

E-government implications for records management in Africa – a review of literature

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Abstract

Increasingly, governments all over the world are adopting e-government by deploying Information and Communication Technologies (ICTs) to carry out their activities and operations. Consequently, there has been an increase in the volumes of electronic records created. These records must be managed through systems providing constant intellectual and physical control in order to ensure that they remain accessible over time. This would therefore call for among other things the formulation and implementation of records management policies, adoption of records management standards and developing staff capacity through education and training. The literature reviewed showed that if these records are managed well, efficiency in the public sector could be achieved. However, the literature also revealed that African countries are faced with a myriad of challenges that could undermine success of e-government initiatives in the continent. These challenges include the following: fragility and transient nature of the storage media, absence of records management policies, difficulty in maintaining integrity of the records and technical skills requirements to name but a few.

Key words: e-government, records management, e-records, Africa, information and communication technologies

1. Introduction

Increasingly, governments all over the world are adopting e-government by deploying information and communication technologies (ICTs) to carry out their activities and operations (Mnjama and Wamukoya, 2007). E-government has been defined in extant literature in different ways. Broadly, it can be defined as the use of ICTs in the public sector to improve operations and delivery of services (Kumar and Best, 2006). According to the World Bank Group (2015), e-government is seen as

“the use 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. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.

Basu (2004) observed that a common theme behind e-government involves the automation or computerization of existing paper-based procedures that will prompt new styles of leadership, new ways of listening to citizens and communities and new ways of organizing and delivering information. In summary, the crucial element of all e-government definitions is the use of ICT tools to reinvent the public sector by transforming its internal and external ways of doing things and its

interrelationships with customers and the business community (Ndou, 2004). However, Dada (2006, p. 1) observed that e-government is not merely the computerization of a government system but a belief in the ability of technology to achieve high levels of improvement in various areas of government, thus transforming the nature of politics and the relations between governments and citizens.

Lemieux (2015, p. 5) observed that with an increase in the adoption of e-government initiatives, both public and private sector organizations have come to rely upon a growing array of communications technologies to create, exchange and store information. Mnjama and Wamukoya (2007, p. 277) contend that the emergence of e-government has resulted in the creation of electronic records or e-records and the information they contain is indeed a valuable asset that must be managed and protected. In the context of this paper, e-records refer to “recorded information that is capable of giving evidence of policies, transactions and activities carried out in e-government and e-commerce environments” (International Records Management Trust, 2004, p. 1). E-government adoption has therefore led to a shift from traditional paper-based filing systems to structured databases, content management systems, social media platforms, web technologies and mobile platforms. These infer huge e-government implications for records management which is the subject of this paper.

The article is based on a literature review on e-government and records management in Africa as a region drawing lessons from what is happening elsewhere in the world. The study was based on three assumptions: that Africa like other regions of the world is increasingly adopting e-government; the adoption, has led to an increase in the volume of electronic records created; and that the electronic records have introduced far

reaching challenges to record keeping in the region that must be addressed if e-government is to benefit the region. The paper therefore gives an overview of e-government; analyses e-government implications for records management; and draws conclusions based on the analysis.

2. Overview of e-government

Increasingly governments all over the world are adopting ICTs to carry out their activities and operations hence the rise of e-government initiatives globally (Mnjama and Wamukoya, 2007). Soliman and Affisco (2006, p. 13) contend that the most frequently cited motive behind initiating e-government projects is the need for more efficiency in public sectors. In fact, according to the authors, federal, state and local governments worldwide are under pressure to deliver services more efficiently at lower costs and are recognizing e-government as an attractive option both commercially and politically (Soliman and Affisco, 2006).

Wescott (2001, p. 2) identified the following as benefits of e-government: lowering administrative costs; providing faster and more accurate response to requests and queries; directing access to transaction or customer accounts held in different parts of government; providing ability to harvest more data from operational systems which in turn increases the quality of feedback to managers and policy makers. E-government is therefore increasingly being seen as the answer to a plethora of challenges faced by governments in their service delivery to the citizens (Kumar and Best, 2006, p. 1). In a nutshell, e-government aims to enhance access to and delivery of government services to benefit citizens and more importantly to help strengthen government’s drive towards effective governance and increased transparency to better manage a country’s

social, political and economic resources for development (Basu, 2004). E-government is therefore touted as a means to save costs while at the same time improving quality, response times and access to services.

