

APPLICATION OF INFORMATION AND COMMUNICATIONS TECHNOLOGIES IN BUSINESS OPERATIONS AND ACCESS TO BUSINESS INFORMATION BY SMALL AND MEDIUM ENTERPRISES IN WESTERN UGANDA

Constant Okello-Obura

Department of Information Science
University of South Africa,
Pretoria, South Africa
and

East African School of Library and
Information Science
Makerere University, Kampala,
Uganda
obura2007@gmail.com

Diana Kacunguzi

East African School of Library and
Information Science
Makerere University, Kampala, Uganda
dkacunguzi@cis.mak.ac.ug

Justin Kidaaga

East African School of Library and
Information Science
Makerere University, Kampala, Uganda
justin@cis.mak.ac.ug



Mousaion
Volume 33 | Number 1 | 2015
pp. 153–174

Print ISSN 0027-2639
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ABSTRACT

Realising the central role that small and medium enterprises (SMEs) play in the economic growth of a country and the value of information and communications technology (ICT) application in business transactions, it was found prudent to: investigate the ICT skills of SMEs; identify the ICTs utilised, problems SMEs face when using ICTs as sources and means of access to business information; establish the kind of business information accessed from resource centres/ telecentres, public libraries and Internet cafes; and propose strategies to improve on business information access among the SMEs in western Uganda. The study came about after the realisation that there was insignificant growth in businesses among SMEs in western Uganda compared to other parts of the country despite western Uganda being more peaceful than northern Uganda. The study used a quantitative approach with a total of 89 respondents; and established, among others, that most SMEs in western Uganda use mobile phones to transact business and very few use the Internet. SMEs find difficulties in accessing almost all relevant business information. The study recommends the need for establishing telecentres, public libraries and Internet cafes to create business information access portals in order to promote access to relevant business information.

Keywords: business information services, small and medium enterprises, Western Uganda, information and communications skills

1. CONTEXTUAL BACKGROUND

Small and medium enterprises (SMEs) are considered the world over to be the pillars of a country's economic development (Ongori and Migiro 2010). Domestic competition and efficiency can only be enhanced when the 'engines' of the economic growth, that is the SMEs, are facilitated to access quality information and utilise appropriate information and communications technologies (ICTs). Although Beyene (2002), and Mutula and Van Brakel (2006) argue that there is no universally accepted definition of SMEs in Africa, this study adopted the government of Uganda's classification of SMEs as business firms employing 5–50 people (small scale) and 51–500 people (medium scale) (Kasekende and Opondo 2003; Schiffer and Wedder 2001, 13; Uganda Bureau of Statistics 2003). SMEs are the main pillars of the Ugandan economy in that they play an essential role that is crucial for poverty reduction by generating employment and income for a substantial part of the Ugandan population (Kappel, Lay and Steiner 2004; Sander 2000). The SMEs' contributions to growth, job creation and social progress are highly valued and small business is regarded as an essential element in a successful formula for achieving economic growth (Ongori and Migiro 2010; Pansiri and Temtime 2008; Rupert 1994; Soontiens 2002; Vosloo 1994; World Bank 1991).

The recognition of the important roles that SMEs play towards the economic growth, development and stability of several economies cannot be questioned. SMEs play a vital role in employment generation and contribute immensely to the Gross Domestic Products (GDPs) of several countries (Nyeko et al. 2013; OECD 2000). There is no doubt about SMEs' contribution to GDP growth and its enhancement with the adoption and proper utilisation of ICTs and is an acceptable stand of many governments the world over.

