PROSPECTS FOR EFFERVESCENT E-GOVERNMENT DEVELOPMENT IN BOTSWANA: POINTERS FROM PROCESS ANALYSIS

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ABSTRACT

E-Government entails the use of Information and Communications Technologies (ICTs) in the public service delivery value chains in order to facilitate effective and efficient delivery of government information, programs and services to citizen. Just like many countries, Botswana has jumped onto the bandwagon for implementing E-Government in governance value chains. In the loci of this cause, both the state and the non- state actors/stakeholders have joined in putting in place strategic interventions for E-Government development. Some of the notable interventions have been initiatives by Botswana government to put in place requisite institutional and regulatory frameworks, favorable policy environment, massive awareness campaigns to create global citizen buy-in, erection of appropriate ICT infrastructures, etc. This paper, therefore, aims to carry out inventory of different interventions that are being pursued in realm of E-Government development in Botswana. The paper further highlights the different approaches, process and initiatives in the realm of E-Government development. This is a conceptual paper which is based on document and literature analysis. The meta-analysis of different E-Government interventions in Botswana points to the fact that there is a higher likelihood of success of E-Government as a whole in Botswana. The significance for this paper-study might be in assisting the government of Botswana on its quest of E-Government implementation as well as inclusion of avenues which could help drive E-Government forward. Also, the paper-study would be helpful to the researchers and scholars in Botswana and globally who wish to know more about E-Government. It can also be used as a starting point for researchers who wish to do some investigations on, or an understanding of the E-Government phenomena in developing states such as Botswana.

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1. Introduction

The likely benefits of E-Government as a means of improving provision of government information and services to citizens in developing countries have been widely recognized (Joseph, 2015). Botswana as a developing country is no exception to this. The governments have been and still remain the single largest collectors, users, holders and producers of information. Information remains the basic ingredient in developing countries in pursuing the political, economic, social and managerial activities. According to Jain and Sharma (2002), E-Government encompasses a wide range of dimensions. These include government-to-citizens (G-C), government to business (G-B) and government-to-government (G -G).

According to Jain and Sharma, government to citizen facilitates citizen interaction with government, which is a main goal of E-Government. This has simplified and made easy to carry out transactions or activities such as tax payment, licenses renewal, and applying for certain benefits, less time consuming and easy to carry out. On the other hand, government to business dimension includes both the procurement of goods and services by the government as well as the sale of surplus government goods to the public online. In many respects, the government to government dimension represents the backbone of E-Government (Jain & Sharma, 2002).

The diffusion of ICTs in the day to day activity processes, especially the Internet deployment has led to the citizen's greater expectation that governments provide information and services in the same way as the private commercial sectors (Al-adawi et.al., 2005). The major role of E-Government is to increase the convenience and accessibility of government information and services to citizens (Carter & Belanger, 2005). This is believed to increase government accountability to citizens, influence greater public access to information and promote a more efficient, and cost effective government (Bwalya, 2009; Bwalya et.al., 2012).

Frequent users of online information may be disposed to seeking information about government, including government records, and therefore exhibit greater support for open records. Therefore, as pointed out by Evans and Yen (2006), E-Government helps simplify processes and makes access to government information programmes and services easier for public sector agencies and citizens. People need accurate, reliable and timely information in order to carry out their various activities successfully. Even though some information can be obtained easily, other information

may require extensive searching and access to multiple sources. Citizens can make informed decisions for the good of their countries if they access the information regarding their governments. Access to government information is essential in a democratic society because it fosters citizens' trust, the fight against corruption, and provides basics information for the public, private companies, and the government itself (Joseph, 2015). E-Government fosters economic development and helps local businesses to expand globally since information about businesses can be put on the web and be accessed globally. Citizens have a variety of ways for accessing government information and these include press release, requester release, leaks from whistle-blowers, and open public meetings.

2. Background

The Government of Botswana fully understands and appreciates the developmental importance of the Global Information Society, Information and Communications Technology (ICT) and E-Government. These matters are considered essential to the country's future and feature prominently throughout National Development Plan 10 and Vision 2016, which form the core of the country's roadmap for national development. ICT and E-Government have the ability to dramatically increase the access, availability and sharing of important, life-enriching information and services for all Batswana (Botswana's National eGovernment Strategy, 2012).

