

E-Government Development in Africa: the Case of the Seychelles, Mauritius, South Africa and Botswana- Lessons for Zimbabwe

¹Naome Rajah and ²Mogopodi Lekorwe,

¹Lecturer, Department of Local Governance Studies, Midlands State University, P Bag 9055, Gweru, Zimbabwe
(PhD Student UB- Dept of Political and Administrative Studies)

²Associate Professor, Department of political and Administrative Studies, University of Botswana, Gaborone, Botswana

Abstract: This paper discusses the state of e-Government development in the Seychelles, Mauritius, South Africa and Botswana, allowing lessons to be drawn for Zimbabwe on how to manage its e-Government strategy. E-Government refers to the use of Information and Communications Technology (ICTs) to promote more efficient and effective government, facilitating the accessibility of government services and thus allows greater public access to information. E-Government makes governments more accountable to its citizens. A purposive sample was taken based on four countries; Seychelles, Mauritius, South Africa and Botswana, the main criterion being that the countries are in the top ten ranked countries in Africa in terms of e-Government development. Further, South Africa and Botswana are closer to Zimbabwe and also similar in demographics and therefore within reach to provide comparable and contrasting e-Government development models that may be used to inform Zimbabwe. Comparisons and contrasts of the e-Government development models of the four countries provided compelling arguments to be considered to improve on e-Government development in Zimbabwe. Desk research formed the main research methodological approach. The outcomes of the investigation are the lessons learnt from these countries and as such Zimbabwe may adopt similar strategies in order to effectively develop and implement its e-Government strategy. The following lessons were drawn: i) it was prudent for Zimbabwe to create a single point of entry for all its government e-services; ii) it was also prudent to invest in an integrated telecommunications infrastructure and human capital; iii) there was a need to fully liberalise the telecommunications sector, ICT regulatory, institutional and legal framework; and iv) there was a need to create multi-channels for online government services, converging wireless technologies as an alternative means for accessing e-Government services. Most important of all, there was an urgent need for strict implementation of e-Government projects rather than just maintaining blueprints on e-Government Development as was the case in Zimbabwe.

Key words: E-Government Development, E-Government Lessons, Comparative Analysis Of E-Government

I. INTRODUCTION

E-Government has played a significant role and shown encouraging results in developed countries in the context of delivering electronic information to stakeholders. In developing countries the innovation on e-Government is promising to help improve government performance and efficiency. E-Government refers to the use by government agencies of Information Technologies (such as Wide Area Networks, the Internet and mobile computing) that have the

ability to transform relations with citizens, businesses and other arms of government (UN E-Government Survey, 2008). The potential benefits of e-Government include increased transparency, reduced corruption, greater convenience, efficiency, revenue growth, and cost reduction. E-Government is defined differently by different scholars (Lam, 2005).

Firstly, this paper presents the research methodology. Secondly, this is followed by a background to the study and a review of related literature that focuses on the experiences of the four selected countries in Africa; the Seychelles, Mauritius South Africa and Botswana. Thirdly, a discussion of how these experiences can be of benefit to a developing country like Zimbabwe ensues. A conclusion then follows.

II. METHODOLOGY

Desk research was used to collect secondary data from the Internet using the UN Global E-Government Reports of 2005, 2008, 2010, 2012, 2014 and other published articles. The e-Government models from these four countries are discussed from a comparative perspective thereby informing Zimbabwe's e-Government initiatives.

III. BACKGROUND AND LITERATURE

Bhatnagar (2004) asserts three main categories of e-Government definitions: e-Government as the use of ICT within the government, e-Government as an internet service delivery and e-Government as the capacity to transform public administration by means ICTs. The definitions entail three main emphasis, namely; context (government), technology (the internet) and result (transformational capacity). The categorisation of these definitions is based on their areas of emphasis. In other words, e-Government can be described from the perspective of technology, context or result. Narrowly defined, e-Government relates to the delivery of government services by means of a particular technology. For example, Lam (2005) suggests that e-Government refers to the delivery of information and services online through the internet or by other digital means. Further, Bhatnagar (2004) asserts that e-Government involves using information technology, and especially the internet, to improve the delivery of government services to citizens, businesses, and other government bodies. A number of scholars have attempted to provide broader definitions of e-Government. For instance, Liu (2006) defines e-Government as the use of ICT to enhance the range and quality of public services to citizens and businesses while making government itself more efficient, accountable and transparent. Cordella (2007) describes e-Government as the process of harnessing ICTs to reform the way governments work, share information and deliver services to their internal

and external clients. Such definitions are relatively extended descriptions of e-Government; process, enabler, and purpose.

