

# Challenges and Prospects of e-Commerce in Africa:

## *The need for strategic alliances and collaboration*

By Alice P. Shemi and Beatrice A. S. Magembe

*University of Botswana*

E-Commerce has been hailed as the most fundamental change since paper money was invented (Derek Miers, 1996). Despite the down fall of some early e-commerce start-up companies in 1999, e-commerce hype world-wide is ever-increasing and could be worth more than \$7 billion by 2004 (Turban et al). Africa's share in e-commerce stands at \$31 million with \$30 million coming from South Africa. The USA is far ahead of many countries in e-commerce development whereas Africa, dubbed the least developed continent, lags far behind. In terms of information, communication and technology (ICT) infrastructure, Africa is lagging behind the other continents. Good Information and Communications Infrastructure, essentially, the Internet, is required to participate in e-commerce. According to Turban et al (2002), the most common types of e-commerce transactions that are most prevalent in USA and other developed regions of the world are the business to business (B2B) and the Business to Consumer (B2C).

There have been many initiatives for economic and political collaboration among African countries. These include intergovernmental organizations such as, the African Union (AU),

the New Partnership for Africa's Development (NEPAD), the Southern African Development Community (SADC), the Economic Community of West Africa States (ECOWAS), the

Africa contribute positively to the development of the African economy and the life of its citizens? What challenges slow down or hinder the diffusion of e-commerce in Africa?



Common Market for Eastern, Southern African countries (COMESA) and the East African Community (EAC). The main goal of these organizations is to enhance collaboration in economic, social and political issues so as to improve the livelihood of their citizens. Several questions need to be answered, " Can e-commerce in

Furthermore, what reservoir of wisdom and knowledge can Africa use to trigger pragmatic steps for the diffusion of e-commerce? This article discusses the challenges and prospects for the diffusion of e-commerce in Africa and makes recommendations on how inter and intra-regional cooperation and collaborations and

strategic business partnerships within and outside Africa can be enhanced to speed up e-commerce activity on the continent.

## The Challenges of e-Commerce

Statistics show that Africa is lagging behind in the adoption of E-commerce. Muriuki (2003) reports that there is hardly any e-commerce in Africa, however, according to Jensen (2003), there is some e-commerce activity in Africa, with South Africa and North Africa (Egypt, Ethiopia, Morocco, Tunisia) taking the lead. The slow diffusion of e-commerce has been attributed to a number of issues some of which may be unique to the African continent:

### Technological Infrastructure

Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in e-commerce in Africa. Most rural areas in Africa, where the majority of small and medium businesses are concentrated, have no Internet facilities and thus are unable to engage in e-commerce activities. According to Jensen (2003), most countries in Africa, except South Africa, have Internet infrastructure only in three major cities. When compared to USA, it will take Africa close to 225 years to catch up in overall economic development in ICT (Aniebonam, 2003). Most African countries have no telecommunication policy and a regulatory authority. According to the Economic

Commission for Africa 1999 report, only 20 of the African countries had established some form of independent or quasi-independent regulatory board for the telecommunication sector. Botswana, Gambia, Malawi, Mauritius, Morocco, Mozambique, South Africa and Uganda are among the few countries that have well established telecommunication authorities. The main responsibilities of these authorities are: license allocation, issuing tariff guidelines, setting standards, consumer protection, creation of stable and predictable environments, ensuring fair competition and allocation and management of radio frequency spectrum.

### Payment Systems and the Banking Sector

Most of the B2C transactions currently taking place use credit and debit cards supplied by Visa ([www.visa.com](http://www.visa.com)) and MasterCard ([www.mastercard.com](http://www.mastercard.com)). For B2B, the use of credit or debit cards may not be conducive thus requiring the need for specialized systems which are not currently available. In South Africa, ivery.com is marketing some products for B2B online transactions that could possibly be used by Southern Africa and other regions.

### Costs

The cost of Internet access relative to per capita income is a critical factor. Compared to the USA, there are higher costs of entry into the e-commerce market in Africa. These include high start-up investment costs, high costs of computers and telecom-

munication equipment and licensing requirements. According to Darley (2001), a basic personal computer is 50% more expensive in Africa, after adjusting for import duties and taxes, than in USA.

### Transport Costs

Africa is a vast continent and it is logistically more difficult to move goods across Africa than in USA due to poor transport infrastructure. Consumers can buy goods online, but getting the product to the consumer in Africa and other parts of the world is an expensive and daunting exercise. Electronic products and services may be easier to transact than tangible products.

