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Electronic Records Management in National Development: A Case Study in Ghana Immigration Service

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Abstract
The increasing use of ICT in government operations has given impetus to the generation of e- records, vital to the functions of public sector institutions. There exists much interest in industry in using technology-based systems to support records management processes but the application of such systems has shown to be problematic. This research is an investigation into electronic records management systems at the public sector organisation in Ghana . The purpose of the study was to identify the contributions of electronic records management systems to growth and development, and also areas for improvement to bolster electronic records management of the public sector in Ghana. This investigation has been performed through literature review and by performing a case study in a public sector organisations. It was shown that electronic records management systems provide good results for achieving the records management goals of GIS. A more robust, technology-based system of records management will be required to sustain the progress made by GIS.
Keywords:(AIIM) Association for Information and Image Management, (ARMA)Association of Records Management and Administration, (CRMP) Computerized Records Management Project, (DFID)Department for International Development, (EDRMS)Electronic Document and Records Managements, (ERMS)Electronic Records Management System , (ISO)International Standards Organization , (IRMT)International Records Management Trust , (MIS)Management Information System, (MRZ) Machine Recordable Zone, (NIRMA) Nuclear Information and Records Management Association, (PRAAD) Public Records and Archives Administration Department, (RMAA) Records Management Association of Australasia (RMS) Records Management Society, (RIM)Records and Information Management, (GIS) Ghana Immigration Service.

INTRODUCTION

Records and information play a critical role in fighting corruption, protecting citizens 'rights, in ensuring transparency and good governance. As such there is need for governments to recognize sound records management as one of the priority areas. In spite of their significance, studies by the Chebani (2005); International Records Management Trust [IRMT] (2003); Keakopa (2006); Kenosi (2010); Mnjama (2007) Tough (2009) and among others, suggest that recordkeeping systems in Africa generally have either collapsed or are in a state of disarray. Neglected records in most African countries, according to these authors have become a major barrier to development.

Poor record keeping systems as argued by the IRMT and the World Bank has led to corrupt practices and lack of accountability and poor governance structures. There are numerous studies on corruption and lack of accountability by governments in Africa and how that has impacted negatively on socio-economic development. While reports by the corruption watchdogs, Transparency International and World Economic Forum, rank Botswana among the least corrupt countries in Africa, there are concerns that corruption is becoming endemic. Recently very important citizens including a minister, public enterprises chief executives, lawyers and top civil servants have been prosecuted for corruption and economic crime.

Focusing on Ghana Immigration Service (GIS) and citing general research and cases in a number of African countries, this paper argues that sustainable development would be difficult (if not impossible) to achieve without effective records management in the public sector.

After all, good governance, accountability and transparency have now been established as the basic principles of governing public institutions. These principles are hinged on the availability of information to members of the public as well as being open about how the institutions are governed and decisions are made. Ghana Immigration Service is a public sector institution and is funded from the public treasury hence they are accountable to the taxpayer. The way they are governed, their rules and regulations and the decisions they make are public property and should be publicly accessible.

The Ghana Immigration Service has been established as the agency of the government of Ghana to advise on and to ensure the effective implementation of all laws and regulations pertaining to immigration and related issues. The Service is mandated to regulate and monitor the entry, residence, employment and exit of all foreigners as well as monitoring of the movement of Ghanaians in and out of the country.

The strategic objectives of the Service include the regulation of entry into Ghana in a manner that facilitates travel, trade and business while ensuring the security of the borders. It maximizes deterrence to unlawful migration by enforcing Immigration laws firmly and fairly. The Service also ensures improvements to

the processing of arriving and departing passengers and also monitors, controls and reduces the fraudulent acquisition and use of travel documents.

The objectives summarized above also give an indication of the core activities in the Service. These activities require a lot of documentation and information processing. Modern border management in today's global world, for example, does not only require the actual and physical presence of personnel on the ground, but also effective control of borders now encompasses the use and application of technology. New technologies are developing at a rapid rate, machine readable documents and scanners, automated data capture, passports with machine readable zones (MRZ), monitors, remote sensors, lasers, biometrics and other tools. These gadgets provide a more accurate data capture to address challenges posed by volume and speed. They also enhance the risk assessment capabilities of officers and provide real time information regarding border activity.

Manual record keeping has been a key format in the processing and storage of information in GIS. The organization has been creating, receiving and using paper based records, but due to the increasing number of volumes of generated in the course of operations, GIS has been experiencing difficulties in managing them. The difficulties being experienced as a result of reliance on manual records include the problem of office space, storage facilities, difficulties in retrieval and access, misfiling and the like. These problems have forced the organization to introduce alternative formats that can capture and store their information on a virtual or electronic media .

Standard Record Management Practices at GIS

The Management Information Systems (MIS) Department is a major unit within the organizational structure of the Ghana Immigration Service that manages computer and information systems for the Service. The unit collects, compiles, stores and retrieves data in hard and soft copy for the Service. Additionally, it preserves use of data for efficient management of operations and organizational planning. Several other departments exist within the M.I.S unit including Statistics, Records and Archives, Network and Hardware which collaborate to deliver set goals. The M.I.S unit is headed by an Assistant Director of Immigration (ADI).

Most of the record management activities performed in the records and archives department, particularly retrieval of files is done manually. A designated officer receives completed information requisition forms and ensures that it is signed by the officer-in-charge (OIC) of the requesting unit/section. The nationality name written on the requisition form is used to retrieve file from the records database, the file and location number of the storage box. The designated officer then writes the file and location number on the on the requisition form, physically retrieves the file from the storage box and places the requisition form in the storage box. The officer receiving the retrieved file signs to acknowledge receipt in the records outgoing files registration book.

The manual records management system hinders operational and administrative procedures and makes accessibility to information difficult. The incidence of misfiling and (in some cases) complete loss of records characterized this manual system.

It is important at this point to highlight some important benefits of good records management. An effective records management program ensures that the institution meets its records keeping requirements by ensuring that GIS captures and preserves the evidence required to establish its accountability. An effective records management program ensures that the institution does not waste valuable resources providing storage space, expensive equipment and costly human resources to keep records and documents that may no longer needed. A record management therefore represents best practice in management of resources and is therefore promotes development. An institution where records are poorly kept and maintained easily attracts inefficiency, corrupt practices and even fraud. There can be no transparency, accountability or good governance where records cannot be found when they are needed.

1.3 Electronic Records Management – An Overview

E-records are recorded information, documents or data that provide evidence of policies, transactions and activities carried out in e-government and e-commerce environments (IRMT, 2004). E-records may be categorized as text files (files produced by word processing programs or by other software); data files (computer processable files that store numeric and sometimes textual information as quantitative values so that, numbers can be manipulated using arithmetic processes); analogue audio and visual records (sound documents and images to be played back); disaggregated data (information collected through remote sensing systems); databases (structured collection of interrelated data); machine instruction sets (records created by the action of intelligent machines); image files (records containing computer processable images that generally exist as hard copy before being converted into images) and digital documents (files consisting of numeric data, images or sound recorded digitally in one uniform structure).

The increasing use of ICT, especially the Internet, in government operations around the world driven by public sector reform, has given impetus to the generation of e- records, touted as strategic assets vital to the

functions of the state. Like traditional paper records, e-records support the day-to-day operations of government services and interactions with citizens, private and public sector partners. By and large, in developed regions such as North America and Europe where government services have increasingly moved online, e-records are becoming the basis for confirming pension and other entitlements; registering births and deaths; verifying citizenship, certifying voting rights; enabling collection of taxes, supporting financial management; and supporting litigation (IRMT, 2004).

Public sector reform is contributing significantly to the generation of e-records, especially in the developing countries, where such reforms are increasingly being undertaken. Public sector reform refers to interventions that affect the organization, performance and working conditions of employees paid from central, provincial or state government budgets (DFID and University of Birmingham, 2003). Public sector reform initiatives first began in developing and transitional economies in the 1980's and initially focused on downsizing, following the structural adjustment programs supported by the IMF and the World Bank. The emphasis was on controlling salary costs primarily through job reduction. The second stage of public sector reform began in the 1990's and presented a broader range of reforms aimed at performance assessment, monitoring, transparency, benchmarking, decentralization, regulation and sound financial management (DFID and University of Birmingham, 2003).

1.4 Problem Statement

Computerization has led to rapid and dynamic changes in the way governments and businesses operate. Records managers today encounter a much wider range of records, paper-based and electronic, than they dealt with even ten years ago. Even the strategies adopted for integrating and managing paper and electronic records will be subject to change over time. The use of information and communications technology is transforming the way organizations work. The introduction of computers can achieve efficiency savings and add value to the conduct of government or business. This places new demands on records professionals to change the way they carry out records management responsibilities.

In spite of these numerous benefits of electronic records management, public sector organizations such as GIS are increasingly choosing neither to create, store, retrieve records electronically, nor use them in computerized form for long periods. Perhaps, this is due to the fact that management of electronic records presents new and complex challenges to the organization as a whole.