However, these SMEs are among the groups considered to be disadvantaged when it comes to access to relevant information on business opportunities, new technologies, taxes/subsidies, business rules and regulations, and so on (Okello-Obura et al. 2008; Schiffer and Wedder 2001; Uganda. Ministry of Finance Planning and Economic Development 2004). African governments in particular need to focus on building a strong base of small firms as it is from this strong base that higher growth will emerge. Within the context of a global, knowledge-based economy, countries are looking to use ICTs in order to help initiate, support and facilitate the SMEs' development. ICTs have proven to be vital in improving the efficiency and expanding the market reach of the SMEs, as well as in establishing new ways for the SMEs to obtain – and to make the most effective use of – business information (Corps 2005; Kabongo and Okpara 2014; Thomas et al. 2004; UNCTAD 2009). In fact it is believed that most of the jobs in the services sector in Uganda are created by ICTs with about 40 per cent being contributed by the telecommunications sub-sector alone (Nyeko et al. 2013). The adoption of ICT is crucial to SMEs as ICT has become a major catalyst and enabler of organisational change (Hazbo, Arnela and Chun-yan 2008). ICT increases richness and reach (Evans and Wurster 1997; Nyeko et al. 2013). This refers to the way companies communicate, collaborate and conduct transactions with their customers, suppliers and distributors via the Internet and the ability for local SMEs to participate in the digital economy (Golding et al. 2008).

2. PROBLEM STATEMENT

The adoption and assimilation of ICTs by SMEs is critical to enhance their competitiveness. In addition, ICT utilisation by SMEs will enhance their accessibility into the international markets (Ongori and Migiro 2010). Most SMEs across the world are increasingly adopting various ICTs to enhance their e-readiness status to identify, acquire, organise, disseminate and apply information for informed decision making (Mutula and Van Brakel 2006; Ongori and Migiro 2010). The provision of quality business information in today's electronic environment requires adequate ICT skills which, unfortunately, many SMEs managers lack. The success of SMEs in today's turbulent markets depends largely on their ability to engage in environmental scanning activities in order to understand the behaviour of and trends in the environment (Pansiri and Temtime 2008). Relevant information generally

provides SMEs with the most competitive edge for business success. For instance, the information and support services required for selecting target markets, product development, packaging, and distribution and sales promotion are critical. These can be provided by well-developed information systems and services and invariably telecentres, resource centres and libraries cannot be ignored as key players. However, it requires good management within telecentres and libraries and the adoption of the ICT utilisation in business transactions. Unfortunately, the utilisation and capabilities of telecentres, resource centres and libraries in business information provision in western Uganda are not known. A comparison of SMEs in 2001/02 and 2006/07 shows that Northern Uganda registered the highest increase of 80 per cent in businesses followed by the Central region with 64 per cent. The Western region had the lowest increase in businesses of only 49 per cent (UBOS 2007). Western Uganda has been relatively peaceful compared to northern Uganda, why then should there be a lower increase in businesses? Are SMEs really making effective use of ICTs for their businesses? To what extent do they use libraries and telecentres to access relevant business information? It was thus deemed prudent that a careful assessment of ICT utilisation among SMEs and the problems of accessing business information from telecentres, resource centres and public libraries as information providers be conducted.

3. AIM AND OBJECTIVES OF THE STUDY

The aim of the study was to establish the utilisation of ICTs in business information provision in Western Uganda with the view of proposing appropriate strategic interventions for business information access using ICTs. The objectives of the study were to:

1. Identify the ICTs utilised by SMEs in Western Uganda.
2. Find out what problems SMEs face when using ICTs as sources and means of access to business information.
3. Establish the kind of business information accessed from resource centres/telecentres, public libraries and Internet cafes.
4. Propose strategies to improve on business information access from resource centres/telecentres, public libraries and Internet cafes using ICTs.

4. LITERATURE REVIEW

The key fundamental issues in making SMEs access relevant business information using ICTs are ICT skills and addressing the eminent challenges faced in accessing the information. This section reviews the extant literature in these areas.