### Governance, Legal and Institutional Infrastructure

Many countries in Africa suffer from poor governance and lack of clear policies regulating internal and external trade. There is also a general perception that Africa is corrupt, fraud ridden and full of crime; for example, the 419 menace in Nigeria (Aniebonam, 2003). An African Union Report issued in 2002, estimated that corruption costs Africa \$148 billion a year. These incidents have tarnished Africa's image and have influenced the international scoring system to position Africa as a high-risk continent. Southwood (2003) argues that legislation is also a key issue hindering e-commerce diffusion. Stringent regulations make it difficult for e-commerce to flourish whereas too little legislation with regards to tax, fraud,

and moral issues can open the e-commerce market to abuse.

### **War, Terrorism and Political Instabilities**

War, acts of terrorism and political instabilities inevitably disturb smooth operations of business and free flow of goods and services. There have been wars and civil unrest in many African countries - Liberia, Ivory Coast, DRC, Angola, Rwanda and Burundi. War is costly and diverts much needed resources from economic development to supporting the war. There are also costs from rebuilding infrastructure that was damaged by war. The controversial land reform policy in Zimbabwe has created political and economic instabilities that do not provide a very conducive environment for e-commerce. Africa is also prone to natural catastrophes, for example, the Mozambican floods that led to destruction of infrastructure and had negative effects on business operations.

### **Language and Cultural Barriers**

Africa consists of 54 nations each with its own official language and culture. Broadly, Africa can be divided into distinct zones based on languages: Anglophone, Francophone Arabic and Portuguese speaking. Language is a vehicle of communication and in order for inter-country trade to flourish you need a common means of communication. Research has shown that the Francophone zone has higher profile on the web and has more connectivity than the other lan-

**“Most rural areas in Africa, where the majority of small and medium businesses are concentrated, have no Internet facilities and thus are unable to engage in e-commerce activities. According to Jensen (2003), most countries in Africa, except South Africa, have Internet infrastructure only in three major cities.”**

guage zones (Darley, 2001). This has been attributed to strong assistance provided by Francophone support agencies. To curb this challenge Africa should work towards more regional collaboration and adoption of regional languages. The use of Swahili in East Africa is one such example. However, since e-business is based on Internet technology, African countries have to continue to use universally acceptable languages.

### **Different National Currencies**

Inter-Africa business in general is affected by the fact that each country has its own national currency and in many cases these currencies are not directly exchangeable. The tendency is for invoicing to be done in the hard currencies subjecting the buyer and the seller to foreign currency exchange risk. In addition to these problems, many countries have a system of foreign exchange controls that further complicate cross border trade.

### **Low Information Technology Skills**

There is a shortage of qualified Information Technology personnel necessary to support e-commerce across the continent. For example, in the tourism sector of East Africa, the key stakeholders of driving innovative e-commerce are themselves not well-versed with the technological requirements of e-commerce. This problem is further compounded by the HIV/AIDS pandemic that has reduced the human resource level in the business sector.

## Security Issues and ICT Phobia

Research studies have shown that perceived lack of security of e-commerce transactions and ICT phobia, are a major hindrance to the diffusion of e-commerce amongst businesses and consumers (Magembe & Shemi, 2002).

## Prospects for the Development of E-commerce

Herbert (2003) suggests that the great bulk of African problems must be solved at the national level. African countries, collectively and individually, need to address the challenges that were identified in this article. The following section identifies the steps that need to be taken to accelerate e-commerce uptake.

## Need for Alternative Models of E-Commerce

There is a need to develop new models of e-commerce suitable for the African environment. Most business in Africa is micro-business, smaller than the small business of USA. Therefore, e-commerce as currently construed favors large businesses that have the necessary resources. E-commerce in Africa needs to rely on business associations and cooperative models of business. New ways of evaluating e-commerce risk in Africa are needed. These methods might include measures of association, social groupings and communication and include returns on social investment as an important coefficient. Managers need to formulate e-commerce strategy that utilizes the most appropriate technological infrastructure.

## Policy Change

There is a need to change institutional policies governing and promoting e-commerce from 'top-down' to 'bottom-up' (Humphrey et al). Countries should encourage 'bottom-up' initiatives that define effective uses of ICTs and specific forms of B2B e-commerce in the wider context in which the firms are trading. Since the configuration of problems facing e-commerce varies from sector to sector and from country to country, policy issues should be assessed from the standpoint of all stakeholders. There is also a need to harmonize e-commerce policies among African countries to facilitate smooth transaction within countries.

