

**THE USE OF INFORMATION AND COMMUNICATION
TECHNOLOGIES BY RURAL COMMUNITIES : AN
OVERVIEW OF KITSONG CENTERS IN BOTSWANA**

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ABSTRACT

Information and Communication Technologies (ICTs) are believed to improve and better the lives of communities globally. People living in the rural communities are now beginning to access and make use of the ICTs to carry on with their daily activities such as education, business, leisure and even entertainment. Governments all over the world are implementing ICT strategies and policies, with the intension of bridging the digital divide gap between the rural and urban communities. Various ways of availing ICTs to the people have been put forth. Bringing ICTs to the rural communities through the telecentres is one example. This is common in developing and undeveloped countries. Botswana like other developing countries has come up with ways in which ICTs could be availed to its communities. One of these ways is through provision of ICT facilities such as telecentres mostly known as the Kitsong centres. This paper gives an overview of the Kitsong centres in Botswana. The paper is based on document and literature analysis. The paper highlights how the Kitsong centres are established. The paper also outlines the benefits the Kitsong centres offer to the communities and the challenges which come forth with the running of Kitsong centres.

The significance of this paper might be in assisting the government of Botswana on her ICT policy implementation strategies. It can help the government reflect on its progress so far on the Kitsong centres initiative. The findings will also help to identify the pitfalls, problems and the challenges it has encountered in the Kitsong centres initiative. The paper would also be helpful to the researchers and scholars who wish to know more about ICTs for developments. It can also be used as a starting point for entrepreneurs who wish to have an understanding of how Kitsong centres are operated as well as the benefits and the challenges involved in running such businesses.

Keywords: ICTs, communities, Kitsong centres, telecentres, Botswana

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I. INTRODUCTION

Several Studies have revealed that investing in Information and Communication Technologies (ICTs) is beneficial for performance and productivity in diverse sectors of a country's economy (Lekopanye & Mogwe, 2014). ICTs are widely viewed to have a potential to contribute positively towards economic growth and development, improve livelihoods and quality of life of individuals and households (Gillwald, Milek & Stock, 2010; Parkison & Ramirez, 2006; Labella, 2005). This is in line with the Millennium Development Goals (MGDs) which were agreed to at the United Nations Millennium Summit of 2000 in New York. Countries through the MDGs agreed on eight development goals and specific targets to achieve by the year 2015. One of these strategies is to bridge the digital divide through universal access to the digital technologies. In the eighth MDG, ICTs are mentioned in concert with building a global partnership for development. This is based on open trading, financial systems and making available to all the benefits of new technologies, especially those related to information and communication (Joseph, 2012).

The World Summit on the Information Society (WSIS) held in Geneva in 2003 defined the path for countries to reach the status of an information society. WSIS's principles include building of information infrastructure through telecommunications and investments in technology, achieving universal and equitable access to information technology and making information a common goal to everyone (WSIS, 2003a; Mutula et. al., 2010). One example of these aforementioned principles is of connecting villages (rural areas), universities, colleges, secondary and primary schools, scientific and research centres, public libraries, cultural centres, museums, post offices, archives, health centre, hospitals and all local and central governments departments with ICTs and establishing access points (WSIS, 2003a).

Botswana like other UN and WSIS members is taking part in trying to bridge the digital divide among the rural and urban areas. Botswana through her National ICT policy (Maitlamo)'s initiative of Connecting Communities Programme, has established and implemented the Kitsong centres - an equivalence of telecentres.

II. OBJECTIVES

This literature review was aimed at determining the current use of Information and Communication Technologies in rural areas particularly focusing at the Kitsong centres in Botswana. The review focused on the following areas;

1. To determine what Kitsong centres are and how they are established.
2. To determine the services offered at the Kitsong centres.
3. To review the challenges and problems faced by Kitsong centres.

III. METHODOLOGY

The paper is composed from literature and document analysis from previous studies which have been done before on Kitsong centres.

IV. FINDINGS AND DISCUSSIONS

This section discusses the findings which were made from the reviewed literature. The literature review was aimed at determining the current use of information and Communication Technologies in rural areas (communities) particularly focusing at the Kitsong centres in Botswana. The review focused on the Kitsong centres, how they are established, the services offered at the Kitsong centres and challenges and problems faced by Kitsong centres. The word telecentres and Kitsong centres have been used interchangeably in the context of this paper because they are referring to one and the same thing.