Kumar and Best (2006, p. 1) opined that e-government is particularly beneficial to developing countries where resource constraints are a major challenge. Concurring with this view, Schuppan (2009, p. 118) posits that e-government is especially relevant for developing countries, Africa included, where public administration is characterized by inefficiency, limited capacity and poorly trained personnel. The author however cautions that since e-government and its related organizational concepts were developed in industrialized countries, it should not be assumed that it is automatically appropriate for developing countries (Schuppan, 2009). Accordingly, the author pointed out that when introducing e-government in developing countries, it is expected that different and more far-reaching efforts will be necessary than in developed countries. In the same vein, Wescott (2001) posits that in African bureaucratic settings with limited technical capacity, authoritarian decision making and strong patron-client relations, ICT may fail to produce the hoped for results.

According to Chadwick and May (2003), the concept and practices of e-government first emerged in the most technologically advanced western countries such as the United States of America, United Kingdom, Canada and Australia, that which were pioneers in the adoption of the Internet. At the United States of America federal level of government for instance, evolving frameworks of laws and policies have been influencing the speed, scope and direction of e-government initiatives (Lee et al., 2005, p. 100). The authors identified influential statutes which in their opinion have helped propel the e-government initiative to include:

- Government Performance Results Act (United States Congress, 1993) that requires Federal agencies to engage in performance management tasks such as setting goals, measuring results and reporting their progress.
- Government Paperwork Elimination Act (United States Congress, 1998) that calls for Federal agencies to use electronic means in conducting official business with the public by 2003. The guidance focuses on records management issues involving records that have been created using electronic signature technology.
- E-Government Act (United States Congress, 2002) that provides for the establishment of a framework of measures that facilitate using Internet-based information technology to improve citizen access to government information and services.

These Acts are seen as largely responsible for the entrenching of e-government in the US. Chen et al. (2006) observed that the United States of America as the largest economic powerhouse on earth has one of the most advanced national e-government infrastructures in the world. The authors opined that the United States of America's rich history and culture of democracy and its capitalist economic system could have boosted the e-government initiatives. Mutula (2012) noted the three-fold strategic principles that the implementation of e-government in the United States of America is hinged on as being: citizen-centered rather than bureaucracy-centered; results oriented; and market based. These principles over the years propelled the United States of America government to greater heights with regard to e-government implementation.

Bannister (2007) however, posited that the African countries were still at their infant stages with limited public services being processed online. Schuppan (2009) agreed with this view pointing out that from a global

perspective African countries were particularly underdeveloped in the implementation of e-government since Internet access was scarce and e-government services were rare. Arther et al. (2007), noted that African countries were still lagging behind with the implementation of e-government since required data such as land registers, residential or geographic data were often non-existent or outdated. The authors further pointed out that processing of permits such as those for building and property acquisition registration etc., frequently took several years to finalize and many citizens especially those living in slum areas often have never been issued with birth certificates.

This notwithstanding Schuppan (2009) observed that the region had developed potential for the growth of e-government. Mutula (2012, p. 21) that there has been improvement in the region since the year 2008, propelled by the completion of the undersea fiber connectivity on the east coast of Africa which had provided high speed internet links to the rest of the world and is likely to improve e-government services in the region. Further, the author noted that the mobile phone revolution had brought communications to hundreds of millions of people across Africa and e-government projects should leverage these new technologies to provide citizens the opportunity to obtain services and /or information on time.

3. Analysis of e-government implications for records management

Governments world over are under increasing pressure to deliver services more efficiently at lower costs and are recognizing e-government as an attractive option both commercially and politically (Soliman and Affisco, 2006). ICTs have therefore provided governments an

opportunity to improve the delivery of information and services to citizens and business thus streamlining public sector functions and increasing citizen participation in government. The World Bank and the International Records Management Trust (2000) observed that e-government has the potential to transcend constraints imposed by distance and increase the speed of service delivery.

The adoption of e-government platforms by different countries is generating vast amounts of electronic records (e-records) that need to be properly managed in order to enhance transparency and accountability in the management of public affairs and in effective delivery of services (Wamukoya, 2012). The World Bank and the International Records Management Trust (2000) caution that such records should be managed through systems providing constant intellectual and physical control aimed at preserving the combination of content, context and structure which give electronic records meaning over time. This according to Wamukoya and Mutula (2005) provide a strong foundation for enhancing accountability, transparency, democratic governance, poverty eradication, elimination of corruption and efficient use of donor-funded resources.