## The Need for Strategic Alliance and Collaboration

Even though the challenges of e-commerce are enormous, Africa cannot stand by and watch as the developed world reaps the benefits of the digital economy. It is imperative to devise strategies that involve alliances and collaborations between and amongst continental stakeholders and international agencies. Such alliances and collaborations would enhance e-commerce initiatives on the continent and expedite access to the Global e-commerce market. Here are some of the strategies that could be explored:

### I. Regional Collaboration and Partnerships

African countries should take advantage of already existing regional inter-governmental structures, ECOWAS,

COMESA, SADC, AU to accelerate the development of transport and technological infrastructure and improve regional and inter-continental connectivity. Such collaborative efforts will result in cost sharing and ensure compatibility of systems that are used for e-commerce. The following are suggestions of areas where regional collaboration is needed:

- Develop regional research networks among African universities to carry out research on e-commerce models suitable for Africa.
- Expand and improve telecommunication links between neighboring countries.
- Improve online payment systems, currency convertibility and acceptability within the region and Africa wide. The possibility of a common regional currency should be looked into.
- Investment in IT education to develop human capital.
- Transparency and good governance.
- Cyber laws for effective informational security.

### II. The Role of Development Agencies

Foreign assistance agencies can help to create a fund that local business and policy networks can draw upon. In addition, these agencies can provide experienced experts who can appraise the e-commerce climate, diagnose problems and make necessary recommendations on how the obstacles to e-commerce in Africa can be resolved.

International cooperation and partnerships need to be developed to assist to improve infrastructure, human resource development, support the development of electronic information sharing. Organisations such as, ADB, ECA, UNDP and World Bank to facilitate investment and resource mobilization for infrastructure development projects in Africa.

### III. Business

#### Partnerships and Alliances

African businesses can form strategic partnerships and alliances with regional and international firms to learn and share ideas with each other. The involvement of the business fraternity such as chambers of commerce, academics and non-government organizations (NGO's) and government leaders can provide a good platform for resolving thorny issues in e-commerce. This can be done through conferences, symposiums and seminars.

## References

- Aniebonam, M. C., The Future Generation of Global Information and Communication Technology (ICT) Can Africa Meet the Challenge? Chimera™ Vol. 1, Issue 2/Summer 2003.
- Darley, W. K., The Internet and Emerging E-Commerce: Challenges and Implications for Management in Sub-Saharan Africa Journal of Global Information Technology Management Vol. 4 No. 4 2001.
- Grace K (2003). Ciao Africa, The world is moving on. E-Africa: The electronic journal of governance and innovation. Accessed 15/07/2003 @ [www.wits.ac.za/salia](http://www.wits.ac.za/salia).
- Herbert R (2003). Linking Nepad and Civil society. E-Africa: The electronic journal of governance and innovation. Accessed 15/07/2003 @ [www.wits.ac.za/salia](http://www.wits.ac.za/salia).
- Humphrey, J, Mansell R, Pare, D, Schmitz, H (2003), The Reality of E-Commerce with Developing Countries, Accessed 12/08/2003 @ "<http://www.lse.ac.uk/collections/media@lse/News/Default.htm>" The London School of Economics and the Institute of Development Studies at Sussex.
- Magembe, B A S and Shemi A P (2002). Challenges and Opportunities for adopting Electronic commerce in a developing country: The Botswana Perspective. IAABD Conference proceedings, Port Elizabeth 2002.
- Miers, D. (1996). The Strategic Challenges of Electronic Commerce. Accessed 20/10/2000 @ <http://enix.co.uk/electron.htm>.
- Salter-Nour, C (2003). Ecommerce in Africa - making it happen. Accessed 10/08/2003 @ "[http://eshopafrika.com/acatalog/a\\_aitec2003.html](http://eshopafrika.com/acatalog/a_aitec2003.html)"
- Turban,E, King D, Lee J, Warkentin M, Chung, H,M, (2002). Electronic Commerce: a managerial perspective. International edition. Prentice Hall.

*Alice Phiri Shemi is a lecturer in Information Systems at the University of Botswana. She has previously taught at Copperbelt University in Zambia and the University of Swaziland. Her research and publication interests are in e-commerce, e-learning and strategic information systems in the private and public sectors. Shemi has published in several scholarly journals across the world.*

*Beatrice Magembe is a Senior Lecturer in the Faculty of Business of the University of Botswana. She lectures in Financial Management and Accounting. Her research interests include the use of Information Technology in small and medium enterprises in developing countries, gender issues in business and financing of small and medium enterprises.*