# E-RECORDS READINESS IN THE PUBLIC SECTOR IN BOTSWANA

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Received: 19 May 2007
Revised: 1 December 2008
Accepted: 15 January 2009

## Abstract

*This article presents the findings of the study that was carried out in 2006. The objective of the study was to evaluate the status of e-records readiness in the public sector in Botswana. Data was collected through in-depth interviews and analysed using the Statistical Package for Social Sciences. The key findings of the study revealed that e-records readiness in Botswana is low on account of a lack of policy and legislative framework for e-records. The study population consisted of government ministries.*

**Keywords:** Public Sector, E-records, E-records Readiness, E-government, Botswana.

## Introduction

The management of e-records has become a very topical issue as most governments strive to implement e-government with the consequent generation of large amounts of records in electronic format. Increasingly, the world over, governments recognize the need to use information and telecommunications technologies (ICTs) to facilitate effective information flow and efficient service delivery. This paradigm shift has seen e-records being increasingly generated by most governments worldwide. The greatest challenge however lies in the management and preservation of such records as evidence of business transactions to enable governments to capture the corporate memory and retain the national documentary heritage.

E-records refers to digital records that can be manipulated transmitted or processed by a computer (Roper and Millar 1999). E-records readiness refers to:

> the capacity to create, manage, share and use electronic information (and related technology) to improve governance as well as to sustain international trade and innovation; improve global security and support other activities in our increasingly inter-connected and inter-dependent world (Lipchak and Donald 2003:2).

Similarly, e-government refers to the use by government agencies of ICTs that have the ability to transform relations with citizens, business and other arms of government (Bridges.org 2004).

E-records and e-government in Botswana are fairly new concepts still at infancy stages. As the government increasingly continues to implement some e-government initiatives, it necessarily implies that a lot of e-records are being generated in the form of databases, word-processed documents, e-mail, websites etc. The big issue therefore is 'how far is Botswana e-records ready to be able to capture and manage e-records and preserve them for posterity in the same way as their paper-based counterparts?'

## Botswana public sector

E-government in Botswana is generally influenced by the structure of the public service sector. The Botswana public sector is made up of 13 full-fledged Ministries and 6 quasi-ministries (independent departments). The government of Botswana has since independence continued to make efforts of incorporating the use of computers in the public sector for increased productivity. As part and parcel of the general government effort to improve public service delivery, government continues to engage in public service reforms through programmes such as Work Improvement Teams (WITS), Performance Management Systems (PMS), Performance Based Reward Systems (PBRS), Privatization as well as Computerization (Ministry of Finance and Development Planning 2003).

## Concept of e-readiness

Little and Bose (2004), define the concept of e-readiness as the degree to which a country is prepared to participate in the networked world by assessing its advancement in the areas that are most critical to the adoption of ICT. The e-readiness condition of a country needs to be assessed to establish the e-needs of the citizens. The objective is to bring IT capabilities to bear more readily on development objectives and basically focus on access in terms of availability of infrastructure and services; capacity building including social, economic and policy factors; and opportunities considering opportunity penetration and specific applications (Choucri *et al*., 2003). E-readiness therefore forms a platform for e-records readiness.

## Status of e-readiness in public sector in Botswana

E-readiness assessment can be used to help a country identify its strategic priorities and map out a strategic plan on the effect of ICT on e-governance. E-readiness assessment in Botswana was carried out in preparation for the development of the national ICT strategy development. The purpose of the e-readiness assessment was to help determine Botswana's current status of readiness for the networked world in order to identify what plans and actions are required to achieve long-term e-government. The study also focused on people and their needs and not on the technology only in order to understand how the community is using ICT. The results of the e-readiness assessment showed that computer access and use was very low as few people used computers at work, fewer still used computers at internet cafes, and almost none had their own computer at home. The assessment further revealed that communities in general did not have any idea about the potential of computers and also had no skills to use them and did not see any usefulness that computers might have in their lives. Computers were generally deemed to be unaffordable and beyond the means of the communities (Little and Bose 2004).