Several studies have demonstrated the importance of managing electronic records emanating from e-government platforms. Wamukoya and Mutula (2005, p. 71) observed that e-records support the day-to-day operations of government services in the same way paper records did. This implies that these records require systematic and logical management as was a requirement in the paper environment. In the same vein, the International Records Management Trust (2004) asserts that in developed regions of the world, e-records are becoming the basis for confirming pension and other entitlements, registering births and deaths, verifying citizenship, certifying voting rights; enabling

collection of taxes, supporting financial management and supporting litigation. For that matter Maguire (2005) pointed out the benefits of managing electronic records to include but not limited to: ability of documents to be shared across several sites; the easiness and timeliness of information retrieval; reduced duplication thus enabling the organization to reduce on costs; and helping in version control of the records.

3.1 Records management challenges associated with e-government in African countries

Although e-government is increasingly seen as an answer to a plethora of challenges facing governments as mentioned earlier, its implementation has not been without challenges especially in developing regions such as Africa. Mnjama and Wamukoya (2007) pointed out that e-government adoption has introduced many challenges to record keeping professionals. The authors contend that the emergence and growing importance of electronic records as a means of communicating and preserving corporate information poses new challenges hitherto unknown to administrators and records managers. These challenges require to be addressed if valuable information is going to remain available over time. Lemieux (2015, p. 3) observe that in many countries introduction of ICTs has brought about deterioration in the quality, management and accessibility of recorded information with concomitant negative impact upon transparency and public accountability.

A myriad of records management challenges associated with E-government environments abound in literature. Chachage and Ngulube (2006) identified the following as major records management challenges in an e-government environment: fragility and transient nature of the storage media, technological obsolescence, difficulty in

maintaining integrity of the records, absence of records management policies and technical skills requirement. On the other hand, Katuu (2004) indicates that the challenges faced in such an environment include: lack of knowledgeable and adequately trained personnel to handle electronic records; high staff turnover; lack of adequate funding for the human and physical resources required to establish and maintain the programs; lack of ICT legislation and/or the lack of adequate integration of the legislation with national archival legislation; technological obsolescence, fragility of storage media, the ability to alter or delete information without trace and the need to preserve a lot more contextual information than the record itself.

Adding their voices to the debate, Wamukoya and Mutula (2005) observe that electronic records and the systems that support electronic records are complex and fragile. The authors explain that e-records are created and maintained using technology platforms and standards that change frequently; they are stored on media that deteriorates over time; and they are often supported by weak accountability and management frameworks and practices

An analysis of these challenges is done based on reviewed literature and presented in sections that follow.

3.1.1 Absence of records management policies

According to Mnjama and Wamukoya (2007), the level of organizational commitment to managing records can be gauged by the existence or non-existence of records management policies, plans and guidelines. This view is supported by ISO 15489-1 (2001) which recommends that organizations seeking to manage their records effectively should first and foremost establish, document, maintain and promulgate policies, procedures

and practices for records management. As Millar (1999) states, policy and legislative framework are necessary to create a conducive environment for effective management of records. Meanwhile, ISO 15489-1 (2001) indicates the objectives of records management policy as the creation and management of authentic, reliable and useable records capable of supporting business functions and activities for as long as they are required.

However, literature reviewed revealed that in most African countries, general records management policies and specifically electronic records management policies are not available. Iwhiwhu (2005) in a study on the management of records in Nigerian universities revealed that policies in records management were not available. Another study by Kargbo (2009) on the connection between good governance and record keeping in Sierra Leone established that the lack of a records management policy was one of the major impediments to good governance in the country. Back in 2004, a study on the management of electronic records in the public sector in Lesotho showed that the public sector was not managing its electronic records satisfactorily (Sejane, 2004). The findings revealed the non-existence of legislation and policy governing the management of electronic records. Guidelines and procedure manuals were non-existent and there was a lack of qualified personnel with expertise and skills required in the management of electronic records.

A more recent study by Keorapete and Keakopa (2012) on records management as a means to fight corruption in Botswana revealed that there was a lack of proper records management policies, procedures and other guidelines. The authors explained that the Botswana National Archives and Records Service (BNARS) which is mandated by law to provide guidelines to government bodies with regard to records management had not

been able to come up with a national records management policy from which government bodies could derive their own specific policies. Keorapata and Keakopa (2012) note that the lack of such a policy had hampered development in total records management programmes in the public sector which would otherwise ensure security and protection of public records in government offices. They argued that this poor state of records management may contribute towards breeding corruption in the country.

Ndenje-Sichalwe (2011) opined that lack of policies presented a danger of losing access to electronic records, a view supported by Moloji (2009) who adds that in the absence of an enabling policy electronic records may not be captured in a systematic manner. Keakopa (2007) observed further that the absence of policies and procedures may compromise the long term preservation and availability of electronic records as archives.