Kitaw (2006) views e-Government as the “ use of ICT to promote more efficient and effective government, facilitate the accessibility of government services, allow greater public access to information, and make governments more accountable to citizens”. E-Government also refers to ‘the use of information technology, in particular the internet, to deliver public services in a much more convenient, customer-oriented, cost effective, and altogether different and better ways” (Holmes, 2001). Ndou (2004) asserts three main categories of e-Government definitions (a) e-Government as internet service delivery, (b) e-Government as the use of ICT within the government, (c) e-Government as the capacity to transform public administration by means of information and communication technologies. The definitions entail three main emphases, namely technology (the internet), context (government) and result (transformational capacity). The categorisation of these definitions is based on their area of emphasis. In other words, e-Government can be described from the perspective of technology, context or result. Further, Schware (2005) defines e-Government as the use of ICT to enhance the range and quality of public services to citizens and businesses while making government itself more efficient, accountable and transparent. Cordella, (2007) describes e-Government as the process of harnessing ICTs to reform the way governments work, share information and deliver services to their internal and external clients.

The above definitions are relatively extended descriptions of e-Government. They highlight key elements of e-Government; process, enabler, and purpose. The process element highlights that e-Government is a course of action intended to transform business models in the public sector. It is about changing the way governments traditionally operate. E-Government is not a static action but an ongoing process aimed at achieving a better public sector. The enabler element suggests that the reform process is facilitated by a wide range of ICTs. The purpose is to ensure that government clients (i.e. citizens, businesses, and other government bodies) are satisfied with the services provided. This can be achieved through by improving the range and quality of ICT –enabled public services provided by the public sector.

IV. OVERVIEW OF E-GOVERNMENT IN AFRICA

Africa ranks 6th in the regional e-Government index. According to the United Nations e-Government survey, progress in Africa remains relatively slow and uneven. The average e-Government Development Index (EGDI) in Africa is 0.2661 (UN E-Government Survey, 2014). This index is low as compared to other regions. Six countries in the African Region (Tunisia, Mauritius, Egypt, Seychelles, Morocco and South Africa) have EGDI values above the world average of 0.4712. This places them among the top 50% of the world. 16 countries of the 54 African countries are at the bottom 10% of the world ranking. This shows that African countries still lag behind in terms of e-Government Development (EGD). This can only be reversed if countries in the region focus on building human capital, including ICT literacy and on bridging infrastructure gaps to provide an enabling environment for e-government development (UN E-Government Survey, 2014). Further, there has been a marked progress since the UN E-Government Survey (2012), in which Tunisia and Mauritius were Africa’s two highest ranked countries and Seychelles, Morocco and South Africa following closely behind.

However, despite the marked growth, African countries still face challenges for strategic e-Government development. Governments still need to play a greater role in navigating effective policies to reduce access costs for mobile broadband, support private collaboration and encourage innovative business models that drive employment. Connectivity in rural areas is still non-existent, yet that is where 65-70% of the Sub-Saharan Africa’s population resides. The lessons learnt for Zimbabwe are drawn from the following countries in the African region: Seychelles, Mauritius, South Africa and Botswana.

