Electronic records management practices at the Companies and Intellectual Property Authority in Gaborone, Botswana

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Abstract
This study presents the findings of the study that sought to evaluate electronic records management practices at the Companies and Intellectual Property Authority (CIPA) in Botswana with the intention to recommend proper management of e-records. The study largely adopted a quantitative approach in which data were collected using a questionnaire, which was also augmented with triangulation of interviews and observation data. The target population of the study was sixty-one (61) respondents comprising of e-records creators and users (action officers), records management professionals, information technology professionals as well as CIPA directors. The response rate achieved was 75.4%. The study established that there is a massive production of e-records at CIPA, but instead, there is a lack of policies and procedures that govern the management of e-records. The study recommends that CIPA should develop, document and implement policies and procedures that guide the management of e-records including email records. The study also recommends that CIPA should also send their staff for e-records management training so that they have knowledge and skills on the current trends in e-records management practices.

Keywords: e-records, e-records management, Companies and Intellectual Property Authority, Botswana

1. Introduction
The role played by e-records within an organisation cannot be overemphasised. E-records, just like other records, provide essential evidence of organisational activities, transactions and speed decision-making process. E-records need to be
managed effectively. IRMT (2004) defines e-records as recorded information, documents or data that provide evidence of both policies, transactions as well as activities performed in e-government and e-commerce environment. Mnjama (2014) defines e-records as information or data files, created and stored in electronic form through the use of computers and application software. Sejane (2004) asserts that e-records are important tools because they enable more effective sharing of information. E-records are important tools within any organisation and they need to be given the same attention just like other organisational records. However, despite the importance of e-records in organisations, several studies such as Moloi and Mutula (2007); Ngoepe and Keakopa (2011) lament of lack of skills and infrastructure to manage e-records in Botswana. This study sought to evaluate electronic records management practices at CIPA in Botswana with the intention to recommend proper management of e-records.

CIPA is a parastatal organisation under the Ministry of Investment, Trade and Industry. CIPA, which was previously called Registrar of Companies and Intellectual Property (ROCIP) was established by an Act of Parliament in 2011 to promote and enable full protection of the rights of investors and rights holders obtained under the Companies Act, Registration of Business Name Act, Intellectual Property Act and Copyright and Neighbouring Rights Act. CIPA also has offices or branches in Francistown, Serowe and Maun. According to CIPA Human Resource Management statistics (2017), there are 68 employees at CIPA. The organisation is responsible for the implementation of pieces of legislation, which are briefly discussed below:
The Companies Act (CAP 42:01): This legislation provides for the incorporation of companies’ registration of post incorporation returns and notices, monitoring of post returns and reservation of business company names.

Registration and Business Names Act (CAP 42:05): This legislation make provision for the registration of firms, individuals and bodies corporate carrying on business under a business name, and for matters incidental thereto and connected therewith.

Copyright and Neighbouring Rights Act (CAP: 68:02): This legislation provides for the protection of right of authors, artists and creators as well as protection of their literacy and artistic creations which are referred to as “works” of the author.

Intellectual Property Act (CAP: 68:03): This legislation provides for the protection of industrial property authority rights in relation to patents, trademarks, utility model certificates, industrial designs, traditional knowledge, integrated circuits, industrial designs and geographical indication.

2. Literature review

Electronic records, just like other records, provide essential evidence of organisational activities, transactions and speed decision-making process. Electronic records are regarded as strategic and operational assets and are important for the operation of the government and they need to be effectively managed and protected (Wamukoya & Mutula 2005; Mnjama & Wamukoya 2004). Sejane (2004) posits that e-records are important tools because they enable more effective sharing of information. ISO 15489 (2016) postulates that e-records management ensures that organisations are able to retrieve or locate
the records they need whenever they are required. Organisations such as CIPA require proper electronic records management in order to conduct its business in an orderly, effective and accurate manner. Moreover, proper electronic records management is also required to provide evidence of organisational activities. Through proper electronic record-keeping, an organisation such as CIPA can deliver its services in a consistent and equitable manner, support and document policy formulation and managerial decision-making. Electronic records management has become a burning issue since the revolution of Information and Communication Technologies (ICTs).

