Electronic records management research in ESARBICA: a bibliometric study

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Abstract

Purpose – This study aims to find out how the e-records management subject has been researched and tackled by researchers in the Eastern and Southern African Regional Branch of the International Council on Archives (ESARBICA).

Design/methodology/approach – This research paper applied a bibliometric survey, where a quantitative survey of the literature pertaining to the study of e-records management in the ESARBICA region, covering the period from 2000 to 2016, was conducted applying bibliometric methods. The survey aimed at providing descriptive data that cast a spotlight on the features and development of the e-records management base literature in the ESARBICA region.

Findings – The research data display a lamentable outlook in the contribution to the electronic records management body of knowledge from the ESARBICA region. Few research articles from professionals in the records and archives management are being published. These figures call for increased investments in electronic records management research by institutions in ESARBICA, as management of electronic content has become the centre of political and socio-economic development. Follow-up studies need to be done to counter limitations placed on this research paper. The findings show that there is under production of research publications in the ESARBICA region. The region only contributed 2 per cent of the total world output in the period under review and in the study of electronic records management from journals indexed by Scopus.

Research limitations/implications – A bibliometric study places researchers at the mercy of analysing incomplete information due to limitations of resources. The variance in use of terminology (key words) by authors in published research articles may entail some being left out in an analysis of articles the same subject matter. As much as due diligence was placed on using Boolean search methods to counter such limitations they are unavoidable. An interpretation of bibliometric or citation analysis research is subjective as some analysts may label results incomplete or unreliable; hence, this paper finds itself in the same predicament. Inability to access the Thompson Reuters Web of Science database left the authors with Scopus as the only option, as Google Scholar was overlooked due to difficulties of having to rely on third-party software for analysing its indexed content that are mostly inaccurate and or ambiguous.

Practical implications – The findings of this study help uncover areas in e-records management, which have been researched over the years, and identify the prominent e-records management researchers in the ESARBICA region.

Introduction

Electronic records management has become a game changer in the records and archives management field. Traditional records and archives management work procedures, work methods, theories and principles have been questioned and new schools of thought, paradigms and philosophies birthed. Researchers and scholars in the records and archives management field have also pursued research on e-records management and such research has been varied and been different. Research interests and output show the developments within a country and or region and thus an analysis of such research output in the Eastern and Southern African Regional Branch of the International Council on Archives (ESARBICA) region goes a long way in reflecting on its advances. Wamukoya and Mutula (2005a, 2005b, p. 72) highlighted that the management of e-records is acknowledged by both governments and records management professionals as a global problem. The research seeks to investigate into problems being faced by communities and thus, e-records management research in the ESARBICA region apprises of what problems have been identified and investigated by researchers in the region. Kemoni (2009) highlighted that from South Africa, most countries in the ESARBICA region face various problems in managing e-records and to enhance the management of e-records in the region, there is need for governments and directors of National Archives within the ESARBICA region to implement the recommendations proposed by various records and archives management researchers/scholars and practitioners. As countries in the ESARBICA region seek to develop e-records management, there is a need for capacity building which will ultimately be informed by research findings and recommendations. The International Records ManagemenTrust (IRMT) (2004) pointed out that as e-government services are delivered using new Information and Communication Technologys, the intended benefits will be compromised unless the issue of capacity building is addressed.

An analysis of research trends in e-records management in the ESARBICA region will show the problems facing the region in this subject area. Furthermore, such an analysis is important in showing which research areas are over/under-researched. Technology is dynamic and ever-changing, and thus, research trends can show whether researchers and scholars are investigating pertinent issues which are in line with developments in technology. Research also has the capacity to show whether there is sufficient capacity and training to articulate e-records issues. Kalusopa (2011) noted that there is no well-articulated guidance and input to policymakers and planners from records and information managers, and national archivists in the ESARBICA . Furthermore, Katuu (2004) indicated that various individual countries seem to be struggling with the same issues in e-records management, in their local environments, but little seems to be done in terms of regional or international consultation or cooperation to avoid reinventing the wheel. This is all happening at a time when many records managers in sub-Saharan African do not have the necessary professional capability to deal with electronic records and weak institutional capacity and the absence of comprehensive records management policies, guidelines and practical standards has aggravated the situation (Ngulube and Tafor, 2006a, 2006b, p. 58).

