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Electronic Government Initiatives in the Public Service of Namibia

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Abstract

The paper highlights e-government initiatives in the public service of Namibia based on a study that was carried from February to August 2007 employing literature review, observation and interviews with 85 respondents that included desk officers, records keeping staff and information technology (IT) personnel in seven ministries, two regional councils and two local authorities. The study established that Namibia is still at the initial phase of her e-government implementation strategy, i.e., publication of information level of e-maturity. The problems associated with failure of e-government in African and other developing countries are discussed in the Namibia context. These problems include: inadequate data systems; underdeveloped legislative, institutional and human capacity including leadership; inadequate technological infrastructure; and poor records management. The paper provides a number of recommendations aimed at ensuring that the Namibian Public Service captures details of transactions, takes account of privacy, confidentiality and security issues, and provides timely, reliable and useful information.

Keywords

Electronic government, governance, electronic records, Namibia

Introduction

There are many definitions of e-government, but all reflect the same thing; that is, it is about government employing information and communication technologies (ICT) to democratise access to information and enhance service delivery to its customers which include citizens and businesses. Fang (2002) cited in Rose, (2004) defines e-government as 'a way for governments to use the most innovative ICT, particularly web based Internet applications, to provide citizens and businesses with more convenient access to government information and services and to provide greater opportunities to participate in democratic situations and processes'. This is not far from the definitions such as 'the online exchange of government information with, and the delivery of services to, citizens, businesses and other government agencies' (International Organization of Supreme Audit Institutions (INTOSAI) Standing Committee on Information Technology, 2005). Some countries use a wide definition of e-government to include all electronic delivery of services including telephone, fixed lines or mobile in addition to the use of the Internet (INTOSAI, 2005).

Namibia's electronic-governance (e-governance) policy (Republic of Namibia, Office of the Prime Minister (OPM), 2005a) refers to e-governance as 'the use of information and communication technologies in public administrations, combined with organisational change and new skills, in order to improve public and democratic processes and strengthen support to public policies'. Namibia's e-governance implementation strategy is in four phases: Phase 1, information; Phase 2, government interaction with the public; Phase 3, entire transactions online; and Phase 4, single electronic point of contact for all government services (Republic of Namibia, OPM, 2005). These phases correspond with the following four levels of e-Maturity defined by INTOSAI Standing Committee on IT Audit as (1) Publication - of information only; (2) Passive interaction – transactions can be initiated but cannot be completed electronically (3) Active interaction – citizens and government are able to complete basic transactions electronically; (4) Seamless e-government – government and citizens obtain optimal value from their electronic interaction. (INTOSAI, 2005).

E-government is growing in Africa and countries are at different stages in its implementation. Whereas developed countries have sophisticated integrated e-government programmes, most developing countries are not yet fully computerised. The majority is still rolling out e-government strategies and the rest already supplying e-service to the extent of publication of information (INTOSAI, 2005). Most African countries are said to have undertaken only a limited number of e-government projects and most e-government projects have been reported to fail in some way (Heeks, 2002). Several writers have discussed possible reasons for failure of e-government implementation in Africa.

This study discusses the challenges of e-government in Namibia's context highlighting possible factors which stand in the way of successful implementation of e-government. The paper also highlights the records management implications of these challenges. The study attempted to assess the extent to which the challenges are applicable to Namibia's Public Service, whose records management situation has been described as weak by the participants at a workshop on Evidence Based Governance (2003). The participants that resolved that although the Namibia Government had initiated a programme to promote e-government, the full benefits of e-government would only be realised when improvements have been made in the management of recorded information throughout government. The findings of the study, as summarised in this paper, will be useful to policy makers and planners in the design of e-government projects, particularly to minimise risk and ensure that the public service gets the most benefit from investment in e-government initiatives. The records management dimension of this paper also contributes to knowledge on the subject of e-government.