## Concept of e-records readiness

The concept of e-records readiness refers to "the capacity to create, manage, share and use electronic information (and related technolo-

gy) to improve governance as well as sustain international trade and innovation; improve global security and support other activities in the increasingly inter-connected and inter-dependent world" (Lipchak and McDonald 2003:2). The International Records Management Trust (IRMT) and the World Bank are at the forefront in addressing e-world issues by conducting programmes and projects that are aimed at assessing e-readiness and e-records readiness world-wide. Among other things, IRMT and the World Bank strive to examine issues with the objective of coming up with solutions to the challenges of creating, managing, sharing and using electronic records to support good governance in respective countries (Choucri *et al*., 2003).

From the world-wide e-discussions, it is apparent that both developed and developing countries are struggling to meet e-records management requirements. Generally, participants from all over the world share the same concern of lack of support by their governments for quality records management. The lack of government support according to the participants is reflected in the minimal attention paid to this area and the low budgets allocated to IT projects and subsequently the management of records resulting thereof. There is a general misperception that computer technology will solve all information management problems including management of e-records. There is increasing governmental and international focus on information technology without a parallel level of support for records management programmes, including the care for both electronic and paper-based records. There is an absence or weakness in the legislation and policies – including formal frameworks for accountability – for the management of information technologies and their products, including electronic records as well as for paper records (IRMT/World Bank 2003).

*E-records readiness assessment tools*

The main purpose of e-records readiness assessment tools is to establish what issues, concerns or realities are affecting, either negatively or positively, the ability of a particular government/institution to manage e-records and the products of ICTs (IRMT/World Bank 2003). IRMT has developed an e-records readiness tool, which is designed to be used in conjunction with the existing e-readiness tools to provide a high level assessment that will determine what

government's records and information infrastructure is capable of supporting e-government initiatives (IRMT 2004).

In addition, the IRMT and the World Bank have designed a Records Management Assessment System (RMAS) software tool to assess records and information systems in the public sector. RMAS uses a diagnostic model, based on the records life cycle or continuum, to assess records management policies, procedures and resources against established international standards and to identify strengths, weaknesses and risk areas in e-records management (IRMT/World Bank 2003).

No e-records readiness assessments have been carried out in Botswana, however, e-records are widely accepted and used as 'official' working documents though they are not admissible in the courts of law as evidence of business transactions due to the lack of a policy and legislative framework for managing e-records.

## E-government

E-government has been one of the most important outcomes of Public Service Reforms (PSR). E-government refers to the use of ICTs to enable government to deliver its programmes and services more effectively and efficiently and to increase the participation of citizens in their own governance (Lipchak and McDonald 2003). To Ngulube (2007) e-government is:

> an innovative attempt to take advantage of information and communication technologies to facilitate the citizens' access to government information and services in order to support social, economic and political development, improve the quality of public services, and provide an avenue for citizens to interact with government institutions and processes.

Millard (2004) also notes that e-governance is not just about putting government services online and improving their delivery but it also constitutes a set of technology mediated processes that could change the broader interactions between citizens and government as well as improve the overall quality of decision-making. E-government can therefore help promote the right of citizens to access government held information and participate in decision-making thus enhancing e-

democracy. E-democracy refers to the use of ICTs and strategies by democratic sectors such as governments, elected officials, media, civil society organizations and international governmental organizations, within the political processes of local communities, states/ regions, and nations on the global stage (Clift 2003).

E-government and e-democracy are therefore very important in promoting citizens' rights to access government held information. Dalal (2005) notes that a citizen has a fundamental right to use the best means of imparting and receiving information because a true democracy cannot exist unless all citizens have the right to participate in the affairs of the politics of the country. Therefore e-government and the right to information are interrelated and are two sides of the same coin. Sebina (2005) notes that the right of citizens to access government information is indicative of the level of openness, accountability and trust that people have in their government.

Nonetheless, Millard (2004) points out that introducing ICTs to democracy poses profound political, ethical and practical problems, especially in relation to the digital divide with regard to how those who do not have the technology can participate. Essentially e-governance will only be of benefit to the computer literate and those who have access to the computer thus discriminating against other citizens.

## Statement of the problem

Within government, a lot of electronic records are being generated in several forms such as word-processed documents, spreadsheets, databases and e-mail and websites. The greatest challenge however lies in the management of and preservation of such records as evidence of business transactions. It would seem that electronic records within government in Botswana are not being managed effectively. This is bound to result in a large informational gap between e-records and paper-based records leading to incomplete public records/documentary heritage.

