The Internet and SMEs in Sub–Saharan African Countries: An Analysis in Nigeria

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INTRODUCTION

The Internet is a global network of interconnected computers using multiple Internet protocols (IP). Increasingly, it is being used to enhance business operation by both small and medium-sized enterprises (SMEs) and large organizations around the world (Bunker and MacGregor, 2002; Turban, Lee, King, & Chung, Lee, J., King, D. & Chung 2004). One reason is that the Internet, when used to facilitate e-commerce and e-business, offers several benefits for the adopting organizations (Walczuch, den Braven, & Lundgren, 2000; Turban, et al, 2004). Such benefits include the following: 1) reducing distance barrier, 2) the development of new products and services, 3) opening direct links between customer and suppliers, and 4) enhancing communication efficiency. Our study of the relevant literature reveals that the diffusion of the Internet among businesses in Sub-Sahara Africa (SSA), including SMEs, is the lowest in the world at around 2% (ITU, 2005). A recent report shows that the whole of Africa has only 1% of the total international Internet bandwidth (UNCTAD, 2005). Thus, it is to be expected that businesses in the region with such poor connectivity and use will be unable to fully reap the benefits of the technology. Against such unfavorable situations, it would seem reasonable for research efforts to uncover why such unfavorable conditions prevail in the region. Sadly, very few studies exist that have investigated such issues. Little is known about the perceptions of the Internet or the factors inhibiting its spread among SMEs in SSA. To fill this gap in research, this article aims at adding to knowledge by presenting a summary of the findings of a preliminary study designed to investigate the perceptions of the Internet and the sorts of barriers facing SMEs in SSA desiring to adopt Internet in their operations or for commerce. The study used SMEs in Nigeria, a Sub-Saharan African country. The country was chosen for illustration proposes as it is the most populous country in Africa and has favorable indicators for the use of information and communication technologies (ICT) compared to other SSA countries (Ifinedo, 2005). Importantly, researchers, for example, Ojukwu (2006) have discussed use of ICT among Nigerian SMEs and it is hoped that this present effort will complement similar research efforts.
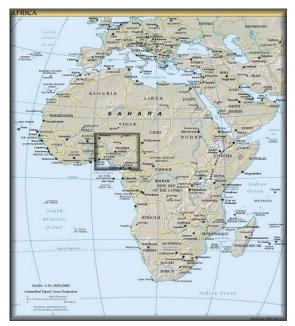
BACKGROUND

SMEs and Economies

SMEs can be described in several ways, for example, the European Parliament's definition of SMEs refers to a business with up to 250 employees. de Klerk and Kroon (2005), writing from the perspectives of the Republic of South Africa, divided SMEs into three main subcategories: micro ($<$ 5 people), small (between 5-50 people) and medium-sized (51-200 people). Nonetheless, we accept SMEs as businesses characterized by informal planning, strong owner's influence, lack of specialists, small management teams, heavy reliance on few customers, and limited knowledge, amongst others (Bunker and MacGregor, 2002; Ifinedo, 2006). It is generally accepted that SMEs are the engine of growth of all economies (Bunker and MacGregor, 2002), including those in Africa. According to Ojukwu (2006), 97% of all businesses in Nigeria employ less than 100 employees, and the same is true in many African countries (Ifinedo, 2006). That said, SMEs in developed nations have been able to use ICT products such as the Internet in establishing e-commerce and e-business initiatives (Bunker and MacGregor, 2002; Turban, et al., 2004) and have subsequently benefited from such exercises. On the contrary, little or no progress has been made on such fronts in many developing countries, including SSA ones due to a variety of reasons, including inadequate know-how and a lack of resources (Ifinedo, 2005, 2006; Ojo, 1996; Ojukwu, 2006; Okoli, 2003).