In these modern times, when most information is created digitally, and stored on personal computers, network drives and PDAs, it is important for GIS to invest in an ICT infrastructure to reduce incidences of immigration lapses that can threaten the security of the country. It must incorporate Electronic Records Management Systems (ERMS) and practices to provide structure, consistency, security, and control over these records.

Research Objectives

This study sets out to demonstrate that, in practice, there are factors that hamstring the migration of public sector institutions from manual to electronic records management which ultimately impact on their contribution to national development. Building on insights from existing literature the study investigates the actual situation of records management in GIS and also attempts to identify the organization's structural and cultural contexts within which a change from manual to electronic record keeping may occur.

From a project management perspective, the study aims to: To investigate various e-record management approaches and attempts at GIS, To assess the suitability of e-records management to current practices and policies at GIS. To identify contributions of effective e-records management to growth and development.

Research Questions

In developing constructs for the study, researchers are guided by the following questions

1. What is the record management situation like at GIS?
2. What e-records management solutions are available and effective for use by public sector institutions?
3. How do project management approaches apply to changing from manual to e-records management?
4. How relevant is electronic records management to development?

Justification of the Study

The study would be of great significance to organizations the public sector, researchers, policy makers and the nation as a whole. In essence the study is valuable in terms of its contribution to knowledge - would enlighten policy makers on effective records management systems.

Specifically, the study

- Helps to provide relevant data for further academic research

- Highlights conditions necessary to achieve improved productivity.
- The study forms part of the requirements for the award of a degree.

Scope of the Study

Geographically, this research is to be conducted at the Ghana Immigration Headquarters, Accra. GIS has been chosen because it has been identified as one of the public sector organizations with greater need for effective records management. This means that the information needs of the organization must be met through effective records management systems.

Again, GIS is selected mainly due to the fact that many people complain about how records management activities relating travel document processing has posed many challenges. Access to information and proximity to the source of data were also important considerations in the selection of GIS for this study.

Contextually, the study will be looking at effects of electronic records management on national development. The time frame was from January 2013 to August 2013.

Limitations of the Study

Limitations are those conditions beyond the control of the researcher that may place restrictions on the conclusion of the study and their application to other situations (Saunders et al., 2007). It is thus important to highlight some problems that the researchers are likely to be confronted with in the course of the study.

It's envisaged that difficulty in getting access to the members of the sample or population may present some challenges to the researcher, and also problem of low response rate which is often the case in conducting studies of this nature. Limited funds may also present a hurdle to cross in the course of this study. The researchers anticipate that the convenience sampling method planned to be used in the course of the study may introduce some bias as the research may tend to converge around similar individuals.

Organization of the Study

The study report is organized into five chapters.

Chapter One contains the background information to the study, analysis of the problem, purpose of the study, rationale, research questions, and significance of the study, limitations, scope of the study and organization of the study.

The second chapter provides and reviews already existing literature in relation to the research topic under study. The literature review covers theoretical propositions and frameworks to guide understanding of production scheduling.

Chapter three describes the research methodology. This includes a discussion on planned population size, sample and sampling procedures, research instruments procedure for data collection and method of data analysis.

Chapter four provides presentation of data and analysis of data obtained from primary research; and

Chapter five, the final chapter outlines summary of conclusions and recommendations of the study.

LITERATURE REVIEW

A Review of the Work of a Decade

The decade of the 1990s will undoubtedly be remembered as a period that witnessed an incredible diffusion of information technology through a massive and unanticipated spread in the use of personal computers and local area networks, the maturing of the Internet, and the development of the World Wide Web and its enabling browser interface software (Davenport, 1997). It was a decade that saw the emergence of networking and the widespread sharing of information, of the transformation from personal to work group computing, and of enterprise architecture and integrated systems. In short, the 1990s was a time when the power of computing and document creation passed out of the hands of traditional centralized providers of data and into the hands of individual workers.

Two of the more important consequences of these truly revolutionary changes were the transformation of how businesses functioned and individuals worked and in how institutions and workers communicated. Among the most prominent changes in these areas were the emergence of less centralized communication patterns, of more horizontal communication outside of the traditional bureaucratic channels, and of collaborative team projects and the concept of "virtual shared work space" (Hammer and Champy, 1994). The resultant transformations in the flow of inter- and intra- organizational information and in workflow and business processes dramatically and irrevocably altered the workplace.

Significant changes were also occurring in the products of this communication – the business record. Rapid transformations in the form of the record – the emergence of hypermedia documents, dynamic documents, e-mail – prompted many organizations to begin to rethink their record management processes and procedures.

Mnjama and Wamukoya (2004) point out that record are valuable assets that need to be managed and

protected. Besides providing essential evidence of organizational activities, transactions and decisions, records also support business functions and are critical for the assessment of organizational performance. Without reliable records, governments cannot effectively manage state resources, civil service, delivery of services such as education and health care. Moreover, without accurate and reliable records, and effective systems to manage them, governments cannot be held accountable for their decisions and actions, and the rights and entitlements of citizens and corporate bodies cannot be upheld.

Governments worldwide are increasingly conducting business using e-mail and the internet, thus creating and maintaining their records electronically and relying on information held in databases. The need therefore to manage this information accurately and securely, and to preserve it over time as the basis for accountability, has become critical. Furthermore, the management of e-records has been a subject of ongoing discussions at various international forums. For example, the e-discussion on evidence-based governance in the electronic age, at the global forum held in Johannesburg, South Africa from 27-31 January 2003, highlighted the need for collaborative action in managing electronic records in relation to electronic government requirements. Katuu (2004), in a study of e-records management practices involving various commonwealth countries drawn from Africa, Asia, the Caribbean and the Pacific, noted that with increasing use of information and communication technologies in the public sector, a lot of information is generated and disseminated in electronic form. The study revealed that almost 60 per cent of information within governments was electronically generated.

Definitions of Records Management

Records management, or RM, is the practice of maintaining the records of an organization from the time they are created up to their eventual disposal. This may include classifying, storing, securing, and destruction (or in some cases, archival preservation) of records (Keakopa, 2003).

A record can be either a tangible object or digital information: for example, birth certificates, medical x-rays, office documents, databases, application data, and e-mail. Records management is primarily concerned with the evidence of an organization's activities, and is usually applied according to the value of the records rather than their physical format.

So, how are records different from other types of recorded documentation, such as data, information, documents and knowledge? David Roberts (1994) has identified two distinguishing characteristics of records. First of all, records reflect business processes or individual activities; a record is not just a collection of data, but is the consequence or product of an event. Of course, this is not new concept; older definitions identify records with a process or an activity. What is new is the emphasis on defining more precisely and conceptually when the record is created by the business event or personal activity. The other part of the definition of a record stresses that records provide evidence of these transactions or activities. In other words, recorded documentation cannot qualify as a record unless certain evidence about the content and structure of the document and the context of its creation are present and available. Now again, this is not exactly a new concept. However, these newer definitions provide much more detail than ever before on the type and exact nature of this evidence.

Organizations collect, create, and use a wide variety of recorded documentation. There is data or the “raw facts about the organization and its business transactions.” There is information, defined as "data that has been refined and organized by processing and purposeful intelligence." There are documents or "a grouping of formatted information objects that can be accessed and used by a person" (IRMT, 2004). More recently there is knowledge, which is defined as something more than information because it includes the expertise, logic and reasoning developed by accomplished experts in a specific field to solve problems and make decisions.

Records and information management (RIM), on the other hand is the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use, and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records (Brian and Beaven, 1999).

Records, therefore, have value and add to the intrinsic worth of the organization. Records need to be managed in a meaningful way so they can be accessed and used in the course of daily business functions throughout the organizational environment. Records are recorded information, regardless of medium or characteristics, made or received by an organization in pursuance of legal obligations or in the transaction of business.

There is consensus within the organization regarding how a record is distinguished from other non-record material, such as a convenience file or draft (Shah, 2011). How records are managed throughout their life cycle is formalized into the policies and practices of the RIM program. The records life cycle consists of discrete phases covering the life span of a record from its creation to its final disposition. In the creation phase, records growth is expounded by modern electronic systems. Records will continue to be created and captured by the organization at an explosive rate as it conducts the business of the organization.

For example, correspondence regarding a product failure is written for internal leadership, financial statements and reports are generated for public and regulatory scrutiny, the old corporate logo is retired, and a

new one – including color scheme and approved corporate font – takes its place in the organization's history. Once a record is created, controls are triggered to regulate its access and distribution. A human resource employee may separate documents from a personnel file and keep them in a locked cabinet with a control log to control and track access. Role security may be set on a repository allowing access to approved users. Software may identify the official record, versions, copies, and distribution. Just as the records of the organization come in a variety of formats, the storage of records can vary throughout the organization. File maintenance may be carried out by the owner, designee, a records repository, or clerk.