Furthermore, few government departments and ministries that have computerized seem to have a framework for managing their e-records. In the light of the absence of e-records management policy and programmes within government, there is eminent danger that e-

records generated may not be retained and preserved as e-archives. Just like in paper-based records that are preserved at the national archives for public consumption, e-records should equally be awarded the same status and attention. It was important therefore to assess the status of e-records readiness within government for planning purposes, allocation of resources, infrastructure and capacity building to enhance sound e-records management in Botswana.

*Objectives of the study*

The main objective of the study was to investigate the management of e-records in the public sector in Botswana with a view to coming up with a framework to enhance their effective and efficient management.

Specifically the study sought to determine the:

1. International status of e-records management.
2. Level of computerization in government.
3. Status of policy and legislative framework for managing e-records in the government in Botswana.
4. Challenges of managing e-records in the government in Botswana.

## Methodology

This study used triangulation of both quantitative and qualitative methods with a case study research design. A two-stage research design strategy involving a case study of government ministries and a survey of the respondents within the ministries was adopted for the study. The ministry formed the unit of analysis selected through systematic random sampling. Ministries were listed alphabetically by name and every second ministry from the list was systematically selected resulting in nine ministries forming the study sample. Within each of the nine ministries, respondents were selected purposively to include one IT specialist, two records management personnel and two action officers. This resulted in a sample size of 45 respondents. The IT specialists were selected because of their coordinating role in the provision of IT services in government. In the same vein, records management personnel were selected for the study because of their responsibility of ensuring effective records management in the public

sector. Similarly, action officers were chosen because they are the creators and users of records within government.

In addition, the directors of Botswana National Archives and Records Services (BNARS) and that of the Department of Information Technology (DIT) were interviewed on matters of e-records management and national ICT policy and legislative framework because of their coordinating role in records management and information technology (IT) respectively. Data was collected using in-depth interviews and analyzed through the use of thematic categorization for qualitative analysis and SPSS® for quantitative analysis. The findings were presented through narration, frequency tables and bar charts. Thirty-five out of the 45 respondents sampled for the study were reached for interviews giving a response rate of 78%.

## Discussion of findings

*International status of e-records readiness*

A literature review was largely relied upon for determining the international status of e-records management. The findings showed that whereas e-records management in developed countries is receiving great attention, in developing countries including Botswana, the field of e-records management is either lacking or not fully developed. Among developed countries, Australia, USA and Canada are at the forefront in the management of e-records. For example, the Australian National Archives has developed and published principles and strategies for effective e-records management. The emphasis is on managing e-records taking into consideration their content, context, structure, and preservation to maintain their integrity and authenticity and make them more accessible. Moreover, the Australian National Archives has documented guidelines for managing electronic records. On the other hand, in developing countries, the use of computers is relatively new and therefore the area of e-records management is generally undeveloped.

*E-records management policy and legislative framework*

The results of the study revealed that there was no policy for e-records management in Botswana or a general one on records

management. The absence of policy suggests that e-records may not be captured and managed in a systematic fashion. Moreover, the absence of an e-records management policy may compromise the long-term preservation and availability of e-records as evidence of business transactions as well as the accessibility of e-records for public consumption as e-archives.

Roper and Millar (1999:64) notes that, “a policy is a plan or course of action designed to influence and determine decisions, actions and other matters; it is a guiding principle or procedure.” A policy and a legislative framework are necessary to create a conducive environment for effective management of e-records. The absence of such a policy is a clear indication that there are no mechanisms in place for effective management of e-records in government in Botswana.

The lack of an e-records management policy is not unique to Botswana but is a common phenomenon in most African governments. Ngulube (2002:2) notes that “it is evident that governments in Sub-Saharan Africa have not taken policy formulation in relation to managing e-records very seriously”. The reason for the absence of e-records policies in Africa probably relates to the fact that ICT and e-records management are relatively new developments in the continent and governments are just starting to adapt to the use of the new technology. Makhura and Ngoepe (2005) conducted a survey on 30 organizations in South Africa and the findings showed that 25 of the organizations did not have an e-records management policy in place. Similarly, in Lesotho a study carried out on the management of e-records in the public sector revealed that there were no mechanisms in place for e-records management. Moreover there was no e-records management policy and the records staff lacked qualifications in records management (Sejane 2003).