Research is triggered by problems faced by communities and the quest to solve these problems. Records management in general and e-records management in particular, in the ESARBICA region, is severely under resourced resulting in inadequate capacity and skill gaps (Mulaudzi *et al.*, 2012). The preservation of electronic records created by knowledge workers is of great risk if standards for the creation, management and preservation of electronic records are not available in the organisation (Millar, 2004, p. 9). Furthermore, the nature of these records adds an extra level of complexity to the activity of record keeping, ensuring that appropriate, authentic and reliable records are created and captured whilst their integrity is maintained (McLeod *et al.*, 2004).

E-records management research in the ESARBICA region

Some scholars have commented on the level of research in Africa generally and the ESARBICA region. Kemoni (2009, p. 196) noted that few studies had been conducted on the uses of computers in electronic records management in the region. Kalusopa (2011) recommended the need for the ESARBICA region to step up research on the management of electronic records through collaborative efforts. Keakopa (2010, p. 67) in a critical appraisal of the management of electronic records in the ESARBICA highlighted the persistent "limitations of research conducted in the region in providing appropriate solutions for the management of this new format of records". The problem is that a lot of writers on records and archives management in Africa have revealed a terrible state of records and archives underdevelopment on the continent, but very few have carried an in-depth study or discussion on the impacts of information technology on electronic records (Asogwa, 2012).

Digital best practices have been identified as other research areas and avenues which need to be pursued in the ESARBICA region. There is need for quick action if the loss of ESARBICA's electronic memory is to be averted and governments and research councils should initiate and support research into digital best practices as the developed world has done (Ngulube and Tafor, 2006a, 2006b). Furthermore, reports produced by national archival institutions in the region will show the areas of interest in the records and archives management in the region. Ngulube and Tafor (2006a, 2006b, p. 69) highlighted that in the ESARBICA region, electronic records management did not feature prominently in the annual reports of most archival institutions in the ESARBICA region. Ngulube and Tafor (2006a, 2006b, p. 69) further highlighted that the tendency of the reports has been to concentrate on automation initiatives while ignoring the implications of digital formats for staff competencies needed to manage them, and long-term access to, and availability, of the digital heritage.

Strategies need to be put in place to map the way forward for e-records management in the region. Without strategies in complex environments, governments will invest in e-records management systems which will fail to meet the reasons for which they were created for as records and archives management personnel and national archival institutions will deal with such records in a haphazard and clumsy way. Kalusopa (2011, p. 117) highlighted that although most countries in ESARBICA have attempted to put in place some programmes to manage records in general, there are no known clear strategies initiated either to manage electronic records or have e-records readiness assessments rigorously carried out.

E-records management research gaps in the ESARBICA region

Some scholars have also identified e-records management research gaps in the region (Mnjama and Wamukoya, 2007; International Records ManagemenTrust (IRMT), 2004; Kemoni, 2009; Kamutula, 2010; Mazikana, 1998). Research into e-records readiness of

countries has been noted as a weak point in e-records management research. The International Records ManagemenTrust (IRMT), (2004) noted that governments should conduct high-level assessments of key areas of e-records readiness in relation to other aspects of e-government, and determine whether or not the records and information management infrastructure is capable of supporting e-government initiatives [International Records ManagemenTrust (IRMT), 2004]. The lack of studies focusing on the e-records readiness in the region was identified by Mnjama and Wamukoya (2007). E-records readiness assessments will go a long way in assisting organisations to be informed of existing challenges, risks and strengths, as well as potential opportunities in as far as e-records management is concerned (Mnjama and Wamukoya, 2007).

E-government has been a hot subject globally and it has cast the spotlight on e-records. Kemoni (2009) noted that further research should be conducted to establish the current state of electronic records management within the framework of e-government and public service delivery initiatives within the ESARBICA member states. Glower *et al.* (2006) highlighted that Freedom of Information (FOI) rights have been a major driving force in enabling the development of electronic documents and records management systems and sustainable solutions for the long-term storage and preservation of digital records. Thus, more research is also required to establish how the current state of electronic records management will affect the proposed FOI legislation initiatives in ESARBICA member states (Kemoni, 2009).

