E-RECORDS READINESS IN CONTEXT OF E-GOVERNMENT STRATEGY IN SWAZILAND

By

Vusi Tsabedze
University of Zululand
vusi.tsabedze@live.com

Trywell Kalusopa
University of Zululand
KalusopaT@unizulu.ac.za

The purpose of this study is to present the results of an empirical study to assess e-records readiness within government in the Kingdom of Swaziland. The study sought to establish the national legal and policy framework governing management of electronic records in government ministries in Swaziland in context of e-Government; the level of compliance to policies, standards, tools, procedures and responsibilities for e-records management in the government ministries in Swaziland; establish the e-records management products and technologies existing in the government ministries in Swaziland; examine resource capacity and training for e-records management staff in the government ministries in Swaziland; to find out if there is internal awareness of the link of e-record management with e-Government strategy in the government ministries in Swaziland; the depth of government wide digital preservation strategy in the government ministries in Swaziland.
A quantitative paradigm largely guided this study. The researchers used a survey research strategy. Methodological triangulation of both quantitative and qualitative data collection methods complemented the strategy.The study target population consisted of Director of Swaziland National Archives, Director of the Department of Computer Services, records officers and action officers. The key findings reveal that the level of e-records readiness in the government ministries is at the infant stage. These include: the disjointed, haphazard and poor approach to the management of Government e-records, poor records management skills and professional training of staff, weak legislative and policy framework, slow progress in the implementation of EDRMS and low capacity building as records management staff is rarely taken for training. The study has also revealed that opportunities for increasing the depth of e-records readiness exist such as: availability of financial resources for EDRMS project. The study recommends the improvement of legislative and policy framework; regular training for records management staff. In addition the authors' recommendations included an e-records best practice framework for government ministries in Swaziland.

Keywords: Swaziland; E-government; E-records management; E-government; E-readiness; E-records readiness; E-records readiness assessment tools.

Introduction

E-Government is increasingly being emphasised as a way for governments to strengthen good government. Therefore, if implemented strategically, e-Government cannot only improve efficiency, accountability and transparency of government processes, but can also be a tool to empower citizens by enabling them to participate in the decision-making processes of governments (UNDP-RCB, 2009).

Backus (2001:33) argues that e-Government is more than just a government website on the internet, and that it should be thought of as the "application of electronic means in the interaction between government and citizens and government and businesses, as well as the application of electronic means in internal government operations." In the same vein, Sheridan and Riley (2006:35) also posit that e-Government is a:

> wider concept that defines and assesses the impacts technologies are having on the practice and administration of governments and the relationships between public servants and the wider society, such as dealings with the elected bodies or outside groups such as not for profits organisations, Non-governmental Governmental Organisations (NGOs) or private sector corporate entities.

Based on Sheridan and Riley's (2006) definition, in this paper, e-Government will be used to refer to the use of Information and Communication Technologies (ICTs) in the provision of the processes and systems that drive the on-line services offered to citizens, non-citizens and businesses by a given government.

As governments embark on e-Government, there is, however, need to pay special attention to the management of electronic records. This is so because electronic transactions carried out through e-government applications produce e-records whose quality and integrity need to be upheld (IRMT, 2004; Mnjama & Wamukoya, 2004). The IRMT (2004:1) thus cautions that, "funds and effort will likely be wasted unless e-Government initiatives are supported by a solid records and information management programme." Taking this notion into account it can be said that e-Government can be successful if it is driven by a robust e-records management system. The CommonwealthSecretariat (2013) argues that the major challenges facing the implementation of e-government in Swaziland and other Sub-Saharan African countries is the lack of a proper ICT infrastructure that support e-records management. The Common Wealth Secretariat (2013) is of the view that among other salient factors e-government can only be implemented successfully if it is supported by functional and readily accessible e-records.

BACKGROUND AND CONTEXTUAL ANALYSIS OF THE STUDY

The Government of Swaziland initiated a process to have an e-Government Strategy in 2011, when through the Cabinet Secretary and the Head of the Civil Service it approached the Commonwealth Secretariat to assist it with the design of such a strategy (Common Wealth Secretariat,2013). The 2013-2017 e-Government strategy was crafted in 2013. Prior to this the Government of Swaziland with the assistance of United Nations Development Programme (UNDP) and the Open Society Initiative of Southern Africa (OSISA) undertook a study entitled: *Electronic Government for Swaziland: Assessing the Opportunities and Challenges* in 2014.

The study highlighted generic and specific opportunities for e-Government initiatives in Swaziland such as:

- Strengthening intra-governmental communications and information sharing.
- Increasing awareness and knowledge of government intentions, policies and programmes.
- Empowering individuals and communities, providing convenient access to the government and government services.
- Improving the performance of government organisations and agencies.
- Improving government accountability and transparency.
- Presenting government as a single entity, providing multi-channel access to government and government services.

It was within the framework of the 2004 study that the Swazi 2013-2017 e-Government strategy was drafted. The strategy underlines that e-Government can complement Swaziland's social economic objectives in the following ways:

- All citizens of Swaziland will have the opportunity and the means to participate in the information society and the information economy irrespective of their financial, social or educational circumstances.
- The government will actively promote the creation of the information society and the information economy via the provision of transactional on-line e-/m-Government services and will with intent leverage the e-/m-Government strategy towards meeting national goals such as the MDGs.
- The government will leverage the most appropriate technologies at the right time in order to ensure that the underlying ICT solutions are not only effective but that they present the right return on investment and secure the necessary up-take to address fundamental public policy goals such as the reduction of poverty.
- The government will provide the necessary policy, institutional and regulatory framework that is required for the successful proliferation of e-/m-Government in terms of accessibility and affordability whilst at the same time ensure trust and confidence as well as security.
- The government will leverage the implementation of the e-/m-Government as an important vehicle that will allow Swaziland's economy to diversify and embrace knowledge economy based sectors.
- The government will actively pursue the achievement of digital literacy by all sectors of the population.
- The necessary measures will be taken to build up a critical mass of ICT specialists that will be required to sustain the growth of the information society and the information economy.