This new form of information dissemination and exchange plays a key role in supporting all seven pillars of Botswana' Vision 2016- prosperity towards all, which are: An Educated, Informed Nation; A Prosperous, Productive and Innovative Nation; A Compassionate, Just and Caring Nation; A Safe and Secure Nation; An Open, Democratic and Accountable Nation; A Moral and Tolerant Nation and A United and Proud Nation. According to the Botswana eGovernement strategy, many of the Vision 2016 goals will be enabled through the implementation of the country's National ICT Policy, Maitlamo. Formally released in 2007, Maitlamo outlines over one hundred programmes and projects that will offer broad and tangible benefits to all segments of society in Botswana through the effective deployment of ICT and E-Government. Figure 1 below shows Botswana's eGovernment road map:
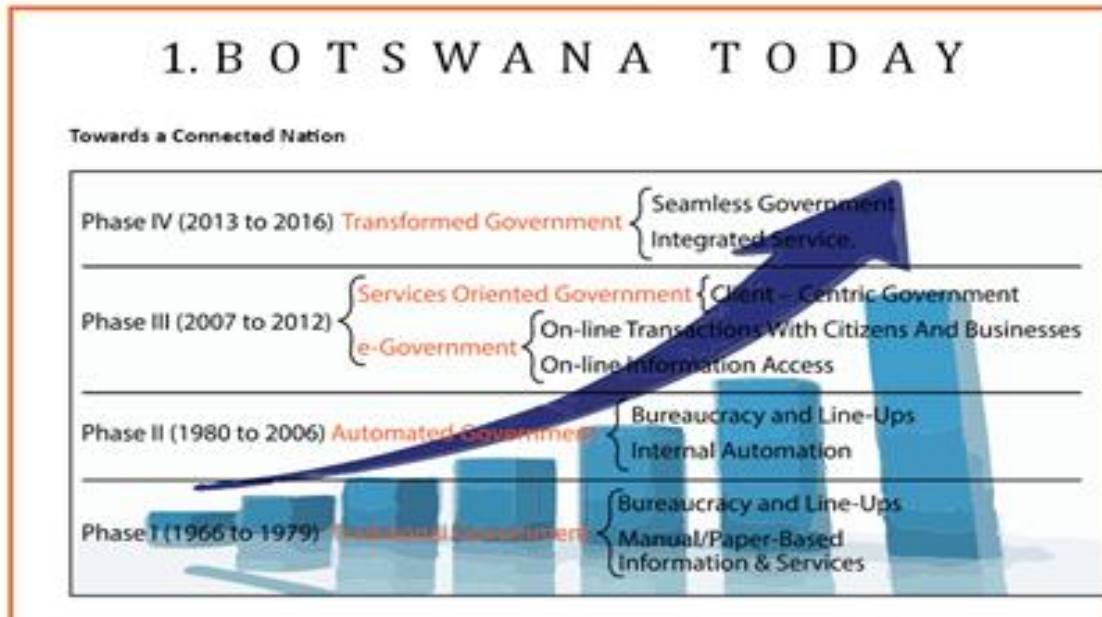
Figure 1: Botswana's eGovernment road map (Botswana's National eGovernment Strategy, 2012).

3. STATUS AND PROGRESS: ESTABLISHED AND ONGOING PROJECTS

A significant number of the Maitlamo initiatives are now underway, and very real and visible progress is being made. The examples provided and discussed in this section are but a few examples of initiatives that reflect the growing level of national and international connectedness of Botswana. They reflect some advances and improvements that have taken place in recent years. The trend is encouraging as it demonstrates that the nation is awakening to the societal benefits of the networked economy in the Global Information Society.

Botswana Power Corporation (BPC) has been rolling out an extensive **rural electrification initiative** since 2006. At the end of October 2008 over 52% of households were connected to the national grid, and a total of 270 villages had been electrified. It was estimated that all villages and settlements with a population of over 250 (80% of communities) would have been on the national electricity grid by the end of 2010.The government of Botswana has spent Billions of Pulas in building power infrastructure which is based at Morupule power station in Palapye. This was done to try and reduce reliance in sourcing power from neighbouring countries. But regardless of those good efforts, presently, this multi-billion Pula power project is having

challenges and complications. Currently the country is overcome with the problem of power cuts and the pots which are said to be producing this power are faulty. It is just a crisis.