Seychelles

According to the UN E-Government Development Index (EGDI) , Seychelles leads in East Africa and is ranked first among the top ten ranked countries for e- Government development in Africa. Seychelles leads Africa with an e-Government index of 0.5192 (UN, 2014). It is seconded by Mauritius with 0.5066, followed by South Africa 0.4869, Tunisia, Egypt, Cape Verde, Kenya, Morocco, Botswana and Namibia. At world level Seychelles is ranked at 84th, 20 places up compared to 2010 when it was ranked 104th (UN, 2014). This position is being necessitated by the further consolidation of infrastructure and its e-Government development. Seychelles has managed to improve its world ranking through major improvements in government information systems, infrastructure, and integration of thematic services in finance, health and among other sectors (UN E-Government Survey, 2014).

The government of Seychelles used an integrated and inter depended strategic approach in order to enhance its e-Government services (UN E-Government Survey, 2012). Seychelles focused on ICT infrastructure, legal and regulatory framework, and human resources development. Seychelles hosts its integrated portal through its SeyGo Connect for residents, citizens and businesses. This provides a one stop shop services ranging from thematic, sectoral life cycle services to single sign-on tailored for the individual user (UN E-Government Survey, 2012).

Mauritius

Mauritius improved its e-Government rank from 93rd to 76th out of 193 member states of the United Nations. It has emerged as the second highest ranked countries in Africa with an EGDI of 0.5066 (UN E-Government Survey, 2014). Mauritius is also regarded as one of the biggest improvers among Small Island development states (UN E-Government Survey, 2014).

The Government of Mauritius has put in great effort in developing their online portal and their telecommunication infrastructure (UN E-Government Survey, 2014). The website offers citizens a number of services. Mauritius has evolved greatly since independence, from a small scale economy based on agriculture to a diversified middle income economy (UN E-Government Survey, 2014). The Human Capital Index of Mauritius has been raised by increased government investment in infrastructure, communications and education. This has greatly contributed to elevation of its ranking in the regional EGDI (UN E-Government Survey, 2014).

South Africa

South Africa is a dualistic country, which exists as both a developed and developing society, with strong links with the global economy. South Africa has made strides in the telecommunications sphere. South Africa has the best

telecommunications sector in Africa (Netchaeva, 2000). 96% of telecommunication lines in South Africa are digital. In the course of 10 years South Africa leapfrogged 20th place in the world with regard to web usage (Netchaeva, 2002). Recent studies show that nearly 20% of South Africa companies are involved in e-Commerce. Despite the above, the majority of the South Africa population lives in poverty and has no access to a phone. "Only 2 million people of the country's 43 million use the internet" (Netchaeva, 2002).

In 2000, a new e-Government policy was put in place. This was aimed at coordinating and consolidating all government IT initiatives to eliminate duplication and improve the accessibility of government. The South Africa projects puts emphasis on public access. More than 20 government projects are in place aimed at addressing the need to information technology accessible to all (Netchaeva, 2002). South Africa is the most technologically advanced country in the whole of Africa in terms of infrastructure and its e-Government development is currently in the interactive stage (Mutula, 2005).

Botswana

The Botswana Government has developed a National Draft Policy on ICT and a variety of ICT programs under the policy umbrella (Botswana Government, 2005). According to Mpabanga et al, (2006), the national ICT policy strives to provide people with easy access to information and services to improve their lives. These initiatives are aimed at improvement of ICT infrastructure, provision of cost effective and affordable internet access, e-Government transparency and data sharing as well as establishment of community information centers.

Botswana has a National e-Government Working Draft Strategy 2011-2016 in place. Botswana's National e-Government Strategy 2011-2016 outlines five major programmes and approximately twenty five interrelated projects that will, collectively, move all appropriate government services on line (Botswana's National e-Government Strategy 2011-2016). Botswana has worked tirelessly to have Ministry websites and a central government portal. A number of business forms are becoming available online for users to print. Current challenges include ineffective governance, decision making, planning and prioritization and programme management.

Botswana has scored positive gains on the e-Government indexes (Bwalya, 2009). It is considered an emerging ICT-usage-powerhouse in Sub-Saharan Africa (SSA). Recent endeavours have seen it successfully implement massive projects such as the construction of the Kgalagadi optical fibre network, full liberalizations of the telecommunications sector, putting in place sound ICT sector regulatory and institutional frameworks, dedicated ICT policy, setting up of Botswana IT hub, etc. These interventions have also been solidified with the convergence of wireless technologies which enable every individual to use mobile technologies such as mobile phones, personal digital assistant etc to communicate, manage data and generally participate in the digital boom (Bwalya, 2009).