Literature Review

Namibia's ICT Landscape

Information and information and communications technologies (ICT) are pivotal to e-government. This is why governments are looking at ways to distribute information to their customers i.e. the citizens and businesses. The Africa Information Society Initiative (AISI), an action framework to build Africa's information and telecommunications infrastructure has a vision for an information society. However, the various specific objective of AISI have turned out to be more idealistic than a reality considering the various stages in which African countries are currently regarding ICT development. However Namibia has set itself more realistic time frame and goals with its Vision 2030 (Republic of Namibia, OPM, 2004) and subsequent National Development Plans. Hesselmark and Miller (2002) carried out a survey on ICT in Namibia and concluded that there 'has been a shift towards a more developed information society'. The following give a brief overview of Namibia's ICT infrastructure indicating Namibia's preparedness for e-governance.

Connectivity and Access

The United Nations (UN) categorises Namibia as a lower-middle-income country and when ranked with other countries in this category, Namibia is lagging behind in terms of mobile and fixes lines coverage (Stork, 2005). Vast lands with low population densities in Namibia, which covers 825,418 square kilometers with a population of only 1,830,330 (according to 2001 population

census), are an obstacle to telephone connectivity (Stork and Deen-Swarray, 2006).

Telecom Namibia, which is government owned, is the sole provider of fixed lines. The number of fixed lines has increased, from 57,000 at independence in 1990 (Hesselmark and Miller, 2002) to about 140,000 in 2006 (Stork and Deen-Swarray, 2006). Namibia's teledensity for fixed lines increased from 0.96% in 1998 (Stork and Aochamub, 2003) to 6.96% in 2006 (Stork and Deen-Swarray, 2006). Payphones have been installed across the country, particularly in areas with previously low telephone coverage. There are about 5,000 payphones, which translate into 2.8 public phones per 1000 people (Stork and Aochamub, 2003). In 2007, Telecom Namibia introduced fixed-wireless services which are cheaper than any mobile products in South Africa, Botswana or Namibia (Stork and Deen-Swarray, 2007). Fixed wireless services refer to mobile technologies that do not allow roaming between cells. Although constrained by mobility, for Namibia it provides users, most of whom rarely leave town hence always within the cell, with what they want at affordable cost (Stork and Deen-Swarray, 2007).

There are two mobile service providers, MTC and Leo (formerly Cell One). They are fairly new in the market having started operating in 2007. In 2006, MTC had about 516,000 mobile subscribers with a mobile teledensity of 25.66% (Stork and Deen-Swarray, 2006). In 2007, Cell One had around 70,000 subscribers (Haarhoff, 2007). The 2003/2004 Household Income and Expenditure Survey found that 33.5% of Namibians owned telephones or cell phones, while a further 33% had access to one (Republic of Namibia, Ministry of Education, 2007).

Internet Services

Namibia claims to have the third highest Internet usage in Africa (Republic of Namibia, OPM, 2005b). There were roughly 14,000 Internet users using fixed lines for Internet access and 8000 users accessing the Internet via leased lines in 2002 (Stork and Aochamus, 2003). Access to the Internet is bound to improve if plans for a multi-purpose community centre for each of the thirteen regions materialise. In his address at an e-governance awareness workshop in 2005, the then Permanent Secretary in the Ministry of Information and Broadcasting, Mocks Shivute, informed participants that the 'Government had made provision for the establishment of one multi-purpose community centre in the 13 regions to give ordinary people access to information and to introduce them to the latest technologies' (Shivute, 2005). He also acknowledged that the rural communities are poorly serviced in terms of fixed and mobile telephone services and Internet connectivity. However, there are plans to expand access to ICT to rural areas through a project Government is involved in that will create a national Internet gateway (Gurirab, 2005).

Training and Human Resources in ICT Sector

Namibia's ICT sector suffers from lack of trained and skilled ICT human resources (Asino, 2005; Republic of Namibia, OPM, 2004). Most organisations therefore, import these skills from other countries. Table 1 illustrates the understaffing in the public service and reflects the situation in the country. These are 2005 figures and some of the zero per cent figures have changed. For example, this study established that there are IT officers in the Ministries of Agriculture, Water and Forestry; and Regional, Local Government and National Housing; however, the situation in the public service overall has not changed much. This is confirmed by the *OPM Annual Report* 2007/2008 which states that "the Office continues to struggle to get qualified ICT assistance with the implementation of the e-Governance Policy…" (Republic of Namibia, OPM, 2009).