Researchers in the region need to also investigate skills gaps in e-records management as Kamutula (2010) asserted that unlike paper-based records, many archivists and records managers are not conversant enough with issues concerning the creation, preservation, security, access and dissemination of e-records. Furthermore, archival institutions and archivists have also missed opportunities arising in e-records management as Mazikana (1998) lamented that there is a missed opportunity by the archival community in Africa in the management of electronic records.

Researchers are key as their research findings paint a picture of how things are being done, how they are supposed to be done and why they must be done in a way they are being done. Policymakers and other decision makers have to be informed by research and thus the weaknesses of archival legislation in the ESARBICA region, especially in e-records management, points to yet another area which needs thorough research and recommendations. Mnjama and Wamukoya (2007) further highlighted that the laws, policies and procures that are necessary for successful implementation of an e-records programme that supports e-government must be critically examined.

Purpose of the study
This study sought to find out how the e-records management subject has been researched and tackled by researchers in the ESARBICA. Furthermore, this study sought to reflect on e-records management research trends and areas of focus in the ESRABICA region.

Objectives of the study
The specific objectives of the study are:

- to determine the level of e-records management research output in the ESARBICA region;
- to identify the prominent researchers on e-records management in the ESARBICA region; and

- to determine research designs (empirical, conceptual studies, literature reviews and case studies) applied by highly cited e-records management researchers in the ESARBICA region.

Limitations
A bibliometric study places researchers at the mercy of analysing incomplete information due to limitations of resources. The variance in use of terminology (key words) by authors in published documents may entail some being left out in analysis within the same subject matter. As much as due diligence was placed on using Boolean search methods to counter such limitations they are unavoidable. An interpretation of bibliometric or citation analysis research is subjective as some analysts may label results incomplete or trustworthiness; hence, this paper finds itself in the same predicament. Inability to access the Thompson Reuters Web of Science database left the authors with Scopus as the only option, as Google Scholar was overlooked due to the difficulties of having to rely on third-party software for analysing its indexed content that are mostly inaccurate and or ambiguous.

Scope of the study
This study covered e-records management studies in the ESARBICA region. According to the International Council on Archives (2008), ESARBICA is one of the regional branches of the ICA, which aims to further the aims of ICA and strengthen co-operation within the eastern and southern African region. The ESARBICA's mission is the advancement of archives through regional cooperation (ESARBICA) (2005). ESARBICA is responsible for carrying out the policy and programmes of ICA in the region, where these are relevant to ESARBICA members. ESARBICA is made up of 12 countries, namely Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe and Zanzibar (ESARBICA, 2005).

Research methodology
This study used bibliometric and citation analysis techniques to analyse the publications and research designs applied in electronic records management research in the ESARBICA region. Bibliometric analysis is a common technique used for quantitative analysis of literature. To explore research outputs over given time, access to relevant data is obtainable from reputable databases. Data for this study were produced from Scopus. The Scopus database was searched to retrieve the indexed research output on electronic records management publications between 2000 and 2016. Scopus is hosted by Elsevier and is one of the largest databases of peer-reviewed literature; scientific journals, books and conference proceedings. The database provides different searching and browsing options that offer the ability to measure research outputs by affiliation, author, country, etc., which were used in this study (Archambault, *et al.*, 2009, p. 1322). Only primary articles listed in the Scopus database were considered for the study. Secondary documents were sifted through to identify materials not indexed in the Scopus database but authored by authors from the ESARBICA region. Secondary documents are documents not available in Scopus database, but are extracted from reference lists in Scopus documents. The data contain many inaccuracies and a single article may be referenced differently and wrongly in different articles, thus, it may be presented as different articles. This limitation of secondary data called for thorough manual analysis for their inclusion in the research data. ESARBICA is a multilingual region with English and Portuguese being the dominant languages used by authors. The search was inclusive of all languages. The research study included and

analysed only published journal articles, conference papers, book chapters, thesis and reviews.

