

The Prospects and Barriers of E-Commerce Implementation in Tanzania

George S. OREKU^{1,2}

¹TIRDO, P.O.Box22440, Dar es salaam, Tanzania
Tel: +255783992020 Fax: + 255222666034, Email: gsoreku@tirdo.org

²North-West University, Vaal Triangle Campus, Vanderbijlpark, South Africa, 1900
Tel: +27(0)169103261, Fax+27(0)169103271
E-mail: george.oreku@gmail.com

Fredrick J. MTENZI

Dublin Institute of Technology, Dublin 8, Ireland
fred.mtenzi@dit.ie

Al-Dahoud ALI

Al-Zaytoonah University, Jordan
E-mail: aldahoud@alzaytoonah.edu.jo

ABSTRACT

The Internet and mobile phones has brought about the emergence of virtual markets with four primary distinct characteristics, which are real-time, shared, open and global in the world. The growing rate of ICT utilization particularly the Internet and mobile phones has influenced at an exponential rate, online interaction and communication among the generality of the populace. The shortcomings notwithstanding, most people are connected through their cell phones, home PCs and others through corporate access and public kiosks. The patronage of the Internet allover the world is monumental and has remained on the increase from inception. However, with the enormity of businesses on the Internet, Tanzania is yet to harness the opportunities for optimal financial gains.

This study is exploratory in nature as it attempts to unveil the prospects of e-commerce implementation, participation, motivation and opportunity to the countries like Tanzania. The paper proposes to investigate the ability of consumers to purchase online, the available motivation to do so, and the opportunities for Internet access. Findings revealed that Tanzanians have the ability to participate in e-commerce, but there is need for improved national image to bring in the element of trust and discipline within, and before the international communities. Furthermore, there is need to encourage public and private initiatives in the provision of the basic infrastructures for improved motivation and opportunities for e-commerce implementation. Currently, consumers source for information online but make purchases the traditional way.

Key Words: E-commerce, E-payment, ICT, Web presence and Internet access.

1. The E-Commerce Phenomenon and Country profile.

Tanzania has an area of 945,000 sq km (365,000 sq miles) and a population of about 40 million.

Dar es Salaam is the commercial capital and home to many government institutions and diplomatic missions. There are about 120 ethnic groups on the mainland, although none exceeds 10% of the population, as well as minority Asian

and expatriate communities. Tanzania's economy relies heavily on agriculture, which accounts for nearly half of GDP and employs 80% of the workforce. Tourism is growing in importance and ranks as the second highest foreign exchange earner. Mineral production has grown significantly in the last decade and provides over 3% of GDP and accounts for half of Tanzania's exports [14]

The study has shown that the use of ICT equipment is still low in Tanzania compared to other countries in the world but it is growing at a staggering pace. According to the World Bank data in the last decade for instance, the penetration rate of personal computers has increased by a factor of 10, while the number of mobile phone subscribers by a factor of 100! Extrapolations until the year 2009 suggests that the penetration rates of personal computers lies around 19.5 computers per 1000 people, which corresponds to an installed base of 850'000 units in 2009.

The results of this study have further shown that the average distribution sales of new computers are 50% to government; 40% to the private companies and 10% to private households & small businesses while the survey from second-hand dealers showed that second hand IT equipment are mainly sold to private households & small businesses. The average life of new computers was found to be 4 years in government and private sector and 8 years in private households and small businesses while the average life of second hand computers was found to be around 5 years.

Based on the results of this survey and some key development statistics for Tanzania, it was estimated that about 200,000 computer units reached their end-of-life in 2009. Future computer mass flow trends as one of the ecommerce tool based on linear and exponential growth indicate that the potential of eCommerce implementation is still hindered with many factors as it is depicted in details on this presentation.

Despite the spectacular dot-com bust of a few years ago, the Internet has markedly changed the way we do business, whether it's finding new streams of revenue, acquiring new customers, or managing a business's supply chain. E-commerce is mainstream — enabling businesses to sell products and services to consumers on a global basis. As such, e-commerce is the platform upon which new methods to sell and to distribute innovative products and services electronically are tested.