4.1. ICT skills and utilisation by SMEs

SMEs are the main drivers for a country's economic growth. However, as the number of SMEs increases, competition increases, which then results in a decrease in prices, customer base, or both. This in turn will erode existing profits, creating less incentive for people to start SMEs. However, the adoption of ICTs can help change the trend. ICT is defined as 'any technology used to support information gathering, processing, distribution and use' (Beckinsale and Ram 2006). This definition classifies ICT into information technologies, telecommunications technologies and networking technologies (Nicol 2003). This covers all forms of technologies, such as computers, the Internet, websites as well as fixed-line telephones, mobile phones and other wireless communications devices, networks, broadband and various specialised devices (Manueli, Latu and Koh 2007) which in essence are all relevant for business transactions. By all means, ICT is an important tool that provides the opportunity for SMEs to improve their competitiveness in the business arena. In the rapidly changing business environment of the twenty-first century, it is extremely important for SMEs to adopt ICT in order to maintain their competitive edge; develop a global network of product exchange; and establish wider international network (Selamat, Jaffar and Kadit 2011). Selamat et al. (2011) note that the effective use of information system (IS) and information technology (IT) can provide SMEs with the opportunity to take advantage of ICT in order to enhance the way they conduct business and increase their core competencies. This is a condition that requires a well-defined attitude towards ICT adoption and policy set up with the SMEs. The current business environment presents a threat as well as an opportunity for many SMEs. The rapidly growing economy of many countries currently provides SMEs with the impetus to expand to the potential of these markets because technologies have also increased the effectiveness and efficiency of operating a global business. To stay abreast of the intense competition, SMEs need to discover their niche in the market and improve their adoption and utilisation of ICTs for businesses. However, one of the challenges is the demand for ICT skills and expertise in adopting and implementing these emerging technologies (Duan et al. 2002). Depending on the nature of the business, SMEs need ICT skills in word-processing, website development, internet use, e-mail communication, mobile phone utilisation in records and information management, database management, scanning, faxing, and so on. Unfortunately, 'Skills shortage and training: a forgotten dimension in new technology' is a concern raised by Foley and Watts (1994), but the relationship between skills shortage and training in ICTs deserves even more attention presently if SMEs are to compete in the changing economy. There is a direct relationship between ICT adoption, SMEs' ICT skills and economic development. If ICTs were adopted by the SMEs (engine of economic development) and the skills for effective utilisation were acquired, there would be effective and competitive business operations. This, in turn, would lead to high profits and business expansion which would create employment opportunities,

thus improving the income of many. Improved income, reduced unemployment, and reduced gender inequality would result in economic development and this would lead to acquisition and adoption of more ICTs for businesses. This is what the authors call the ICTs-SMEs productivity cycle as shown in Figure 1.

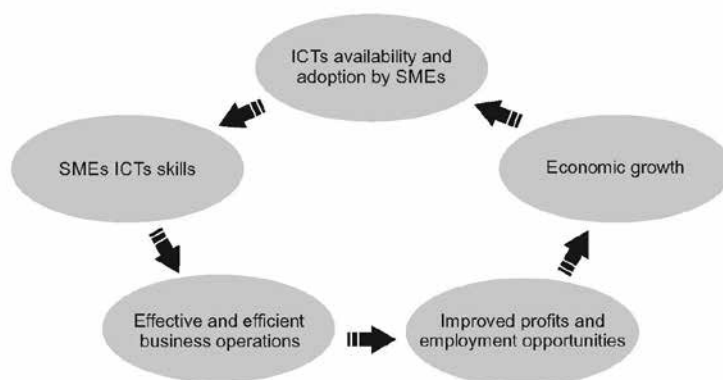


Figure 1: ICTs-SMEs productivity cycle

Source: Authors' conceptualisation

The adoption of ICTs and the effective utilisation thereof would create organisational readiness to adopt to external pressure, create customer/supplier loyalty, structural sophistication of the firm, expansion of the size and increased utilisation of relevant business information. All these are key attributes of performing SMEs relevant for economic development.

4.2. Challenges of ICT adoption and utilisation among SMEs

The adoption of ICTs has been shown to improve SMEs' performance since ICT is known as a tool that improves business competitiveness (Alam et al. 2007). In developed countries, ICT has been used to change the way businesses are conducted in order to have a strategic advantage in their various business operations. Unfortunately, the investment returns of ICT in developing countries have fallen short of the potential. Although ICT provides enormous opportunities such as collecting, storing, processing, retrieving, disseminating and sharing of information, its use within SMEs in developing countries is still plagued with many problems that hinder effective and efficient management (Apulu and Latham 2009). Problems like inadequate resources to acquire ICTs, lack of skills to utilise the variety of ICTs,