KITSONG CENTRES

Botswana's National ICT policy (Maitlamo)'s initiative of Connecting Communities Programme include amongst other projects, the establishment and implementation of the Kitsong centres. The Kitsong centres offer access to ICT services to the rural communities.

The Kitsong centres were first initiated by Botswana Technology Centre (BOTECH). As a research and development institution, BOTECH started off by conducting some desk study on the use of the Internet technologies and how these could be developed to benefit the rural communities in terms of information exchange and the applications of ICTs. BOTECH decided to give these centres the name "Kitsong centres" to try and associate the centres with "acquiring knowledge" for socio-economic development for the rural communities (Mazhani, 2009). The piloting of these centres started in July 2004 with centres located at Hukuntsi in the Central

Kgalagadi, Letlhakeng in the Kweneng West District and Gumare in the North West District. After the completion of the pilot project BOTEC handed over the project to the government of Botswana and then the Kitsong centres were transferred to BotswanaPost for countrywide implementation via post offices (Kuthan, 2009).

Kitsong centres have grown to include not only the centres in operation under BotswanaPost, but also include the centres in rural Botswana which are opened after every commemoration of the WSIS day. The centres are opened in each village which host the celebrations of WSIS day if it has no centre or is not closer to any village with a centre. The centres are community based and normally are opened in existing facilities such as schools, public libraries or government centres where easy access by the public can be attained.

The Kitsong centres also constitute centres which are a result of Nteletsa 11 project. The Nteletsa 11 project seeks to extend the telecommunications services and setting up of ICT infrastructure to all rural areas of the country. The government of Botswana does this through the involvement of public private partnership to bridge the digital technology gap between rural and urban areas (Mogorosi

2011; Botswana MDGR, 2010). Evidently, this is part of the government's obligation to integrate people into the economic and social development of the nation and this initiative is also in line with the MDGs, specifically MDG 8 of developing a global partnership for development. This goal encourages the private sector to cooperate and partner with governments to make available the benefits of the new technology to the needy (MDG, 2000; Botswana MDGR, 2010).

The government has contracted Botswana Telecommunications Corporation (BTC) and a private telecommunications service provider, Mascom Wireless mobile company to implement projects in rural and remote areas around the country (Cossou, 2011). Under the rural Telecommunications Development programme, Botswana has been divided into four areas covering all the unserved villages in the country (IST Africa, 2011). Areas one to three (1-3) have been awarded to BTC and it has already completed the implementation of the infrastructure in area two (2). Mascom Wireless mobile company has been awarded area four (4) and some of

the few villages in area 2 which BTC did not cover. Area 2 covers villages around Kgatleng district and area 4 covers the Central District. The Mascom Wireless mobile company project is still ongoing and it entails supplying, installing, operating and maintaining telecommunications networks initially to 41 villages but has been expanded currently to 51 villages (Mogorosi, 2011). These Kitsong centres are operated by communities (village development communities and youth entrepreneurs) in partnership with Mascom Wireless mobile company (MTRP, 2009).

SERVICES OFFERED AT THE KITSONG CENTRES

The literature review indicated that there are two major services offered through the Kitsong centres. The services include Internet-based services and the small business support services. People living in remote areas of Botswana where these Kitsong centres are operational are now able to access Internet and enjoy the Internet services provided through Kitsong centres. Distance is no longer a barrier, for instance they are able to communicate with people around the world via the online platforms such emails and social networks such as Facebook, tweeter and whatsapp (Joseph, 2012). The review indicted that some communities in rural areas are able to business network. They access information online either for their business, schools research or even for purchasing of goods.

The people in those communities where Kitsong centres are established also enjoys the business support services provided at a nominal fee, classified as: fax, photocopying, desktop publishing and printing services (Morakanyane, 2010). Some people can acquire computer skills training from the Kitsong centres (private owned only) at a nominal fee. This normally differs and goes according to the owner of the business (Joseph, 2012).