Records may be managed in a centralized location, such as a records center or repository, or the control of records may be decentralized across various departments and locations within the entity. Records may be formally and discretely identified by coding and housed in folders specifically designed for optimum protection and storage capacity, or they may be casually identified and filed with no apparent indexing. Organizations that manage records casually find it difficult to access and retrieve information when needed. The inefficiency of filing maintenance and storage systems can prove to be costly in terms of wasted space and resources expended searching for records. An inactive record is a record that is no longer needed to conduct current business but is being preserved until it meets the end of its retention period, such as when a project ends, a product line is retired, or the end of a fiscal reporting period is reached. These records may hold business, legal, fiscal, or historical value for the entity in the future and, therefore, are required to be maintained for a short or permanent duration.

Records are managed according to the retention schedule (Akotia, 2002). Once the life of a record has been satisfied according to its predetermined period and there are no legal holds pending, it is authorized for final disposition, which may include destruction, transfer, or permanent preservation. Throughout the records life cycle, issues such as security, privacy, disaster recovery, emerging technologies, and mergers are addressed by the RIM professional responsible for organizational RIM programs.

RIM professionals are instrumental in controlling and safeguarding the information assets of the entity. They understand how to manage the creation, access, distribution, storage, and disposition of records and information in an efficient and cost-effective manner using RIM methodology, principles, and best practices in compliance with records and information laws and regulations.

The following terms in RIM are worth noting:

Active record– A record needed to perform current operations, subject to frequent use, and usually located near the user.

Disaster recovery plan – A written and approved course of action to take after a disaster strikes that details how an organization will restore critical business functions and reclaim damaged or threatened records.

In the past, 'records management' was sometimes used to refer only to the management of records which were no longer in everyday use but still needed to be kept - 'semi-current' or 'inactive' records, often stored in basements or offsite. More modern usage tends to refer to the entire 'lifecycle' of records - from the point of creation right through until their eventual disposal.

The ISO 15489-1: 2001 standard ("ISO 15489-1:2001") defines records management as "the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records"(ISO, 2001).

The ISO 15489-1:2001 defines records as "information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business" (ISO, 2001). While there are many purposes of and benefits to records management, as both this definition highlights, a key feature of records is their ability to serve as evidence of an event. Proper records management can help preserve this feature of records.

It should be noted that the format and media of records is generally irrelevant for the purposes of records management. The ISO considers management of both physical and electronic records. Section 4 of the ISO 15489-1:2001 states that records management includes:

- setting policies and standards;
- assigning responsibilities and authorities;
- establishing and promulgating procedures and guidelines;
- providing a range of services relating to the management and use of records;
- designing, implementing and administering specialized systems for managing records; and
- Integrating records management into business systems and processes.

Thus, the practice of records management may involve:

- planning the information needs of an organization
- identifying information requiring capture
- creating, approving, and enforcing policies and practices regarding records, including

their organization and disposal

- developing a records storage plan, which includes the short and long-term housing of physical records and digital information
- Identifying, classifying, and storing records
- Coordinating access to records internally and outside of the organization, balancing the requirements of business confidentiality, data privacy, and public access
- Executing a retention policy on the disposal of records which are no longer required for operational reasons; according to organizational policies, statutory requirements, and other regulations this may involve either their destruction or permanent preservation in an archive.

Records management principles and automated records management systems facilitate capturing, classification, and ongoing management of records throughout their lifecycle. Such a system may be paper based (such as index cards as used in a library), or may be a computer system, such as an electronic records management application.

Managing Electronic Records (Concepts, Principles and Issues)

The general principles of records management apply to records in any format. Digital records (almost always referred to as electronic records), however, raise specific issues. It is more difficult to ensure that the content, context and structure of records is preserved and protected when the records do not have a physical existence. This has important implications for the authenticity, reliability, and trustworthiness of records.

Duranti (1999) observes that widespread use of digital technologies by individuals and organizations in the usual and ordinary course of their activities is generating more information than in any previous decade of human activity. The majority of this information, however, is less reliable, retrievable, or accessible than ever before. Software systems generate, manage, and store digital data using proprietary technologies and media that are not developed to segregate different types of information, to prevent manipulation or tampering, or to establish and maintain an intellectual order, and that are subject to the dynamism of the computer industry (MacCarn, 1998). The digital information produced by and maintained in most of the systems presently used cannot be considered trustworthy and is easily lost in a self-perpetuating and expensive cycle of obsolescence and incompatibility (Duranti, 1999).

Moreover, organizations and individual s produce data in a variety of media and formats. It is quite common for recorded information relevant to a single matter to exist partly in a paper, partly in an e-mail box, and partly in a spreadsheet application or in a relational database. It is essential to establish explicit intellectual links among these data at the moment in which they are created, and to maintain them while they are actively used. It is equally important to preserve such links once the records have exhausted their usefulness for the purposes for which they were generated but need to be preserved over the long term, sometimes permanently, for reference, for research use, or because of legal requirements. In fact, information is meaningless out of context, and several decades from now, unless it is maintained. Users of all kinds must be able to see the entire profile relating to the matter they are exploring.

Ad hoc attempts have been made by individual organizations to either generate all information in a single medium or transfer it to one medium of choice (Ernest and Young, 2010). For example, offices have established routines for printing out e-mail and inserting it in a paper le, scanning paper documents into electronic systems, or converting electronic and paper records to micro lm. These attempts have been unsuccessful for a number of reasons. First, both the imposition of one medium of communication on the operations of an organization and the constant conversion of material made or received in a variety of media to one medium of choice, if not required by the business at hand, hamper the work flow of the office, and their implementation tends to be sporadic and inconsistent. Second, some types of digital information do not lend themselves to conversion to a different medium. For example, hypertext cannot be printed out to paper, and scanned maps or photographs are not always reliable surrogates of the paper originals. Third, court decisions have rejected the practice of converting electronic documents to other media on the grounds that the output of such process lacks elements critical to their use as evidence. For example, the printout of an electronic spreadsheet will not contain the formulas on which calculations are based.

Amid increasing research being conducted on the management of electronic records, Mutiti (2001) notes that particular concerns exist about the ability to access and read electronic records over time, since the rapid pace of change in technology can make the software used to create the records obsolete, leaving the records unreadable. A considerable amount of research is being undertaken to address this, under the heading of digital preservation. The Public Record Office Victoria (PROV) located in Melbourne, Australia published the Victorian Electronic Records Strategy (VERS) which includes a standard for the preservation, long-term storage and access to permanent electronic records. The VERS standard has been adopted by all Victorian Government departments. A digital archive has been established by PROV to enable the general public to access permanent records. Archives New Zealand is also setting up a digital archive.

Benefits of Electronic Records management

Good records management, according to Glaser et al (1997) can offer the following positive benefits.

- Activities in the organization can be completed in an efficient manner when information and records can be found easily and quickly.
- Policies and procedures can be based on good information and on lessons learned in the past, which are documented in the organization's records.
- Government services can be offered to all citizens in a consistent and equitable manner.
- Legislative and regulatory requirements for information, documentation and other organizational obligations can be met because records and information are easily accessible.
- Requests for information from auditors can be fulfilled without large expenditures of time and money.
- The business of the organization can continue with little interruption if there is a natural or human-caused disaster.
- The business performed within any specific unit of the organization can continue with little interruption in the event of staff turnover because documentation related to specific duties can be easily found and passed on.
- The rights of employees and citizens can be proven and assured through access to important records.
- Documentary evidence will be available and admissible in court, protecting the organization and ensuring the rights of employees and citizens.
- Fraud can be identified and proven since records are well managed throughout their life.
- The history and memory of the organization can be preserved for future generations, ensuring a rich documentary heritage on which to build and sustain the culture and identity of the organization, the people or the nation as a whole.

E-records Capacity Training Needs

The challenges brought about by new technologies in general and e-records management in particular require that records and archives management staff be equipped with new skills and competencies through training or retraining to be able to effectively operate and undertake projects in an e-environment. IRMT (2004) point out that as e-government services are delivered using new ICTs, the intended benefits will be compromised unless the issue of capacity building is addressed noting that failure to address this issues could lead to reduced government effectiveness; increased operating costs; gaps in recorded memory; reduced public access to entitlements; erosion of rights; and weakened capacity for decision making. The issue of e-records capacity building is more imperative given that governments are increasingly under public pressure to demonstrate that they are accountable to the courts and the legislature and that they are committed to efforts to root out corruption or malpractice.

Capacity-building strategies to address e-records management issues have received new impetus in recent times given that as more citizen/state interactions occur in electronic form, it is becoming vital to ensure that electronic systems support evidentiary record keeping (Dollar, 2000). Citizens will expect that their rights are as well protected and documented in an electronic environment as in a paper-based one. This can only be achieved if the records generated through electronic government are carefully managed through systems providing constant intellectual and physical control. The aim must be to preserve the combination of content, context, and structure, which give electronic records meaning over time, to protect the fragile media from degradation, and to ensure efficient access. The appropriate mix of staff with requisite competencies is required to achieve this goal.