It was also deemed that the e-Government strategy would:

- Act as a vehicle for social change by securing co-operation, efficiency and knowledge an efficacy towards the meeting of the MDG and therefore lead to substantive gains in poverty reduction.
- Motivate and facilitate public as well as private institutions in response to standards in education, infrastructure and service provision.
- Facilitate the cohesion of effort between government and the private sector in order to optimise resource management and integration towards sustainable growth.

- Create new economic sectors towards which investment and business ventures can be attracted.
- Support communication, openness and increasing access to knowledge.

According to the Common Wealth Secretariat (2013) the meeting of such social economic objectives for Swaziland through e-Government, however, is constrained by a number challenges. Amongst the most important is the extent to which the internet itself can be leveraged for development. The problems that Swaziland faces with regard the use of the internet are similar to challenges that confront sub-Saharan Africa as a whole. The first of these challenges is that of striking a balance between technology and the need for local development. Like most African countries, Swaziland faces the challenge of bringing internet to the rural areas. The geographical terrain and the fact that a large part of the population live in the rural areas renders it difficult to bring broadband accessibility to every household. Internet access in Africa has been mainly limited to those who could afford expensive fixed-line services, usually limited to major urban centres. Similarly, satellite internet access has remained too costly for the vast majority (Common Wealth Secretariat, 2013).

The e-strategy among other things reiterated that in order to offer an effective, efficient and transparent service that is accountable to the nation, all the 18 government ministries in the country are to embark on e-Government. Though all these government Ministries are in the process of implementing the government's e-government project in order to improve accountability and service delivery to the nation, there is evidence that suggests that all of them lack e-records readiness for the implementation of such a project. Wamukoya & Mutala (2005) argue that in 2002, a study on e-readiness of the Southern African Development Community (SADC) member countries (all of which are members of East and Southern Africa) established that there was a need to develop ICT policies, legislation and regulatory frameworks and capacity building in terms of information infrastructures and human resources (SADC E-readiness Task Force, 2002). The assessment further showed that South Africa, Botswana, Namibia, and Mauritius were some of the countries that had advanced telecommunication infrastructures and were making good progress in implementing e-readiness initiatives at macro level. For example, as far as connectivity readiness was concerned, Mauritius, South Africa, Botswana and Namibia were ranked as having made very good progress, while Angola, Lesotho and Zimbabwe were rated low (SADC E-readiness Task Force, 2002).
The assessment revealed that there were two distinct groups of countries. Group one which included Seychelles, Mauritius, South Africa and Tanzania had more developed ICT infrastructure than the rest, and to the extent that they were participating in the networked world (global electronic environment). However, this group of countries had serious challenges such as shortage of skilled manpower, expensive subscription fees and relatively low PC penetration. On the other hand, group two countries such as Namibia, Botswana, Swaziland, Lesotho, and Zimbabwe showed significant potential to participate in the networked world. The rest of the countries faced serious challenges of poor infrastructure, poor skilled societies, low education levels, high cost of Internet access, and lack of ICT awareness (SADC E-readiness Task Force, 2002).

These challenges affecting Southern African countries that were identified by Wamukoya & Mutala (2005) are still unresolved by the government of Swaziland. Government ministries still suffer from poor infrastructure, poor skilled societies, low education levels, high cost of Internet access, and lack of ICT awareness. Though the ICT Policy was developed but it still has some gaps because it is silent about ICT infrastructure establishment and upgrades, e-records management. It also does not articulate how e-records management and e-government should be aligned.

The Swaziland National Archives (SNA) (2015) argue that lack of investment on ICT infrastructure and the absence of a robust ICT policy that aligns e-records management and e-government is as a result of the use of an obsolete of a Records and Archives Act of 1971. The department feels that this Act no longer address current issues in as far as the management of records and archives is concerned, but it is the one that is used as a manual of operation even if it doesn't have any blue print on e-records management. The Department of Records and Archives Management is the one that is mandated to manage records and to liase with the Ministry of ICT in the implementation of e-government in government ministries in Swaziland. According to the progress report entitled the state of e-records in government ministries in Swaziland, that was released by the Records and Archives department in April 2015, there is evidence that the state of e-records in government ministries in Swaziland is not impressive. The Swaziland National Archives (2015) report, points out that there is no co-ordinated e-records policy or strategy at government level that cuts across and integrates e-records management in all ministries. The absence of such an infrastructure has resulted in ministries engaging consultancy to implement documents management systems individually. According to the report this did not help matters in as far as e-records management is concerned, because it went as far as enabling ministries to have incomplete and incoherent individualised records management systems that are not coordinated. If e-records management is not coordinated in government ministries one becomes interested in exploring in depth how a disintegrated e-records system would support e-government endeavours.

The SNA report further asserts that due to the lack of a coordinated effort in managing e-records, ministries have become comfortable with working in silos as they try to establish and implement their own systems. The report notes that only a few ministries though have tried to implement their local systems while the majority of ministries do not have any systems of e-records management in place. The ministries that have tried are the Ministry of Natural Resources, Department of Geology and Mines, the Ministry of Justice department of Deeds, Judiciary, Correctional Services as well as the Prime Minister's Office. Even if this is the case the report attests that these systems that have been set in these ministries are not working, because they do not have an e-records management support system and trained IT personnel. Due to the lack of functional e-records management systems in government ministries, the SNA 2015 report noted that individual civil servants create e-records and keep them in different formats and backup using external drives. This was noted as a concern because individuals retire or resign without proper hand over take over. In such cases retrieval of such documents stored as individual computers in different external drives tends to be a challenge. Therefore keeping records in such formats is risky. This scenario was also noted by Tsabedze (2011) who accentuates that, each office that created electronic records had its own

way of maintaining, retrieving, and storing electronic records. In some offices, memory sticks were found lying on top of tables without protective lids and storage boxes to minimize their exposure to dust. There was no documentation of records in electronic format, which makes them inaccessible to other officers.