In (2008) Gilwald and Stock did a study where Botswana emerged as one of the countries with a higher fixed-line penetration with 11 to 18% of households having a working fixed line phone. By the end of March 2002, there were 278 000 mobile subscribers as compared to 142 000 fixed line subscribers. In 2007, mobile penetration had grown to 87 per 100 inhabitants and 250 000 fixed line subscribers (Stock, 2008). Compared to other countries, Botswana's mobile

penetration (tele density) has been remarkable, from nothing in 1997 to 14.24/100 inhabitants in 2002 and 76 per 100 inhabitants in 2007 (Stock, 2008, Lewin et al, 2004), only second to South Africa in the region.

Lessons for Zimbabwe

Zimbabwe is one of the rare countries in Africa with a history of commitment to good governance and ICT related initiatives. In recent years, Zimbabwe's efforts to provide e-Government services have been realised through the following programmes and initiatives:-

National ICT Policy framework (2006), Single Government Wide Web Portal (2005), National e-Readiness survey (2005), Zimbabwe Millennium development goals (2005), just to mention a few. Government Ministries and Departments in Zimbabwe are still doing business manually despite glaring opportunities to improve efficiency and effectiveness through ICTs. Zimbabwe's e-Government development is still in phase 1 and 2 of the service delivery process. There is still some opportunity to progress and reach the 3rd and 4th stages. However reaching these stages requires huge financial investments, total leadership commitment as well as skills and expertise. Successful e-Government initiatives require that the challenges outlined be addressed.

Zimbabwe's EGDI is 0.3585, and position 126 out of 193 member states (UN, 2014). The regional EGDI is 0.2661 and world EGDI is 0.4712 (UN, 2014). The EGDI for regions has not changed much since 2003. The United Nations' e-Government readiness reports ranked Zimbabwe at position 133 in 2012 and 126 in 2014 out of 193 member states. However it seems that the level of e-Government development in Zimbabwe is still low. Therefore a better understanding of the factors that influence citizen adoption of e-Government services is critical.

The e-Government development focal points from South Africa, Mauritius, Seychelles and Botswana can help developing countries like Zimbabwe to create strategic e-Government development focal points around the same areas. Commonalities across the four (4) countries have been identified, with promulgations on what Zimbabwe may adopt is shown in Figure 1 below.

Typical e-Government development focal points for South Africa include but are not limited to the following: a highly developed and integrated telecommunications network; coordinated and consolidated government ICT initiatives to eliminate duplication of services; improved accessibility of government portals; and the rollout of government projects aimed at addressing information access. Mauritius's e-Government development focal points include: a developed online portal and telecommunications infrastructure; multi-channel online services; and an increased government investment in infrastructure, communication and education. Seychelles has focused on developing its ICT infrastructure, legal and regulatory framework, and human resources, whilst at the same time creating a one-stop-shop through an integration of thematic services in areas such as finance and health and a consolidated e-Government infrastructure. On the other hand, Botswana has promoted an increase in the use of websites at government ministry level which provide downloadable business forms and online self-completion forms. The country has also invested in a Fibre Optic Network and has fully liberalised its telecommunications sector and promoted the convergence of wireless technologies in everyday applications that are linked to government services..

CONCLUSION

This paper explored E-Government development in Africa, using a comparative analysis of the development areas in the Seychelles, Mauritius, South Africa and Botswana and thus serves as learning points for Zimbabwe. . This paper suggests that Zimbabwe should embrace lessons learnt from South Africa, Seychelles, Mauritius and Botswana in order to work towards an improvement in e-Government development based on the focal areas that have propelled these countries. As this paper is based on secondary data, future research should strive to apply mixed method approach and collect primary data, thus using comparative techniques that go beyond Desk Research.