Similarly, chronic weaknesses in government record keeping can adversely affect private sector investment. For example, overseas firms may hesitate to invest in a country if they feel its courts do not handle civil cases (especially commercial cases) efficiently. Likewise, large-scale infrastructure investments, such as the construction of gas pipelines, may be delayed or may incur significant additional costs if government land registries cannot provide complete and definitive statements of titles to property. More generally, poor record keeping can contribute to a lowering of the general standard of service offered to businesses. For example, there may be delays in replies to written inquiries about the registration of businesses, the issue of licenses, and other matters necessary for companies to pursue their business.

There are various competencies and skills that are required of staff working in an e-records environment. Such skills and competencies are diverse but can be categorized at various levels including: records and information management skills, technology skills, managerial skills, and project management skills. Other e-records management skills needs include but are not limited to: skills to create, capture, classify, index,

store, retrieve, track, appraise, preserve, archive and dispose of records in an electronic environment. These need to be complemented by knowledge of e-records environment; knowledge of e-records management practices and trends; knowledge of the types of electronic records including web pages; and knowledge of IT applications to records and archives management (IRMT, 2004; OpenText, 2003).

The need for capacity building in e-records management is premised on the belief that: accurate and reliable records form the documentary evidence needed to provide a foundation for all development strategies; the loss of control of records and information systems, particularly in electronic environments, is a highly significant global problem (Wamukoya and Mutula, 2006). In the electronic age, sound records management systems are critical to the ability of the public sector to be accountable and transparent and to improve services to citizens, especially in poorer countries. A capacity building framework should provide strong skills foundation for the management of electronic records to enhance accountability, transparency, democratic governance, poverty eradication, elimination of corruption and efficient use of donor-funded resources.

Electronic Records Management Systems

Electronic document and records management system (EDRMS) is a type of content management system and refers to the combined technologies of document management and records management systems as an integrated system (MacDonald, 2000). Electronic document and records management aims to enable organizations to manage documents and records throughout the document life-cycle, from creation to destruction. The term is distinguished from imaging and document management systems that specialize in paper capture and document management respectively. ERM systems commonly provide specialized security and auditing functionality tailored to the needs of records managers.

Typically, systems consider a document a work in progress until it has undergone review, approval, lock-down and (potentially) publication, at which point it becomes a formal record within the organization.

Once a document achieves the status of a record, the organization may apply best-practice or legally enforced retention policies which state how the second half of the record life-cycle will progress. This typically involves retention (and protection from change), until some events occur which relate to the record and which trigger the final disposition schedule to apply to the record. Eventually, typically at a set time after these events, the record undergoes destruction.

A range of software vendors offer these systems at an enterprise level i.e. targeted at managing all documents and records within an enterprise (Rothenberg, 1999).

These vendors have historically provided electronic document management systems and have acquired smaller records management system companies. The seamlessness of the integration and the original intention of the records-management component to manage electronic records typically set the complexity of deploying and potentially of using the final system.

Professional organizations for documents and records include:

- Association for Information and Image Management (AIIM)
- Association of Records Managers and Administrators (ARMA International)
- Records Management Society (RMS)
- Records Management Association of Australasia (RMAA)
- Nuclear Information & Records Management Association (NIRMA)

Planning and Managing Electronic Records

Records and information management is a core responsibility in any organization, in the same way that human resources management and financial management are core functions. Records and information management should be recognized as a formal program within any government or other agency, which means the organization, needs to provide the organizational and financial support necessary to ensure the effectiveness of the records program (Akotia, 2005).

Records and information management involves managing records in all formats from their creation to their ultimate disposal. The growing use of computers and the consequent creation of more and more electronic records are putting pressure on governments and other organizations to manage increasingly decentralized record-keeping systems. As a result, many organizations find that it is more and more difficult to locate information when it is required. The end result is, at best, a disjointed approach to office work and, at worst, chaos.

In order to support effective electronic records management, this training module examines issues involved with planning and managing electronic records management programs.

Developing a Records Management Policy

In many organizations, the approach to records management is often informal and unwritten, having evolved through time according to the needs and preferences of different people within the agency. A formal policy

statement for the creation and management of all records, regardless of their form or medium, ensures that everyone in the organization is aware of and, ideally, adheres to a consistent corporate approach to records care (Ernst and Young, 2010).

Even though it is common when developing records policies in an electronic environment to focus specifically on electronic records management issues, in fact any core records policy should address the care of records in all formats, including both manually and electronically created records. The policy will serve as an authoritative declaration about the management of records, and its purpose is to ensure that business information is managed effectively throughout the organization.

A new or revised records policy must be endorsed by senior managers, directors, chief executives and anyone else in a position of authority within the organization. Without continuous and unqualified support for records management, the program will not be sustainable over the long term. Therefore, obtaining senior management support during the policy development stage is crucial to ongoing success.

Once the policy is endorsed, it must be distributed and made known to everyone in the organization. Training and orientation sessions will introduce staff to the policy and explain the importance of following the requirements closely. Meetings and discussions can also serve an advocacy purpose, as they allow the records professional to raise awareness of the importance of effective records management throughout the organization.

Developing a Business Case for Improved Electronic Records Management

Developing any new program in a government agency or business office requires approval and funding. To obtain this approval and funding, senior management needs to understand why such a program is necessary. Because the success of any electronic records management system, program or project depends so greatly on senior management support, the records professional needs to develop a strong business case for the new initiative. The business case should argue convincingly that the proposed action is required; therefore the business case needs to be based on solid research, including the findings of a needs assessment or scoping study. The business case must also explain the benefits of, and drawbacks to, the proposed project.

Records managers can play a significant role in developing a business case for any information management system, either by taking the lead or by participating actively in the research and development of the study. In particular, their role is to articulate the required record-keeping requirements for any electronic system, no matter its primary purpose. For example, if a government believes it should develop a new computer system for processing payroll, the records manager should be involved in the planning from the very beginning, as there are significant record-keeping requirements for managing the documentation associated with paying government employees. Ideally, records managers will involve themselves in planning any new information-related projects as much as possible, even if they are not primarily

A business case is equally important whether the goal is to acquire new staff members, amend the agency's mandate or expand physical space and resources.

Achieving Success with Electronic Records Management Systems

As an organization adopts electronic records management infrastructures, managing the process of organizational change becomes more and more important to achieving success. Those organisations that have been successful in implementing ERMS have established program for managing changes in policies and procedures, standards and guidelines, business processes, technology and staff capacity.

A technology change that introduces electronic records management is induced by the reengineering of long established processes and the introduction of new processes driven by enterprise-wide integrated systems (Gray, 2005). These system changes affect what people do and how they fulfill their responsibilities, and therefore, there are varied reactions. Change management is the process by which an organization gets to its future state or vision. Change begins with the creation of a vision for change and then empowering individuals to act as change agents to achieve that vision (Scribd.com, 2011).

Contextualizing change in light of electronic records management, (Panagariya, 2000) posits that in order to maintain competitive position, willingness to change needs to be part of today's organizational culture. This is especially true for the executive associated with organizational information systems. Because managers are frequently not trained to manage change, the management of change frequently instills fear in them. It has become even so important for executives associated with information technology to be both familiar and adept at change management processes because the introduction of new or altered systems always involves change.

Shah Salil (2011) provides some key tips for ensuring a successful ERMS project:

- Senior management support is critical.
- A clear vision and strategy for ERMS development is also critical.
- Technology is only 20 percent of the cost of the solution.
- ERMS changes how people work, so addressing change management is essential.
- Business processes and ways of working may have to be changed, or else computer systems

will be no more effective than before.

- Strong and effective electronic records policies and procedures must be in place.
- An up-to-date and comprehensive classification scheme and an effective retention schedule also need to be in place.
- Regular monitoring and auditing is essential to ongoing maintenance of the System

Electronic Records Management and National Development

Information age government is underpinned by the effective management of electronic records (Lyman and Varian, 2000). Transactional records will be generated by new forms of service delivery, as electronic transactions are received from business and the citizen, and processed in one or several departments. Document-based records will be generated within departments by day-to-day working activities in relation to policy-making and administration, casework and operational services.

Increasingly, innovation in ways of working, knowledge-based activities and operational use of information will produce more sophisticated electronic records that can only be managed electronically. All types of electronic record form part of the corporate memory of the organization.

Prior to recent information age government initiatives, most government organisations relied (and most still do) on maintaining physical records in conventional paper filing systems, by printing electronic records to paper. As electronic methods of working increase in extent and sophistication these systems are breaking down. For example:

- Staff forget to print and file significant documents
- E-mail messages are deleted from servers without any prior archiving.

A failure to manage electronic documents and transactions as formal corporate records will mean that significant opportunities are lost, for exploiting the content to support new ways of working with faster access to higher quality and up-to-date information. Electronic records will have to be managed and maintained by electronic means to gain the full benefits of e-government.

Governmental bodies can only be effective and efficient if -

- Records management is considered a business process designed to support business objectives;
- Records are considered a resource and are utilized fully and cost effectively to realize business objectives;
- Each governmental body creates and maintains a culture which will promote effective and efficient records management to facilitate efficient and timely decision-making.