Wamukoya and Mutala (2005) argue that the loss of control of those records and information systems, particularly in electronic environments, is a highly significant global problem. In the electronic age, sound records management systems are critical to the public sector so as to be accountable and transparent as well as to improve services to citizens, especially in the poorer countries. Well-managed e-records systems provide a strong foundation for enhancing accountability, transparency, democratic governance, poverty eradication, elimination of corruption, and efficient use of donor-funded resources (IRMT, 2003). Sound record keeping practices are increasingly being tied to enhanced performance, transparency and accountability in government.

It has however to be taken into cognisance that e-Government cannot be discussed out the context of ICT and e-records management. In that regard, the implementation of any e-government strategy there is need for thorough assessment of the capacity in terms of legislative and policy framework, human resources and ICT infrastructure in order to ascertain if public organisations are e-records ready. The importance of e-records readiness assessment in e-Government is that it helps organisations be aware of the existing gaps, risks, and opportunities in the records management systems in current use. The recommendations coming from the assessment form basis for planning in terms of infrastructure, human resources, legal framework in view of the transition to an e-environment (IRMT, 2004; McLeod, Childs & Heaford, 2006). In that regard, Kalusopa (2011:8), has aptly argued that, “e-records readiness assessments are meant to guide development efforts by providing benchmarks for comparison and gauging progress in organisations in understanding the depth of e-records management.”

STATEMENT OF THE PROBLEM

The increased application of ICTs has offered government’s undoubted platforms to provide accurate and faster communication through the use of e-applications to access government services (Dhinda, Narang & Choudhary, 2013). E-Government is in essence therefore the on-line delivery of public or Government services. Several authorities on records management such as IRMT (2004; 2009) underscore the fact that though e-Government services produce e-records that document government transactions and online activities, their extent of the application records management functionalities remain in contention.

Swaziland passed into law the ICT policy in 2007 that allowed for the establishment of the e-Government portal. This e-portal according to the government of Swaziland (2012) currently allows for the sending of mail between different official departments leading to easy access of information through internet without personnel having to physically move documents. However, the system has had instances where records captured and stored in the e-records system have been lost or could not be accessed by the user community (Times of Swaziland, 2010). This implies that owing to the drive in the implementation of the national e-Government strategy, there has been interest in understanding the extent to which e-records are managed in accordance with the required standards so they are admissible, authentic and

reliable evidence in the administration of the state and general governance of the country.
According to the SNA 2015 Report, records loss is as a result of lack of a proper records management system in government ministries. The report points out that there is no co-ordinated e-records policy or strategy at government level that cuts across and integrates e-records management in all ministries. The absence of such an infrastructure has resulted in ministries engaging consultancy to implement incoherent and uncoordinated individual documents management systems. This scenario was also noted by Tsabedze (2011) who accentuates that, each office that created electronic records in government Ministries in Swaziland had its own way of maintaining, retrieving, and storing electronic records.

Studies elsewhere in Africa by the IRMT (2003), Wamukoya and Mutula (2005); Moloi (2006); Nengomasha (2009) and Kalusopa (2011) all contend and underscore the need for a thorough e-records readiness as key to the implementation of e-records management programmes and ultimately e-Government in the public sector. However, past studies in Swaziland show no research evidence that ascertain the depth of e-records readiness in the context of the current e-Government strategy. Studies that have been documented on records management systems in the country have largely focused on paper-based records management in government ministries, such as one conducted by Tsabedze (2011). Specifically on e-records, the study by Ginindza (2008) attempted to study the general state of e-Government in Swaziland in government ministries and departments. Others such as Maseko (2010) examined the management of audio-visual records at the Swaziland Television Authority (STVA). The SNA 2015 notes that lack of comprehensive studies in Swaziland on e-records management has prejudiced the department and its partners in the Ministry of Information Technology a blue print that can guide them in the implementation of e-records project. This has resulted in government ministries adopting an uncoordinated approach in managing e-records because the ICT Policy and e-government 2013-2017 strategy are silent about how e-records management is supposed to be implemented. The Records and Archives Act of 1971 is also obsolete.

Though the 2013-2017 Swazi e-Government strategy emphasises that it is a vehicle for national economic and social development by ensuring effectiveness, efficiency, transparency and accountability on the part of the government, but it does not highlight whether in government ministries in Swaziland are e-records ready for the purposes of use in the implementation of e-government. This makes it problematic to access e-records in rural areas or any other place where there is no technology and electricity. Sheridan and Riley's (2006) argue that trying to introduce e-Government when there is no e-records readiness is as good as wasting money and other valuable resources.