and poor ICT infrastructure to support Internet utilisation are common. As Malik and Malik (2008) note, lack of supportive organisational culture and structure are part of the hindrance to ICTs adoption and utilisation initiatives among many SMEs in developing countries. Some developing countries import ICTs due to lack of an indigenous ICT industry. A study conducted in Nigeria by Apulu and Latham (2009) and by Okello-Obura et al. (2007, 2008) in northern Uganda, and Selamat et al. (2011) in Malaysia, all argue the problem of electricity shortages, lack of policy/institutional framework, and inadequate ICT facilities as hindering factors for ICTs adoption and utilisation among SMEs. This situation seems no different for SMEs in western Uganda as reported in Section 6 of the article.

5. RESEARCH DESIGN

The study used quantitative design with survey research techniques. The study was designed such that all expected data was quantitative in nature. The questions in the questionnaire were structured and this helped to obtain the quantitative data for analysis. The population of the study comprised SME managers and telecentres, libraries and resource centres managers. The sample size was determined as follows:

5.1. SMEs

According to UBOS, in 2007, there were 2 558 SMEs in Western Uganda. This implies that the population of SMEs for which the sample size was determined was 2 558 and the sample size was determined using: $n = (Z\alpha^2 p(1 - p)N)/(Z\alpha^2 p(1 - p)) + (N - 1)Cp^2$ (Israel 1992)

where n is the sample size, $Z\alpha = 1.96$ (from Z-table), p is the proportion having the characteristic being measured or the estimated proportion of an attribute that is present in the population. The most conservative way of handling this uncertainty is to set the value of p at the proportion that would result in the highest sample size and this occurs when $p = 0.5$, N is the population size which is 2 558, Cp is the desired level of precision or tolerable error and the study will use 5 per cent. Substituting these in the equation:

$$n = (Z\alpha^2 p(1 - p)N)/(Z\alpha^2 p(1 - p)) + (N - 1)Cp^2$$

$$\text{then, } n = 1.96^2 \times 0.5(1 - 0.5)2\,558/1.96^2 \times 0.5(1 - 0.5) + (2\,558 - 1)0.0025 = 334$$

So, the sample size of SMEs from a population of 2 558 was 334. Due to limited resources, the study was limited to 111 SMEs in one district. The choice of 111 was based on the understanding that there are three main ethnic groups in Western Uganda, namely, Banyoro, Banyankole and Bakigga. Mbarara District was chosen

in this case because of its multi-ethnicity and being one of the fast growing districts in western Uganda.

In survey research, descriptive statistics are used for data analysis (Edwards and Talbot 1999, 115). The coded responses from the questionnaires were analysed, quantitatively, using Microsoft Excel. After the questionnaires were returned, the lead researcher with the researchers proofread all the questionnaires to ensure legibility and, thereafter, handed them over to the data entry for data entry. To ensure that the data entered was free of errors, based on the available data from the questionnaire, the lead researcher cleaned the database before the data was analysed into frequencies, percentages, pie charts and bar graphs.

6. FINDINGS

The findings of the study are reported according to the structure of the questionnaire for data collection and the objectives of the study. The results are discussed in Section 7.

6.1. Characteristics of the respondents

Out of the expected 111 SMEs, 89 participated giving a response rate of 80.2 per cent. Of this, 27 per cent participants were female and 73 per cent male. The majority of the respondents fell in the age bracket of 26–40 as indicated in Table 1. People of these ages 26–40 are a productive group and can ably utilise different categories of ICTs for business.

Table 1: Age distribution of the respondents

Age bracket	Frequency	Percentage
21–25	6	7
26–30	27	30
31–35	16	18
36–40	28	32
41 and above	12	13
Total	89	100

The total number of female employees was 445 (42%) and the number of male employees was 603 (58%). This shows that more males are in gainful employment among the SMEs. The experience of the respondents in business and their level of education is given in figures 2 and 3.

