

A Framework for Electronic Document Management in the Implementation of E-Government in Kenya

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Abstract

The implementation of Information and communication technology through e-government has proven to be effective in service delivery in many governments. A lot of developing countries are at risk of failing to implement their e-government services because of lack of proper guidelines which guide proper storage and management of electronic records. This paper aims to bring to light the significance of framework in the management of electronic records of profound e-government in Kenya implementation. This paper analyzes various secondary resources to reflect on the importance of electronic records vis-à-vis the support of e-government in Kenya and why there is need to have a guideline in managing electronic records. Through ICT Authority (ICTA), the Kenyan government has developed some form of framework which guides the implementation and the requirements of managing electronic records management. However, there are no policies and regulation that directs the creation, storage, maintenance, dissemination and disposal of electronic records produced by various government institutions in Kenya. The manner in which electronic records are managed in government institutions is a recipe for disastrous e-government. Owing to the fact that advancement in technology is taking place at a high speed, the use of electronic records in government institutions will rise. This means that there is need to have adequate policies and guidelines that cover all facets of records management particularly electronic records management to foster profound government services through e-government. After the adoption of Kenya vision 2030, Information and communication technology has been exploited in order to promote the efficiency and effectiveness in government administration. This paper recommends that The Kenya National Archives and Documentation Services (KNADS) needs to come up with a comprehensive policy for managing electronic records across all government institutions. The paper also recommends the importance of Digital achieving all government records into one platform controlled by the KNADS for effective and easier management.

Keywords: Electronic Records Management, E-Government, Framework, Kenya

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1.0 Introduction

It is important for one to understand the meaning of records and records management to fully understand the subject matter electronic records management. According to Henriksen and Andersen, (2006), (ISO 15489:2001) a record is any document regardless of its form or media that is created and received to serve as legal evidence of an event. Records management, on the other hand, is a systematic process following a records' life cycle starting from its creation of reception, processing, storage maintenance up to its disposal stage. The advancements of technology in developing countries such as Kenya have brought forth the birth of e-government which is being regarded as a key developing strategy of seamless public delivery and with transparency. As per Kemoni and Wamukoya, (2000), the goal of e-government does not necessarily lie on a government providing information to its citizens but should serve as a way of interlinking government departments through the use of various communication mediums. The type of communication between government departments using e-Government platform regards, procurement communication, communications concerning the various transaction and also relaying information on government resources. Maseh and Mutula, (2016) suggest that in 2011, the Kenyan government through Cap 19 of The Kenya National Archives and Documentation Service Act developed guidelines on the managing of records for all public institutions. The Kenya National Archives and Documentation Service Act (Cap 19) supplements Kenya's Government records management strategy as the only well-known legislation purposefully crafted for records and archives management. Despite all efforts by the Kenyan government to ensure there is a policy for records and archive management, there is no policy on electronic records in government.

Until recently, the Kenyan government did not recognize the usefulness of electronic records. The Kenya Communications (Amendment) Act of 2008, recognizes electronic records as legal evidence for government transactions including electronic signatures (Bwalya, 2012). Consequently, the same act emphasis the need to have the electronic records management well to ensure the security, authenticity, reliability, and integrity of the electronic records. In the spirit of recognizing the importance of electronic records, many government

institutions embarked on a mission to digitize their voluminous paper-based records. Some of the government institution that kick-started the digitization efforts include Ministry of Immigration, The Office of Attorney General, Ministry of Lands and Ministry of Information, Communication and the Government Press. Despite the digitization processes, the management efforts in regards to electronic records among Kenyan ministries is disjointed where every ministry adopts its own approach and strategy.

The Kenyan government has made tremendous strides concerning embracing e-government in its various institution (Maseh and Katuu, 2017). Some of the initiatives include human centers, e-citizen portal, and government websites. Examples of online transactions in Kenyan government institutions include tax, application of government jobs, Higher education's Loans Board (HELB), research permits and government tender applications. It should be noted that the lack of framework in electronic records management pose a danger to the provision of quality government services as the integrity and security of electronic records can be compromised.