METHODOLOGY

This study investigated the e-records readiness in the context of e- government strategy in Swaziland. The specific objectives were to establish the national legal and policy framework governing management of electronic records; ascertain the level of compliance to policies, standards, tools, procedures and responsibilities for e-records management; establish the e-records management products and technologies existing in the government ministries in Swaziland; examine resource

capacity and training for e-records management; find out if there is internal awareness of link of e-record management with e-Government strategy and lastly establish the depth of government wide digital preservation strategy in the government ministries in Swaziland.
The E-records Readiness tool was adapted and used as the analytical framework for this study. This tool is designed to assist organizations to benchmark themselves and to determine where they stand in respect to the management of electronic records (IRMT, 2004).
The study used the quantitative paradigm to a greater extent, exploiting the survey approach that utilized questionnaires as data collection instruments. The quantitative paradigm was however complemented by a qualitative paradigm which utilized observation and interview strategies. Using both quantitative and qualitative paradigms made it possible to triangulate and validate findings. A survey design involving all the 17 Government Ministries was used. The target population comprised of Director of Swaziland National Archives, Director of the Department of Computer Services, records officers and action officers. In determining the sample sizes for registry staff, Israel formula for determining sample sizes was used (Israel 1992).

$$n = \frac{N}{1+N(e)^2}$$

Where n= desired sample size
N= Population size
e= Margin of error

The values of e=±10% and 90% confidence level were adopted. Consequently, using the Israel formula, the following samples were generated for records/registry staff and Action Officers:

Sample for registry staff

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{40}{1+498(0.10)^2}$$

= 83 registry officers

The records/registry staff was purposely selected (to ensure staff at top, middle and lower management levels was included in the sample). From each management level, random sampling was used. The Ministries organizational structure which lists staff positions was used as the sampling frame.
The Action Officers like their records/registry counterparts were purposively selected taking care to include all three management levels followed by random selection within each management level using the Ministries organizational structure as the sampling frame. This resulted in 126 Action Officers. The distribution of the Action Officers was as follows: 31 top level management, 31 middle level management, and 30 from lower level management. The Ministries and sampled staff that were included in the study are reflected in Table 1.

Table 1: Government Ministries and staff included in the study

Unit	Records/registry staff	Action Officers	Directors
Swaziland National Archives			1
Department of Computer Services			1
Department of E- Government			1
Cabinet office	4	6	
Deputy Prime minister office	4	6	
Ministry of Justice	4	6	
Ministry of Labor and Social Welfare	4	6	
Ministry of Public Service	4	6	
Ministry of Tourism	4	6	
Ministry of Works & Transport	4	6	
Ministry Natural Resources	4	6	
Ministry of Education	4	6	
Ministry of Finance	4	6	
Ministry of Housing and Urban Development	4	6	
Ministry of Home Affairs	4	6	
Ministry of Sports, Culture and Youth Affairs	4	6	
Ministry of Health	4	6	
Ministry of Information, Communications and Technology	4	6	
Ministry of Economic Planning	4	6	
Ministry of Commerce	4	6	
Ministry of Tinkhundla	4	6	
Ministry of Foreign Affairs	4	6	
Ministry of Agriculture	4	6	
Total	**N= 83**	**N=126**	**N= 3**

Data collection and validity/reliability

A questionnaire, structured interview and follow up observations were used to collect data from Director of the SNA, the Director of the Department of Computer Services, Director of the Department of E- Government, Action officers and Records/registry staff. Three sets of structured interviews and two sets of questionnaires were used to collect data. The first interview was conducted with the Director of the SNA who is responsible for designing of policies, procedures, guidelines and give professional guidance to the all government ministries on issues of records management. The second interview was conducted with the Director of the department of Computer Services who is responsible for designing of policies, procedures, guidelines and gives professional guidance to the government ministries on issues of ICT and infrastructure and lastly it was conducted with the Director of Department of e-Government who is responsible for driving e- Government strategy. The interviews

were designed in such a way that they addressed the components of e-records readiness, according to the E-Records Readiness Tool. The three Directors were the key stakeholders in the EDRMS project. The first questionnaire was distributed to the Action Officers. They were chosen because they are creators and users of the e-records within government ministries and can shed information on training, e-records awareness and awareness of EDRMS project. The second questionnaire was distributed to the registry staff. They were selected because of their responsibility for records management in government ministries and also to understand the functions of the various Departments of the Ministries; the nature of the e-records each department creates, receives and uses; the frequency of the use of e-records; and the status of e-records management in the various departments of the Ministries. The administration of the questionnaires and interviews was followed by physical observation of how e-records are created, managed, ICT infrastructure for e-records and the ICT equipment.

To ensure validity and reliability of instruments, the survey questionnaire and structured interviews was piloted to Ministry of Public Service before being administered to the main sample after necessary adjustment such as rephrasing, reordering, deleting and introducing new questions.

FINDINGS AND DISCUSSIONS

One hundred and twenty six questionnaires were hand-delivered to Action Officers, 83 to Records/registry staff and structured interview were conducted with Director of Department of Computer services, Director of Department of e- Government and Director of SNA. Most of the Action Officers 90(75%) and 70(83%) of registry staff returned their questionnaires. The responses obtained from questionnaires and information recorded from observation were analysed and presented under the following broad subheadings.

NATIONAL LEGAL AND POLICY FRAMEWORK GOVERNING MANAGEMENT OF ELECTRONIC RECORDS

The survey sought to find the national legal and policy framework governing management of electronic records in government ministries in Swaziland in context of e-Government.

The study revealed that 123 (75%) of the respondents are unaware of SNA Act no.5 of 1971 as a regulatory tool for records in the different ministries, while 40 (25%) are aware of the SNA Act which is inclusive of records officers. Although 40 (25%) of respondents aware of the national legislation, it is quite disturbing to note that there exists no national records management Act to guide the effective management of e-records. This is despite the fact that the National Archives Act No.5 of 1971 focuses more on the archival stages of the Records Lifecycle, (Swaziland Government, 1971). The study also reveal that there is a National Archives and Records Management Bill of 2010, which captures the total life cycle management of all records regardless of media and format which has to be passed into law. The glaring lack of suitable legislative framework, the creation, maintenance, and long-term preservation of and access to e-records is left to chance. Lack of national legal framework governing management of electronic records affect their value in terms of management (access) and preservation negatively (Johare, 2001).