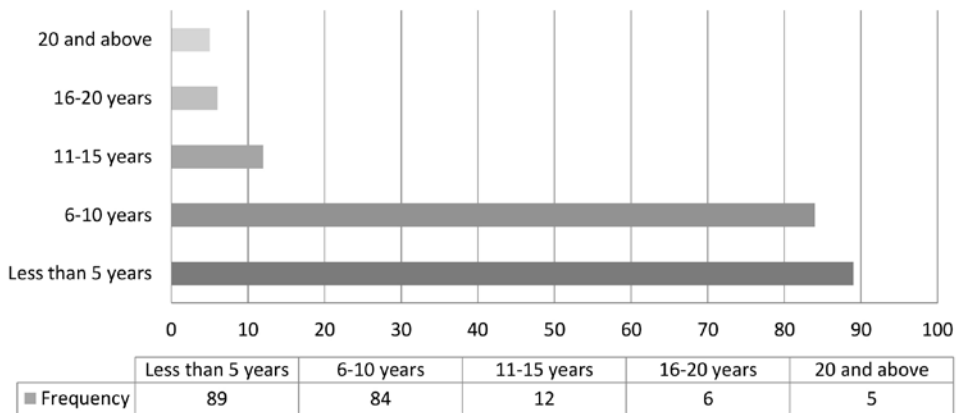


Figure 2: Experience of SME managers in business

For the respondents’ level of education, the responses are shown in Figure 3.

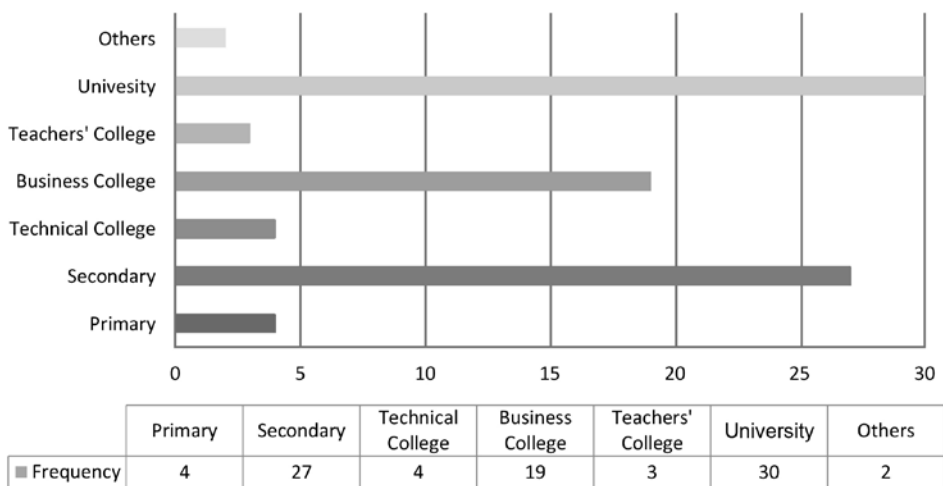


Figure 3: Level of education of the respondents

6.2. ICTs utilised by SMEs in Western Uganda

In order to establish the ICTs utilised by SMEs in western Uganda for business operations, a selected list of different ICTs was given to the respondents to indicate the ones they utilise. The responses are indicated in Table 2.

Table 2: ICTs utilised by SMEs in Western Uganda for business operations (N = 89)

ICTs for business operations	Response (frequency)
Desktop application	21
Internet	12
Accounting software	13
Database mgt system	13
Landline telephones	26
Mobile phones	67
Fax machines	11
Scanners	4
Computers	21
E-mail	14
Digital cameras	5
Video cameras	3
Projectors	6
Television sets	5
Radio calls	2
DVD players	6
Radios	22
Other	0

The respondents were asked to rate the given list of ICTs on the basis of their usefulness in transacting business by ticking them according to the level of usefulness (4 = most useful, 3 = useful, 2 = least useful and 1 = not useful at all), and the results are shown in Table 3.

