

Policy Brief

Can e-commerce facilitate the growth of small and medium-sized enterprises in Africa?

1. Introduction

Recent socioeconomic progress in Africa has occurred in the context of ubiquitous information and communications technologies (ICTs). The mobile subscription penetration reached 63 per cent in 2013 and more than 16 per cent of the population is now using the Internet.¹ Policymakers and African development partners foresee a lot of possibilities in the opportunities made available by ICTs in the continent's effort to stem widespread poverty and in the role of small and medium-sized enterprises (SMEs) in that effort. In this context, over the last decade, African countries placed high priority on the development and implementation of national ICT policies and plans. By the end of 2011, some 48 countries had national ICT policies in place, with another four in the process of developing them.

According to the United Nations Conference on Trade and Development (UNCTAD), SMEs account for 60 to 70 per cent of all employment in developing countries,² and hence contribute to poverty reduction. In this regard, many countries in Africa have given high priority to

the growth of SMEs. The Government of Kenya, for instance, released a major strategic plan, known as Vision 2030, in which ICTs and SMEs have been identified as major driving forces for its realization.³ Similarly, the Government of Ethiopia, in its Growth and Transformation Plan (2010/11-2014/15), has given top priority to micro and small enterprises, targeting to create employment opportunities for more than three million people by end of the plan period⁴ and aiming to boost access to ICTs. The new national plan of the Gambia, the Programme for Accelerated Growth and Employment (PAGE) 2012-2017, deals with the need to leverage ICTs in order to promote trade and commerce and the importance of SMEs in realizing its goals.

Why e-commerce for SMEs?

In recent years, the role of SMEs in economic development has grown in importance in Africa as the continent's economic transformation gained momentum. Many countries are directing their strategic development towards industrialization through the growth of the local SME sector. The importance of SMEs in

1 International Telecommunications Union, "ICTs facts and figures 2013", ITU Telecommunication Development Bureau (Geneva, 2008). Available from www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2013-e.pdf.

2 United Nations Conference on Trade and Environment, "E-commerce and development report" (Geneva: United Nations, 2001). Available from http://unctad.org/en/Docs/ecdr2001overview_en.pdf.

3 Daniel Wanyoike, Elegwa Mukulu and Anthony Waititu, "ICT attributes as determinants of e-commerce adoption by formal small enterprises in urban Kenya", *International Journal of Business and Social Sciences*, vol. 3, No. 23, December 2012. Available from www.ijac.org.uk/images/frontImages/gallery/Vol1no7december2012/6.pdf.

4 Ethiopia, Ministry of Finance and Economic Development, Growth and Transformation Plan (GTP) 2010/11-2014/15, Addis Ababa.

development and poverty reduction cannot be overemphasized. These enterprises⁵ represent 99 per cent of all firms in developing countries, as well as play a significant role in creating employment opportunities. Examples of the share of SMEs in employment⁶ in Africa are 39 per cent in Malawi, 38 per cent in Kenya, 37 per cent in Zambia, 33 per cent in Côte d'Ivoire, 32 per cent in the United Republic of Tanzania, 21 per cent in South Africa, 20 per cent in Burundi, 19 per cent in Cameroon and 15 per cent in Zimbabwe.

Another key factor supporting the need to focus on SMEs is that they tend to adapt more easily to technology compared to large enterprises. The adaption process in large enterprises is often slowed by a bureaucracy and a stricter hierarchy involved in making decisions. When SMEs are able to see the added benefits of using ICTs, they are more willing to adapt their businesses strategies.⁷ The results of two e-commerce readiness assessments carried out in the Gambia and in Ethiopia under the Economic Commission of Africa (ECA) strengthen this proposition. Both studies suggest that there is general awareness of the potential in using the Internet for commerce among SMEs. Furthermore, due to widespread coverage and use of mobile phones, mobile commerce now provides more opportunities for SMEs, especially in rural areas.⁸ For example, a study found that after remote communities in Uganda were provided with access to a mobile network, the share of bananas sold rose from 50 to 69 per cent of the crop.⁹ Established by TradeNet, Esoko, a company in Ghana, provides a mobile and web-enabled repository of current

5 Sveinung Fjose, Leo A Grunfeld and Chris Green, "SMEs and growth in Sub-Saharan Africa: Identifying SME roles and obstacles in SME growth". MENON Business Economic, Menon publication no. 14, 2010. Available from www.norfund.no/getfile.php/Documents/Homepage/Reports%20and%20presentations/Studies%20for%20Norfund/SME%20and%20growth%20MENON%20%5BFINAL%5D.pdf.

6 Ibid., p. 5.

7 United Nations Conference on Trade and Development, *Information Economy Report*. Geneva: UNCTAD, 2004.

8 World Trade Organisation, "Electronic commerce, development and small, medium-sized enterprises", Background note by the secretariat, WTO.

9 Megumi Muto and Takashi Yamano, "The impact of mobile phone coverage expansion on market participation: Panel data evidence from Uganda", *World Development*, vol. 37, Issue 12, (December, 2009) pp. 1887–1896. Available from www.sciencedirect.com/science/article/pii/S0305750X09000965.

market prices and a platform to enable buyers and sellers to make offers and connect to one another. In this regard, a recent study of farmers with small landholdings in northern Ghana found that farmers had experienced a 10 per cent increase in revenue after they began receiving market prices from Esoko in the form of a short message service (SMS).¹⁰

Globally e-commerce sales are growing more than 19 per cent a year.¹¹ Compared to large enterprises, SMEs have a low share of the global e-commerce market, however, they are increasingly adapting to the growing technological revolution and benefiting from the global online market.

Within the new strategic orientation of ECA, which is focused on evidence-based policy research analysis, this policy brief aims to highlight some of the policy considerations regarding the role of e-commerce in the growth of SMEs in Africa. It was initiated to correspond to the recent support extended by the Commission to member States, particularly to Ethiopia and the Gambia, in the area of e-commerce facilitation for the growth of SMEs.

2. Benefits of strategic use of e-commerce in SMEs

E-commerce¹² involves the sale or purchase of goods and services by businesses (business to business (B2B)), individuals (business to consumer (B2C)), governments (business to

10 Naomi Halewood and Priya Surya, "Mobilizing the agricultural value chain", *Information and Communications for Development*, chapter 2 (World Bank, August 2012). Available from <http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/IC4D-2012-Chapter-2.pdf>.

11 Goldman Sachs, *eCommerce expected to accelerate globally in 2014*. New York: The Goldman Sachs Group, Inc., 2013. Available from http://boletines.prisadigital.com/Global_ecommerce.pdf.

12 "Electronic commerce, commonly known as e-commerce or e-comm, is the buying and selling of products or services over electronic systems such as the Internet and other computer networks. Electronic commerce draws on such technologies as electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life cycle, although it may use a wider range of technologies, such as e-mail, mobile devices and telephones as well." Source: Scientific Research in a call for papers. Available from www.scirp.org/journal/htmlOfSpecialIssue.aspx?ID=64&JournalID=103.

government (B2G)) or other organizations, and is conducted over computer networks. It builds on traditional commerce by adding the flexibility and speed offered by electronic communications. This can facilitate efforts to enhance operations that lead to substantial cost savings, as well as increased competitiveness and efficiency through the redesign of traditional business methods.

Both SMEs and large businesses have benefited from the adoption of e-commerce as indicated in different studies. Such benefits can be summarized into the following: lower transaction costs; reduction in advertising and promotion costs; rapid communication between buyers and sellers; ability to reach new customers; shortening the traditional supply chains, including minimizing transport obstacles and reducing delivery costs; and eliminating physical limitation of time and space.¹³ This is shown in an ECA-supported survey conducted in 2008 on sampled SMEs in Ethiopia. The results of the survey indicate that some 45 per cent of the enterprises sampled had made orders for the purchase of goods and services through the Internet. The respondents believed that using ICTs in their business could help them in (percentage of the respondents that responded positively is indicated): reducing transaction costs (93 per cent); improving customers' satisfaction (75 per cent); expediting transactions (65 per cent); and avoiding corruption (43 per cent).¹⁴

Empirical research shows that small enterprises that adopt e-commerce perform better than those that do not adopt it due to e-commerce's catalytic effect on business performances.¹⁵ One study found that in the 1990s, many SMEs in East Africa, though in a limited scale, started to embrace ICTs as a growth intervention tool.¹⁶

13 Farhad Nejadirani, Masoud Behravesht and Reza Rasouli, "Developing countries and electronic commerce the case of SMEs", *World Applied Sciences Journal*, vol. 15, Issue 5.(2011), pp 756-764.

14 Assefa Admassie and Woubalem Taye, "E-trade and economic growth in Africa: opportunities and challenges", a research report presented to the ICT, Science & Technology Division of ECA, October 2008.

15 Daniel Wnyoike, Elegwa Mukulu and Anthony Waititu, "ICT attributes as determinants of e-commerce adoption by formal small enterprises in urban Kenya", *International Journal of Business and Social Sciences*, vol. 3, No.7, (December 2012).

16 S. Wolf, "Determinants and impact of ICT use for African SMEs: Implications for rural South Africa", Paper prepared for TIPS (Trade and

3. Challenges for e-commerce adoption among SMEs

There are several explanations for the slow diffusion of e-commerce in developing countries, in general, and in Africa, in particular. These barriers can be grouped into three categories: sociopolitical, including legal and human preference; cognitive, including literacy, content and language; and economic barriers, such as access and use of ICTs.¹⁷

ECA-supported e-commerce readiness studies conducted in Ethiopia and in the Gambia, as well as other studies undertaken across the continent, broadly identify similar challenges pertaining to growth of e-commerce in Africa. These challenges are summarized below:

- Affordable ICT infrastructure, particularly the Internet and broadband, is one of the key factors affecting the growth of e-commerce. A study conducted in 13 African countries¹⁸ involving 3,691 SMEs revealed that 72 per cent of SMEs in general rated the computer as being important, while only 52 per cent of them believed that the Internet was important or very important. This suggests that cost and accessibility may be a consideration when comparing computer and Internet usage to mobile phone usage, which was rated by 95 per cent of SMEs as being important or very important, even though, in the last few years, the cost of access decreased significantly in line with the introduction of an undersea fibre cable network. According to the International Telecommunication Union (ITU), for example, fixed-broadband prices are by far the least affordable in Africa, with an average regional value of 64.3 per cent of gross national income

Industrial Policy Strategies) Annual Forum 2001. Available from www.tanzaniagateway.org/docs/Determinants_and_Impact_of_ICT_use_for_African_SMEs.pdf.

17 Nir Kshetri, "Barriers to e-commerce and competitive models in developing countries", *ScienceDirect*, *Electronic Commerce Research and Applications*, vol. 6, Issue 4 (Winter 2007) pp. 443-462.

18 Steve Esselaar and others, "ICT usage and its impact on profitability of SMEs in 13 African countries", The MIT Press, 2008. Available from <http://itidjournal.org/itid/article/viewFile/246/116>.

(GNI) per capita.¹⁹ Other infrastructure issues, including electricity, transport and roads, and communication, are among the challenges that need to be tackled.

- Digital literacy among consumers and businesses in terms of computer literacy, language barriers, awareness of e-commerce benefits, lack of confidence and security in online transactions, including lack of a skilled workforce in e-commerce enterprises, are common in many countries. In this regard, a recent report issued by the Symantec Corporation shows that SMEs have become the top target for cyber criminals. The report indicates that the number of attacks on SMEs accounted for 31 per cent of the 69 million attacks that occurred in 2012 in the 157 countries covered in the survey. This represents a 13 percentage point rise from the previous year when SMEs accounted for 18 per cent of the total attacks.²⁰ The importance of cybersecurity and the need for a policy action measures in Africa is also emphasized in a recent ECA policy brief.²¹
- Limited delivery and distribution networks (physical transportation), in both Ethiopia and the Gambia, and the absence of proper street addressing and naming were raised as areas of concern in delivery.
- Systems related to electronic payment, branding/recognition, and the issue of tracking, monitoring and taxation systems are also some of the challenges that affect the online transaction process. In this regard, one of the main challenges identified as barriers to full-scale implementation of the e-commerce platforms developed under the ECA-supported project in Ethiopia and the Gambia is the absence of e-payment solutions in the countries. This is also among the main challenges most

countries in Africa face in the development of e-commerce.

- Legal frameworks to build security and trust are common issues that both consumers and businesses find difficult in adapting e-commerce as their business strategic tool.

Ensuring legal and regulatory environments are critical for the complete functioning of e-commerce in a country. This is potentially a transnational activity.

4. Policy issues and recommendations

The following points review practical policy issues confronting SMEs, in particular, and businesses, in general, in the development and implementation of e-commerce:

4.1 ICT infrastructure and access

A particularly important policy issue for SMEs relates to network infrastructure and cost of access. It is suggested that policymakers make e-commerce more affordable through a number of means, such as calling for regular monitoring, regulation, the introduction of subsidies, increased competition and tiered services.

4.2 Policies, legal and regulatory frameworks

Consumers and businesses, in general, and SMEs, in particular, need to ensure an appropriate level of consumer confidence and trust in their activities. E-commerce involves a range of policy and legal issues that need to be put in place in order for it to be developed effectively. A number of the issues highlighted in this paper could easily be overcome by taking simple steps to provide clear guidelines. Important among the legal issues that need to be in place are laws on electronic signatures and authentication, electronic contracting, consumer protection, privacy and data protection, computer/cybercrime, taxation and custom duties, and intellectual property rights.

¹⁹ International Telecommunication Union, *Measuring the Information Society* (Geneva: ITU, 2013).

²⁰ Symantec Corporation, *Internet Security Threat Report 2013, 2012 Trends, Volume* (April, 2013). Available from www.symantec.com/content/en/us/enterprise/other_resources/b-istr_main_report_v18_2012_21291018.en-us.pdf.

²¹ United Nations, Economic Commission for Africa, "Addressing the challenges of cyber-security in Africa". Policy Brief (Addis Ababa, ECA, 2013).

E-payment solutions - countries need to encourage e-payment solutions as a key priority policy action in order to facilitate the growth of e-commerce through the development of a robust electronic financial transaction policy framework that integrates e-commerce legal issues into the regulations of the banking system.

4.3 E-commerce readiness

As the SMEs represent a diverse range of micro, small and medium-sized firms, monitoring of the adoption and use of e-commerce by SMEs must be improved. This can be achieved through a nationwide assessment of the e-commerce readiness to identify if, how and when SMEs can adapt e-commerce as a growth intervention tool. The internationally agreed definitions and measures of electronic commerce should be used as the basis for gathering internationally comparable data for policy purposes.

4.4 E-commerce awareness

There is a need to designate responsible institutions to provide information on electronic commerce, particularly on best practices, success stories and opportunities and obstacles related to the use of e-commerce. In this regard, one best practice is the Gambian SMEs strategy,²² which clearly supports the use of technology, particularly ICTs by SMEs, with as aim to, among other things, encourage the dissemination of information, particularly with regard to enhancing e-commerce and e-business.

4.5 Strategies for skills development and training

To stimulate the uptake of electronic commerce among SMEs, greater priority must be given to the needs of small firms in terms of training and skill development strategies by ministries in charge of ICTs, as part of their wider ICT capacity-building programmes in such areas as basic ICT skills, ICT use in business and project management.

4.6 E-government

Expanding online government services helps boost the development of e-commerce and SMEs familiarity with, and uptake of, it. Some of the e-government services related to businesses, such as business registration, taxation, information provision of legislative or local government information, and government procurement and consultation activities, could motivate increased adoption of ICT use in business, in general, and growth of e-commerce among SMEs, in particular.

4.7 Enabling factors in the supply chain

Based on the results from the e-commerce readiness assessments conducted in Ethiopia and in the Gambia, inadequate public communication and transport infrastructure, including insufficient private or public distribution and logistics services, serves as a barrier in the development of e-commerce. Therefore, an important policy action entails encouraging the development of services in transport, packaging and distribution, including improving communication and transport infrastructure. In this regard, the issue of developing geographical location addressing, such as street naming and maps, is a key factor for the development of effective electronic commerce for many countries.

4.8 Institutional mechanism and coordination

Finally, in the context of most of the countries where different agencies and government bodies implement e-commerce initiatives that are specifically targeted to SMEs, an institutional mechanism to coordinate among the lead actors needs to be developed in order to prevent duplication of efforts and to effectively implement some of these policy actions.

5. Conclusion

The role of SMEs in the ongoing rapid economic development of Africa is well recognized. ICTs are transforming how business is done locally and globally. It is also envisaged that ICTs will

22 The Gambia, National Policy Micro Small and Medium Enterprise Sector 2013. Banjul: Government of the Gambia, 2013.

profoundly affect how business is done in the future. This policy brief has examined the different ways of using e-commerce and how SMEs can benefit from it with the envisaged expansion in the future. Many SMEs have benefited from ICTs in their day-to-day business activities, including experiencing gains in enhanced productivity.

Due to lack and cost of access to Internet connectivity, many SMEs are not always tapping the full potential of the Internet. Furthermore, high-quality and reliable e-commerce requires advanced telecom services, such as broadband and mobile broadband services, at affordable prices to consumers. Thus, governments and other partners need to take advantage of the opportunities that are emerging in the use of the new ICT landscape, particularly in innovations

in mobile applications. Governments need to ensure that SMEs benefit not only from being connected to the Internet but also from any technological evolution that can increase the speed of data flows and can help reduce costs to consumers. Furthermore, much of the support to e-commerce depends on putting in place the right infrastructure, regulations and policies for e-commerce to thrive. In this regard, the role of government and the private sector is of paramount importance in realizing this.

Finally, a critical mass of workers with ICT skills is crucial for the further development of e-commerce and mobile applications. In this regard, governments can play an important role in ensuring that the education systems provide training of the necessary skills for building a viable digital economy.

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