COMPLIANCE TO POLICIES, STANDARDS, TOOLS, PROCEDURES AND RESPONSIBILITIES FOR E-RECORDS MANAGEMENT

Compliance to Policies

It is anticipated that the records management policy would set out a framework within which public records of the Kingdom of Swaziland could be managed in accordance with statutory requirements and international standards. The study sought to find out whether the ministries had policies to guide the management of e-records. The findings of the study showed that 88 (53%) respondents acknowledged the non-existence of policies for managing e-records while 23 (14%) respondent acknowledged the existence of policies but did not know the major areas the policy covered. Some 52 (32%) respondents were not sure whether a policy for managing e-records existed. The study confirmed that the records managing policy was existent but it was not fully addressing the management of e-records. The study established that the Ministry of ICT had developed an ICT Policy and e- Government strategy, however it did not address electronic record keeping issues. The e-Government strategy emphasises that it is a vehicle for national economic and social development by ensuring effectiveness, efficiency, transparency and accountability on the part of the government, but it does not highlight whether in government ministries in Swaziland are e-records ready for the purposes of use in the implementation of e-government. On the other hand the policy addresses issues such as, the ICT infrastructure policy, policy compliance and sustainability and procurement, maintenance and disposal of ICT infrastructure and systems. To enhance the management of e-records in the Government Ministries the ICT policy and the e- Government strategy should include strategies for the creation, receipt, use and maintenance, storage, security and integrity and disposal of e-records. Such strategies will guide Records officers and Action officers in the proper management of e-records from creation to disposition. Without a strategy or policy in place it becomes difficult for the Ministries to manage records in an electronic environment.

Compliance to standards

It is important to adopt a national minimum standard so that government systems are interoperable and share a common baseline for e-records functionality (IRMT, 2004). In an interview with the Director of Swaziland National Archives the study revealed that none of the following international recognized standards and functional requirements standards such as Module 3, Guidelines and Functional Requirements for Records in Business Systems, ICA: Functional Specifications. Business Information Systems Software, National Archives of Australia; MoReq 2, Model Requirements Specification for the Management of Electronic Records; ISO 15489: 2001: Information and Documentation – Records Management; and the E-Records Readiness Tool, International Records Management Trust. Though, ISO 15489:2001 standards have been used as a benchmark for developing the Records Management Procedure Manual produced by Swaziland National Archives that is used by the different Ministries. Such standards and functional requirements are essential to ensure that government ICT systems consistently create, capture, organise, store, search, retrieve and preserve e-records and to protect the integrity and trustworthiness of those e-records (IRMT, 2004).

Compliance to procedures and tools

The study sought to ascertain the level of compliance to procedures and tools. The study reveals that there are documented records management procedures manual developed by Swaziland National Archives which are being used by the ministries.

Though the records management procedure manual is an operational tool emanating from the Swaziland National Archives Act no.5 of 1971 it does not cater for the management of e-records and related systems to manage records in electronic format. The legislation has also no specific provision for the management of e-records and with the increased creation of e- records within the ministries. The greatest weakness of the Swaziland National Archives Act no. 5 of 1971 most of its sections deal with archives conservation and preservation which obviously needs amended in order to address e- records management requirements. Nevertheless, the study has revealed that 18 (25.7%) records officers that compliance to the procedures manual is 'Above average' while 29 (41.4%) said it is below average. This is shown below on Table 2 below.

Table 2: Compliance to records management procedure and tools [N=70] (Records officers)

Response	Frequency	Percent
Above average	18	25.7
Average	23	32.8
Below Average	29	41.4
Total	**70**	**100**

Records appraisal

Records appraisal is the act of making verdicts on what records are to be created and how long records need to be kept to meet the ministries and department's responsibility. NSW State Records Office (1998) defines records appraisal as a process of evaluating government's business activities to determine which records need to be created and captured into the record management systems. The study revealed that the ministries did not have a records appraisal programme. It would seem like records in the ministries were not appraised frequently especially when there was no storage space in the registries. The Director of SNA revealed that records appraisal visit to the ministries and department was not conducted on a regular basis, due to factors such as inadequate personnel strength. This contravened with ISO 15489:2001 which recommends that organisations should appraisal their records in a systematic and routine basis in the course of normal business activity (ISO, 2001:11).

Classification

The study examined classification of e-records. The current study findings showed that 120 (74%) of the respondents had a written classification scheme, while 43 (26 %) did not. These findings were contrary to what the researcher discovered through the observation technique. Although the majority of ministries and department had written classification schemes, they were not fully documented and updated. The researcher observed that those respondents who did not use the classification scheme to file their records often relied on their memory to remember each and

every file with limited success. They noted that they were not applying the classification scheme because they were never trained on how to use it. The researcher also observed that this created a problem of accessing information contained in records especially, when the incumbents were away from office. Some respondents 15 (9%) shared the view that because of none use of a classification system decisions could not be taken because of missing files. In addition, this resulted in improper referencing of mail. The study also revealed that only 36 (40%) of action officers referenced their correspondence perhaps due to limited use of any classification system and lack of any procedures for maintenance and use of the correspondence files. The records management principles as suggested by ISO 15489 -1 are not applicable to the ministries. The ministries are not complying with basic principles of records keeping such as filing and classification of records. The classification scheme for the ministries is not something that can be used by some officers and others deciding otherwise. Nengomasha (2009:217) stressed that when records are moved from one officer to another, as single entities, without being in files, related records are kept apart. Keeping records together, and in the way, in which they were created, respects one of the basic principles of records management, respect des fonds.