*Skills in managing e-records*

The results showed that currently**,** the National Archives Act is being revised to accommodate the management of e-records in Botswana. The management of e-records is outside the mandate of records staff seconded to ministries. Currently BNARS does not have adequate staff and the capacity to manage records and there is generally a lack of skills for managing e-records in government. When computers

were introduced at BNARS in 2000, staff were taken through a two-week computer awareness training which however, was not sufficient for e-records management. As part of the planned computerization package, BNARS staff will be trained in the use of the planned National Archives and Records Management Systems (NARMS). Lack of adequate training for e-records management for records staff can have far reaching implications in the implementation of the NARMS.

There is a lack of a centralized system for capturing and managing e-records within government, instead e-records management responsibilities tend to be shared amongst officers, IT officers, administration officers and secretaries. In addition, there is a lack of defined records management and e-archiving infrastructure and guidelines, and general lack of awareness amongst staff regarding the importance of e-records management. As a result, there is a general misconception amongst records users that whatever they receive or generate through their computers is 'theirs' and therefore how they treat the information is entirely left to their discretion. As reflected in the results of the study, 57% of staff used an e-mail facility for official business while 43% used it for personal purposes. The management of official e-mail is basically left to the discretion of officers to decide how to deal with e-mail they generate and/or receive. Currently the accepted practice is for officers to print and submit copies of e-mail to the Records Management Units (RMU) to process as paper-based records. There are no set standards and therefore adherence cannot be easily monitored.

The situation of lack of e-records management skills amongst records staff is also prevalent in other ESARBICA member states. In Kenya for example, Kemoni and Wamukoya (2000) carried out a study to investigate the preparedness of the Moi University records personnel to manage e-records and concluded that records staff lacked IT skills and therefore were not prepared to work in an electronic environment. They stressed that adequate training in IT is essential to impart new skills and boost the confidence of the records personnel for e-records management. The challenge however, lies with the calibre of BNARS records staff as many of them were promoted from low ranks as messengers and cleaners. PRO (2001) points out that in an electronic environment new record making and records keeping skills

are required of end users as creators and users of records. Moreover, ILO (1998) notes that changes in technology often imply the need for new skills because even if the equipment is made available, insufficient staff training can hamper its effectiveness.

With regard to training in computers among records staff, the highest qualification is basics in computers. This training cannot be adequate for the management of e-records. There is a need for records managers to acquire IT skills in order to be able to develop an effective e-records management system. Mutiti (2001) notes that, in most cases responsibility of managing e-records is left to IT specialists because archivists and records managers are not fully conversant with their roles in national e-records management programmes.

The non-participation of records personnel in e-records management can be attributed to their lack of IT skills. ILO (1998:8) points out that "Changes in technology often imply new skills and qualifications requirements. The investment required to provide such training, is however, often underestimated." Ngulube (2003) notes that the issue of training of records personnel in the electronic environment though critical, can be very costly, adding that successful implementation of the Australian National Archives e-records management programme was possible because over 80% of the records management budget was dedicated to records staff training.

Dearstyne (2005) conducted a survey whose results showed that IT professionals, not records managers, are in charge of e-records in many settings. This is attributed to the fact that records management and IT are 'poorly integrated' with each other due to lack of understanding of just what records management is because of lack of appreciation of records management as a professional field and lack of understanding about the negative consequences of poor records management. Gouanou and Marsh (2004) note that records managers have the skills and methodologies to manage the life cycle of e-records but they have to rely on IT specialists and vendors to provide the tools with which to do it.

*Level of computerization*

The results of the study suggest that the use of computers in government in Botswana became popular in the 1990s. During this time, the government of Botswana started engaging in IT as a decentralization strategy for effective service delivery (DPSM 2000). The IT decentralization strategy came as a result of the Public Sector Reform which was aimed at improving productivity in the work place for efficiency and effectiveness in public service delivery. Computers were therefore meant to aid officers in their daily business for speedy and effective service delivery. Moreover, during the 1990s, the International Monetary Fund (IMF) set in motion the Structural Adjustment Programmes (SAPS), which recipients of donor funding were expected to implement. IT was widely seen as an important catalyst for change offering significant benefit, particularly with regard to improving productivity and quality of service (International Labour Office (ILO) 1998).