Literature Review in Summary

It is evident from the literature review that Records represent an explicit corporate memory for the organization. Electronic records unlock the content previously difficult to access in paper form, enable more effective sharing of information and contribute to knowledge network flows. They support evidence-based policy making by providing reliable evidence of past actions and decisions; but to do so must be managed so as to retain their integrity and authenticity.

Electronic records of authenticated electronic transactions need to be kept in such a manner that retains their qualities of legal admissibility and evidential weight. Privacy and access issues, and particularly freedom of information legislation, require that electronic records be managed consistently within regulatory frameworks. Aspects of electronic records management should be built into both record-generating and records management systems to ensure that these longer-term requirements are met by constructing interacting systems of software, standards, policies, procedures and interfaces.

RESEARCH METHODOLOGY

Introduction

Chapter two has provided extensive body of literature that expounds on records management with specific reference to electronic records management. The definitions, principles and concepts were explored. Finally the relationship between effective electronic records management and national development was cited.

This chapter provides detail on the methodology used to conduct the research. This includes a description of the research population and sampling techniques, the instruments used to collect relevant data and the specific tools and techniques used for data analysis.

Research Design

For the purpose of this study, it was deemed appropriate to use the case study research strategy. Usually descriptive or exploratory research is associated with the case study, and this might be particularly useful when the phenomenon under investigation is difficult to study outside its natural setting (Saunders et al, 2007).

Using case study research methodology is also helpful when the concepts and variables need to be

considered where experimental or survey methods are regarded to be inappropriate (Yin, 1994). Case study is used particularly in looking at the specific questions such as "how and why" that is set in the contemporary environment (Yin, 1989). Case study methodology has a lot of advantages over some other methodologies. First, it allows the use of multiple data collection techniques in order to build a more comprehensive picture of the case being investigated. Second, this in turn leads to the ability to capture both qualitative and quantitative data. Case studies can provide a solid understanding required for hypothesis development that then leads to improved theory development. The main advantage of case based research is that results are considered to be interesting and important and can shift the focus of investigation towards a new area of interest (Scapens, 1990). The case study is usually considered more accurate, diverse and rich, if it is based on several sources of data (Alasuutari, 2000).

An extensive literature review was conducted, and based on the outcomes of the literature review; questionnaire surveys and face-to-face discussions were undertaken.

Population of Relevance

The population for this study encompassed skilled workers from the Public Records and Archives Department (PRAAD) as well as workers from the Management Information Systems unit (MIS) of the Ghana Immigration Service Headquarters in Accra.

The units of analysis relevant to this study were employees within the ambit of technical, professional or managerial job category in their respective departments.

The study is mainly a descriptive survey as it reports the way things are. The study relies heavily on instrumentation, i.e. questionnaires and interviews for resulting measurements to be accurate; reliable, and generalizable. Questionnaires have the advantage of allowing contact with otherwise inaccessible participants and are often the lowest-cost option. They also allow participants time to think about questions. Some disadvantages of questionnaires include low response rates, no interviewer intervention available for probing or explanation and anxiety among participants. Personal interviews, on the other hand, offer the advantage of good cooperation from participants. Interviewer can answer questions about the survey, probe for answers, use follow-up questions and gather information by observation. However, longer periods are needed in the field collecting data as compared with questionnaires, and follow-up is labor-intensive.

The descriptive survey is clearly an appropriate design that could lead to the drawing of meaningful conclusions from the study. More importantly, the activities involved in this study which includes administering questionnaire, managing and analyzing data, and reporting results make descriptive survey a preferred option.
Both primary and secondary data were used: we used a series of interviews and questionnaires as our primary source of data. The source of secondary data was internet, published reports and articles from Ghana Immigration Service.

Sample and Sampling Procedure

In selecting samples for the study, both probability and non-probability sampling techniques were used. In particular, the purposive sampling technique which is a non-probability sampling technique was used to select workers from each department. This is because it was believed that all these workers have the technical or professional expertise in the area of electronic records management to enable them respond to the research questions. Respondents were randomly selected based on considerations of accessibility, financial and time constraints, coupled with the fact that all record management practices of GIS are similar in most respects. Sample frame was collected from the organization's staff records.

The overall population was 101 (51 PRAAD and 50 MIS workers).This constituted the sample size used for the study. In order to ensure fairness in the distribution of the sample among the three groups, the sample was selected proportionately among the three groups.

Sources of Data

Both primary and secondary sources of data were used in the course of the study. The primary data was obtained directly from respondents. This was done through the administering of questionnaires and structured interviews. As the research focuses on a public sector organization, secondary data will also probably provide a major source of necessary information. As our research strategy is case study, it is better to use compiled data that have already been sorted or summarized (Kervin, 1999). Secondary data can be obtained from different sources aimed at the same geographic area, where our case study takes place.

Area-based multiple sources of data are usually easily available in different forms, especially in published forms. Also tracking the original source of secondary data is much easier, especially when time restrictions are severe. For the purpose of this study it is even preferable to use newspapers, journals and media on a regular basis, as they may provide recent events within the business world.

Because of time constraints, secondary data can be obtained very quickly, in addition they have better

quality standards in comparison with collecting own data (Stewart and Kamins, 1993). Using secondary data also has a wide range of benefits, as they have already been collected and analyzed (Cowton, 1998). Unlike primary data, secondary data are permanently available and easily accessible, so that it can be checked relatively easily by others (Denscombe, 1998).

The primary data provided reliable and accurate first-hand information relevant to this study. The secondary information was obtained from the library, internet, journal articles, newspapers and research reports. The idea of secondary data was to gather necessary information to guide the conduct of the research project in order to confirm or reject the primary data.

Data Collection Instrument

Questionnaire was the main data collection instrument used for the study. The questionnaire was appropriate because it was assumed that participants were literate and for that matter they would be able to respond to the questions unaided. Questionnaire facilitated the collection of data that ensured the best matching of concepts with reality; it provided the same responses from a given set of respondents and helped reduce inconvenience caused by unfavorable interview times and busy schedules.

According to Saunders, (2007), questionnaire is used for explanatory research to enable researchers to examine and explain relationships between variables, in particular cause-and-effect relationships. The researchers personally administered the questionnaire to the respondents. The structured questionnaire was used to guide the researcher in interviewing the management staff. The questionnaire consisted of both open and closed ended questions, based on the objectives of the research and can be found in appendix 1.

Pre-Test

In order to test the reliability and validity of the data collection instrument, pre-test was carried out. There was a reconnaissance study in order to pre-test the instruments. This stage revealed the suitability of the methods and instruments that were employed in the study. This consequently led to early detection of errors and distortions in the questionnaire which were corrected in the process. This helped the researchers to familiarize themselves with the research environment and also offered the opportunity to practice research in real situation before the main study began (Sarantakos, 1998).

Data Analysis and Presentation

To investigate how electronic records management is practiced in Ghana Immigration Service, primary data were gathered through questionnaire survey and face-to-face discussions over a period of four months. Quantitative and qualitative methods were used to analyze the data. The results were computed into percentages and subsequently presented in the form of pie charts, bar charts and tables.

Computer data analyses software such as the use of Statistical Package for the Social Sciences (SPSS) and other relevant software such as Microsoft Excel were the main tools employed to analyze the data in order to help interpret results. The justification for the choices of these programs was that, these techniques facilitated word processing and data analysis very easy and accurate pictorial presentations.

The other questions that were open-ended were analyzed by listing all the important responses given by the respondents. The responses were considered based on their relevance to the study.

Simple logical discussions, analysis and interpretations based on the data are presented in relation to the study objectives.

This included data extraction and compilation of the research results. Tables, pie and bar charts were used to present and analyze data that were collected. To ensure consistency and avoid any contradictions, the data were checked and edited carefully.

PRESENTATION OF DATA AND ANALYSIS OF RESULTS

Introduction

The previous chapters dealt with the description of various analytical procedures developed to provide information about electronic records management and its contributions towards growth and national development, whereas this chapter focuses on the other aspects of the study to further analyze results.

The findings are presented in-line with the study objectives. Appropriate headings or themes have also been provided to correspond with the questionnaires administered. Data from questionnaire were collated and analyzed through the use of Microsoft Excel. The findings are presented in tables and figures. Other statiscal tools such as frequencies, percentages and averages were also used to analyze and interpret the data.

In order to compute percentages of respondents from the responses gathered, the researchers employed the mathematical model below:

Number of responses for each question
Sample size (101) X 100

Demographic Characteristics of Respondents
This section describes the background and characteristics of respondents. The characteristics of the respondents were analyzed in terms of age. A summary of responses are presented in table 4.1 below:

Table : Age of Respondents

Age	**No. of Responses**	**Percentage %**
18-28	22	21.78
29-39	25	24.75
40-50	38	37.62
51-60	16	15.84
Total	**101**	**100**

Source: Authors' field data (2013)

As illustrated in the table above, the age range of respondents lies between 18 and 60 years. Thirty-eight respondents, representing 37.62% aged between 40 and 50 years. A significant 24.75 were between the ages of 29 to 39 years. Overall, these statistics indicate a fairly youthful employee population of GIS – a potential that can be harnessed and fully utilized for attainment of the objectives of the organization. Interestingly, only 15.84% and 21.78% of respondents' aged between 51 -60years, and 18- 28 years respectively.