SSA and Internet Commerce

Africa, with its population of about 1 billion people, is the poorest continent in the world (World Bank, 2005). In terms of geography, Africa tends to be described as being comprised of two regions - North Africa and SSA. The Northern part is comparable to the Middle East economically and culturally (Ifinedo, 2005). Further, South Africa (also known as the Republic of South Africa (RSA)) tends to be excluded from the rest of SSA because of its relatively high socio-economic indicators. The conditions in SSA are different from those in the excluded regions, and the region of SSA

Figure 1. Nigeria on the map of Africa

Source: Worldcountries.info (2006).

typifies perceptions of Africa more than do the excluded regions. The map Africa highlighting Nigeria, the chosen SSA country for this study is shown in Figure 1.

According to the latest World Bank (2005) reports Africa continues to be the only continent with worsening socio-economic indicators. In particular, SSA lags behind on the adoption and use of ICT products such as the Internet. Africa has the lowest diffusion rates for ICT products (for example, computers and telephones) (UNCTAD, 2005). Further, ITU (2005) shows that there were only 4.9 Internet hosts per 10, 0000 Africans in 2004 and the statistics are unchanged two years. When ICT products are lacking, it is not surprising that Internet commerce (also known as e-commerce) is relatively low on the African continent compared to the rest of the world (Economist Intelligence Unit, 2003; Gateway, 2003; UNCTAD, 2005; Ifinedo, 2005, 2006). Reports by Gateway (2003) state that "E-commerce is concentrated in South Africa and Egypt (regions not considered in this article), while B2B (business-to-business) outside South Africa remains negligible." As noted above, few have investigated why the penetration rates of ICT products such as the Internet and other ICT products are relatively low in Africa in general and SSA in particular. The available few studies suggest that the slow diffusion can be attributed to the unavailability of technological/technical expertise and other know-how in the region (de Klerk and Kroon, 2005;

Ojukwu, 2006; Ifinedo, 2006) while others attribute it to unfavorable cultural influences (Ojo, 1996; Okoli, 2003). Yet others trace the poor penetration rates to a lack of financial resources in the SSA region (Duncombe and Heeks, 1999; Beliamourne-Lutz, 2003). In particular, Duncombe and Heeks (1999) highlighted the factors below as the main reasons why the adoption of the Internet among SMEs in Botswana - an SSA country – is very low.

- Lack of money.
- Lack of skills or knowledge.
- Lack of technological infrastructure, for example, telecommunications, electricity supply.
- Lack of awareness of the business environment and how to take advantage of it.
- Lack of "critical mass": Few local people/organizations use computers/email; thus most are unable to engage in any meaningful Internet commerce.

As mentioned above, the focus of this article is to present the perception of the Internet and barriers for not using it by Nigerian SMEs. The issues relating to the perceptions of the Internet were adapted from the work of Duncombe and Heeks (1999), and with regard to the factors militating against the use of the Internet in Nigerian SMEs, we adapted the variables from Walczuch, den Braven, & Lundgren (2000) to suit the SSA context. That said, we conducted a survey in Nigeria using the judgmental or purposive sampling approach in selecting our respondents (Neuman, 1997). With the approach, the researcher selects his or her respondents given their suitability for the study's theme. We collected data from SMEs in three Nigerian cities, namely, Lagos, Ibadan, and Port-Harcourt. The chosen cities are among the largest commercial cities in the country. (There is an "urban-rural divide" with regard to the use of ICT facilities in Nigeria which suggests that SMEs in larger cities are more likely to use ICT products in their operations than those in other parts of the country (Ifinedo, 2006). The SMEs selected follow the definitions provided above. Overall, 63 usable questionnaires were obtained for analysis. The views of 22 (35%) proprietors and 41(65%) supervisory/managerial employees are used. Our respondents came from wide ranging industries, including Agro-based business, light engineering (metal works), constructions, retail, and IT consultancy. The majority of the respondents are aged between 26 and 55 years and more than half have university degrees. Our respondents classified according to the sub-classifications offered by de Klerk and Kroon (2005) are as follows: 32 (50.8%), 19 (30.2%), and 12 (19%) respectively for micro, small, and medium-sized organizations. Participation was voluntary and respondents were motivated with a promise that their responses will be kept anonymous. We used a five-point Likert scale to represent the issues, please see Table 1.

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