2.0 Kenya's ICT spending

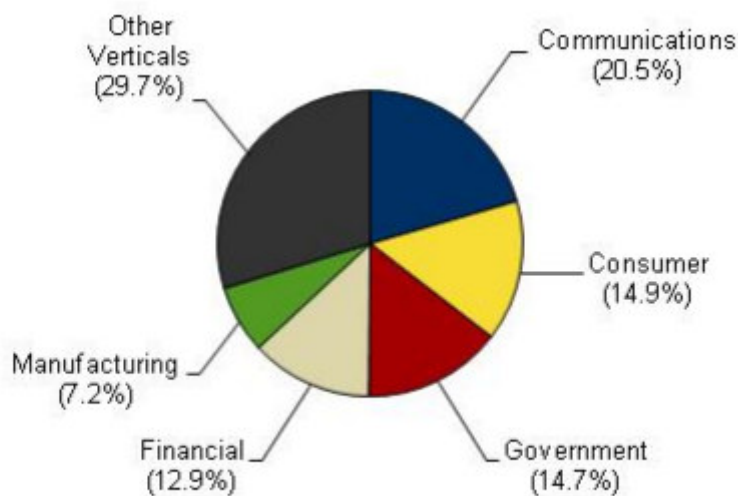


Figure 1. ICT spending in Kenya (Source: Kenya ICT Board. (2015))

According to Kenya ICT Board (2015), Kenya spends heavily on its ICT projects on three major sectors that include finance with 12.9%, communication sector standing at 20.5% and the government itself which is at 14.7%. The IT spending by the overall consumer segment stands at 14.9%. Kenya's technological sector has been seen to be growing at supersonic speed. This can be attributed to the fact that Kenyans are very susceptible to a technology they adapt fast to change. Recently, Kenya has experienced a change in the use of IT where it has shifted from the mass market and focused on data services of general consumers and entities. This shift in the provision of ICT services has created an avenue where the spending, upgrades of IT projects are sustained. Due to the integration of new technologies, regular software and hardware upgrades, the financial sector continues to be a big player in the use of ICT in Kenya. The rigorous efforts by the Kenyan government to create a service delivery system which is transparent through the utilization of ICT system has seen the Kenyan government become the largest player in terms of ICT usage. Use of ICT in government services allows for shared activities within ministries and the promotion of e-governments services.

3.0 Existing policies on electronic records management in Kenya

Right to access public information is granted in the new Kenyan constitution of 2010 specifically in article 35 (Nyabuga, 2016). Consequently, The Kenya Communications (Amendment) Act of 2008 makes legal the utilization of electronic signatures in any transactions. This law makes it necessary for the management of electronic documents for reliability, security, and authenticity to ensure that the Kenya government delivers services that are effective and efficient. The Kenya Communications (Amendment) Act of 2008 demands the communication commissioner should ensure that there is the reliability of records in any electronic transactions. Despite the fact, the act ensures that the authenticity of electronic records is upheld, the act does not relay guidelines on how to capture and manage electronic records. The Department of Public Health together with the Department of Medical Services in Kenya established Standards and Guidelines for Electronic Medical Records (EMR) in 2010 (Haskew, Saito, Turner, Odhiambo, Wamae, and Sugishita, 2015). The development of the standards was a result of collective engagements from the players in Kenyan public health from both private and public sectors. The objective of the standards was to relay rules in which the developers and implementers of

Electronic Medical Records (EMR) Systems can follow to ensure security and integrity in the management of patient data.

4.0 Existing Standards and Best Practices

The advancements in technology have put the use of electronic records in Kenya to be standardized. The Kenya Bureau of Standards (KEBS) has instated a number of standards in support of the Electronic Medical Records (EMR) Systems which can be applied in any system that generates and utilizes electronic records. Among the electronic records management standards developed by KEBS, some of them include;

KS 2229:2010-Electronic records management systems-functional requirements.

KS 2374:2012-Electronic records management systems-implementation guide.

KS 2391:2013-Electronic signatures-metadata requirements.

KS ISO/TS 21547:2010 Health informatics-security requirements for archiving of electronic health records principles.

KS ISO/TS 21547:2010-Health informatics-security requirements for archiving of electronic health records-Guidelines.

The above standards are adapted from (Kenya Bureau of Standards, 2014)

5.0 E-government in Kenya

The inception of the public sector reform in Kenya introduced the concept of e-government. The public sector reforms in Kenya was implemented in a bid to ensure that government services in Kenya are effective and efficient, transparent and accountable. The Kenyan government has always recognized the importance of technology in running government processes as opposed to having a manual system. In the launch of e-government, the then Kenyan President, Mwai Kibaki emphasized that the primary goals of e-government are to improve public service delivery through accountability, efficiency, and transparency (Kemoni and Ngulube, 2007). In addition, e-government was believed that it would foster motivation to public servants as their work will be light.