4.2 Number of Years Spent in the Organisation
The second aspect of respondents' demographic data focused on the number of years respondents have spent at their workplace. The aim was to ascertain whether respondents' background in terms of their experience influenced responses in any way.

Table 4.2 Number of Years Spent in the Organization

Years	**No. of Respondents**	**Percentage of Respondents (%)**
1-5	26	25.74
6-10	45	44.55
11-15	19	18.81
16-20	11	10.89
Total	**101**	**100**

Source: Field data (2013)

With regard to the number of years respondents have spent at their work places, approximately 45 percent responded that they had been at their work places for 6-10 years while 10.89% percent of the respondents responded that they had been at their work places for 16-20 years with approximately 26 percent of respondents indicating that they had been working for the past 1-5 years. It is evident that many of the respondents had worked with GIS long enough and therefore they were more knowledgeable to provide appropriate responses to the questionnaire.

4.3 ASSESSMENT OF E-RECORDS MANAGEMENT APPROACHES AT GIS

4.3.1 Collection of Records

The study sought to find out from GIS staff whether records of the organization's activities were generated and collected electronically or manually.

Collection of Records

Source: Field Data (2013)

As shown in Figure 4.3.1, ninety-five of the respondents representing 94% indicated that records of GIS were collected manually. However, only six respondents representing 6% indicated that, records were collected electronically. This is an indication that record keeping, and indeed, record management at GIS is largely done manually. It is worthy of note that the minority 6% who indicated that records were collected electronically were mainly staff from the MIS Unit who process records electronically.

Electronic record management, according to Glaser et al (2007) has the advantage of improving organizational success as activities in the organization can be completed in an efficient manner when information and records can be found easily and quickly.

Therefore if GIS is to be able to improve upon organizational processes, then it is important to design and implement policies that will facilitate the use of technology.

Documented Procedures to Manage Records

While the importance of documented procedures for records management might not be obvious to everyone, its impact on the ability of an organization to function effectively is indisputable (IRMT, 2004). It is only through well-documented procedures that records management efforts can be successful, which allows the organization, either public or private, to conduct business. Records management is more than retention, storage, and disposition of records. It entails all recordkeeping requirements and policies that allow an organization to establish and maintain control over information flow and administrative operations.

Documented Procedures to Manage Records

Source: Field data (2013)

As regards availability of documented procedures at GIS for records management, figure 4.3.2 above shows an overwhelming majority of respondents, 83% confirming the organization has established well-documented procedures to follow in managing records. However, 17% of respondents indicated otherwise – they were either not aware of such procedures or have not followed such procedures for some time.

Electronic Records Management Projects

It was clear from the literature that managing the process of migration from manual to electronic records usually adopts change management processes (Gray, 2005). This section of the study sought to identify the electronic records management projects implemented by GIS in the last five years, and to determine whether these projects were properly managed using change/project management techniques deliver desired outcomes

Electronic Records Management Projects

Source: Field data (2013)

above indicates there have been some electronic records management projects or attempts at GIS. This was confirmed by 78% percent of respondents, while 22% indicated they did not know about such projects. Respondents gave details of a computerized records management project (CRMP) that commenced in 2008. According to respondents, the project was launched by the MIS Unit in recognition of the rapid advancements in technology and the need handle large volumes of information.

At this point it became necessary for researchers to assess some of the benefits derived from the CRMP project. The observed benefits provided by respondents were coded and summarized in figure 4.3.4 below.

Benefits of the CRMP

Source: Field data (2013)

Figure 4.3.4 indicates that the CRMP project, which was essentially an electronic records management attempt by GIS yielded some benefits including improvement in processes, improved access to information, consistency in service delivery, efficient information processing and reduction in fraud. This corroborates Glaser's assertion that electronic records management can be beneficial to both private and public organizations (Glaser, 2007).

Adequacy of Current Records Management Systems

The study sought to find out if the prevailing records management systems at GIS were adequate and effective. Respondents were asked to describe the records management situation at GIS. Data collected is presented in figure 4.3.5.

Adequacy of Current Records Management Systems

Source: Field data (2013)

Clearly, figure 4.3.5 provided a lot of insight with respect to the adequacy and effectiveness records management systems at GIS. Not surprisingly, 52 percent of respondents consider the existing records management systems at ineffective. This result was to be expected as respondents had earlier given indications that records generation, collection and retrieval were all done manually. Only 2 per cent of respondents described current records management systems as 'challenged', while 28 percent thought the systems were adequate i.e. providing the needed support for organizational processes. Again, a smaller proportion of respondents – 6 percent thought records management at GIS was effective. Generally, respondents were widely split between the two contrasting views of adequacy and effectiveness.

Suitability of E-records Management to Existing Processes

IRMT (2004) points out that as government services are delivered using new ICTs, the intended benefits will be compromised unless there is an adequate infrastructure for managing the e-records that will be created. Traditional records and information management tools, such as classification schemes and disposal schedules are necessary to ensure that e-records are protected as reliable evidence. Failure to address these issues could lead to reduced government effectiveness; increased operating costs; gaps in recorded memory; reduced public access to entitlements; erosion of rights; and weakened capacity for decision making.

Existing Records Management Processes at GIS

Researchers sought to find out the existing records management processes available at GIS. Data collected are presented in figure

Existing Records Management Processes

Source: Field data (2013)

The results presented in figure above to a large extent confirms the assertions made by Akotia (2005) that records and information management involves managing records in all formats from their creation to their ultimate disposal. Figure above indicates that 97 percent of the respondents sampled agreed that appraisal, disposal, creation and capturing all formed part of existing records management processes at GIS, except 3 percent who were not sure about the existence of such processes.

The next attempt by researchers to understand the suitability of e-records management to existing processes was to find out from respondents if they generally identify a fit between e-records management and the existing processes. The findings are captured in fig

Matching E-records Management with Existing Processes
Source: Field data (2013)

As figure shows, respondents were almost unanimous in their responses to the question of whether they found e-records management sound and applicable to existing processes. A staggering a 87 percent indicated that e-records management systems could be deployed to current records management processes, whereas a minority 13 per cent did not see any link between existing processes that require e-records management.

The Major Actors and their Role in Electronic Records Management

Electronic records management systems are deployed on technology platforms, some requiring internet technologies and data management systems. This means such systems are integrated with technology, people and processes. In that sense GIS must identify each of these elements and assess their role in running an effective electronic records management system. Table above shows these elements and their roles ranging from 'minor' to 'very critical' as identified by respondents.

Major Actors in Electronic Records Management

RESPONSE **ACTORS**

People
Processes
Systems/Technology

F
%
F
%
F
%
Minor
20
19.81
9
8.92
4
3.96
Major
23
22.77
44
43.56
26
25.74
Critical
21
20.79
23
22.77
18
17.82
Very critical
37
36.63
25
24.75
53
52.48

Totals
101
100
101
100
101
100

Source: Field data (2013)

The results summarized in table 4.6.3 indicate that 36.63% and 52.48% of respondents respectively appreciate the importance of people and technology in the electronic records management efforts of GIS. It is also obvious in table 4.6.3 that majority 52.48% of respondents identified technology as a very critical component of electronic records management while 43.56% consider existing processes as a major variable that must be taken into account in the planning and implementation of electronic records management.

4.4.3 E-Readiness of GIS

The researchers sought to establish if GIS is ready, technology wise, to automate records management processes. The responses gathered are presented in figure 4.6.4.

Figure 4.6.4 E-Readiness of GIS

Source: Field data (2013)

As figure 4.6.4 reveals, respondents were split equally in their opinions about the readiness of GIS to introduce electronic records management. Exactly the same proportion of respondents, 50% disagreed as the remaining 50%. This is clear indication that a lot more work needs to be done in to enable GIS to fully deploy technology to its records management processes.

4.5 Lyman and Varian (2000) maintain that information age government is underpinned by the effective management of electronic records. It is also common knowledge that governments are run by government institution in which transactional records will be generated by new forms of service delivery, as electronic transactions are received from business and the citizen, and processed in one or several departments. Document-based records will be generated within departments by day-to-day working activities in relation to policy-making and administration, casework and operational services. Based on this insight, the researchers sought to identify the specific contributions of growth and national development.

Contributions of E-records Management to National Development
RESPONSE
PERCENTAGE (%)
S.A
A
N
D
S.D

Operational Success
9
17
45
20
9

Efficiency
0
14
54
26
6

Robust Information System
9
17
43
17

14

Quality Service Delivery
23
31
26
14
6

Enhanced Growth
6
71
7
11
5

Source: Field data (2013)
(Key: Strongly agree = S.A, Agree = a, Neutral = N, Disagree= D and strongly disagree= S.D)

The figures in table four suggest that even though the efficiency can result from the deployment of electronic records management, 54% of respondents do not consider it a key determinant of the value of contracts. Interestingly, however, a significant number of respondents representing 31% agree that cost effective, user friendly electronic record management systems can reasonably contribute to the delivery of quality service. In total 54% of respondents (23% + 31%) agree that delivery of quality service is to some extent consequent to the deployment of electronic records management. Majority of respondents surveyed in the study were neutral to the notions that electronic records management systems could facilitate the achievement of operational success. A staggering 45% and 43% respectively expressed this view.