The shortage of staff becomes even more pronounced when Namibia is compared with other countries. In 2005, the Namibian Communications Commission (NCC) had only seven employees, compared to sixty-seven at Botswana Telecommunications Authority and three hundred and twenty one at the Independent Communications Authority of South Africa (Stork, 2005).

There are three main tertiary institutions in Namibia - University of Namibia, Polytechnic of Namibia and International University of Management. In addition to these, there are seven vocational training centres, four colleges of education, three agricultural colleges and one police training college.

Table 1: Understaffing in the ICT Sector of the Public Service of Namibia

Institution	Understaffing (% indicatespositions filled)
Office of the Prime minister	50%
Office of Attorney General	0%
National Planning Commission	88%
Ministry of Agriculture, Water and Forestry	0%
Ministry of Regional, Local Government and National Housing	0%
Ministry of Trade and Industry	0%
Ministry of Mines and Energy	33%
Electoral Commission of Namibia	0%

Source: Asino, ([2005), p. 201)

There are also parastatals such as Namibia College of Open Learning and private colleges like Damelin and the Higher Education Institute, which offer a variety of programmes (Hesselmark and Miller, 2002). As a way of accelerating the implementation of the e-Governance Policy, the Office of the Prime Minister has engaged the University of Namibia and the Polytechnic of Namibia to train Government employees for a period of five years (Republic of Namibia, OPM, 2009).

The improvements in the teaching of ICT in schools and training in institutions of higher learning are set to improve the situation of lack of skilled manpower. The Ministry of Education, in partnership with SchoolNet Namibia, aided by numerous donors is involved in establishing computer laboratories with Internet connectivity in all schools in Namibia. About 300 of Namibia's 1500 schools have been provided with IT facilities, providing some 130,000 learners with access to the Internet (Republic of Namibia, OPM 2005b). How adequate these computers are, is subject to another investigation. Relevant to the present study, however, is that efforts are being made to equip citizens with the skills to communicate with government online. One of the objectives of The Education and Training Sector Improvement Programme (ETSIP) is to enhance ICT training (Republic of Namibia, Ministry of Education, 2007). The ICT Policy for Education aims to enhance the use and development of ICT in the delivery of education and training (Republic of Namibia, MBESC, 2005).

The Namibian Government in the Information Age

In 1990, the Department of Public Service Information Technology Management (DPSITM) was created in the Office of the Prime Minister, to guide and oversee all aspects of ICT usage in the Public Service. The Department set up standards, guidelines and procedures that assisted in hardware and software acquisition, IT training and the establishment of a government wide network (GRNNet), as well as in web development (Republic of Namibia, OPM, 2005c). An IT policy was formulated in 1993 and was updated in 2003.

A Cabinet Committee on IT (CCIT) was established to ensure that ICT matters are considered at the topmost decision levels of the country. DPSITM became the technical arm of CCIT. DPSITM also worked to develop standards and cooperative architecture. A GRN Intranet/Internet Gateway was developed which now links all Government ministries. However this study established that due to shortage of space, some ministries have offices operating in rented buildings which are not networked. A GRN Website was created where some information about the Namibian Government can be accessed (Republic of Namibia, OPM, 2005c). The study also confirmed the situation reported by Hesselmark and Miller (2002) that, 'Although there are several government websites, these are not informational and not necessarily up to date'.

The Namibian government is using computer technologies to support business activities. There has been an increase in the number of computers in the Namibia public service from 40 in 1990 personal

computers to 4,000 in 2004 (Asino, 2005) and 3,500 civil servants have e-mail and Internet access (Amutenya, 2005). This study confirmed the increase in access to computers, e-mail and Internet, as all the 59 (100%) officers interviewed had access to these. However, the study also established a number of factors hampering the effective use of e-mail and Internet, and the effective management of electronic records created by computerised system and services.

Like e-government, there are many definitions of records management. However the various definitions are in agreement on the goal of records management, which is to ensure the efficient and effective management of records in any form, produced by an organisation in its normal course of operation. Many development goals meant to be supported by e-government depend on trustworthy evidence and unless there is adequate infrastructure for managing e-records, the intended benefits of e-government will be compromised (World Bank, 2005).