Telecommunications access, reliability, bandwidth and consumer cost have favourable trends, in part due to connections into the West African Cable Systems (WACS), Eastern Africa Submarine Cable System (EASSy) and SEACOM cables, which free Botswana from the SAT-3 monopoly on global connectivity. Botswana's ongoing **liberalisation of the telecommunications sector** continues to deliver important benefits. Following the 2008 launch of the country's third mobile service provider, BeMobile, the Wireless Federation reported that Botswana is likely to pass Nigeria and South Africa as Africa's most extensive user of mobile telephones. In 2004 only 31% of the population were users of mobile phones. Today, the number of mobile phone channels activated is in excess of 130% of the population. According to Nyelesi, deputy director of corporate communications and relations at Botswana Communications Regulatory Authority (BOCRA), said Botswana saw a high uptake of Mobile Telephony that rose from zero in 1996 to reach 3 204 869 subscribers (158per cent Mobile density) to date. The Trans-Kalahari Fibre Optic Project, which was completed in 2009, ensures that good quality telecommunications infrastructure reaches major towns and villages.

Additionally, progress has been made too on **NTELETSA II**, which provides rural communities with access to telecommunication services including voice, data and Internet services. A growing number of community access centres and telecentres are now being implemented as part of the **Kitsong Project**, a key Maitlamo recommendation. The Kitsong Project provides centres for community access to computers and Internet, as well as photocopying, printing and faxing services. By 2012, over 54 centres had been implemented across the country (Joseph, 2012), providing local access to business websites and online government in Botswana Post has adopted an initiative to introduce online computer terminals in its post offices and postal agencies. Most post offices had already been equipped with computers and Internet facilities to provide customers with access to online websites, information and services. This initiative is in line with a Botswana Post's strategy to rollout electronic services, including online payment of bills and completion of government forms and documents.

The **Sesigo Project** sponsored through a partnership between the Government of Botswana and the Bill and Melinda Gates Foundation, is implementing free Internet access in libraries and

community reading rooms throughout the country. Librarians receive computer usage and Internet training and in turn provide assistance to their customers. Many of those benefiting from the programme have been first-time computer users, with ages spanning from five to eighty years old. It is anticipated that over 70,000 members of the public will benefit from the programme.

The attorney general's chambers has placed the country's **laws online**, and has been working on the development of a number of pieces of legislation that are important in enabling greater levels of ICT and E-Government usage. According to Nyelesi, there are ratified **e-Legislations** to deal with ICT related offences with a view to making them safe to use. Such Acts are Cybercrime and Computer Related Crimes Act of 2007 which deal with crime perpetrated through computer systems and covers unauthorised access to a computer or computer system, unauthorised interference with data, accessing computer system with intent to commit an offence.

It also generally deals with cyber fraud, Electronic Communications & Transactions Act, 2014 which provides for facilitation and regulation of electronic communications and transactions; to provide specifically for electronic commerce and electronic signatures and for matter incidental and connected thereto. Another Act is the Electronic Records (Evidence Act), 2014 which provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records; and the admissibility in evidence of electronic records as original records and for matters incidental and connected thereto. Nyelesi further cites the Data Protection Bill, 2007, which lays out principles of good information handling so as to guarantee the protection of personal information. It protects the individual's right to privacy with respect to the processing of data and ensures that personal data is only processed in accordance with set requirements.

4. The Emerging Signs of an Online Community

There are a number of positive signs that show Botswana is on its way to becoming an online society. Companies and businesses of all sizes, and from all sectors, are now using the Internet and wireless technologies to market and deliver their products and services. Most of the major banks offer trusted, secure online banking to check account balances, transfer money, request bank statements and pay bills. Many are also taking advantage of the large number of mobile

phone users in the country to provide "mobile banking services" directly to cellular phones. This is a very convenient and innovative way to access common banking services without actually having to visit the bank itself, and is especially useful for those in rural and remote communities who live a considerable distance from their nearest bank branch. Similarly, the major insurance and professional services companies are also moving many of their products and services online to increase sales reduce costs and make it more convenient for their clients to carry out self-serve transactions from the comfort of their home or workplace.