A total of 77% of respondents agree that electronic records management could enhance the growth of GIS.

It is important to note that the ratio of respondents who strongly agree compared to those who strongly disagree are quite marginal, except in the case of 'Quality Service Delivery' - where there is sharp contrast between these two opinions; 23% strongly agree, only 6% disagree.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter sets out the conclusions drawn from the results already covered in the previous chapters. The concluding part of the chapter provides the way forward by way of suggestions and recommendations. One of the major situations that helped the work of the researchers during this study is that there was readily available literature on the topic which helped focus the study. A summary of findings from the study are provided below.

Findings and Conclusions

The study is based on a survey set up to describe the issues and dilemmas professionals in GIS face as a result of the over-reliance of traditional, manual records management systems and to underscore need for deployment of electronic records management systems.

After a series of extensive review and analysis of materials relating to electronic records management, the following findings were made.

A staggering ninety-five of the respondents representing 94% indicated that records in GIS were collected manually. This is an indication that record keeping, and indeed, record management at GIS is largely done manually. Without cost-effective electronic record management, it could be difficult for GIS improve organizational success as activities in the organization cannot be completed in an efficient manner when information and records cannot be found easily and quickly. While the importance of documented procedures for records management might not be obvious to everyone, its impact on the ability of an organization to function effectively is indisputable. It is only through well-documented procedures that records management efforts can be successful, which allows the organization, either public or private, to conduct business. Records management is more than retention, storage, and disposition of records. It entails all recordkeeping requirements and policies that allow an organization to establish and maintain control over information flow and administrative operations.

As regards availability of documented procedures at GIS for records management an overwhelming majority of respondents, 83% confirmed the organization has established well-documented procedures to follow in managing records. However, these well-documented procedures in records management seem to have outlived their usefulness considering the increasing digitization of the environment within which GIS operates.

Majority 52 % of respondents consider the existing records management systems as either ineffective or inadequate. This can have dire consequences on the activities of GIS. The records management professionals consulted in the course of this study confirmed that a computerized records management project implemented in MIS Unit had resulted in improved organizational processes, improved access to information and consistency in service delivery. This means that a corporate-wide, technology-based redesign of information processing as well as electronic records management has the potential to transform GIS and enhance growth and development.

Results from the study also indicate that indicates that 97 percent of the respondents surveyed agreed that appraisal, disposal, creation and capturing all formed part of existing records management processes at GIS, except 3 percent who were not sure about the existence of such processes.

The views of those consulted in the study also indicate that workers are desirous of having electronic records management systems deployed. However, it appears the organization is lacking behind in terms of its e-readiness which a pre-requisite for the successful implementation of electronic records management - 87 percent indicated that e-records management systems could be deployed to current records management processes. In the area of e-readiness, 50% of respondents thought that GIS is not ready for electronic records management.

Majority of respondents appreciate the importance of people and technology in the electronic records management efforts of GIS and have identified technology as a very critical component of electronic records management while 43.56% consider existing processes as a major variable that must be taken into account in the planning and implementation of electronic records management. A total of 77% of respondents agree that electronic records management could enhance the growth of GIS.

Conclusions

The administrative procedures in GIS establish the institutional framework for collection, storage and retrieval of records which is done almost manually. Incidences of human errors relating to misfiling, loss of valuable records and the use of traditional, manual records management approaches however hamstring the 'reasoned' application of alternative approaches that will contribute to the realization of the organization's quest for improved service delivery.

Electronic records management systems provide functionality for achieving this objective. A more robust, technology-based system of records management will be required to sustain the progress made by GIS.

When GIS looks for an overall framework or model to guide electronic records management, it is clear that most workers favour a model that advocates a much more active role by the people i.e. those involved in the electronic records management process. However, much research and testing needs to be completed to determine just how this strategy of integrating people and processes into a new electronic records management system will be implemented and how these records people will interact with other records management partners.

It is important to emphasize however that, the electronic records management reforms described above are not, of themselves, sufficient conditions for the achievement of growth and development. The majority of those consulted in the course of this study acknowledge this fact and calls for improved records management and greater professionalism in the records management function. The sole reliance upon the traditional method and the use of largely manual approaches seem to be fundamentally wrong.

The focus on reputation and the workers' preoccupation with retrieval of records manually leads to boredom, in other words lack of enthusiasm, among workers. The lack of enthusiasm has permeated the various units and departments in the organization.

Recommendations

The views of those surveyed have highlighted a number of common issues for the future. All are agreed on the need to improve records management practice from mere considerations of administrative requirements to the concept of electronic records management based on best practice and professionalism.

Instead of using manual management approaches, this study suggests that technology, people and processes should be integrated in a system that delivers efficiency and improvements in the records management processes of GIS.

E-records management models have become more entrenched in the public sector. The existing manual records management procedures at GIS are wasteful and slow down the organization's operations as well as government business.

E-records management models require significant commitment by all involved, as well as the allocation of adequate resources to planning, managing, training and evaluating strategies and related actions aimed at achieving these objectives at government, social partner, organization and individual staff levels.

The great majority of those consulted in the course of this study are in favour of such developments in principle, but certain barriers exist. Such barriers include workers unwillingness to change, lack of effective leaders to champion the change, lack of properly aligned training programmes, financial, modern equipments etc. The barriers must be overcome in order to have effective and efficient records management system.

Based on the findings of the study the following recommendations are provided.

Areas for Research

The following areas were identified for further research

i. Impact of technology-based records management on national development.

ii. The role skilled personnel in electronic records management.

It is believed that recommendations from further research, backed by advisory and support services for staff and key stakeholders will go a long to address some of the challenges records management practice. This will help improve upon their present performance in the public sector and enhance their ability to deliver quality service.

Furthermore, policy-makers should create an institutional framework backed by requisite capacity to train and retrain key records management professionals within the public sector on best practices particularly in the area of information communications technology. Priority attention must be given to encouraging innovation among public sector entities and officials within GIS, even if this means amending relevant sections of the administrative guidelines. Finally, it is important to encourage collaboration efforts with major stakeholders and implementing agencies in the area of electronic records management.

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APPENDIX ONE
QUESTIONNAIRE: E-records Management and National Development
WE GUARANTEE THAT INFORMATION PROVIDED SHALL BE HELD IN STRICT CONFIDENCE AND DO SO ENSURE ANONYMITY.
PLEASE PROVIDE APPROPRIATE ANSWERS TO THE QUESTIONS BELOW:
OCCUPATIONAL DETAILS FOR PARTICIPANTS
Please provide the correct information by ticking in the appropriate box and fill in the blank where necessary.

- Age of respondent

a. 18-28
b. 29-39
c. 40-50
d. 51-60

- Number of years spent in the organization ……

OBJECTIVE 1: To investigate various e-record management approaches and attempts at GIS

- Are documents/records collected electronically? Yes No
- How are documents/records accessed?
  - Manually
  - Electronically
  - Both
- Has the organization established and maintained documented procedures to manage records?

Yes No

- Have you initiated and implemented any e-records management project in the last five years?

Yes No

- If yes, please provide details of the project

……
……
……

- How has this project benefited the organization in terms of records management?

……
……

- How would you describe current records management systems in the organization?

a. adequate
b. inadequate
c. challenged
d. Ineffective
e. Effective

OBJECTIVE 2: To assess the suitability of e-records management to current practices and policies at GIS

- Why should GIS use electronic formats in records management?

……
……
……

- What records management processes are often used at GIS?

a. appraisal
b. disposal
c. creation
d. capture
e. All

- How will selecting appropriate formats guarantee effectiveness of records management?

- Do you find e-records management approaches sound and applicable to these processes? Yes

No

- What role does each of the following actors play in your e-records management efforts?

- People a. Minor b. Major c. Critical d. Very critical
- Processes a. Minor b. Major c. Critical d. Very critical
- Systems/technology a. Minor b. Major c. Critical d. Very critical

- Considering the actors (above), would you consider GIS as ready for migration to e-records management? Yes No

OBJECTIVE 3: To identify contributions of effective e-records management to growth and development.
Please indicate the extent to which you agree or disagree to the following statements.