6.0 E-government services in Kenya

6.1 Huduma centers

In 2013, the Government of Kenya for the first time cushioned the plight of many Kenyans who had to travel to its capital city Nairobi for government services through the establishment of Huduma centers. At present, Huduma centers offer a wide range of government services accumulating to 45 services and the existing 40 Huduma centers across the country have proven to very useful (Ng'aru and Wafula, 2015). They serve as a one-stop shop for all government services all in one place. The Huduma centers services are set to be improved with the introduction of e-Huduma web portal to assist people to get government services from the comfort of their living rooms.

6.2 The E-citizen platform

Through the establishment of an e-citizen portal, government services in Kenya can now be bought online (Kiprop, Nyaoga, and Robert, 2017). The e-citizen portal consolidates all government services excluding parastatals. The sole purpose of the e-citizen portal is to put government's e-services on a platform where users can access at their own convenience. The purpose of the e-citizen portal is to ensure that citizens are able to get government information and also some of the government services. The sole intention of the e-citizen portal is to enable Kenyans across the country to seek government formation without the need of visiting a government office. The e-citizen portal connects all government services and information to be easily accessible by the citizens. Services offered by the e-citizen portal include;

6.3 Government agency Services

National Transport and Safety Authority- application for driving license renewing driving license and booking a driving test

The Kenya Revenue Authority (KRA) - Paying for taxes and filing tax returns.

Business Registration Service Register and manage business reports.

Ministry of Lands and Physical Planning- Search for land information, application for title deeds, land clearance.

Department of Immigration Services- Passport and visa applications and application for a work permit for foreigners.

Civil Registration Department Application for Birth and Death Certificates.

Directorate of Criminal Investigations Application and payment for Police Clearance Certificate.

Office of The Attorney General and Department of Justice Services for getting married or enter a civil partnership in Kenya, business Name search and Registration.

6.4 E-procurement Service

The new constitution of Kenya gave birth to the country government. This meant that transparency was the biggest challenge that the national government had to deal with the money he channeled to the county governments. In this regard, the establishment of e-procurement service in 2014 for country government and also the ministry became a reality through the Financial Management Information System (IFMIS) platform (Mwangi, Kiarie, and Kiai, 2018). The objective of the establishing Financial Management Information System (IFMIS) platform in county governments was to foster transparency, cost-effective procurement, and integrity. The IFMIS platform is also inclusive of Kenya Supplier portal where the procured will be able to follow purchases from the time of creating a budget to the time the procured items are delivered. The IFMIS is a major boost to the procurement challenge that the Kenyan government has been facing through its ministries. By having a platform where the procurement process will be tracked means that taxpayers' money will be used for purposes that it was intended for.

6.5 Reporting corruption through The Ethics and Anti-Corruption Commission-EACC portal

The Ethics and Anti-Corruption Commission-EACC, which was formerly known as The Kenya Anti-Corruption Commission came up with an online system in 2009 where Kenyan citizens can be able to report crimes and act as whistleblowers to government officers who take part in various corruption activities (Injene and Ngahu, 2016). The online platform is a boot for encouraging integrity as it is confidential and accessible.

6.6 iTax System

The Kenya Revenue Authority (KRA) in 2013 came up with an online tax system dubbed as iTax which is for managing the revenue's transactions. iTax is a system that is secured and provide various services that the Kenya Revenue Authority (KRA) offers for domestic and international taxes (Nyaegah, 2018). Through the iTax, a user needs to register and have a password for an account. Through one's iTax account, one can be able to file tax returns, tax payments, and checking for tax status. The iTax also allows one to apply for tax compliance certificate (TCC), tax refunds waivers and write-offs.

6.7 Integrated Customs Management System

Through Kenya Revenue Authority (KRA)'s integrated Customs management system that was launched in 2015, the operations at the ports and airports regarding custom duty payments has been streamlined.

Currently, the time taken to clear imports has reduced by a whopping 60% (Atambo and Katuse, 2017). Integrated Customs management system has also assisted through its ability to integrated Customs management system which links it to an integrated Customs management system thus scrapping off complexities where traders seek official approvals and other Kenya Revenue Authority's (KRA) services.

6.8 Online Passport Application

Since 2015, Kenyans apply for passports on an online platform that was launched by the Department of Immigration Services. The reason for the introduction of an online system for passports application was to reduce the waiting time from three weeks to Five days for an applicant to get a passport. One can use mobile technology to see the progress of a passport application thus saving time and money spent on a physical visit to check passport application status.

7.0 A framework of E-government Implementation

The Kenya government has always ensured that its services are efficient even before the establishment of e-government. The establishment of the Kenyan ICT Authority (ICTA), was the ultimate way to ensure that E-government projects in Kenya were relevant and viable. Despite the Kenya government agencies imitating their various E-government services, it is the responsibility of ICT Authority (ICTA) to approve them and ensure that they are in tandem with Kenya Vision 2030.