Table 3: Rating the usefulness of different types of ICTs in business transactions

Type of ICT	Response (frequency)			
	4	3	2	1
Mobile phones	70	3	0	2
Internet	14	12	8	21
E-mail	8	10	7	10
Teleconferencing	6	6	7	17
Video conferencing	8	5	3	30

Type of ICT	Response (frequency)			
	4	3	2	1
Fax	6	6	5	19
Scanners	7	12	4	14
Desktop applications	7	7	5	11
Landline telephones	17	15	5	16
Computers to assist manufacturing	11	9	10	15
Databases	8	7	6	17
Accounting software	8	7	4	11
Digital cameras	6	6	0	17
Video cameras	7	5	7	15
Projectors	4	6	3	16
Television sets	5	7	4	13
Radio calls	3	6	3	14
DVD players	6	4	3	15
Radios	23	18	4	7

The study also found it useful to determine the availability of websites among the SMEs and their responses showed that 79 (89%) did not have websites while 10 (11%) had. When those who did not have websites were asked to indicate whether they would wish to have, 51 per cent said yes and 49 per cent said no indicating that either they do not see the need for them or they lack the resources to establish them.

6.3. Problems SMEs face when using ICTs as sources and means of access to business information

SME managers were asked to indicate the problems they face when using ICTs as sources and means of access to business information and the results are shown in Table 4.

Table 4: Problems SMEs face when using ICTs as sources and means of access to business information (N = 89)

Problem	Response (f)
Lack of appropriate skills to use ICTs	72
Lack of competent information providers	24
Lack of places to access ICT facilities from	81
Too much information overload supplied by ICT that makes me confused	76
Other	1

6.4. Business information accessed from different information provision centres

SME managers were asked to indicate when they would access business information from the telecentres/resource centres, public libraries, and Internet cafes and the responses are indicated in Table 5.

Table 5: When SMEs access business information from resource centres/ telecentres, public libraries and Internet cafes (N = 72)

When business information is needed	Response (f)
When setting up or expanding the business	17
When purchasing raw materials	6
When processing the raw materials	5
Recruiting staff	2
Selling the products	2
At all times of the business.	45
Other, please, specify ...	1

SME managers were asked to indicate the kind of business information they normally access from resource centres/telecentres, public libraries and Internet cafes, and the results are indicated in tables 6a, 6b and 6c:

Table 6a: Resource centres/telecentres (N = 89)

Information on	Frequency (f)
Finance/Capital/Loans	31
Local markets	51
International markets	21
Business laws	45
Business management skills	49
Appropriate technologies	19
Business competitors	35
Government policies and regulations	48
Taxation	45
Foreign exchange	15

Information on	Frequency (f)
Security	39
Trade fairs	13
Tenders and contracts	27
Training opportunities	28
Leisure	17
Raw materials	15
Investment opportunities	11
Other (Specify)	1

Table 6b: Public libraries (N = 89)

Information on	Frequency (f)
Finance/Capital/Loans	20
Local markets	33
International markets	19
Business laws	36
Business management skills	37
Appropriate technologies	17
Business competitors	31
Government policies and regulations	46
Taxation	31
Foreign exchange	10
Security	30
Trade fairs	12
Tenders and contracts	20
Training opportunities	31
Leisure	11
Raw materials	11
Investment opportunities	12
Other (Specify)	1

Table 6c: Internet cafes (N = 89)

Information on	Frequency (f)
Finance/Capital/Loans	21
Local markets	35
International markets	17
Business laws	34
Business management skills	36
Appropriate technologies	10
Business competitors	23
Government policies and regulations	40
Taxation	21
Foreign exchange	20
Security	24
Trade fairs	18
Tenders and contracts	21
Training opportunities	28
Leisure	15
Raw materials	17
Investment opportunities	12
Other (Specify)	1

When respondents were asked to rate the accessibility of business information by ticking them according to the level of difficulty of accessibility (4 = most difficult, 3 = difficult, 2 = least difficult and 1= not difficult at all), the responses were as indicated in Table 7.