According to Asogwa (2012), the major development that affected the ways records are created resulted from the fast diffusion of microcomputers into the markets and into the office environment of both the government and private sectors. Asogwa (2012) further underscores that since the revolution of computer-based systems and the internet technology, organisations are now conducting their businesses online which impacts on the manner in which records are created, managed and accessed. Mnjama (2014) avers that the shift from paper records to e-records offers several advantages over paper-based records. E-records enable faster access to information by authorised users in numerous locations and instant access to information. In addition, e-records offers several benefits such as ease and speed of off-site back-up of vital records, ability to provide records over an organisation’s intranet and have the capability to provide records to customers or the public via the internet. E-records also offer the ability to add workflow technology so that ‘float’ between actions upon the records is dramatically reduced and allows huge amounts of information to be stored (Mnjama 2014).
According to Mukred and Yusof (2015), it is impossible for organisations to function efficiently without proper electronic records management. Luyombya (2010) notes that if there is no framework that guides the management of e-records, organisations are likely to face several challenges such as loss of data, poor accountability as well as failure to access required information stored in the electronic environment. Mnjama and Wamukoya (2004) buttress that as governments implement e-government within their operations, proper management of e-records is essential as they are valuable assets that need to be protected. Iziomo (2014) posits that electronic records management gives unlimited storage space as compared to paper-based records that require plenty of space for their management.

Some of the examples of e-records include e-mail messages, word-processed documents, electronic spreadsheets, digital images, and databases (Cayman Islands National Archives 2015). From a review of the literature on e-records management in both public and private sector organisations, it is evident that e-records management is faced with many challenges and little attention has been given to their management. Some of the challenges faced in the management of e-records among others include absence of policies and procedures for the management of e-records, technological obsolescence, legal issues and legislative constraints, reliability and authenticity, inadequate skills and competencies, low level of ICT literacy, and poor funding (Asogwa 2012; Moloi & Mutula 2007; Keakopa 2007; Mnjama & Wamukoya 2004).

Moloi and Mutula (2007) assert that “in Botswana, there is currently no infrastructure in terms of policy, legislative framework, strategies, and guidelines for managing electronic records.” However, the Electronic Records (Evidence) Act was enacted in 2014. This Act provides for the admissibility of
electronic records as evidence in legal proceedings and authentication of electronic records. From the findings of these studies, it can be deduced that the management of e-records is faced with different challenges, which archives and records management professionals should consider to remain relevant in their profession. Furthermore, Moloi and Mutula (2007) assert that most government organisations are generating many e-records in different forms such as email, word-processed documents as well as automated databases, but the main problem remains on how to preserve and manage such records so that they can be accessed in the future. Therefore, the current study sought to evaluate electronic records management practices at the CIPA in Botswana with the intention to recommend proper management of e-records.

3. Statement of the problem

Despite the critical role played by e-records, during a preliminary investigation with CIPA, the researcher has observed that, while there is massive production of e-records at CIPA geared by the adoption and usage of ICT, e-records are not effectively and adequately managed. Arguably, the failure to manage e-records properly in an organisation such as CIPA may result in delays in the provision of service delivery in the organisation, which can also result in loss of business opportunities. Therefore, the study sought to evaluate electronic records management practices at the CIPA in Botswana with the intention to recommend proper management of e-records. According to Piggot (2002), if records are not effectively managed, it will be difficult to detect fraud and meaningful audits will not be achieved properly. Ismail and Jamaludin (2009) contend that a lack of awareness of the importance of e-records management increases risks associated with loss of data and lack of accountability and transparency. Katuu and Ngoepe (2015) underscore that electronic records offer several opportunities
such as multiple access, instant transmission and efficient retrieval using numerous criteria. However, they have not always been effectively managed. This study specifically focuses on CIPA. In addition, the study sought to evaluate electronic records management practices at the CIPA in Botswana with the intention to recommend proper management of e-records.

4. Purpose and objectives of the study

The main purpose of the study was to evaluate current e-records management practices at CIPA with the view of proposing recommendations for proper management of e-records at CIPA. Specifically, this study intends to:

1) Identify the mode of organisational e-records management at CIPA.
2) Establish availability of policies and procedures that guide the management of e-records at CIPA.
3) Determine whether records management professionals have received any training on e-records management.
4) Recommends improvements to the management of e-records at CIPA.

5. Research methodology

This quantitative study utilised questionnaires as the main data collection tool supplemented by interviews and observation checklist in order to increase the validity of data. The current study targeted 61 participants from CIPA. These comprise action officer, records management officer, IT officer, and CIPA directors. For this study, the researcher did not follow any sampling procedures since the study uses census. However, 46 respondents participated in the study. Data for the current study were analysed using Excel spreadsheet and data
collected through interviews and observation were integrated into the findings from the main questionnaire. Table 1 shows how the objectives were addressed.