The key words "electronic records management", "electronic records" and "digital records" were used to perform searches in the title field of articles in Scopus. The data were analysed both manually and using the Scopus inbuilt data analysis tools. The tools offer the researcher option to analyse data on citation count, affiliation, country and subject and document type. The retrieved data on articles were exported in a comma-separated value file and were downloaded for manual analysis.

Results

Subsequent sections present and discuss findings of the study under different headings.

Scopus research results

The researchers used "electronic records management", "electronic records" and "digital records" as search phrases to retrieve data from the Scopus database. The search query used was "electronic records management" *OR* "electronic records" *OR* "digital records" with the search limited to the title, indexed keywords and abstract fields of the indexed documents across all subject areas of the database. A total of 2,979 documents' results of various authors from across the world, ranging from 2000 to 2016 were retrieved; with 60 documents from ESARBICA countries (Figure 1). A total of 417 documents were from undefined countries. After manual analysis of the 417 documents from the undefined countries, an article was identified by an author affiliated to the University of South Africa, which added the tally of retrieved documents under the used search query to 48 documents. A citation count analysis was done on the retrieved information to identify the productivity and the total citations received on the articles that indicate their impact, prestige or influence (Chadegani, *et al.*, 2013, p. 18). The citation analysis was to identify the stand-out articles that have been referenced more by other authors and to analyse their research design in the field of electronic records management. Understanding the context and relationship of the ESARBICA research output to the world output, on the subject matter under study a pictorial presentation of world publication data is imperative. This assists in understanding the impact of ESARBICA region research dynamics as compared to the global dynamics. The vice versa is also valid. Figure 1 presents a graphical representation of the amount of research publications produced over for the period from 2000 to 2016. The chart depicts that
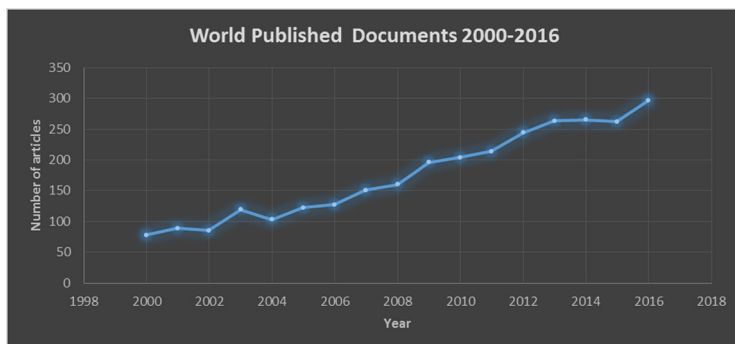
Figure 1.
World publication
count 2000-2016

Source: Scopus database (2016)

the peak periods of publishing were from 2013 to 2016 when huge volumes of documents were produced.

The data show a steady increase in the number of articles produced annually worldwide on the subject of electronic records management for the periods 2000- 2004, which were 474 articles, 663 for 2004 to 2008 and 1,018 for 2008-2012 with the period 2012-2016 producing 1,331 documents.
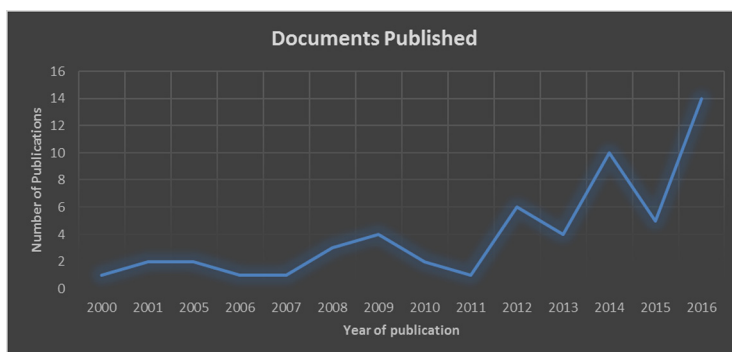
Publication count in ESARBICA region
This section presents and discusses data on the documents count of published materials by authors from the ESARBICA region. The chart shows the number of articles published annually, with 2014 and 2016 having the highest number of articles published over the 16-year period. As depicted in Figure 2, the research output from the ESARBICA region has been lamentably constant for the period of the early 2000-2011, with a steep increase from 2012 to 2016. Although the comparisons in scientific output in specific subject areas are difficult due to a number of factors that include scarcity of resources, the number of core researchers in electronic records management and engagement in longitudinal studies that limit the publication capabilities of researchers over time, the figures are less impressive. The smaller numbers of publications maybe due to the Scopus database not indexing research repositories and journals of most countries in the ESARBICA region.