7.1 Level of E-government Maturity

The Kenyan ICT Authority (ICTA) made use of the Government Enterprise Architecture (GEA) in a bid to guide the various ICT implementation in the Kenyan government (Fath-Allah, Cheikhi, Al-Qutaish, and Idri, (2014). In order to understand the Government Enterprise Architecture (GEA) well, one needs to consider the following elements of the framework;

1. Infrastructure architecture- This regards to whether the hardware and software requirement meets the requirements of the needed infrastructure.
2. Information architecture – Design tools that are able to extract data from websites of government agencies.
3. Application architecture – This regards to the function of an institution and its ability to able to be

fulfilled with the proposed system.

4. Project management and governance- The management of the institution needs to offer the necessary support in terms of resources to support the success of the system.
5. Security and compliance – The system needs to guarantee the protection of government information.

7.2 Challenges Facing Implementation of E-government.

- I. Inadequate Information and Communication Technology ICT infrastructure in Kenya.
- II. Inadequate ICT skills among Kenya government employees who are expected to manage various E-government systems.
- III. The implementation of ICT in Kenya has been personalized than institutionalized.
- IV. The Kenya government has inadequate funds to enable her to purchase proper ICT equipment.
- V. There is lack of guidelines and framework in the standardization of ICT system in government agencies.

8.0 Conclusions

This paper proves that the Kenyan government has made tremendous strides in developing a framework for electronic records management which includes activities such as software acquisition. Despite the fact that some government agencies have guidelines to manage their electronic records, the guidelines do not seem to align itself with the principles of records management. In Kenya, the Management of Electronic Records in various health facilities has proven to be near the standards of electronic records management hence set the pace for implementation of e-government. The challenges of having formidable, E-government framework in Kenya for managing electronic records is as a result of lack of skills, inadequate financing, and resistance by government employees to adapt to technology changes. Through the literature review, the paper has discovered that despite the establishment of MER which seems to be successful, there is lack of guidelines to dictate the requirements of setting up an MER for hospitals.

Despite the fact that there is a high prevalence of electronic records in Kenya, especially in the various government entities, there are inadequate strategies to ensure that there is at least proper electronic records management. In addition, the evidence that there is lack of proper management of electronic records produced from all Kenyan government agencies means that the government is at high risk of having its information getting into the hands of hackers and other ill-willed people thus demeaning the service delivery of the government. Through placing ICTA to be responsible for the ICT integration for all government services, the Kenyan government was trying to have a framework for managing electronic resources. It was a noble idea of integrating all government automation services under ICTA since it does not give an avenue for the loss of focus on e-government.

9.0 Recommendations

The paper has established that the capturing of records to electronic records in Kenyan government agencies was inadequate. This makes it difficult for the government to capture enough data to create an e-government platform. It is recommended that the Records Management Officers (RMOs) in all government agencies come up with ICT systems that are able to capture and manage electronic records.

ICTA should ensure that policies and guidelines are in place to direct profound capturing of electronic records emanating from all transactions of all government agencies.

Records Management Officers together with officials from ICTA should come up with harmonizing guidelines that give direction to government agencies on how to capture and store electronic records.

The Kenya National Archives and Documentation Service (KNADS) needs to have in place legislation in form of a framework which targets to relay procedures that government institution can be able to follow in the capturing, storage, maintenance and dissemination of electronic records.

There is need to have ICTA and ICT officers across all government institution to come with a standard e-mail management process to eliminate the possibility of important emails being deleted since they can serve as evidence for a transaction.

A good electronic records management framework should consist of retention schedules. This role is left to all records management officers and the Kenya National Archives and Documentation Services (KNADS) to develop a retention schedule for electronic records and the specification on the storage types.

Digital achieving all government records seem to be lacking in Kenya. There is need for the Kenya National Archives and Documentation Services (KNADS) to borrow a leaf from countries such as the United States, United Kingdom, Singapore, and South Africa which has programs that they direct how government agencies can upload their digital records to a directory of an archival center for management.

Ultimately, all the buck stops at The Kenya National Archives and Documentation Services (KNADS), an institution that has developed a myriad of policies in managing paper-based records in government institutions. Consequently, they are expected to develop comprehensive policies and programs which aim to assist in the

management of electronic records. The expected policy from The Kenya National Archives and Documentation Services (KNADS), need to cover areas that are not limited to specifying requirements for electronic managing system infrastructure and proposed framework for electronic records management, especially in e-government.

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