 Air Botswana has a website that allows customers to check flight times, book a flight, reserve a seat and pay for travel without having to visit either a travel agent or an Air Botswana office. The site has proven very popular for both residents and visitors, driving revenue growth as it removes the need and cost of using intermediaries to access the service. There are examples of micro, small and medium enterprises using the Internet for sales and marketing. Many of these companies and business now have commercial websites where they advertise, market and even sell their business products online.

A sophisticated e-Passport Solution has been introduced by The Ministry of Labour and Home Affairs. The machine-readable e-Passport has biometric features of the passport owner, which cannot be forged. Furthermore, the Ministry of Labour and Home Affairs also has the significant task of updating and reengineering the National Identity Registration System (NIRS), the system that supports OMANG.

The Ministry of Education continues its major Thuto Net project to link all of the country's secondary schools to the Internet and to introduce computer laboratories for students. Additionally, the Ministry has also begun the implementation of an Educational Management Information System (EMIS).

The Ministry of Health has integrated twenty two medical facilities and is rolling out an Integrated Patient Management System (IPMS), a Blood Management System (BMS) and a Health Professionals Registration System (HPRS) into healthcare centres around the country. A government-wide Records Management Project, also known as the National Archives and Records Management System (NARMS), is being led by the Ministry of Youth, Sport and Culture. The aim of the project is to provide online management of all government information.

The Government Web Portal was launched in December 2009. This is a key E-Government project, which provides a single point of contact for citizens, businesses, visitors and the world at large to access information and services offered by the Government of Botswana. The portal will continue to evolve over time, with increasingly sophisticated services introduced on a regular basis. Many government ministries run their own websites that provide information on the organisations and the programmes they deliver. However, there is very little consistency across the various websites in respect to both look and feel as well as content quality. Government has initiated a project to migrate ministries to a standard content management system. The Portal offers a growing number of downloadable forms and documents for handwritten completion, laws are available online, and the Government Printer has developed an online book store to sell its products over the Internet with an online payment service. There are over 60 unique major IT systems supporting government service today in Botswana. In addition to the major systems, there are numerous adhoc and minor databases, as well as tracking applications deployed across government.

5. CONCLUCSION

However, notwithstanding the aforementioned, Botswana is not yet making the progress it needs to be competitive in the connected world. The country's ranking in terms of national connectivity and e-readiness is slipping. This shows that other countries are more decisive and more effective in their implementation and usage of ICTs, and are outpacing Botswana to amass the social and economic benefits that are available through gainful and productive inclusion in the digital economy. Botswana has already invested substantially in the technical infrastructure required to fulfil Vision 2016. The country must now move forward to become an informed society with innovative use of ICTs to grow and diversify the national economy. Whilst emphasis must necessarily be on implementation, there is nonetheless a need to refresh aspects of the National ICT Policy. Government must be at the forefront of Botswana's ICT, connectivity and online agenda for a number of important reasons: Government is both the largest employer in the country and the largest buyer of goods and services. All members of the population have to interact with Government, using its services at various times throughout their lives. If Government can successfully package its services for convenient electronic access, then

increasing numbers of citizens and businesses will go online, especially if it saves them time and money.

Many citizens and businesses are well aware of the convenience and benefits of online service delivery and E-Government. An increasing number are already using computers and mobile devices for conducting a wide range of transactions with banks, insurance companies both in-country and abroad. Some have travelled abroad and experienced the convenience of e-Government and e-commerce. Some citizens are already using the online government services already available in Botswana, albeit, they are increasingly frustrated by having to wait for Government to expand its bouquet of online services whilst they suffer the inconvenience of routinely queuing to access services; Government has a responsibility to taxpayers to deliver services conveniently, effectively and efficiently. E-Government provides a handy opportunity to radically overhaul levels of efficiency and productivity across the public service.

Botswana's ICT era has arrived. What remains is to accelerate the country's move towards a knowledge society. The sooner opportunities are broadly availed for Batswana to use ICT in everyday life, the sooner the country builds-up its human capital for the digital age, diversifying and growing the economy through knowledge and innovation

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