Publication country per country in ESARBICA region
ESARBICA region is composed of 12 countries that have different e-records management publication count. To better analyse the contributions of the region in building the body of knowledge in electronic records management, an analysis of individual member country publishing count is essential. Figure 3 is a graphical representation of the retrieved documents by country published and indexed by Scopus.

South Africa has the leading figures in producing publications in the ESARBICA region, 29 publications, followed by Kenya with 10, Botswana and Namibia following distantly with 8 and 4 publications, respectively. The results pose a worrying and bleak picture in terms of the academic outputs from the professionals and scholars in electronic records management.

Source: Scopus database (2016)

Figure 2.
Documents published
in the ESARBICA
region 2000-2016

Figure 3.
Publications count
per country
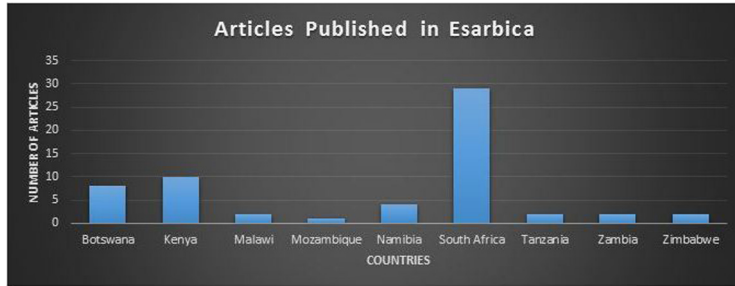
Source: Scopus database (2016)

Published document types in ESARBICA region, 2000-2016
Figure 4 below presents the different document types that constituted the total 60 indexed documents retrieved from the Scopus database published from ESARBICA region. Academic published articles and conference papers contributed the huge volumes of materials indexed in the database. Different permutations can be derived from the data that may be related to low funding for the professionals interested in the subject matter to undertake more research and publish materials. For the period under review, the data show that on average, two research articles were being published every year in the region.

Leading researchers in the subject area
A number of researchers in the ESARBICA have made significant contributions to the electronic records management body of knowledge. In as much as the contribution is proportional, they have made significant strides to stimulate and drive academic and professional discourse in electronic records management. The research findings show that Katuu, S; Kemoni, H; Ngulube, P; Ngoepe, M; Mujama, N; Wamukoya, N; Nengomasha, CT; Keakopa, S; and Mostert-Phipps are the leading producers of documents that are indexed by the Scopus database in the ESARBICA region. Not only are their publications many, but have also been highly cited Table I presents the authors' names, titles of articles, year of publication, source title and the journal in which the articles were published; cited by indicates the number of times the articles have been referenced or acknowledged by other

Figure 4.
Document types of
research output in the
ESARBICA region
between 2000 and
2016
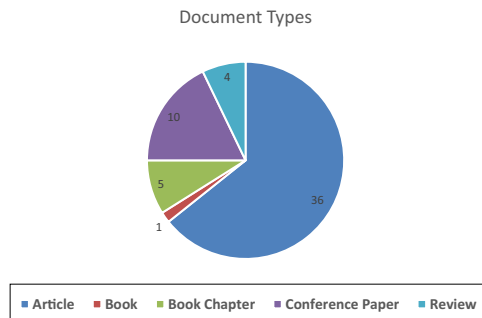
Source: Scopus database (2016)