Table 1: Research questions, source and instrument

<table>
<thead>
<tr>
<th>Research Questions/Theme</th>
<th>Source and Total participated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIPA organisational e-records</td>
<td>Action officers (37)-Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Records officers (3)- Questionnaire</td>
</tr>
<tr>
<td></td>
<td>IT officers (2)- Questionnaire</td>
</tr>
<tr>
<td>CIPA e-records management policies and procedures</td>
<td>Records officers (3)- Questionnaire</td>
</tr>
<tr>
<td></td>
<td>IT officers (2)- Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Directors -Interview</td>
</tr>
<tr>
<td>CIPA e-records management training</td>
<td>Records Officers (3)- Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Directors -Interview</td>
</tr>
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</table>

6. Findings and discussions

The findings of the current study are presented under the following themes derived from the objectives of the study:

- CIPA organisational e-records;
- CIPA e-records management policies and procedures; and
- CIPA e-records management training.

6.1 Types of e-records in CIPA

The first objective of the study was to identify the types of e-records that were being created and/or received at CIPA. This was important in order to understand the formats in which e-records are created and/or received. Data on this section were collected from action officers, records management staff and IT professionals through survey census where a questionnaire was used.
Table 2: E-records created and/or received

<table>
<thead>
<tr>
<th>E-records created and/or received</th>
<th>Frequency (n=44)</th>
<th>Per cent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word-processed documents</td>
<td>11</td>
<td>25.0</td>
</tr>
<tr>
<td>Electronic spreadsheets</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>PowerPoints</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>Databases</td>
<td>10</td>
<td>22.7</td>
</tr>
<tr>
<td>Emails</td>
<td>17</td>
<td>38.6</td>
</tr>
<tr>
<td>Workflow systems</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Records are created and/or received and captured to support business or organisational activities (ISO 15489 2016). Electronic records are regarded as strategic and operational assets and are important for the operation of the government and they need to be effectively managed and protected (Wamukoya & Mutula 2005; Mnjama & Wamukoya 2004). Cayman Islands National Archives (2015) asserts that e-records can be created by means of computer software or even digitalised from existing paper-based records in the form of hard copies.

As shown in Table 2, 25% of the respondents stated that the types of e-records that they create/receive are word-processed documents, 4.5% underscored that they create and/or receive electronic spreadsheets, PowerPoints and workflow systems. In addition, 22.7% of the respondents indicated that they normally create and/or receive databases whereas the rest of the respondents, 38.6%, reported that they normally create and/or receive email records. This shows that most types of e-records that are being created and/or received by CIPA staff are
email records. Therefore, these types of e-records need to be managed effectively. This result implies that CIPA as an organisation allows the use of email communication as an official communication in the organization. Direct observation with the organisation also revealed that various computer technologies such as email communications, scanning and internet are widely used in the creation of e-records in the organisation. Direct observation with the organisation further revealed that CIPA is generating most of its e-records through registering of companies and business names. The findings of the current study are similar to those highlighted by IRMT (1999). The latter stated that the most types of e-records that are being produced in organisations include word processing, spreadsheets, emails, and database management software that are all running on personal computers within organisational setup.

6.2 CIPA e-records management policies and procedures

Information in this section was based on questionnaires distributed to all records management professionals, all IT professionals through survey census as well as interviews conducted with CIPA directors. Another objective of the study was to determine whether there are policies and procedures that govern the management of e-records at CIPA. Policies and procedures play a pivotal role in the management of records in an organisation as they shed light on how records should be managed within the organisation. IRMT (1999) defines a policy as “a plan of action or course of action designed to influence and determine decisions, actions and other matters; it is a guiding principle or procedure”. Policies and procedures can be regarded as a lens that guides records management practitioners in the management of their records. Rakemane (2017) reveals that proper records management largely depends on the existence of records management policies and procedures for their management. He further underscored that “policies and procedures should also spell how records
generated by means of technologies should be managed such as email records, word-processed documents, electronic spreadsheets as well as audio-visual records”. ISO 15489 (2016) postulates that policies on the management of e-records should be developed, documented and implemented. Policies should also be reinforced by procedures that provide more specific instructions on the creation, capture and management of records (ISO 15489 2016). According to Johare (2006), electronic records management does not only need the involvement of key players in recordkeeping, such as records manager and archivists but also IT personnel. IT personnel are required under a commonly shared responsibility to establish a credible electronic records management program (Johare 2006). Records management professionals are responsible for the overall management of records including the development of policies and procedures for the management of records in the organisation; whereas IT professionals assist with ICT infrastructure required. On the contrary, directors play a critical role in influencing the development of policies and procedures in the organisation.