Perhaps the gravity of the absence of records management policies in Africa may be summarized in the words of Mnjama and Wamukoya (2007) who pointed out that one of the major challenges to the management of records in the Africa was the absence of organizational records management policies and procedures to guide records management. They noted that the management of records in all formats must be supported by clear policies, procedures and guidelines if they are to retain their evidentiary value for accountable and transparent governance.

3.1.2 Inadequate skills and competencies

According to the IRMT E-Records Readiness Tool, qualified records management staff are required for effective implementation of records management policies in any given organization (International Records Management Trust, 2004). Skills and competencies in records management are

therefore necessary for organizations to demonstrate accountability, transparency and a commitment to root out corruption and malpractice (Wamukoya and Mutula, 2005).

Studies on records management in Africa as a region however reveal inadequate skills and competencies among staff vested with the responsibility of managing records in the region. A study by Ngulube and Tafor (2006) on the management of public records and archives in the member countries of East and Southern African Regional Branch of International Council on Archives (ESARBICA) indicated that national archival institutions were experiencing shortages of qualified staff since only 40 – 50 % of the staff had qualifications directly related to either library and information science or records and archives management. They pointed out that the shortage of records management personnel caused tremendous pressure on the few staff that were in post. Similarly, Wato (2006) in a study of e-records readiness in the ESARBICA region noted that national archives in the ESARBICA region had no capacity to preserve electronic records. This was attributed to inadequate skills and lack of policies among other issues

In another related study by Nasieuku et al. (2011) on management of e-records at Moi University Kenya, it was established that only 10.6% of the respondents had knowledge and skills in records management. They pointed out that effective management of records was dependent on staff receiving adequate records management training to effectively deal with specialized areas such as electronic records, appraisal and disposition of records. In yet another study, Okello-Obura and Ssekitto (2011) established that a number of organizations in Uganda did not have qualified personnel in records and archives management although they were tasked with managing records in their organizations. This is in keeping with findings of a study by Akotia (2000) on the management of financial

records in the ministry of finance in Uganda. The study noted that the ministry had no capacity for managing the basic elements of an electronic records management programme. The Ministry lacked staff with the right skills and competencies; legal and administrative requirements for managing electronic records; and accurately documented policies, and standard operating procedures.

Nengomasha (2009) in a study on the management of public sector records in Namibia also revealed the poor status of records management. The study established that Namibia's public service record keeping systems had collapsed and the National Archives of Namibia had not been able to undertake any meaningful records management activities due to staff constraints. The study further revealed that the poor culture of managing paper records had been transferred to the management of electronic records. The study therefore recommended an integrated records management programme which would provide a holistic approach covering both paper and electronic records.

Similarly a study by Iwhiwhu (2005) on management of records in Nigerian universities revealed that records staff were employed without paying much attention to their records management expertise. The staff hired had mainly clerical / administrative skills and did not understand the importance of sound creation and management of records. Consequently, they lacked the culture of record keeping. Lastly a study by Tsabedze et al. (2012) on records management in the government of Swaziland pointed that staff appointed to the position of records / registry officer were not fully trained in records management and could therefore not be entrusted with managing government records during their entire lifecycle. The study revealed that most of the staff held Ordinary level certificates with none of them having undergone formal training to at least a Diploma level in records management.

In addition to formal training, continuous training through conferences, seminars and workshops is an important element in any profession including records management. Reviewed literature indicated that continuous training was not taken seriously in most African countries. Several studies have shown an absence or inadequate or completely missing continuous training in records management (Chinyemba and Ngulube, 2005, Iwhiwhu, 2005, Ndenje-Sichalwe, 2011, Uwaifo, 2004). Ndanje-Sichalwe (2011) in particular observed that though the government ministries in Tanzania had records management courses to offer, only 45.8% of the respondents had attended the courses while 54.2% had not attended any of such courses. Sichalwe pointed out that the lack of training to update knowledge and skills of registry personnel had negative implications for fostering accountability in the public service. She maintained that registry personnel needed to receive continuous training in order to develop the right attitude and knowledge in methods and procedures for managing records. The study further indicated that among the registry staff themselves they recognized the need to be given additional training and the most cited area was on managing electronic records and the general application of ICT on records management.

3.1.3 Poor storage conditions

Storage is a vital aspect of every records management programme (Iwhiwhu, 2005). According to ISO 15489-1 (2001, Sec 9.6) records require suitable storage conditions and handling so as to protect the records from unauthorized access, loss or destruction and from theft and eminent disasters. This is especially true with regard to records with continuing value which require a higher quality of storage and handling to preserve

them as long as the value exists (Brown et al., 2009, Goh et al., 2009).