Authors	Title	Year	Source title	Cited by	Document type
Ngulube P., Tafor V.F.	The management of public records and archives in the member countries of ESARBICA	2006	*Journal of the Society of Archivists*	12	Article
Kemoni H.N., Wamukoya J.	Preparing for the management of electronic records at Moi University, Kenya	2000	*African Journal of Library, Archives and Information Science*	12	
Wamukoya J., Mutula S.M.	E-Records management and governance in East and Southern Africa	2005	*Malaysian Journal of Library and Information Science*	11	Review
Kemoni, H.N.	Management of electronic records: Review of empirical studies from the Eastern, Southern Africa Regional Branch of the International Council on Archives (ESARBICA) region	2009	*Records Management Journal*	10	Article
Wamukoya J., Mutula S.M.	Capacity-building requirements for e-records management. The case in East and Southern Africa	2005	*Records Management Journal*	10	Article
Katuu S.	Enterprise content management (ECM) implementation in South Africa	2012	*Records Management Journal*	9	Article
Keakopa S.M.	The management of electronic records in Botswana, Namibia and South Africa: Opportunities and challenges	2006		6	Thesis
Nengomasha C.T.	A Study of Electronic Records Management in the Namibian Public Service in the Context of E-Government	2009		6	Thesis
Asogwa, B.E.	The challenge of managing electronic records in developing countries: Implications for records managers in sub Saharan Africa	2012	*Records Management Journal*	5	Article

Source: Scopus database (2016)

Table I.
Highly cited articles

Authors and dates	Title	Methodology
Wamukoya and Mutula (2005a, 2005b)	E-records management and governance in East and Southern Africa	Literature review
Kemoni (2009)	Management of electronic records Review of empirical studies from the Eastern, Southern Africa Regional Branch of the International Council on Archives (ESARBICA) region	Literature review
Wamukoya and Mutula (2005a, 2005b)	Capacity-building requirements for e-records management. The case in East and Southern Africa". The study aimed at examining capacity building requirements for e-records management in East and Southern Africa	Literature review
Ngulube and Tafor (2006a, 2006b)	The Management of Public Records and Archives in the Member Countries of ESARBICA	Cross-sectional study conducted between 2004 and 2005. Interviews, content analysis of documents and self-administered questionnaires used to collect data
Asogwa (2012)	The challenge of managing electronic records in developing countries Implications for records managers in sub-Saharan Africa	Literature Review
Katuu (2012)	Enterprise Content Management Implementation: An Overview of Phases, Standards and Best Practice Guidelines	Literature Review
Nengomasha (2009) PhD thesis	A study of electronic records management in the Namibian Public Service in the context of e-government	Qualitative methodology, multi-case study design. Interviews, document search and observation used to collect data
Kemoni and Wamukoya (2000)	Preparing for the management of electronic records at Moi University, Kenya	Qualitative methodology, multi-case study design. Interviews, document search and observation used to collect data
Keakopa (2006)	The management of electronic records in Botswana, Namibia and South Africa: Opportunities and challenges	Qualitative methodology, multi-case study design. Interviews, document search and observation used to collect data

Table II.
Analysis of research designs in articles with high citation index

Source: Scopus database (2016)

authors and the document type identifies the form of the authored documents. Only articles with the highest citation index were included in Table I, with 12 citations being the highest citation count when data were being analysed during authorship of this paper. The least cited paper to be included in the table had a citation count of five, which was the average high of the articles published in the region under the review period.

Analysis of research designs of articles with the high citation index
Citation implies the relationship between a part or whole of the cited document and a part of the whole of the citing documents (Smith, 1981, p. 83). A high citation index for an article is believed to be underlined by assumptions that include citation of a document implying use of that document by the citing author for reasons that may include paying homage to

pioneers, correcting or criticising previous work, authenticating data or classes of fats, substantiating claims, citation of a document reflecting the merit of that document, author, journal, etc. (Garfield, 1965, p. 85). The articles presented below all have high citation indexes as compared to other articles that have been included in this research study.

Table I presents a synopsis of the highly cited publications in the region. The table shows an equal use of both literature review and empirical research methods as main source of information and data for the research publications that have been highly cited in the region. There is need to improve and increase on empirical-based research methods that are evidence based, as these will entail that studies can be empirically inspectable and confirmable.