In many instances electronic records are created in a complex environment of fragmented and incompatible information systems and standards, for example computer systems and metadata standards (Lipchack and McDonald, 2003).

Records management challenges posed by electronic records particularly to the public sector in East and Southern Africa Branch of the International Council on Archives (ESARBICA) region have been highlighted by several writers including Keakopa (2003), Ngulube and Tafor (2006) and Mnjama and Wamukoya(2007). The challenges facing ESARBICA are summarised as follows: absence of organisational plans for managing e-records; low awareness of the role of records management in support of organisational efficiency and accountability; lack of stewardship and coordination in handling paper as well as electronic records; absence of legislation; absence of policies and procedures to guide the management of both paper and electronic records; absence of core competencies in records and archives management; absence of budgets dedicated for records management; poor security and confidentiality controls; lack of records retention and disposal policies; and absence of migration strategies for e-records (Mnjama and Wamukoya, 2007).

Methodology

This study, qualitative in nature, employed the following data collection techniques: literature, observation and interviews. The study combined the interview guide approach and the standardised open-ended interview for the face-to-face interviews, thus making the interviews semi-structured. Interview guides, integrated with observation checklists were developed for data collection. Separate interview guides were developed for records keeping staff, action officers, and heads of records sections, information technology personnel and the National Archives.

The population of this study comprised the employees of Namibia's Public Service. The units of analysis were the ministries, as well as the 85 individuals interviewed. All the 20 ministries, which made up the Namibian Public Service, were to be a part of the study but in the end the survey could not be comprehensive and the researchers settled for those ministries that availed themselves. Seven ministries, two regional councils and two local authorities were surveyed. The individuals interviewed comprised action officers, IT staff, records keeping staff, heads of records sections, and National Archives staff. The selection of participants within the ministries was based on purposive and accidental sampling. This paper cannot mention the names of these institutions in line with the conditions for confidentiality set during the study.

Findings and Discussion

E-Government Initiatives in the Public Service of Namibia

The study found that Namibia was still at phase one of her e-government implementation strategy. This phase is characterised by "government being on the web, providing the public and businesses with relevant information in order to promote transparency and democracy" (Office of the Prime Minister, 2005a). The researchers wanted to establish the extent of e-government in the public service of Namibia. Sixty respondents were asked the question: 'What e-government initiatives are taking place in the organisation?' The responses are highlighted in Table 2 below.

Table 2: E-government Initiatives in the Public Service of Namibia (N=60)

Initiative	Frequency	% of responses
E-service/e-system	14	23.3%
E-mail	11	18.3%
Websites development	10	16.7%
Expansion of network to regional councils	7	11.7%
Access to electronic journals and scientific databases	6	10%
E-governance policy	2	3.3%
Web-based systems	2	3.3%
Electronic/video conferencing	2	3.3%
Plans to computerise registry/electronic filing	2	3.3%
E-government awareness workshops	2	3.3%

The responses showed that e-government was being felt mainly through the e-service/e-system, which is the public services' website where officers are able to get information on statutes, public service charter, etc; e-mail systems; websites development; expansion of network to regional councils; and access to electronic journals and scientific databases.

Access to Computers and E-mail Use

All 60 respondents had computers. An IT officer in one Ministry said that in that Ministry 'all staff members have e-mail as a rule and access to Internet'. An Acting Chief Executive Officer in one of the local authorities commented that he did not believe in e-mail for all staff and remarked 'I am careful not to install e-mail for each and everyone due to virus and misuse of e-mail. This is a good indication of the disparities between central government and local government in terms of e-government awareness.

Websites

All the seven ministries were busy working on their websites, according to the seven IT officers interviewed. In five of the cases, existing websites were being updated. This is confirmed by the 2007/2008 *Annual Report* of the Office of the Prime Minister which reports on three websites having been developed and published, six reviewed and updated and a number being designed in four ministries and the Office of the President (Office of the Prime Minister, 2009). The e-service also referred to by other officers as e-system was cited by 23% of the respondents as evidence of e-government in the public service.