Table 3: CIPA e-records management policies and procedures

<table>
<thead>
<tr>
<th></th>
<th>Frequency (n=5)</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown in table 4, 20% of the respondents stated that there are policies and procedures that govern the management of e-records at CIPA, while 80% indicated that there are no policies and procedures that guide the management of e-records at CIPA. However, those respondents who indicated that there are policies and procedures that govern the management of e-records in the
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organisation failed to give an account of when policies and procedures for the management of e-records were developed. Furthermore, interviews with CIPA directors further revealed that there were currently no policies and procedures for the management of e-records at CIPA at the time of data collection as one of the directors went on to say:

“At this time I cannot say there are policies and procedures that govern the management of e-records in CIPA. However, a draft policy has been developed but has not yet been approved and we hope it will help in the management of e-records in our organisation.”

When further asked on whether the draft policies and procedures cover the management of e-mail records, the same director went on to say:

“The draft policy on e-records management that has not even approved and implemented does not cover the management of e-mail records in the organisation. Moreover, the same director indicated that there was a debate during the development of the policy on whether email records should be managed by records management division or be the responsibility of the IT department alone.”

The findings of this study are also supported by other studies conducted by several experts in archives and records management. For example, Luyumbya (2010) conducted a study on public digital records management in Uganda. The findings of his study revealed that while ICT-related policies have been developed in Uganda, Digital Records Management policy or strategy was not existing within the country. In another study by Mutsagondo and Chaterera (2016) on “Mirroring the National Archives of Zimbabwe Act in the Context of electronic records: Lessons for the ESARBICA member states”, the findings of
their study show that while the National Archives of Zimbabwe have an act for the management of paper-based records, not the management of electronic records. In addition, Kyobe, Molai and Salie (2009) reported similar findings in their study on “Investigating electronic records management and compliance with regulatory requirements in South African University”, which revealed that there was lack of policies and procedures in the way electronic records were managed in the university. On the contrary, Khumalo (2017) mentioned that many records and information management rules or laws are mainly addressing the management of paper-based records and this becomes a big challenge when it comes to the management of e-records. However, it can arguably be stated that absence of policies and procedures for managing e-records poses many challenges that can result in loss of e-records that can be used for various platforms such as providing evidence of a transaction.

6.3 CIPA e-records management training

This section analyses and presents the results of data obtained on CIPA e-records management training.

Table 4: E-Records Management Training

<table>
<thead>
<tr>
<th>Training</th>
<th>Frequency (n=3)</th>
<th>Per cent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Kavishe and Dulle (2016) argue that owing to fast changes in information technologies, it would be problematic for information management professionals to provide appropriate services without any ongoing training. Therefore, the
training of records management professional in the 21st century where much of records are created and managed by computer technologies is an important tool.

Respondents were asked whether they had ever received any training or short courses on e-records management and/or ICT applications in records management. As illustrated in Table 3, 33.3% of the respondents indicated that they had received training on e-records management whereas the rest of the respondents (66.7%) stated that they have never received any training on e-records management and/or ICT applications in records management. The respondent who stated that he had received training on e-records management further elaborated that he received training in e-records management in 2016 as part of his modules when doing a certificate in records management. From this statement, it can be deduced that there is no training that has ever been offered to records management personnel with regard to the management of e-records organised by the organisation. For further clarification on issues of training on e-records management, directors were asked whether there had ever been any training that was offered to records management staff on e-records management. All the directors that were interviewed stressed that they have never offered any training to their staff on e-records management. However, one of the directors highlighted lack of skills as one of the impediments towards proper management of e-records in their organisation. From this statement, it can arguably be stated that e-records management is not given the attention required.