DIT plays an advisory role in that government ministries and departments are required to meet standards set by DIT when tendering for computerization projects. In addition, DIT hosts servers for computerization projects that cut across government. The results suggest that DIT involvement in computerization is limited to ensuring that ministries meet the required standards when tendering. The management of the records from such projects are the responsibility of individual ministries, save for projects that run across government whose information is backed-up and deposited at BNARS. The results revealed that all ministries had some computerization projects either planned, on going or completed. Some computerization projects cut across government such as the Department of Personnel Service Management's (DPSM) Computerized Personnel Management System (CPMS); Ministry of Finance and Development Planning's (MFDP) Government Accounting and Budget System (GABS); Ministry of Local Government's Human Resource Management System; and the Social Benefit, Registration and Reconciliation System (SBRRS).

In addition, findings of the study suggest that ministries are at various levels of computerization. However, as the computerization projects are developed and implemented, there are no provisions for systema-

tic capturing of e-records generated. This is worrisome because it may mean that the management of e-records is often left to chance in the absence of planned e-records management systems. Ministries depend on servers and back-up tapes for storing their records. Generally ministries tend to adopt a hybrid system where they print and file records and manage them as paper records, and this may compromise the authenticity of e-records as they may be easily altered without any detection. When ministries automate, records managers/archivists are often not involved in the whole process. This is probably due to the fact that archives staff lack basic understanding of computer operations and at the same time IT personnel do not see the need to involve them.

Millar (2004) points out that governments around the world are seeking to computerize their core functions and use IT to streamline their operations. Furthermore, Cain and Millar (2004) note that computerized systems offer significant advantages over conventional methods in that they can manipulate large amounts of information and offer speed, precision, diversity and flexibility. Not withstanding the threat of losing information posed by e-records, they are advantageous in that they offer the opportunity to access, share and retrieve information at the click of the button by more than one user all at the same time. Tafor (2003) notes that, “the reasons for adopting ICT are based on the advantages that are associated with modern information technology. It is thought that ICT will solve every problem within an organization”.

The results further suggest that the government in Botswana has made headway in harnessing ICT for improved public service delivery. However, due to the lack of record keeping systems, automation in government has seen a proliferation of paper as IT projects run parallel with paper. In USA, statistical evidence indicated that in 1989, 95% of information was on paper (Cain and Millar 2004). In two ministries all staff including the industrial class had access to computers and in seven ministries access was limited to the professional and paraprofessional cadres only. This suggests that ministries have embraced the use of computers at different levels. The adoption and use of computers to aid in speeding up work for enhanced productivity is important because in the accelerating information-age, ideally all citizens must be computer literate. This is in line with Botswana

National Vision 2016 which states that by the year 2016 Botswana will be having an educated and informed nation (Presidential Task Force 1997). Bose and Little (2004) point out that, “Without an educated and ICT-savvy populace, no community can fully participate in a networked world”.

The results also showed that among records users 58% used computers for word processing, 16% used them for accessing government circulars and savingrams, while 25% used computers for updating computerized personnel records systems. The results suggest that the use of computers was prevalent in government as the highest number of respondents used them for word processing. This may imply that different types of e-records are being generated, received, accessed and used in government. However, it is worth noting that not all information generated through computers constitutes a record. Cain and Millar (2004), point out that electronic information is not a record without content, structure and context which can help to authenticate e-records as evidence of business transactions. Therefore there is a need to also manage metadata for e-records so as to maintain their integrity as true records of what transpired.

Among records staff, 28% used electronic for file tracking, 7% used computers to update the Computerized Personnel Management System, 28% used computers for word processing while 14% did not have access to using computers at all. In four ministries computers were used to carry out the records management function of file tracking and in two ministries there were no computers in the Records Management Units (RMU). These results suggests that RMUs were not given due consideration when procuring computers in the two ministries probably because those ministries did not attach any significance to the use of computers in RMUs. The results further suggest that the use of computers for records management purposes is limited to file tracking.