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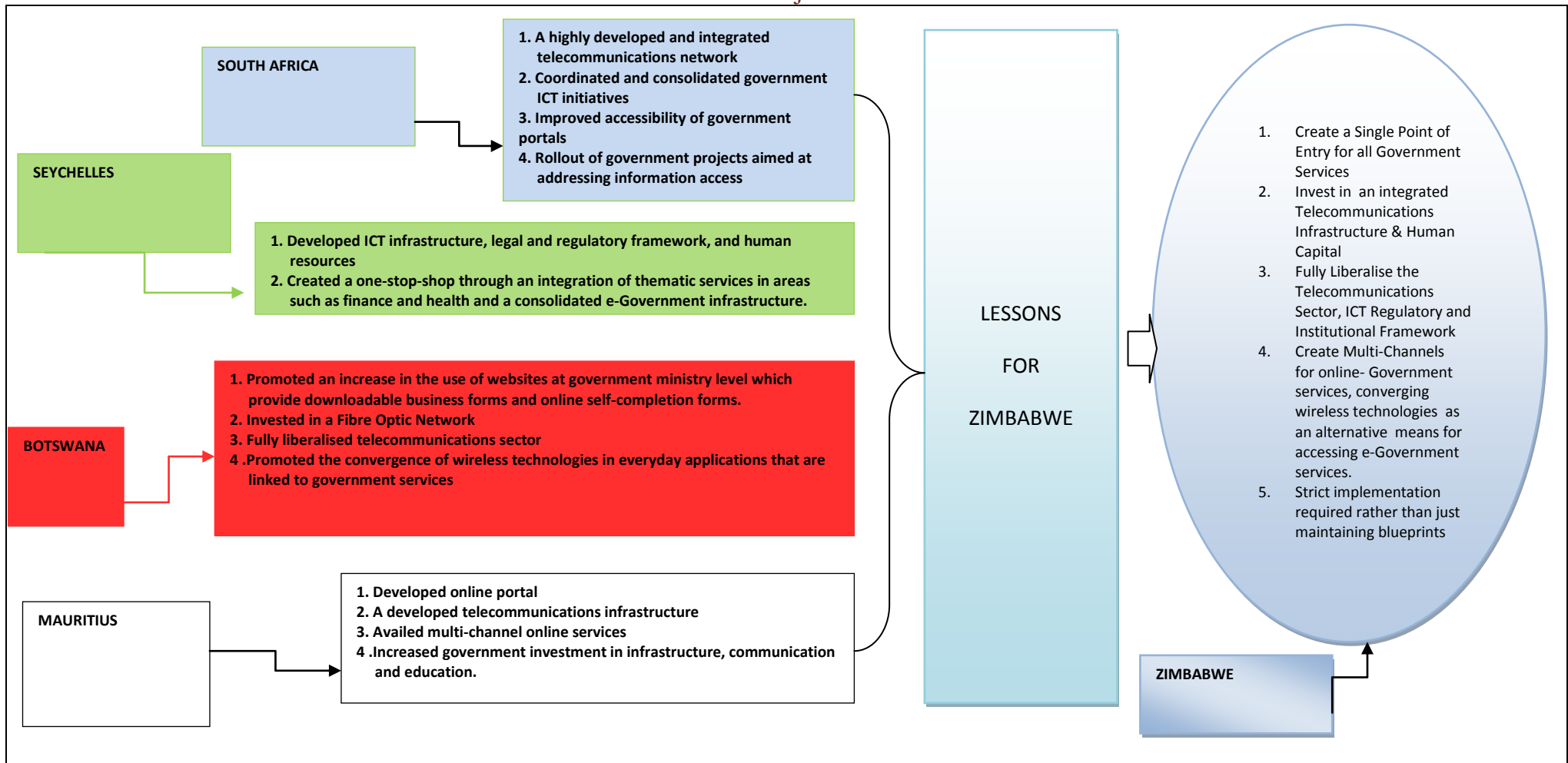


Figure 1: Categorisation of e-Government Development Focal Points for Seychelles, Mauritius, South Africa and Botswana.