Responsibilities for records management

The study sought to establish if officers knew their responsibilities in the management of records. Questions were raised to action officers as creators and users of records in the ministries to establish their responsibilities for managing records in the ministries. Specifically the study sought to find out if there are there any guidelines, which encourage the creation of e-records needed for business within the ministries. The study shows that 29 (23.7%) of respondents were aware of guidelines which used by the ministries to guide them on creation of e-records and 61 (67.7%) were not aware. When the researcher was collecting the questionnaires from the action officers some of the action officers felt that they don't have anything to do with records, the researcher was referred to the registry. The study also revealed that the ministries do not have adequate staff to manage e-records and it is not clear which office that champions or guides this. It is no wonder that with such a set-up, the action officers are not sure where the day to day responsibility for e-records management lies.

The study sought to find out question "Which Ministry or Department has overall responsibility for the management of records including electronic records in the Ministries?" All the respondents 163 (100%) were fully aware that the Swaziland National Archives has the responsibility for designing of policies, procedures, guidelines and give professional guidance to the all Government Ministries and Department in the country on issues of Records Management. SNA serve as watchdogs over the creation, maintenance, use, and disposal of records created by government ministries to facilitate efficient administration and the transfer of records of enduring value to the archives repositories where they are preserved for present and future generations (Ngulube, 2004:147).

ELECTRONIC RECORDS MANAGEMENT PRODUCTS AND TECHNOLOGIES

The study sought to find out technologies for electronic records management available in the ministries. Respondents were presented with a list of electronic technologies and asked to tick against the ones that were available in their offices. Table 3 shows that 111 (69.3%) indicated that they have computers in their offices;

140 (87.5%) indicated that they have mobile phones; 10 (6.25%) digital camera and 2 (1.25%) EDRMS.

Table 3: Technologies for electronic records management (N160)

Response	Frequency	Percentage
Computers	111	69.3
Printer, scanners, photocopiers, laminators	70	43.75
CD, CD-ROM, DVD, VCD, Flash Drive	109	68
Electronic document records management system (EDRMS)	2	1.25
Internet connectivity	98	61.25
Online transactional processing systems (OLTPS)	0	0
Mobile phones	140	87.5
Decision support systems (DSS)	0	0
Digital camera	10	6.25
Cassette recorder and tapes	35	21.9

Although the findings shows that most of the technologies for electronic records creation were available in the ministries but none of the ministries had Decision Support System (DSS) and Online Transactional Processing System (OLTPS). Bantin (2002) has identify these systems as the most suitable systems for processing, reducing clerical costs, and updating documents

Strategies used to create and receive e-records

The respondents were also asked to indicate strategies they are using to create and receive e-records in their officers. The question was directed to registry staff and action officers whose responsibilities include creation and receipt, use, maintenance and disposal of e-records as part of their day to day business activity in the ministries. The study releveled that 151 (94%) respondents made printed copies of the e-records they created while 151 (94%) made printed copies of the official records they received. One hundred and eleven (69.3%) create and save on computer files while 51(32%) receive and save e- records on the computer hard disk. One hundred and nine (68%) of the respondents are creating and save on storage devices such as CD and USB and while 12 (9%) receive and store e- records on storage devices. The findings indicate that there is no standardised procedure put in place for the effective management of e-records across Ministries. This can be attributed to the general practice that most e-records (including e-mails) were created and then filed as paper-based records. Such a situation is not good especially if the e-records will exist as corporate memory of those ministries. The study also observed that each office that created electronic records had its own way of maintaining, retrieving, and storing electronic records. In some offices, memory sticks were found lying on top of tables without protective lids to minimize their exposure to dust.

The researchers also observe that majority of respondents made printed copies of records they created and received. This could be attributed to the fact that despite computerization of some of the ministries and departments, those ministries had not done away with the use of paper records as a means of transacting business.

Respondents maintained soft copies of the e-records they created and received. Once a printed copy was made of the e-record, the soft copy was no longer considered important to the business transaction that led to its creation or receipt. The strategies used to create and receive official e-records by the ministries were individual measures that were undertaken by the respondents without necessarily involving their ministries or SNA as serve as a watchdog over the creation, maintenance, use, and disposal of records created by government ministries. It was apparent therefore, that the creation and receipt of e-records did not adhere to any records management principles or policy.

A follow up interview with the Director of SNA and Director Computer Services it has been revealed that SNA is piloting an EDRM solution to ministry of ICT and the Cabinet office to effectively manage and preserve government records as corporate memory for future generations. The main aim is to bring the uniformity and standardization of electronic records systems and management practice across government Ministries and Departments. The study observed that although there is a system that is being piloted within the ministry of ICT and Cabinet office some respondents kept printed copies of e-records in desk drawers and cabinets without necessarily filing the records. Paper records had continued to clog the office space thus, resulting in the in-accessibility of records whenever they were required for reference. Classification, indexing and tracking of e-records was non-existent within the ministries.

Strategies used to access E-records

ISO 15489-1(2001:10) states that records systems should include and apply controls on access to ensure that the integrity of the records is not compromised. The study sought to establish how officers accessed information contained in e-records. The results revealed that 151 (94%) respondents made printed copies of e-records and filed copies manually in folders to facilitate access while 109 (68%) respondents used storage devices such as USB sticks and CDs as a strategy to ensure that whenever the information was required it was made available in the Ministries and Departments. Respondents who used backups were 65 (40.6%) while 98 (61.25%) respondents used electronic mail to distribute e-records. The researchers also established that some respondents were using personal folders to store e-records did so as a personal initiative and gave the folders names that were only known to them. The study also noted that there were no procedures in place to provide guidance on the management of computer files on how it has to be done to prevent their misuse and without the assistance of records creators or the persons who received the e-record, it was impossible to access or retrieve the information. Officers were at times having some difficulties to retrieve the e- records they stored on computer folders because they had forgotten the file name(s) and the location of the folder(s). The study also observed that some staff did not seem to be aware of the requirements for naming and storing e- records to aid retrieval.