6.4 CIPA e-records management challenges
Information on this section was obtained from action officers, records management staff, IT professionals as well as CIPA directors.
Table 5: Overall challenges faced in managing e-records

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Frequency (n=44)</th>
<th>Per cent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The absence of policies and procedures</td>
<td>11</td>
<td>25.0</td>
</tr>
<tr>
<td>Lack of skills in managing e-records</td>
<td>20</td>
<td>45.5</td>
</tr>
<tr>
<td>Technological obsolescence</td>
<td>5</td>
<td>11.4</td>
</tr>
<tr>
<td>Lack of migration strategies</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>Poor ICT infrastructure</td>
<td>4</td>
<td>9.1</td>
</tr>
<tr>
<td>Loss of privacy and confidentiality</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>Inadequate securing measures</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Scholars in the field of archives and records management, Kalusopa (2016); Mutsagondo and Chaterera (2016); Mnjama (2014); Asogwa (2012); Marutha and Ngulube (2012); Nengomasha (2009); Kalusopa and Zulu (2009); Keakopa (2013); Keakopa (2007); Moloi and Mutula (2007) and Mnjama and Wamukoya (2007) underscore that there are several challenges facing many organizations with regard to the management of records generated by means of ICT products. Therefore, it is important to gather information on the overall challenges encountered by CIPA staff with regard to the management of e-records.

Respondents were requested to specify the challenges they face with regard to the management of e-records created and/or received in CIPA. As can clearly be seen in Table 5, 25% of the respondents stated that they are facing challenges of absence of policies and procedures in managing e-records, 45.5% indicated lack of skills as the challenge they face in managing e-records, 11.4% said they face
the challenge of technological obsolescence while 2.5% indicated a lack of migration strategies as one of the challenges faced in the management of e-records. In addition, 9.1% of the respondents showed that they face the challenge of poor ICT infrastructure and 2.3% stated loss of privacy and confidentiality as the challenges they faced in managing e-records.

The rest of the respondents (4.5%) revealed that the challenges faced in managing e-records are inadequate security measures. This implies that a lack of skills in managing e-records is the greatest challenge faced by CIPA in managing e-records. Interviews were also conducted with the director of Information Technology (IT) and another director responsible for customer service in order to increase the validity of data. However, interviews with one of the directors also revealed a lack of skills and competencies as one of the obstacles towards effective management of e-records. Furthermore, one of the directors at CIPA stated that one of the major challenges they faced with managing e-records is that the available systems or databases are not fully integrated resulting in manual intervention. In addition, another CIPA director said:

“While we are generating a lot of e-records in our organization, one of the big challenges we face include failure to access e-records created and/received and maintained, data integrity as well as inadequate security measures.”

7. Conclusion and recommendations

The findings revealed that policies and procedures that govern the management of e-records were not existing at CIPA. However, policies and procedures are important tools in the overall management of e-records in organisations. In addition, the study findings also revealed that there were inadequate staff that
are mainly trained in the field of records management. Lastly, the findings of the study revealed that there are a number of challenges which act as impediments towards proper management of e-records at CIPA which amongst others include inadequate security measures, poor ICT infrastructure, lack of training for e-records management, technological obsolescence, lack of migration strategies as well as lack of integrated systems used for the overall management of e-records in the organisation. The above challenges have a great impact on the overall management of e-records at CIPA.

Based on the findings, the study recommends several improvements towards the proper management of e-records at CIPA. CIPA should develop, document and implement policies and procedures that govern the management of their e-records. The policies and procedures should also spell out how the management of email records should be discharged as this forms part of e-records management.

Additionally, CIPA should send their staff for short courses or training on e-records management. This can assist them in understanding current trends in e-records management. CIPA should also send their staff for international conferences such as the ESARBICA general conference as well as the South African Society of Archivists conferences that are offered every year. The mandate of this conference is to discuss and share experiences on issues related to archives and records management. This can help them understand current trends as well as new developments in the profession.

Furthermore, CIPA should also increase the number of employees who are specifically trained in records management and having a background on e-records management and/or ICT application in records management. The
findings revealed that there were inadequate personnel trained in records management. This underscores the need to increase the number of personnel who have records management qualification and trained in e-records management and/or ICT application on e-records management. These professionals can help the organisation or authorities better manage its information resources.

CIPA should also procure and implement an EDRMS that will be used for the overall management of e-records in the organization. EDRMS is a system that performs the functions of both document and electronic records management. This will help the organisation in managing its electronic records such as emails, word-processed documents, spreadsheets, images and scanned documents. EDRMS will assist the organisation with electronic document warehousing, electronic form control as well as email archiving.

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