*IT resources and infrastructure*

With regard to IT resources and infrastructure that exist in government, the results of the study revealed that there are state-of-the-art IT products in Botswana. The Botswana Telecommunication Corporation (BTC) provides and maintains a telephone and internet connecti-

vity network that links all government offices in places where there is electricity. Network connectivity in government includes the LAN, MAN and WAN. The results suggest that IT infrastructure in Botswana is fairly well developed. However, connectivity is largely determined by the availability of electricity and telephones. For this reason, remote areas are usually lagging behind in terms of computerization. And this in essence widens the digital divide between urban centers and rural communities.

For projects that run across government, respective LANS are interconnected through the Government Data Network (GDN). Moreover, all ministries have telephone lines, computer gadgets, printers, faxes, scanners and photocopying machines. The results suggest that government is at an advanced stage of development in IT resources and infrastructure as the network of computers is distributed across government and internet access is also available as well as technical support offered by IT specialists stationed in each ministry. The government has therefore made remarkable strides to invest in ICT infrastructure in order to make the adoption of ICT as a public reform, a reality.

*E-mail use and management*

Respondents were asked to state the purpose for which they used e-mail. Findings showed that all respondents used e-mail mostly for official communication as well as for personal communication. Respondents in the records users' categories, save for one who was not connected to government e-mail, used e-mail mostly for official communication such as calling meetings, forwarding minutes of meetings, reports, annual performance plans or passing information to colleagues within and between other ministries.

Results suggest that not all government employees were connected to government e-mail facilities. However, due to lack of policy guidelines on the use of e-mail, employees used it as they saw fit, both for official duties and for non-official communication. E-mail tends to be regarded as 'personal' even if it is official, because e-mail messages are received in individual officers' PCs and are addressed directly to them. This is different from the mail that is received either through the post-office mail box/bag or delivered by hand which is regarded as

'corporate' mail and will be opened, registered and marked for action to the relevant officer.

Results further revealed that management of e-mail was haphazard and uncoordinated as ministries and individual officers had various practices of managing e-mail. Results showed that 71% of records users printed and filed e-mail messages from their PCs that they perceived as 'important'. Fourteen percent of records staff with no access to e-mail facilities received and filed e-mail print-outs from records users and managed them as paper records, while 14% used e-mail for non-official purposes. Respondents also observed that records users were encouraged to print e-mail messages and submit them to RMUs for filing. eService Group (2000) notes that printing out e-mail is not adequate due to loss of contextual information such as author, data, receipt, title and other audit and tracking information or content information such as hyperlinks, attachments or encoded information. This suggests that an e-mail print out may not form a complete record due to the lack of metadata associated with it, hence e-mail messages may not provide adequate and reliable information as true records of business transactions.

The absence of a policy on e-mail implies that the management of e-mail is left to the discretion of officers to decide which ones to print out and keep and which ones to delete. Kahn and Blair (2003:13) note that "failing to retain, preserve and make available records of government, even in e-mail form, undermines the fundamentals of good governance, transparency and public trust." There is a danger that a lot of official information, that could have been registered and filed if it was received through post or hand-delivery, remains unregistered in officers' PCs or is deleted thus losing public information. This can create the problem of informational gaps in the public documentary heritage because e-mails also contain information that relate to the information held in paper records.

The State of California (2005) notes that in California, "Organizations permit each user of electronic equipment to operate independently with no established policies and standardized procedures … this will result in chaos." Cox (1996) argues against printing out e-mail messages because it distorts the elements that make e-mail messages records. E-mail qualifies as e-records and needs to be

maintained electronically taking into account issues of structure, content and context. A survey of the Electronic Records Management Best Practices from twenty-four federal agencies in the US revealed that all respondents maintain a combination of paper and electronic records. Twenty–one indicated that they printed electronic records to paper while five copied e-records to backup tapes (Lee Strickland 2005). These results show that many organizations are following a traditional recordkeeping strategy even in a modern electronic environment. If e-records are to be of any evidential value, they need to be managed systematically so that they can provide the same level of evidence of business transactions and the same level of accountability as paper records (University of Melbourne 2001).