The Web's influence on the world's economy is truly astonishing. The business world knows that the Web is one of the best ways for business

such as manufacturers to sell their products directly to the public, brick-and-mortar retailers to expand their stores into unlimited geographical locations, and for entrepreneurs to establish a new business inexpensively.

Thus, it is important that the executive in the 21st Century know 1) where technology stands in the business processes of his or her company, 2) how technology relates to the company's strategies, 3) how rapidly technology changes and evolves, and 4) how the company and its business partners will respond to the changing technology.

In the high flying 1990s, many people jumped on the e-commerce bandwagon after reading the many highly publicized dot-com "success" stories. Admittedly, most were written to raise the entrepreneurial blood pressure. What many forgot, though, was the old adage: If it looks too good to be true, it probably is. They didn't use their innate intelligence and failed to proceed with caution.

Nonetheless, the ascendancy of e-commerce has expanded the business environment so that even a small start-up can compete with well-established business names and product brands. Yet, when you consider joining the e-commerce commerce community, keep in mind that selling products and services on the Web presents a unique set of challenges. This paper will help you in identifying and realizing on those challenges with respect to Tanzania scenarios.

There are challenges on what already in place, including a national payment system, local credit cards, and a legislative framework appropriate for e-business. These are challenges that need to be addressed urgently. Most significantly, the legal framework does not provide adequate safeguards to create an environment of trust for e-business transactions to take place. Consequently, financial institutions are not able to set up provisions for supporting e-transactions for their own, and each other's clients. However the use of traditional marketing mechanism is also one of the constraints facing Tanzania participate in e-commerce.

The evidence from literatures also supports that the hype and promise of e-commerce has been well recognized, but the fact is, it has not been realized at the rate which policy documents and

government claim. There are very limited ICT developments in Tanzania with less than three people in every 100 people having access to ICT infrastructure [1].

2. Literature review

It is conceived that e-commerce is a phenomenon of developed country and new technology generally put challenges for developing countries that lack the requisite capabilities, as well as the economic and financial resources to cope with the developed countries. Especially internet presents both opportunities for economic and social development, and a threat to further increasing the gap between developed and developing countries [2].

The experience of most developed countries shows that price and availability of the telecommunications infrastructure are clearly associated with competition and market access [3]. Tanzanian Government has withdrawn import duties from computers and computer related peripherals. Due to the withdrawal of duties prices of computers and related products have become affordable to general communities. This to some extent has increased the use of computer for general purpose though effective applications of computers are still underutilized due to particularly government policy. However, it is revealed from recent survey that nearly 90% of the computers are Dar es Salaam based and there is little scope for decentralization of these PCs to different regions of Tanzania [4].

Very few standard IT institutions are providing high quality IT Education in Tanzania, but the costs are very high and consequently remain beyond the reach of general people. Some IT related private institutions opened and started to offer it courses but again they are centered around big cities such as Dar es salaam, Mwanza and Arusha. These institutions suffer from lack of coordination and quality course materials, and inadequate technical facilities. In course of time, eventually situations have been improved as the government withdrew duties on Computers. At present there are more than 50 ISPs operating in the country including the government initiatives of putting in place the fiber optical connecting the whole country [4].

Different patterns have been found in studies about the extent to which firms in developing countries embrace the internet. In Brazil, telecommunication infrastructure is not considered a barrier for e-commerce, and financial services sectors have widely adopted the internet approach [5]. In Nigeria, e-mail was the prime aspect of the internet system and business people used email mostly for the purpose of communication [6]. Low level of IT education was recognized as the underutilization of internet system in many developing countries. In Hongkong low e-shopping compatibility, e-shopping inconvenience, e-transaction insecurity, and low internet privacy, together with orientation toward social interaction and poor awareness on the part of the consumers, translate into supply-side hurdles [7].

It is found from various studies that in developing countries e-commerce has hindrances in the arena of cultural habit and business and technology infrastructures as well [8].