Access to Electronic Journals and Scientific Databases

In Ministry B, officers (10% of the respondents) spoke passionately about the ability to access electronic journals and access scientific databases. An officer spoke about an e-government initiative where the ministry is piloting a system where some published good practices in farming will go to farmers electronically. 'Our people are able to log on to a certain website and down load information and adapt it for farmers. Before, we would waste a lot of time going to the library'.

Web-Based Systems

The respondents highlighted the fact that the public service is aiming towards making all systems web-based. One IT officers remarked 'OPM wants all systems to be web-based'. These sentiments were voiced by yet another IT officer in a different ministry 'Most of our information systems have been client-server but the trend now is to have web based, for an example, Finance, Human Resources and Agriculture Statistics'. In a different ministry an IT officer explained 'There has been migration from an older SQL to new web-based HRM (human resource management) system'. This is confirmed by the 2007-2008 Office of the Prime Minister Annual Report (Office of Prime the Minister, 2009). According to the OPM one of the e-government initiatives is to 'have web-based enquiry of exams. The system is being enhanced so that each school can register its students. ICT in education initiative TECHNA aims to get computers in every school, library etc. (This was confirmed by the Office of the Prime Minister Annual Report for 2005/2006 (OPM, 2007).

Expansion of Network to Link Regional Councils

The Government of Namibia has embarked on a decentralisation exercise and the Ministry of Regional Local Government and Housing (MRLGH) is the leading agency for the implementation of the decentralisation process (Republic of Namibia, MRLGH, 1997). This study revealed that 'Regional councils are linked to the Ministry of Regional Local Government and Housing and not linked to the rest of the public service through OPM'. However there are plans to link regional councils to the rest of the public service (OPM, 2009).

E-government is considered one of the key elements in the decentralisation process as the success of the decentralisation process rests upon efficient and effective local and regional administrative and service delivery capacity as well as on the management of information and knowledge processes within local and regional authorities: and between them and the line Ministry, MRLGH (Republic of Namibia, MRLGH, 2004). MRLHG initiated a Decentralisation Extension Programme in 2006, which aimed at providing all staff members of the regional councils with 24-hour access to the Internet and e-mail (Shilongo, 2008). According to the late Minister of MRLGH, John Pandeni, the programme has changed the working conditions of staff at regional level, providing them with valuable research and communication resources that were not previously available (Shilongo, 2008). However, the study found out that there are a number of problems which hinder effective access and use of the Internet and e-mail. These and other problems hampering e-government in the public service of Namibia are discussed below.

E-Government Readiness and E-Records Readiness

A number of reasons have been put forward for the slow diffusion of e-Government in Africa. According to Heeks (2002), there are six factors which are of vital relevance to e-government in Africa. These factors can be posed in terms of "e-readiness for e-government" questions'. Based on findings of this study, the paper has tried to answer them in relation to Namibia's situation.

Is the Data Systems Infrastructure Ready?

This question addresses the issue of information management systems, data standards, records and work processes in place to provide the quantity and quality of data to support the move to e-government (Heeks, 2002). The data systems infrastructure for the public service of Namibia is not yet ready. This is based on the following findings. There was not enough awareness for records as evidence of official activities which should be preserved for evidence and good governance. Poor records keeping was evident, with cases of missing records reported. Records were threatened by viruses and poor or absence of back up procedures. Cases of changes

Table 3: Systems development: Local or Foreign Companies

Institution	Consultants involved insystems development? Yes/No)	If yes, consultant's country if foreign
Ministry A	Yes	South Africa
Ministry B	Yes	Australia, Finland
Ministry C	Yes	
Ministry D	Yes	
Ministry E	Yes	Sweden / South Africa
Ministry F	**No**	
Ministry G	Yes	Mauritius, South Africa
Regional Council A	Yes	
Regional Council B	Yes	
Local Authority A	Yes	South Africa
Local Authority B	Yes	South Africa

in data format and failure to access data were reported. Electronic information systems such as the Integrated Financial Management System and Human Resources Information Management System generated transactional records which were not captured and maintained in a records keeping system. This compromises the creation and preservation of reliable and authentic records for evidence, accountability and transparency. Most electronic information systems were developed, and maintained by external consultants who kept the systems documentation. The whereabouts of documentation for most electronic information systems were not known by the IT officers with serious consequences for future access to information created by these systems and digital preservation strategies.