BENEFITS OF KITSONG CENTRES

One of the advantages of the Kitsong centres, is that they provide a means of delivering public and private services to rural and remote locations without incurring immediate large investments or costs (Latchem & Walker, 2001; Latchem, 2001). Rural communities of Botswana benefit on this aspect. They do not travel long distances to access and enjoy the ICT services which in the past, they had to visit closer by cities or towns to access such. A study conducted by Joseph (2012) about the impact of ICTs in the lives of people, carried out at Mmaphashalala Kitsong centre in the Central district of Botswana revealed that the Kitsong centres now helps the villagers

to save their costs on travelling long distances to urban centres to access the ICT services provided by the Kitsong centres. This was also prominent on the study conducted by Morakanyane (2010) on the Kitsong centres in Botswana for BOTEC.

Another benefit mentioned by Short (2001) is that, telecentres are expected to have a positive impact on the socio-economic development of the communities they serve. Murray (2001) points that telecentres should provide rural regions with better public services and improved local administration which can generate employment and foster socio-economic development. In Botswana case, All places where telecentres or Kitsong centres are placed, the socio economic developments of those communities are visible as compared to those who do not have such facilities. For instance, the kiosk, internet cafés and Kitsong centres operators generate employment for other community members who assist them with daily center operations hence provide them with income which helps them sustain households and their livelihoods.

Murray (2001) argues that telecentres should integrate relatively isolated communities into the national and international information networks, thus accelerate the exchange of private goods and services; transferring of expertise in a number of areas, (e.g. agriculture), to and from the community; and giving local producers access to market information, consequently reducing the need for middlemen and increasing rural income. Joseph (2012)'s study results on the impact of ICTs on the lives of people conducted at Mmaphashalala village in Mmaphashalala Kitsong centre showed that the local entrepreneurs especially the youth benefited from the use of Mmaphashalala Kitsong centre in opening up of their business and their daily operations. This was also pointed out by one young farmer who made use of the telecentre or Kitsong centre to access agriculture information at Mmathubadikwane village in Kgatleng District.

CHALLENGES OF RUNNING KITSONG CENTRES

Gomez and Ospina (2001) argues that while telecentres have increased access to improved education and economic opportunity, experience suggest that more effort is required to make full use of the new technology than simply setting up computers and connecting to internet. Even though Kitsong centres or telecentres are said to be a crucial development tool and have considerable potential, the data available on rural demand and usage of the Internet in such centres suggest that it is not sufficiently realized (Morakanyane, 2010; Oestmann & Dymond, 2001).

In his study, Morakanyane (2010) found the challenge of under utilisation of the Internet among users of the Kitsong centres of the Letlhakeng, Gumare and Hukuntsi Kitsong centres. The under-utilisation could be attributed to computer illiteracy, language problems, lack of computer culture, and high cost of Internet and poor telecommunications connectivity which can also be highlighted as the challenges on their own, which are experienced by telecentres (Gomez & Ospina, 2001; Khumalo, 1998).

Colle and Roman (2002) point out that even though Kitsong centres or telecentres were established to improve access of information to the poor and the disadvantaged, many appear to be marginalized with respect to information and knowledge. They further point out that, the cause for poor “informatisation” is the deficient process of information and knowledge transfer and a vast ambit of knowledge which lies outside the radius of telecentres. Knowledge is just fragmented and underutilised. Joseph (2012)’s study results confirms this by stating that most users of Mmaphashalala Kitsong centre in Central district of Botswana, are mainly the people who are attending high school, graduates and those people who are probably working in governmental department in those communities who have gone to tertiary schools. According to McConnell (2001), the main causes for this fragmentation and underutilization of knowledge include: inadequate exchange of information and experience; weak linkages with stakeholders and limited empowerment of the poor leading to low capability of communities in accessing, adapting and utilizing knowledge.

Besides many benefits acquired from Kitsong or telecentre networks, maintenance has remained as one of the key challenges to uninterrupted services (Gomez & Ospina, 2001). Lack of regular maintenance can cause significant problems for continuous services. According to Gomez and Ospina this is evident mostly amongst developing states, with little income collections from telecentre services. For instance, lack of electricity and skilled IT personnel to support the Kitsong centres has hampered some of the Kitsong centres in Botswana, For example, the Shokwe Community Kitsong Centre which was opened in Tshokwe village, is currently not operational due to power failure from the cables of the solar panel system which encountered a fault which has not yet been repaired (Hulela, 2010).