In Singapore, a survey on the management of e-mails as official records showed that many corporate e-mail users spent a lot of their time managing e-mails daily and part of the time is lost on managing e-mails that are not work related. Typically users were left to manage their e-mail. Though many organizations in Singapore had e-mail policies and e-records management systems for corporate e-mails, staff were not using them because of tedious office procedures and lack of sufficient training on their use (Seow *et.al*., 2006).

However, there is no control on the creation of e-records in government and there are no mechanisms for identifying what e-information constitutes a record and what does not as there are no policy guidelines in place. There is a danger that e-records may be created and deleted at the discretion of the individual officer thereby creating an opportunity for loss of records to the public. Dalal (2005) points out that in India e-records has been recognized as a medium of communication and storage of information. Moreover, e-records are admissible in the courts of law. The results showed that none of the respondents were involved in e-records management because there were no e-records management systems in place. However, records personnel were responsible for filing e-mail message printouts. Moreover, Records Management Units (RMUs) that existed were purely for the management of paper-based records.

Safora (1997) notes that much use of computer technology in the work place is for internal e-mail systems and internet access. However, failure to have policy guidelines in place for the use of e-mail

and internet results in inappropriate use of the system by employees. A survey in the US showed that 68% of employees who use e-mail at work sent or received e-mail via their work e-mail account that could place their company at risk and that 61% admitted that they used e-mail for personal use.

## Challenges of managing e-records in government in Botswana

The challenges of managing e-records in Botswana are many and varied. It is evident that there is increased generation of e-records in government. However, lack of an e-records management system may mean that a lot of such records are not captured and may not be available for future use. In addition there is a proliferation of paper within government as the use of ICT enables staff to generate lots of papers through printing, photocopying and fax. This can also add to the problems of managing paper-based records that already exists such as congestion and misfiling, missing files and lost files.

Wanjau (2004) notes that there is rampant mismanagement of records in the registries and in most cases records have been neglected and even rarely does the management of the organization know where these records are kept and under what conditions. Mnjama (2000) points out that the introduction of computerized record-keeping systems as a way of addressing recordkeeping problems in the registries is done without adequate analysis of the problems plaguing registries. Nonetheless, despite government's effort to integrate IT in its development process little has been done to determine how effectively e-records can be managed.

Challenges of managing e-records in government emanate from the fact that Botswana society is traditionally paper-based. There is currently no policy for e-records management in Botswana. The absence of an e-records management policy makes it difficult to identify, maintain and preserve e-records. Technical obsolescence also makes e-records management expensive due to constant data migration to new and updated systems to ensure readability, accessibility and usability.

Wato (2002) notes that at present there are no stable electronic media. Management of e-records would therefore require constant

migration and backup to new media on regular basis. This requires replacement of hardware and software. This practice may not be cost-effective given the limited budgets in government. Records staff in ministries are also not trained for e-records management. Problems of e-records management, it would seem, are prevalent in the rest of the ESARBICA region. Keakopa (2002) points out that ESARBICA faces challenges of not only automating but more importantly designing strategies to manage e-records.

## Conclusion

Findings of the study revealed that computers are being used to carry out government business activities on a daily basis. However, currently there are no e-records keeping systems and a hybrid system of keeping records in both electronic format and paper is widely practiced. To a large extend the use of computers in government has increasingly led to the proliferation of paper due to printing and copying records generated through computers. This goes to show that Botswana is not e-records ready and the idea of the 'paperless office' may remain just a myth.

Moreover, the involvement of records staff in the management e-records is minimal and limited to filing the e-mail messages print-outs. Currently there is no legislation on e-records, however, plans are under way to cater for e-records management through the enactment of ICT policies and the amendment of the National Archives Act and this will enable the NARMS to go a long way in ensuring that e-records will be being managed to provide evidential value in the same way as their paper-based counterparts. The current status regarding the management of e-records in Botswana suggests that the level of e-records readiness in Botswana is almost non-existent.

In order to address the current situation regarding the management of e-records, government could consider enacting legislation on e-records including the use of e-signatures to formalize the acceptance of e-records as official records and legalize their admissibility as evidence of business transactions even in the courts of law.

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