Table 7: Responses on the difficulty in accessing different kinds of information (N = 42)

Information on	4	3	2	1
Finance/Capital/Loans	24	9	2	6
Local markets	19	11	5	6
International markets	4	6	6	7
Business laws	15	15	7	5
Business management skills	7	9	10	5

Information on	4	3	2	1
Appropriate technologies	8	6	8	6
Business competitors	5	4	5	7
Government policies and regulations	20	10	6	6
Taxation	14	11	5	8
Foreign exchange	5	7	6	7
Security	8	6	7	9
Trade fairs	8	5	6	6
Tenders and contracts	3	5	5	7
Training opportunities	9	6	3	10
Leisure	6	4	4	6
Raw materials	7	7	2	15
Investment opportunities	7	2	5	10
Other	1	1	2	0

6.5. Strategies to improve business information access among SMEs in Western Uganda

When the respondents were asked the extent to which the needed business information should be supplied to SMEs, 14 per cent said there should be selective information; 12 per cent said there should be comprehensive information; 20 per cent said there should be precise information; 54 per cent said there should be general information; and none said information should be repackaged.

When the respondents were asked to give their views on the strategies to improve on business information access by resource centres/telecentres, public libraries and Internet cafes, all 89 respondents responded and the responses are given in tables 8a, 8b and 8c:

Table 8a: Resource centres/Telecentres (N = 72)

Strategies	Response (f)
There should be improved Internet connectivity	29
Telecentres dedicated to SMEs should be set up by the government and business information provided at a minimal cost	19
There is need for coordinated action on the part of government and business service providers to address issues of e-readiness in order to support the SME sector	27

Strategies	Response (f)
Telecentres should integrate ICTs and create wikis for SMEs – a wiki is a collaborative website where a community of users can edit and share content such as Wikipedia	20
Create business links with subject experts within government and relevant business-support organisations to help SMEs comply with regulations and improve performance	39
Create website of the magazines for small and growing businesses	23
Other	2

Table 8b: Public libraries

Strategies	Response (f)
Sections for business information provision should be set up in public libraries to help provide relevant print business information to SMEs	34
The managers of public libraries should subscribe to business databases that can provide relevant information to SMEs at a cost	26
Librarians should be retrained in customer care	24
Public libraries should integrate ICTs and create wikis for SMEs – a wiki is a collaborative website where a community of users can edit and share content such as Wikipedia	25
Create business links with subject experts within government and relevant business-support organisations to help SMEs comply with regulations and improve performance	36
Create website of the magazines for small and growing businesses	25
Other	1

Table 8c: Internet cafes

Strategies	Response (f)
The Internet cafes should dedicate sections or areas for SMEs to access business information	27
The managers of Internet cafes should subscribe to business databases that can provide relevant information to SMEs at a cost	27
Internet cafes should integrate ICTs and create wikis for SMEs – a wiki is a collaborative website where a community of users can edit and share content such as Wikipedia	22

Strategies	Response (f)
Create business links with subject experts within government and relevant business-support organizations to help SMEs comply with regulations and improve performance	44
Other	2

7. DISCUSSION

Pavic et al. (2007; see also Nyeko et al. 2013) argue that SMEs have the opportunity to achieve a competitive advantage from advances in ICTs through innovation, marketing, efficiency gains, better quality and customer responsiveness. According to the findings of the study (see Figure 2), the majority had 6–10 years of business experience, which is many years in business, and given that the majority of the respondents are university graduates (see Figure 3), one would expect a better understanding of the role of different ICTs in promoting business transactions. Unfortunately, an analysis of Table 2 indicates that the majority of the SMEs have mobile phones and landline phones but no Internet. Knowing the crucial role the Internet plays in business transactions today, it was expected that many SMEs would have Internet facilities and use them for business transactions. Unfortunately, this was not the case. The dominance of mobile phones was not surprising to the researchers either. According to Melchioly and Sæbø (2010), mobile phone technology has become the mainstream delivery mode due to the widespread reach to a majority of the African population. It is considered to have had a transformative effect on SMEs, with an opportunity to grow through the simplified business information exchange (Melchioly and Sæbø 2010). In a recent study conducted by Kabongo and Okpara (2014) among the Congolese society, it was established that nearly 51 per cent of SMEs in the sample reported a cell phone number, making this tool the most popular among the SMEs studied.

