facts and figures. [www.itu.int/net/pressoffice/press\\_releases/2014/23.aspx#.U4jqgSil4WA](http://www.itu.int/net/pressoffice/press_releases/2014/23.aspx#.U4jqgSil4WA)
- <sup>71</sup> Nielsen. August 2014. Global E-commerce Report. [http://ir.nielsen.com/files/doc\\_financials/Nielsen-Global-E-commerce-Report-August-2014.pdf](http://ir.nielsen.com/files/doc_financials/Nielsen-Global-E-commerce-Report-August-2014.pdf).
- <sup>72</sup> Republic of Rwanda Ministry of Youth and ICT. June 2014. Rwanda ICT Sector Profile - 2013.
- <sup>73</sup> Attor, K (2012). Overview of USF in Ghana. United Nations Commission on Science and Technology for Development Conference.
- <sup>74</sup> GIFEC (2013). Study of the Digital Divide in Ghana.
- <sup>75</sup> Euromonitor International. 5 March 2014. Technology, Communications and Media: Tunisia.
- <sup>76</sup> eMarketer (July 2014).
- <sup>77</sup> Microsoft 4Afrika. Undated. Empowering Small & Medium Enterprises. <https://www.microsoft.com/africa/4afrika/sme.aspx>.







**Street address**  
International Trade Centre  
54-56 Rue de Montbrillant  
1202 Geneva, Switzerland

P: +41 22 730 0111  
F: +41 22 733 4439  
E: [itcereg@intracen.org](mailto:itcereg@intracen.org)  
[www.intracen.org](http://www.intracen.org)

**Postal address**  
International Trade Centre  
Palais des Nations  
1211 Geneva 10, Switzerland

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations.