Developing countries could be marginalised in the new economic paradigm because of the serious difficulties they face in accessing ICTs, poor domestic telecommunication infrastructure, a huge knowledge gap and a lack of human resources capacity. Only an effective solution to close the huge gap dividing humanity between information “haves” and “have-nots” can clear the way for a more balanced global economic growth.

To address these concerns the international community has launched several programmes of action aimed at bridging the digital divide, not only between developing and developed countries but also between different social groups within developed countries. These action programmes are part of initiatives such as the United Nations’ ICT Task Force, the G8’s Dot force and the World Summit on Information Society.

The E-Commerce and Development Report 2001, published in November 2001, identified a number of areas where developing countries can exploit electronic commerce and maximise its economic benefits. Tourism, for instance, is a sector of foremost importance for developing countries, particularly some of the ACP countries. Developing countries are among the major international tourism destinations, which generates sales of US$131 billion (1999). E-tourism provides opportunities for developing countries to substantially increase the share in the value chain by offering direct online services to international customers.

The Internet also offers an opportunity for primary commodity producers to establish B2B marketplaces to conduct direct online transactions between buyers and sellers by using existing local commodity exchanges and commodity exporters associations. This will allow commodity producers to capture a larger share of the transaction value than transactions conducted through dominant commodity exchanges. E-logistic services can enable developing countries to substantially reduce transaction costs, particularly in their exports and consequently enhance their international competitiveness. E-finance opens up new horizons for small and medium enterprises (SMEs) in developing countries to obtain trade financing which is not traditionally accessible to them. Out-sourcing of labour-intensive services by enterprises in developed countries to service providers in developing countries can help those countries to diversify their economy and improve the living standard of the people. However, these and other potential opportunities have not yet been fully understood in many developing countries. Often entrepreneurs and policy-makers there view electronic commerce as a luxury for the highly industrialised countries. It is often perceived as a distant objective for the developing countries and given low priority in their national development agenda. Such lack of awareness of the potential benefits for the developing countries may be at the base of strategic errors resulting in missed opportunities and policy choices that will leave countries further and further behind.

In order to expose the myth that electronic commerce is not viable in the least developed countries, UNCTAD conducted a
survey of ten of them, including six ACP countries (Ethiopia, Madagascar, Mozambique, Togo, Uganda and Tanzania). Our survey discovered a wealth of opportunities and potential available for enterprises even in the most disadvantaged countries with least developed ICT infrastructure. A good number of enterprises have been identified as having achieved tangible success in using information and communication technology to achieve their economic goals. The transaction value may be small in global transactions terms, but it carries the important message that the principle of comparative advantage continues to apply in the digital era. Enterprises in the LDCs do have a comparative advantage in certain sectors and sub-sectors. The opportunities identified in the survey range from B2C, B2B electronic commerce to teleservices.

**B2C** business model is viable, but needs to overcome obstacles

Many of the identified enterprises selling a product or service online used “business to unique consumer” e-commerce models. All focused on on-line selling to a small niche market located in industrialised countries such as the diaspora. Examples include Ethiogift.com (Ethiopia) which caters to expatriate Ethiopians who buy gifts on-line to be delivered to relatives or friends living at home. Of the 16 enterprises chosen as success stories, seven were classified as business-to-consumer examples.

Other examples include enterprises selling traditional textiles, garments, music, food etc. to their respective diaspora. For example, LifeinAfrica.com (Uganda) sells traditional clothes to African-Americans and promotes African culture, and SimplyAfrican.com (owned by Raha.com, United Republic of Tanzania) sells high-quality African art to art lovers in the United States.

Success has come to those enterprises that have been able to develop consumer trust over a period of time, by creating a loyal subscriber base (ie LifeinAfrica.com); offering information about home (ie Radio One (United Republic of Tanzania), Simba Radio (Uganda), The Addis Tribune (Ethiopia)); or by developing an agent network in the target market. Ethiogift has a network of Ethiopian restaurants that assist in sales or facilitate the distribution of marketing literature.

Enterprises selling products to the general overseas markets have encountered greater difficulties. They have to charge high delivery costs and provide for longer delivery times. In order to protect their on-line reputation, these enterprises have to keep large quantities of stock for prompt delivery and to ensure product quality. Because orders are small and scattered, it is difficult to arrange bulk order delivery. Consequently shipping cost is high.

International business-to-consumer e-commerce is an interesting option for medium-sized manufacturing exporters in developing countries. An interesting example is provided by one company studied in our survey, the Genuine Leather Craft (GLC) of Ethiopia, which has succeeded in marketing leather garments directly to the end consumers. Currently, online orders from consumers around the world account for 40 per cent of GLC’s total sales.

All identified business-to-consumer models based in developing countries have their websites hosted in the United States, Canada or another developed country, mainly because credit card payment options can be offered. Other reasons include cheaper and better-quality hosting services, regarding for example website performance and listing.

Obstacles identified by enterprises engaged in online business-to-consumer models include the high costs involved in developing a quality website and acquiring online clients, expensive fulfilment costs, problematic online payment issues, exclusivity of distribution channels and the lack of a domestic market.

**International B2B e-commerce examples**

In contrast to the B2C niche market, B2B e-commerce models represent a far greater market potential for enterprises in the LDCs in terms of transaction values. UNCTAD’s survey found that teleservices present enormous opportunities, mainly because of the huge difference in wages between developing countries (ranging from US$20 per month to US$500 for highly qualified individuals) and developed countries (from US$2,000 to US$10,000 per month for similar activities).

A “teleservice” can be defined as a service which can be executed from a remote location using web enabling technologies. Examples of online and offline teleservices are translation, data scrubbing, copy editing, medical transcriptions, data input, creation of customized marketing databases, creation of simple websites, scanning (i.e. digitalization of print documents), call
centres, follow-up marketing calls and remote surveillance.

Online teleservices can be divided into interactive and non-interactive. Interactive on-line services involve real-time involvement by the contracting party. Examples of these types of services include call centres handling airline reservations, telemarketing and after-sales support. Some of these services are being outsourced by large corporations, often to call centres outside the country. Low-cost internet telephony now allows call centres to be established in a country other than that of the target audience, provided that the call centre, for example situated in a developing country, has reliable low-cost high-bandwidth connections. A report by the Economic Commission for Africa has identified a call centre project in Togo (Café Informatique), which provides call centre services over the Internet for clients based in the United States. The attraction of locations such as Togo is the significant human resource cost advantages. Café Informatique has secured a pilot contract with a major United States telephone company to update telephone directories. The centre employs over 50 operators. However, and although it can provide an attractive opportunity, online teleservicing still has to overcome several barriers. There are relatively high start-up costs for equipment and high training costs, and companies must have the capacity in place before trying to win a contract. Online contracts often involve 24-hour operations and the skills required are difficult to develop as they involve teaching people not only language but also new cultures and behaviours.

Online non-interactive services include internet radio stations, or internet sports sites, which provide downloadable but recent news on sports events. Radio Simba could be classified in this category, except that at this stage it is not charging recipients for the service.

Far more attractive options for enterprises are the various forms of off-line teleservicing. These include transcription services, data input, software development, remote access server maintenance, web development, creation of databases, digitization of old documents (ie architectural drawings), translations and editing.

Off-line teleservicing generally involves lower start-up costs. Since operations do not have to be “live”, management has the opportunity to intercept poor-quality work prior to delivery. For example, Doticom Services, a four-person company in Uganda, was able to win a contract to input data from scanned invoices into an accounting package for an auditing firm in Canada without a large initial investment.

Off-line teleservicing offer talented individuals living in developing countries an opportunity to do work for companies based in developed countries. For example, an enterprise in the developed world requires desk-top publishing services for a document. The document is sent by e-mail to the contracted person, who could be situated in any developing country provided that he or she has internet connectivity. The person works on the document and, once finished, sends it back to the enterprise by e-mail. These services are referred to as off-line, as the work is done off-line, and only when it has been completed, does the person go on-line to send it to the customer. Companies in developed economies will increasingly secure these types of services in low-labour-cost countries. The report by the Economic Commission for Africa on electronic commerce in Africa, identified a number of examples of off-line services: a Moroccan company with a staff of over 70 that digitizes manuscripts for a European publisher; a Moroccan company that offers internet-based translation services; and a Senegalese company that employs 30 skilled computer-aided design technicians to do architectural detailing for European clients.

An important lesson from our survey of teleservices examples in developing countries is that ICT is a tool that provides for new opportunities for competition. The technology enhances the creative powers of people as well as the efficiency of economic activity. It does not substitute for human work; on the contrary, it makes people interact with each other on a higher technological and knowledge basis. All stakeholders in this digital revolution – ie governments, enterprises, societies and individuals – have to adapt to the revolutionary changes brought about by the information and communication technology. Those countries which have adopted appropriate strategies to create an enabling environment for the development of electronic commerce are better placed to reap the benefit of applying information and communication technology, increasing productivity gains, enhancing international competitiveness by reducing transaction costs, capturing the opportunities of diversification, integrating with the global economy and in the end improving the living conditions of the people.

Such an enabling environment should include basic ICT infrastructure, free access to information and internet services, a legal framework that accommodates electronic commerce, the protection of security, privacy and intellectual property rights, an efficient electronic payments system, an adequate trade logistics system and e-government services providing online access to all kinds of trade transaction related government agencies.

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1. Business-to-consumer e-commerce (B2C) is the online selling of virtual or physical products to consumers or end users, and is similar to retailing in traditional business models.