Rahman (2007) and Colle and Roman (2002) point out that one of the biggest challenges Kitsong centres or telecentres have is to provide relevant information and services for its stakeholders. In addressing the local content issues, much of the information available via electronic networks may not meet communities's needs for local information such as agriculture, health and nearby markets. A telecentre may also lose relevance if information is in unfamiliar languages or dialects (Colle & Roman, 2002). A Kitsong centre operator at Mmaphashalala Kitsong centre hinted this out that most of the elders and old people are farmers who have not gone to school hence one of the challenges is of them accessing information from the Internet because there is need to interpret and translate to them.

Another challenge is of start-up phase of the Kitsong centres or telecentres. The telecentre operators have to understand the socio-economic and cultural context: They have to identify the right mix of services, products, the choice of technology, source financial resources and ensure financial and social sustainability (Dahms, 1999; Delgadillo & Borja, 1999).

Telecentre awareness is another part of a broader challenge of having people to understand the value and benefits of information technology. Example of this is highlighted by Roman and Colle (2001; 2002) on their study by giving an example of teachers's attitudes towards the use of ICTs that many teachers are wondering how to actually use [computer] technology in their daily lessons. Colle and Roman state further that, it is not only that they do not know how to use it, they also resist having it. This is very common and true to the rural community dwellers, they tend to pull away from acquiring or having access to the ICTs because they believe is for the "educated" town people with money. For instance, Morakanyane (2010)'s study showed that the Internet is underutilised and people do not have the desire to learn and use it. They only access the centre to do just the basic things like typing, printing and making copies.

v. SUMMARY AND CONCLUSION

Despite the aforementioned challenges, it is generally agreed that ICTs has the potential to support the social-economic developments and improve livelihoods of people. Countries globally are trying by all means to bridge the digital divide amongst the communities by providing ICTs. They are implementing strategies and policies to achieve this. ICTs are now being infused in various areas of the economy such as the health, education sectors, communications, sports and

businesses. ICTs now are starting to revolve and take control of most of the operational day to day activities. For instance in most governmental departments ICTs are used to offer services to the public. When one travels, either by land, air, rail or water one has to make some bookings, and this are all made possible with the use of ICTs. When one visits the banks, the national securities, airports, and even shops nowadays ITCs are being used and are making all the processing and managing easy. This is evident from production to supply chain management. It is very important that people who are living in the remote areas and rural communities are part of the inclusion of the ICTs. This will also help them to have access and enjoy all the benefits ICTs have to offer. Kitsong centres or telecentres is one way which Botswana government together with the private sector has embarked on to promote the Information communication and technology for the developments and improve the livelihoods of the people who are living in the remote areas. Even dwellers in far remote areas can access ICTs and make use of the Internet services. This is a commendable job done by the government of Botswana. However, some improvements and changes could still be made to address the challenges aforementioned in this paper. These improvements are mentioned in the next section as the recommendations made by the researcher based on some of the aforementioned challenges found when reviewing the literature

VI. RECOMMENDATIONS

After setting up the Kitsong centres it is perhaps important that the government and the private sector place one personnel in these centres to train people on how to use ICTs because sometimes technologies cannot be easy to use for some people. It requires some skills and training. This also could help especially with assisting people access and use the hardware and softwares applications used in the Kitsong centres. The training could also help people to learn how to use and access Internet services, especially the elderly.

Another recommendation which the government and the private sector should consider making is of helping with or providing technical expertise in order to help with the maintaining and servicing of the technological infrastructure so that it does not hamper the day to day operation of the Kitsong centres. This could help the rural communities's daily activities which are dependent on the Internet not to suffer, for instance the businesses which make use of the Internet and the school children who use it to research and even do their homework.

It can also be helpful if certain softwares or online content be tailor made to meet specific requirement for the community which the Kitsong centre is operational, for instance, the information could be availed in both the English language and the native language common to those particular communities in which the kitsong centre is operational. This could help eradicate problems where by cultural context and language has been a barrier in the dissemination of information that could have been very useful and beneficial to the people.

As a way forward the government and the private sector should make a consideration of including and accommodating people living with disability to access and use the ICTs. So far, literature indicated that they have not been represented well in all the Kitsong centres across the country.

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