Various studies identified a number of factors that facilitate or limit internet-based businesses. The enablers are availability of information, access to price information, accessibility, and convenience. These are the factors that would benefit the online business. On the other hand, the limiters which inhibit the escalation of internet business include lack of trial, lack of interpersonal trust, lack of instant gratification, high shipping and handling costs, customer service issues, loss of privacy and security, lack of a stable customer base, and poor logistics. Oinas recommended in his paper that online companies serving ultimate consumers need to build competency in retailing, handling payments, and distribution, among other crucial business functions [9].

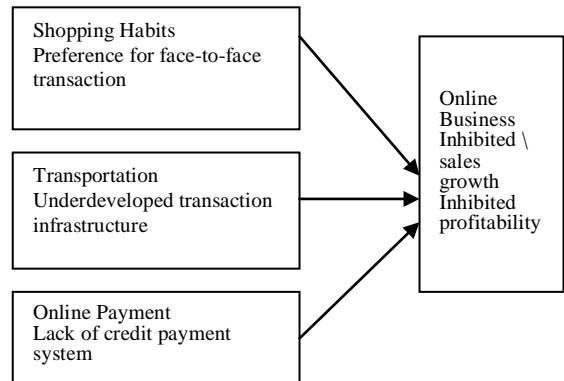


Figure: 1.Barriers to Online Business

Among other barriers many traditional middlemen are trying to preserve existing barriers and create new ones as a way to prevent online competition. In the developed countries these barriers already prevented many firms practicing e-commerce from selling directly to consumers and severely limit the ability of consumers to buy things.

3. Major Barriers of e-Commerce Development in Tanzania: Customers' Perception

E-commerce is ubiquitous and thus anyone can transact at any time from any place. On-line commerce has enabled customers to overcome the handicaps of time and space. However, despite the rapid and demonstrated uptake of e-commerce techniques, there is still very limited detailed evidence about how individual corporations in developing countries are using e-commerce to improve their business activities and what the effective costs and benefits are of using those techniques (*Digital Opportunities for Development*). Despite the fact that e-commerce has endless opportunities, it is evident that numerous barriers inhibit the successful uptake of e-commerce. One point of this presentation is to revealing the existing and prospective barriers to e-commerce and devising their solutions in the context of Tanzania.

4. Study Methodology

The study methodology followed to complete the study is on the basis of primary and secondary data. Secondary data were collected from relevant papers, daily newspaper, IT magazines published in paper form and electronic form as well. Primary data were collected from three stakeholder groups namely, vendors (merchants), financial institutions, IT institutions and the consumers (mostly SMEs). A critical analysis was done to determine the barriers that hinder the effective implementation of e-commerce in Tanzania.

5. Context: Tanzania

According to International Telecommunication Union (ITU) report, 520,000 Internet users as of June, 2009, 1.3% of the population, according to

2010 ITU report. There are around hundreds of formal and informal IT training centers and numerous computer shops. Although ICT had been announced as a thrust sector in 2003 year no substantial and clear-cut IT policy has been followed since then. Still legislation towards electronic signatures, practical laws to protect intellectual property rights and relevant financial structure to facilitate electronic transaction are yet to be formalized. The entry into the global economy is effectively blocked because of inadequate ICT infrastructure and human resources, and non-existing compatible electronic environment to the rest of the world, lack of coordination among different stakeholders. However, the member of IT users in Tanzania is increasing rapidly.

6. Technical Limitations to e-commerce

- Lack of sufficient system security, reliability, standards and communication protocols
- Insufficient telecommunication bandwidth
- The software development tools are still evolving and changing rapidly
- Difficulties in integrating the internet and e-commerce software with some existing application and data base
- The need for special web servers and other infrastructures, in addition to the network servers (additional cost)
- Possible problems of inter operability, meaning that some EC software does not fit with some hardware, or is incompatible with some operating systems or other components

7. Non-Technical Limitations to e-commerce

- Cost and Justification
- Security and privacy
- Lack of trust and user resistance
- Channel conflict
- Other limitations factors are such as lack of touch and feel online etc

According to the study conducted by Oreku et al., in [10] e-Commerce readiness in Tanzania is not advancing because of