- Success will consist of a situation whereby GIS deploys cost-effective, user-friendly e records management systems. a. strongly Agree b. Agree
  c. Strongly Disagree d. Disagree
  e. Uncertain
- Requests for information from auditors can be fulfilled without large expenditures of time and money. a. strongly Agree b. Agree
  c. Strongly Disagree d. Disagree e. Uncertain
- The business of GIS can continue with little interruption if there is a natural or human-caused disaster. a. strongly Agree b. Agree
  c. Strongly Disagree d. Disagree e. Uncertain
- E-electronic records management can enhance growth and development
  a. Strongly Agree b. Agree
  c. Strongly Disagree d. Disagree e. Uncertain

APPENDIX TWO
GLOSSARY

Accountability: The requirement to perform duties, including financial and operational responsibilities, in a manner that complies with legislation, policies, objectives and expected standards of conduct.
Activity: The major tasks performed by an organization to accomplish each of its business functions. An activity can encompass wide ranges of different transactions that take place in relation to or in support of that activity. Depending on the nature of the transactions involved, an activity may be performed in relation to one function, or it may be performed in relation to many functions. Similarly, several activities may be associated with each function.
Administrative records: Records relating to those general tasks or activities performed within an organisation that are common to all businesses or organizations, such as maintenance of resources, care of the physical plant or other routine office matters.
Aims: Statements of the ongoing purposes of an organization arising from its mandate.
Application: Software that automates and manages a range of tasks supporting a work activity and, therefore, a business function. Examples of software applications include software programs designed to assist with human resource management, financial management, licensing or registration.
Appraisal: The process of determining the value of records for further use, for whatever purpose, and the length of time for which that value will continue., review or selection.
Archival reference code: The combination of letters and numbers allocated to groups or series of archival materials, or to individual archival items, in order to identify and control the materials.
Archives: Records, usually but not necessarily non-current records, of enduring value selected for permanent preservation. Archives will normally be preserved in an archival repository, which is managed by an archival institution. See also Archival institution and
Repository.
Archives management: The professional area of expertise concerned with the maintenance and use of archives.
Archivist: A person professionally engaged in the management and preservation of archives.
Arrangement: The process of analysing the nature and scope of groups of archival materials, whereby their provenance and original order are understood and the archives are organized into groups, series and items according to a structure that preserves and reflects their provenance and original order.
Attribute: In a computer environment, a specific property inherent in a database entity or an object. Attributes usually consist of a name and a value, and they are often considered important metadata elements.
Audit: The process of reviewing, verifying, evaluating and reporting on an organisation, system, process, project or product.
Authenticity: In a records and archives environment, the quality of being genuine and not corrupted or altered. The authenticity of a record is typically inferred from internal and external evidence, including the physical characteristics, structure, content and context of that record.
Automation: The use of machines or systems to perform tasks that might otherwise be performed or controlled

manually.
Backup: The process of copying a computer file or collection of files to a second medium, usually on a diskette or magnetic tape, so that the data are safe in case the original file is damaged or lost. The resulting copy is also called a backup. Backup copies are usually stored on devices that can be removed from the computer and kept separately from the originals.
Capture: In a computer environment, the deliberate actions that results in the storage of a record in a record-keeping system, including the registration and classification of the record and the addition of metadata about the record. For certain business activities, these actions may be designed into electronic systems so that the capture of records into record-keeping systems takes place when those records are created.
Central processing unit (CPU): The chip or chips at the heart of a computer that enable it to process data.
Classification: In a records and archives environment, the process of identifying and arranging business activities and the resulting records into categories according to logically structured conventions, methods and procedural rules.
Classification scheme: A full representation of the business of an organisation, which systematically identifies and documents the organisation's activities and resulting records according to logically structured conventions, methods and procedural rules. Sometimes also referred to as a business classification scheme or file classification system. See also Retention and disposal schedule.
Classified records: Records that have been restricted in their circulation and access because they contain information that needs to be protected from unauthorised access. Classified records may bear security markings such as 'confidential,' 'secret' or 'top secret.'
Coding system: In a classification scheme, a representation of information through the use of letters and / or numbers, in accordance with a pre-established set of rules, in order to establish a logical framework for accessing and retrieving information and records.
Creation of records: The first phase of a record's life cycle in which a record is made or received and then captured in a record-keeping system for action or for its evidentiary value.
Current records: Records regularly used for the conduct of the current business of an organisation or individual.
Customer: Anyone who needs, uses or benefits from the output of a process.
Data: Electronic representations of information suitable for communication, interpretation and processing, generally by a computer system. Note: the term 'raw data' is used to refer to unprocessed information.
Data structure: A scheme for organising related pieces of information. The basic types of data structures include files, lists, arrays, records, trees and tables. Each of these basic structures has many variations and allows different operations to be performed on the data.
Database: A structured assembly of logically related data designed to be used in various software applications.
Database record: A complete set of information in a database; records are composed of fields, each of which contains one item of information.
Deposit: The process of placing records in the custody of an archival institution without transfer of legal title. The term 'deposit' also refers to the records included in any one such placement.
Digital preservation: A series of managed activities undertaken to ensure continued access to digital materials for as long as necessary, including in the event of technological change or the failure of digital storage media.
Digital record: A record maintained in a coded numeric format that can only be accessed using a computer system that converts the numbers into text or images that can be comprehended by the human eye. Digital records include records stored in electronic and non-electronic formats such as optical disk.
Disposal: In a records and archives environment, the actions taken to fulfil the requirements outlined in appraisal reports and retention and disposal schedules to retain, destroy or transfer records. Note that disposal is not synonymous with destruction, though destruction may be one disposal option.
Document: Information or data fixed in some medium, which may or may not be considered in whole or in part an official record.
Document management: The systematic control of documents by predetermined rules, principles and techniques.
Documentation: In a computer environment, the information or instructions needed to develop, use or maintain computer hardware and software systems and to permit access to and retrieval of the data contained in those systems.
Electronic document: Information recorded in a manner that requires a computer or other electronic device to display, interpret and process it. Electronic documents can include text, graphics or spreadsheets, electronic mail and documents transmitted using electronic data interchange (EDI).
Electronic document management system (EDMS): An electronic system or process – managed with the aid of computers and software – implemented in order to manage different kinds of documents in an organisation. Electronic document management systems may have limited records management functionality and may be

combined with electronic records management systems. See also Electronic records management system and Electronic document and records management system.

Electronic document and records management system (EDRMS): An electronic system or process – managed with the aid of computers and software – implemented in order to manage both electronic documents and electronic records within an organisation. Electronic document and records management systems combine the functions of document and records management. See also Electronic records management system and Electronic document management system.

Electronic record: A digital record that can be stored, transmitted or processed by a computer.

Electronic records management system (ERMS): An electronic system or process – managed with the aid of computers and software – implemented in order to manage different kinds of records in an organisation. Electronic records management systems may also operate as electronic document management systems (EDMS). Note that electronic records management systems are not the same as electronic document management systems.

Enduring value: In a records and archives environment, the value that records may have for any purpose and that justifies their preservation as archives. Not to be confused with continuing utility, which refers to the continuation of business activities, or as evidence of actions or transactions.

Evidential value: In a records and archives environment, the value of records or archives in providing authentic and reliable information on decisions, actions, transactions and communications made by the organisation that created the records..

File (1): In a records and archives environment, an organised physical assembly of documents, usually held within a folder, that have been grouped together for current use or because they relate to the same subject, activity or transaction. A file is usually the basic unit within a record series. A file can be found in any format, but the term folder is more commonly used in digital record-keeping environments.

File transfer protocol (FTP): In a computer environment, a type of Uniform Resource Locator or URL that is commonly used to store and exchange large files.

Folder: In the desktop environment, an assembly of one or more documents grouped together because they relate to the same subject, activity or transaction.

Function: A unit of business activity in an organisation or jurisdiction. Functions represent the major responsibilities that are managed by the organisation in order to fulfil its goals.

Functions are high-level aggregates of the organisation's activities. Functions may be derived through legislation, policy or programme development, or they may represent a set of tasks or activities that result in goods or services that the organisation is expected to provide.

Functional appraisal: In a records and archives environment, the process of assessing the enduring value of records by determining the functions of the body to be documented, identifying which offices or individuals created records in carrying out those functions and selecting the records that provide the most complete and concise documentation of the functions.

Functional classification: A system for organizing materials on the basis of the function, activity or task performed by an organization to fulfill its mandate, instead of by department, name or subject.

General disposal schedule: In a records and archives environment, a retention and disposal

Schedule that applies to the management of all the administrative or housekeeping records throughout an organization, rather than to specific operational records created by different Functional units within the organization.

ICT system: A coherent collection of processes, people and technologies brought together to serve one or multiple business purposes. ICT stands for information and communications technology; the acronym is used more often than the phrase itself..

Indexing: In a records and archives environment, the process of establishing terms to describe and provide access to records and archives.

Information: Data or knowledge that is communicated.

Information management: The overall process of planning, controlling and exploiting the information resources of an organization in order to support its operations.

Information manager: A person professionally engaged in the task of information management.

Information system: The combination of information, technology, processes and people brought together to support a given business objective.

Informational value: In a records and archives environment, the secondary value of records or archives for reference and research; the informational value of records derives from the information contained in them and may be incidental to their original purpose.

Intrinsic value: In a records and archives environment, the secondary value of records or archives by reason of their age, historical associations, physical form or features, aesthetic or artistic quality or monetary value.

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