The study also sought to determine the safety security and confidentiality of records within the government ministries, the researchers look at security from virus infections, back-up practices and access level and permission to paper and e-records including computer files. The study revealed that security system that administers checks and controls for both paper and e-records did not exist in the ministries. Some action officers rarely used their passwords and those who did,

failed to regularly change their passwords which means security was lacking. This had in turn, led to unlawful access to e-records thus, exposing the data to hacking. Viruses were noted to be a security risk to e- records since some of the computers were not having an anti-virus. Some respondents mentioned that there are many instances where they have lost data due to attacks by viruses and the recovering of this data proved impossible. The researchers have discovered the poor safety and security measures as a major risk to government corporate memory.

RESOURCE CAPACITY AND TRAINING FOR E-RECORDS MANAGEMENT STAFF

Although institutions may have established records and archives policies, tools and procedures, these are bound to be ineffective if they not are supported by qualified records management officers and archives management personnel, adequate and regular power and financial support to implement and maintain them (IRMT,2004). ISO 15489-1:2001 also suggested that institutions should establish an ongoing records management training programme for capacity building. The standard also recommended that institutions should strive to have enough capacity in terms of numbers, skills and competences to perform records management duties at different levels. To find out the extent to which government Ministries were ready for e-records management.

Storage space for RMU

Records storage and maintenance plays a key role in ensuring that organisation records remain retrievable, accessible and usable for as long as they are required for business transactions and / or for research, evidential and historical purpose (Maseh, 2015). When respondents (Registry officers) were asked if the storage space for the RMU adequate**,** 55 (79 %) said No, while 15 (21%) said yes. The records storage functioned more as a dumping ground for records. No procedures were followed when records were deposited into the records storage. It was observed that in the records storage, records were competing for space with other materials such as old computers, chairs, vacuum cleaners, fans and heaters. Files in these records storage were neither well-arranged nor documented, causing problems when action officers wanted to retrieve records. Most of the time, records in the records storage were forgotten and remembered only when there was a need to extract information from them.

Action officers were asked where they kept the records that were created. Most of the action officers 41 (45.6 %) were keeping the records in their offices and 49 (54.4 %) were keeping the records in registries. The findings also reveal that most of the action officers preferred to keep their records in their office cabinets and requests for records in the registry are very rare. The action officers noted that they were not using the registries because files got lost in the registries; consequently, it was safer to keep current records in their offices and take those that they did not need to the registries. Perhaps this is because they found it much easier and faster to access them in their offices. The action officers frequently transferred records to the registries when they no longer used them, effectively using the registry as a storeroom, when in fact a registry is the place where files and other records are processed, kept and retrieved.

Budget allocation to records management unit

Consequences of budgetary constraints can also be witnessed when it comes to matters such as capacity building of the registry staff, purchase of specialized

storage equipment, payment of registry officers' salaries and other office activities (Tafor, 2001: 40). Therefore if records management unit have to succeed in their mission, budgetary constraints would have to be surmounted. The registry staffs were asked if they were aware of the budget allocation for the records management unit in their ministries. The study revealed that 60 (86 %) were not aware of any budget allocated specifically for records management unit and 10 (14%) were aware. Some respondents mentioned that, although they were told that there was budget allocated for registries, it was difficult to get access to it, even if they requested it. Those who are in management had a bad attitude towards the registries. They perceived them as having little importance and manned by an unqualified staff who did not know anything. The budget ended up diverted to other administrative functions such as human resource management and IT. Other ministries indicated that registry activities are not reflected in the ministry budget therefore records management activities are treated as miscellaneous. Registry staff also complains that they do not attend records management training and they are always told that there is shortage of funds for capacity building yet the other departments are always attending workshops and conferences. The Director of SNA was of the opinion that finances may not be a real problem but prioritisation was a major problem. She also noted there is a lack of commitment from the senior management to promote records management initiatives from the ministries.

Competencies and Skills

According to the IRMT E Records Readiness Tool, relevant skills are required for effective implementation of records management policies in any given organisation (IRMT, 2004:9). Wamukoya and Mutula (2005) emphasised that relevant competencies and skills in records management profession are essential for institutions to demonstrate transparency, accountability and a commitment to root out corruption and malpractice. The study revealed that there is shortage of skill to efficiently manage of records, 50 (55.5 %) rated them average, 6 (6.66%) above average, 30 (33.33%) below average while 4 (4.44%) said they did not know. The majority of action officers rated the competency level of records management staff as being average. The lack of capacity on records management in the ministries is clearly confirmed by the finding that most of those managing records in the ministries 50 (71%) did not undertake any education and training in records management in the ministries; only 25 (29%) indicated they had done so. The study established that a certificate was cited as the only highest level of archives and records management professional education received by registry staff; 4(6 %) had received a diploma in archives and records management. The study also revealed that lack of capacity is also caused by the departure of experienced professional staff that looks for greener pastures from private sector. Some of the registry staff has applied variation to other profession such as human resource since the remuneration is better than records management and leaving behind inexperienced graduates.

These findings suggest that there is a huge gap in terms of registry staff numbers in the ministries and competence on records management. Therefore ministries must make sure that empowering records management policies are put in place and registry personnel from the ministries are trained. The IRMT E-records Readiness Tool component ten (10) suggests that records management personnel has to be trained to manage registries effectively. Shepherd & Yeo (2003) also noted that it is imperative for organisations to train its registry staff and also try to recruit well trained records management staff.