The ISO 15489-1 standard therefore advises that an appropriate storage environment and media, physical protective materials, handling procedures and storage systems should be considered when designing the records system in order to ensure their long-term preservation. Several records management studies in most African countries identified poor storage as a challenge to records management in an e-government environment given the fragile and transient nature of the storage media for records created in such environments (Chachage and Ngulube, 2006, Katuu, 2004, Wamukoya and Mutula, 2005). Millar (1999) further points out these records are particularly vulnerable to environmental conditions and as such the records should be stored in regulated environments.

3.1.4 Inadequate top management support

Top management support is one of the critical success factors for records management both in traditional and e-government environments. However, studies reviewed indicated that records management in African countries has perennially suffered lack of top management support and absence of budgetary allocation. Mutula and Wamukoya (2009) pointed out that one of the critical challenges facing the African region was inadequate support by governments especially in as far as funding was concerned. It emerged from their study that governments did not provide adequate funding to ministries and government agencies. Similarly, among the challenges identified by Mnjama and Wamukoya (2007) as facing African countries, was the absence of budgets dedicated to records management. In such a situation the records management agenda became difficult to implement.

Mnjama and Wamukoya (2007) explained awareness and attitude towards records management as having to do with the extent to which senior management is aware of, understand and demonstrate commitment to a clear vision and set of objectives for the management of records. Several studies reveal inadequate top management support (International Records Management Trust, 2004, Lowry and Thurston, 2012, Maseh, 2015, Ngoepe and Van Der Walt, 2009, Wamukoya and Mutula, 2005).

From the foregoing discussions it is evident that although many African countries are embracing e-government, the resultant electronic records are not being managed in accordance to records management standards and practices. As Ngulube and Tafor (2006) put it standards development and implementation was an exception rather than norm in the region. They further argue that although electronic records were proliferating throughout governments, many institutions had not yet addressed the implications of the management of such records. In the words of Lemieux (2015, p. 8), there is a significant body of evidence from a wide range of sources in large parts of the world that the essential enhanced structures, controls and skills necessary to manage electronic information emanating from e-government environments to ensure long term accessibility and integrity have not been introduced. Overall, this scenario may negatively affect government operations and service delivery since their success depends on availability of information guaranteed by sound management of government records.

In view of the foregoing challenges, strategies need to be put in place to take e-government initiatives in the region to the next level. Based on the findings and recommendations of previous studies undertaken within the region, the following are suggested:

- Formulation and implementation of records management policies that addresses the management of records in an e-government environment (Lowry and Thurston, 2012, Wamukoya and Mutula, 2005);
- Provision of appropriate skills and competencies required in the management of records within an e-government environment. This could be done through strengthening institutions that offer records management training in the region. The InterPARES Trust Project through Team Africa is conducting a systematic analysis of the curricula in different educational institutions within Africa and investigating the extent to which they address the current professional environment (Katu, 2015, Katu and Ngoepe, 2014, Katu and Ngoepe, 2015). At the same time it is important to address less formal opportunities that constitute continuous education through seminars, conferences and workshops (Ndenje-Sichalwe, 2011, Wamukoya and Mutula, 2005).
- Adopting and implementing records management standards and best practices including ISO 15489 and Information Technology standards (Oliver, 2014).
- Provision of appropriate storage mechanisms and conditions capable of addressing media degradation and unauthorized access to the information (Chachage and Ngulube, 2006, Katu, 2004, Wamukoya and Mutula, 2005).
- Soliciting active, visible and decisive support from the highest levels of governments (Maseh, 2015, Wamukoya and Mutula, 2005).

4. Conclusions

This paper examined the e-government implications for records management in Africa by looking at previous studies. The reviewed literature showed that e-government

implementation has gained momentum world over including in African countries. This has brought about an increase in creation of e-records, therefore, becoming an important aspect of governance in any country. Transparency, accountability and efficient service delivery for instance rely on availability of recorded evidence which should be authentic, accurate, reliable and with integrity. This can only be made possible by the availability of a sound records management programme. Extant literature however, shows that e-government has both positive and negative implications for records management brought about by increased adoption of ICTs. On one hand, the positive implication emanate from the benefits that could accrue to an organization with the adoption of ICTs in the creation and management of the e-records which include the ease and timely retrieval of information among others. On the other hand are the negative implications arising from the myriad of conundrums associated with the creation and management of e-records which include absence of records management policies and inadequate skills and competencies among others.

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