Is the Legislative Infrastructure Ready?

Legislation plays a significant role in records management. From the experiences of other countries, relevant legislation includes laws concerning records and archives, e-commerce, freedom of information and data protection. Namibia is in the same category with most African countries where 'digital signatures cannot be accepted' (Heeks, 2002). E-commerce legislation is currently at the bill stage, the *Use of Electronic Communications and Transactions Bill* of 2005 (OPM, 2005b). The *Namibia Archives Act 12* of 1992 does not specifically spell out electronic records although they are implied in the overall definition of archives. The revision of the *Namibia Archives Act* currently underway, will hopefully spell out what electronic records are and the mandate of the National Archives regarding their management. There are no Freedom of Information (FOI) and data protection laws which are important for democratisation of information whilst protecting the rights and privacy of individuals. Namibia's e-governance policy (OPM, 2005c) calls for regulation to "protect consumers, protect privacy and communications, and security of electronic signatures". Namibia's legal framework is not yet ready to support e-government.

Is the Institutional Infrastructure Ready?

This question addresses the fact that e-government can only progress if the institutions exist as a focus for awareness and act as a means for facilitation of e-government (Heeks, 2002). As the study established, there was lack of awareness of e-government amongst some officers in the public service of Namibia. In most African countries, there are no institutions to coordinate, lead and drive e-governance (Heeks, 2002). In Namibia, the Office of the Prime Minister is driving e-government. The study discovered that an e-government committee set up to spear head e-government was never active. Such a committee would bring together key stakeholders including IT, legal, business/ operational, regulatory and records management experts as well as top management representatives.

The findings of the study also indicated that the absence of such a committee threatened the success of some initiatives such as the electronic document and records management system (EDRMS) acquired for managing meant for the entire public service. The Office of the Prime Minister feels it is in charge of electronic records management since it is in charge of e-government. The Office of the Prime Minister, through the Department of Information and Technology Management is in charge of IT, which is just a tool in managing records. However, the mandate for managing records, including electronic records, rests with the National Archives. Failure to clearly demarcate and assign roles and responsibilities for e-government can compromise the success of e-government projects.

Records management is one of the building blocks for e-government. Lessons from best practices show that records managers should coordinate the effort among records creators, recipients, and computer systems management in organisations to ensure that records are maintained and protected in accordance with acceptable records management principles (United States, Department of Energy, 1996). The Office of the Prime Minister claims that the piloting of the project was done in consultation with the National Archives (OPM, 2007) and yet interviews with the National Archives revealed that the National Archives had 'no knowledge of the specifications for the system' that was acquired.

Is the Human Infrastructure (Human Capital) Ready?

This question addresses the issues of attitudes, knowledge and skills required to initiate, implement and sustain e-government initiatives (Heeks, 2002). The study found that there was a lack of skills and training in IT as well as in records management. The same problem is highlighted in the *OPM 2007/ 2008 Annual Report* (OPM, 2009). Attitudes towards records keeping and lack of commitment to follow laid down procedures as spelt out in the Archives Code are other examples which show that the human infrastructure is not ready yet. A deputy director in one ministry was of the opinion that records management does not need skilled personnel. Of late, there has been realisation in the Public Service of the need to establish a records management cadre (OPM, 2010). The Department of Information and Technology Management confirmed that there was still a shortage of staff; hence, the extensive use of foreign based consultants for systems development and maintenance. Table 3 illustrates the extent of the use of foreign based consultants for systems development.

The study found out that the use of consultants poses problems of continuity and sustainability, for example, when there is need to carry out systems upgrades, as well as interoperability, a necessary condition for e-government. Successful implementation of Phase Three of Namibia's e-government implemen-tation strategy, i.e. entire transactions online will require systems that can 'easily talk to each other'. Systems interoperability in the public service of Namibia was not a focus of this study, but it is an area that requires investigation. The Office of the Prime Minister has taken this up and reports that efforts to ensure "compatibility, interoperability and portability in the acquisition of Government's ICT resources" are underway (OPM, 2009).

Is the Technological Infrastructure Ready?