INTERNAL AWARENESS OF LINK OF E-RECORD MANAGEMENT WITH E-GOVERNMENT STRATEGY

The survey further sought to examine the extent to how often the action officers were afforded records management sensitization. The assessment shows that the majority 56% indicated that it was never done. However, 7% indicated that sometimes they are being sensitised. An interview with the Director of SNA it was confirmed that sensitisation is rarely done and she cited lack of human resources as a major obstacle. This finding also intertwined with the finding on 'level of compliance to procedures', where it was establish that there is below average compliance to records management procedures. These findings show that the below average level of compliance to policies and procedures emanates from lack of effort to conduct records management awareness campaigns to the ministries by SNA. The finding shows that the level of awareness about records management programme seemed low at the time of the study.

Status of E-Government in the government ministries

Sheridan and Riley's (2006) argue that trying to introduce e-government when there is no e-records readiness is as good as wasting money and other valuable resources. Nengomasha (2009) accentuates that when the government embarks on e-government there tend to be an increase in the use of electronic records as well as an improvement in government's dependence on electronic information.

The main assumption of the current study was that Swaziland government ministries have already role out an e-government, which then tend to be an increase of electronic records creation within the ministries and department. Therefore the study also investigated the status of e-government in the ministries. The study established that the ministries were at the initial phase as regards e-government implementation. The current study also established that Swaziland government ministries were just starting to be prepared for the implementation of e-government services by way of putting in place the necessary infrastructure and operating administrative functions of the ministries electronically.

The majority of the action officers were keeping their records in their offices whose existence no one else knows about. No procedures were followed when action officers were filling documents which include includes electronic records where the use of folders and naming conventions is not systematic. The electronic records were neither well-arranged nor documented, causing problems when action officers wanted to retrieve records. The findings indicate that there is no standardised procedure put in place for the effective management of e-records across the ministries. This can be attributed to the general practice that most e-records (including e-mails) were created and then filed as paper-based records. Such a situation is not good especially if the e-records will exist as corporate memory of those ministries. The study also observed that each office that created electronic records had its own way of maintaining, retrieving, and storing electronic records.

THE DEPTH OF GOVERNMENT WIDE DIGITAL PRESERVATION STRATEGY

The study sought to establish the depth of government wide digital preservation. The current study established that Swaziland government ministries did not have a digital preservation strategy. Moreover, the officers seemed not to be aware of the role that a preservation strategy would play in the ministries. Majority of the respondents 120 (75%) indicated that such a policy was not in existence, 9 (6%) felt that there was no need of the policy and 34 (19%) were not aware of the existence of the policies. The IRMT (2009) noted that a clearly documented preservation strategy is crucial for preservation programme. If the preservation strategy were to be developed it would help to address the following: it would provide a statement of intentions that support preserving of the records; serve as an action plan of a preservation manager; show to officers that preserving records is vital to the organisation; used to request funds from other organisations; and lastly would aid as a training tool for both the registry staff and action officers. Akussah (2011) stressed that institutions should formulate records preservation strategies in order to support the preservation of records and other information materials to ensure their continued access.

CONCLUSION AND RECOMMENDATIONS

The study findings have revealed that the management of electronic records falls below expected standards as evidenced by the weak legislative and policy framework, glaring lack of Records Management skills and training by staff primarily involved in the creation and maintenance of Government e-records. It is therefore imperative that all Government Ministries should make a concerted effort to ensure that e-records generated in the conduct of official business are properly created, maintained and preserved to exist as a corporate memory for generations to come.

The key findings of this study noted that the obtaining Archives Act of 1971 did not fully provide for the effective management of e-records in Swaziland Government Ministries and Departments. The lack of organizational and legal framework for electronic records undermines their value in terms of management, access and preservation, (Johare, 2001). The State of Montana (2002) and Hounsome (2001) further noted the lack of records management policies and procedures culminate to poor records management processes. As a result, the current study has noted that there is an urgent need to fast track the amendment and passing into law of the proposed National Archives and Records Management Bill of 2010, which captures the total Life Cycle management of all records regardless of media and format.

Furthermore, this study recommends that a National Records Management Policy be formulated to regulate and streamline the effective management of e-records so that they can be survive as corporate memory of Government transactions just as paper based records have been treated all along. As noted by Hounsome (2001), and the State of Montana (2002) that the lack of records management policies and procedures culminate to poor records management processes, it is therefore imperative for the Swaziland Government to come up with a strong national records management policy.

Owing to the disjointed, haphazard and poor nature of e-records management practices across Government Ministries, the current study recommends that the

Swaziland Government should consider the rollout of a Government wide records management e-records management system that will effectively manage and preserve these records as corporate memory for future generations. Such a system, like Malaysia's E-SPARK Project, would aim to bring the uniformity and standardization of electronic records systems and management practice across Government Ministries and Departments (Shafie, 2006).

The findings of this study noted that records officers are lacking basic Records Management training. As such it is no wonder that there was no systematic creation, classification, maintenance, and preservation of this vital national information resource in the form of e-records. Such a situation would expose government to costly lawsuits, especially if the records were to be deleted and get lost forever. This study therefore recommends that all Government records officers should undertake basic Records Management training so that they can appreciate the need to effectively manage Government e-records as a corporate resource. This is especially because most secretaries are primary creators of e-records, hence the need to equip them with records management know how, such as filing, classification skills necessary to effectively manage the e-records.

On the same vein, it should be noted that Records and Archives Management is a specialized and professional management function. Employing qualified personnel to carry out this responsibility is a must if Government e-records are to be effectively managed just as their paper based counterparts. This entails embracing the recommendation of the acquisition of new skills and relevant competencies to manage e-records across their lifecycle by all Government registry staff.

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