Mobile technologies have made communication and information access very convenient and timely to users from the comfort of their own homes and offices, and from wherever they are while on the move with their cellular phone units or personal digital assistants (PDAs) (Choi 2009).

These benefits are part of the contributory factors for wider adoption of mobile technologies in business transactions.

Regarding the kind of business information accessed from resource centres/telecentres, public libraries and Internet cafes, information on local markets, business laws, government policies and regulations, business management skills were the commonly accessed information from all these information providers. Information on taxation was again most sought for from resource centres/telecentres and public

libraries and not as much from Internet cafes. The managers of these information providing centres need to re-examine their collections and strategies adopted to find out why most of the other important business information like on foreign exchange, tenders and contracts, raw materials are not highly sought for from their places. For instance, information on investment opportunities is less sought for when is very important for business expansion. Although quite a number of respondents look for information on Finance/Capital/Loans, according to Table 7, this is the information that is most difficult to access including information on government policies and regulations. Further analysis of Table 7, when columns 4 and 3 are added, shows that in general, SMEs have difficulties in accessing different kind of business information. These results also confirm what Okello-Obura et al. (2008) established in a study conducted in northern Uganda on SMEs. This is complicated by the problem of lack of appropriate skills to use ICTs and even places from which to access ICTs. The United Nations Development Program (UNDP 2007) agrees with this when it notes that, 'a number of factors hinder or discourages SMEs from fully realising the benefits of ICTs, including, among others, lack of knowledge, resources and trust'. Governments, using public policy as a tool, can play a critical role in addressing these concerns since SMEs are key to supporting the development of every government and the country. Table 4 also indicates that the SMEs have the problem of information overload when too much information is supplied by ICTs that makes them confused. This is probably because of inadequate information literacy skills to manoeuvre through the Internet based resources.

In order for effective business information provision and effective adoption of ICTs by SMEs, the study therefore makes the following recommendations.

8. CONCLUSIONS AND RECOMMENDATIONS

The value of ICTs in knowledge economy is cardinal today. ICT adoption will increasingly continue to empower SMEs to participate in the knowledge economy by facilitating connectivity; helping to create and deliver products and services on a global scale; and providing access to new markets and new sources of competitive advantage to boost income growth (UNDP 2007). Based on the results of the current study, the authors recommend as follows:

- Public libraries, resource centres and telecentres need to create business links with subject experts within government and relevant business-support organisations to help SMEs access relevant business information and also to help them comply with regulations and improve performance.
- Public libraries need to be proactive in addressing the needs of SMEs as key economic growth players of a country. Sections for business information provision should be set up in public libraries to help provide relevant print business information to SMEs.

- There should be improved Internet connectivity among SMEs. ‘Broadband connectivity is a key component in ICT development, adoption and use. It accelerates the contribution of ICTs to economic growth, facilitates innovation, and promotes efficiency, network effects and positive externalities’ (UNDP 2007). The government of Uganda should design a deliberate strategy to support the SMEs in western Uganda in Internet connectivity. There is a need for coordinated action on the part of government and business service providers to address issues of e-readiness in order to support the SME sector.
- Telecentres should integrate ICTs and create wikis for SMEs – a wiki is a collaborative website where a community of users can edit and share content such as Wikipedia. SMEs would be encouraged to join this.
- Public libraries, telecentres and resource centres need to create Business Information Access Portals where relevant business information for SMEs can be posted. This will encourage and motivate SMEs to use these places frequently and to access relevant business information online. Telecentres could be encouraged to do the same so that more SME managers will visit their cafes for business information access.

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ABOUT THE AUTHORS

DIANA KACUNGUZI is currently an assistant lecturer at the East African School of Library and Information Science (EASLIS), Makerere University, Kampala, Uganda.

JUSTIN KIDAAGA is currently an assistant lecturer at EASLIS.

CONSTANT OKELLO-OBURA is an associate professor of Information Science and the Principal of the College of Computing and Information Sciences, Makerere University, and a research fellow in the Department of Information Science, Unisa. Before being appointed Principal, he was Dean at EASLIS.