The study discovered problems such as limited bandwidth and viruses. The bandwidth problem affected the use of Internet and electronic conferencing facilities particularly at regional council level. In its *2005-2006 Annual Report,* the Office of the Prime Minister reported on a system which had "grown beyond its capacity" and had "almost come to a halt due to aging equipment … mail and web servers were obsolete and could no longer cope with the traffic to and from the system per second (OPM, 2007). The findings of the this study suggested that there was still a lot more that needed to be done to achieve fast access to Government online services. The 2007/2008 Annual report shows that this problem has not yet been resolved. Namibia is still a long way short of the computing and telecommunications infrastructure on which e-government initiatives have been based in the Western countries (Heeks, 2002).

Is the Leadership and Strategic Thinking Ready?

Considered to be the most critical pre-condition for successful e-government is leadership "with a vision who put e-government onto the agenda, who set e-government within a broader reform agenda, and who make it happen" (Heeks, 2002). The results of the study indicated that generally there is a lack of commitment from senior management, and there is over reliance on delegation to juniors who cannot influence decisions. Most senior members of staff mandated to direct records management delegated this responsibility to junior staff. The following remarks by an IT officer highlight the problem of leadership. "As experienced by many officers our leaders are not conversant with IT issues so they are not able to give instructions on what the ministry should use ICT for. It is left to juniors. We are expected as a ministry to make progress but since introduction, very little has been achieved as those in management are not aware of what they should do to accelerate the e-governance process". This confirms, within the Namibian context, the assertion by Udo and Edoho (as cited in Heeks, 2002) that "the limited number of senior officials willing or able to champion ICTs in governments in Africa acts as the most serious constraint to e-government diffusion".

E-Records Readiness

The study concluded, from the findings and application of the Electronic Records Management Tool (IRMT-International Records Management Trust, 2004) for assessing e-records readiness, that Namibia is not yet e-records ready to support e-

government. The tool assesses countries at national and public service level using criteria broken down into 12 components listed below (IRMT, 2004):

1. Legal mandate for the government-wide management of public records and information.
2. Legal framework for e-commerce.
3. Freedom of information and protection of privacy legislation.
4. Government-wide ICT infrastructure and capacity.
5. Government-wide e-records management standards and guidelines.
6. Government-wide digital preservation strategy.
7. Policies and responsibilities for records and information management.
8. E-records management products and technologies.
9. Resources and training for records and information management personnel
10. Tools and procedures for records and information management
11. Internal and public awareness of records and information management
12. Compliance with records and information management policies and procedures.

Namibia scored 55 out of 120 for national e-records readiness (components 1-6), signifying high risk. This means that "government records produced in digital form will be at risk of misuse and loss without government wide strategies and standards for e-records and digital preservation" (IRMT, 2004). Furthermore, The public service of Namibia scored 40 out of 120 for public service e-records readiness (components 7-12). This also signifies high risk, which means that "funds and effort will likely be wasted unless e-government initiatives are supported by a solid records management programme…" (IRMT, 2004).

Recommendations

The challenge for Namibia is to put in place an infrastructure that will ensure that government captures all the details of transactions made, takes account of privacy, confidentiality and security of issues, whilst providing reliable and useful information in return. This could be achieved by doing the following:

- Strengthening the legal and regulatory framework.
- Restructuring the public service records management programme. This will entail determining the resource requirements, and reviewing records management standards and procedures.
- Implementing an electronic records management system following best practices.
- Training all members of the public service who create and use records, on the management of records.
- Collating and preserving system documentation of the electronic systems running in the public service.
- Strengthening the safety and security of records through proper backup procedures and management of back-ups including offsite storage of backups, addressing the problem of virus attacks and ensuring that all offices have access to fire fighting equipment such as extinguishers and fire hoses, which should be regularly serviced.
- Commissioning a study of systems interoperability in the Public Service of Namibia.

Conclusion

The findings of this study show that Namibia is neither e-ready nor e-records ready for the successful implementation of e-government. Namibia is facing the same problems that have accounted for the slow diffusion of e-government in Africa in general. These problems pertain to the absence of appropriately supportive data and records systems, and inadequate legislative, institutional and human technological infrastructure. Namibia needs to strengthen these infrastructure components if it is to benefit from the number of e-government initiatives it has put in place.

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