Wamukoya and Mutula (2005a, 2005b) conducted a study titled "E-records management and governance in East and Southern Africa". The study sought to review the status of e-records management in east and southern Africa and it examined the e-records readiness in institutions with statutory responsibility for records and the implications of e-records management for governance. The problem under study was that the region faces major challenges with regard to the management of records and archives due to historical, political, cultural, managerial and technological factors. The study also highlighted that the statutory institutions with responsibility for archives in the east and southern African region fall short of the e-readiness standards of the IRMT benchmarks. The study also highlighted that the general e-readiness assessments that have been undertaken by SADC E-readiness Task Force in 2002 revealed that staff competencies, skills and tools needed to manage e-business processes and e-information in a shared work environment have not been adequately developed in many public sector organizations in east and southern African region. The study also highlighted that among the records and information managers and national archivists, there was insufficient capacity and training to articulate e-records issues and provide guidance and input to policymakers and planners.

The study highlighted that at policy level, senior officials and legislators are often unaware of the requirement to manage electronic records over time. At the planning and operational level, systems designers and IT specialists tend to focus primarily on current information needs resulting in inadequate attention being paid to long-term preservation requirements [International Records ManagemenTrust (IRMT), 2003]. There were no systematic strategies, that being implemented for making the transition from paper-based systems to electronic means where this is possible. The study carried out by Mutiti (2001) also highlighted that in the east and southern African region, limited progress had been made in the area of managing electronic records created by public institutions. The study also highlighted that most countries had no specific legal or administrative framework within which to operate an electronic records management programme, and had neither begun to address the broader issues involved nor did their staff have the skills to do so. Similarly, the national archives were not playing a role in the introduction of electronic government, and electronic records issues were not being addressed systematically. Furthermore, problems facing the east and Southern African region included lack of digitization projects; general lack of prioritization of automation functions and services; lack of standards, practices and procedures for the management of electronic records; records creating agencies tended to overlook long-term preservation of electronic records; electronic records were being created in public institutions and some were being mismanaged and lost; and inability to determine appropriate hardware and software.

Kemoni in 2009 conducted a review of empirical studies titled "Management of electronic records Review of empirical studies from the Eastern, Southern Africa Regional Branch of the International Council on Archives (ESARBICA) region". The purpose of the paper was to

present empirical research findings regarding the management of electronic records in selected ESARBICA member countries. The paper also presented background information about ESARBICA and the state of electronic records management in the region. The paper presented challenges posed by electronic records as reported in the literature and the capacity-building initiatives and guidelines developed by archival institutions, professional organizations and universities for effective management of electronic records. It proposed suggestions for further research. The paper was based on a review of literature on electronic records and empirical studies dealing with management of electronic records in the ESARBICA region. The findings of the study indicated that most countries in the ESARBICA region lacked capacity and faced numerous challenges in managing electronic records. These relate to lack of policy and legislation, standardization, authenticity, capacity building, physical infrastructure and lack of awareness among recordkeeping professionals and government authorities on electronic records management issues, data, security of data, lack of computer skills on the part of registry staff and users and lack of electronic records policy. The empirical research findings reported in the paper revealed that apart from South Africa, most countries in the ESARBICA region face various problems in managing electronic records. To enhance the management of electronic records in the ESARBICA region, there was need for governments and directors of National Archives within the ESARBICA region to implement the recommendations proposed by various records and archives management researchers/scholars and practitioners.

Wamukoya and Mutula in 2005 conducted a study titled "Capacity-building requirements for e-records management. The case in East and Southern Africa". The study aimed at examining capacity-building requirements for e-records management in east and southern Africa. The study pointed to the fact that e-records management problems and challenges include, but are not limited to, lack of skills and competencies, inadequate resources, lack of awareness among government authorities and records professionals, fragility of media and the need for specialized storage. The study was a literature review in general and desk research based on professional consultation and the experiences of the authors within the region. The findings of the study generally indicated that there was a dearth of e-records management skills and inadequate capacity in the ESARBICA member countries. The study also established that within ESARBICA, staff competencies, skills and tools needed to manage records in general and e-records, in particular, had not been adequately developed in many public sector organizations. The study also highlighted that at policy level, senior officials and legislators are often unaware of the requirement to manage electronic records over time so that the evidence base of government will be secure and accessible when needed by authorized users. Wamukoya and Mutula (2005a, 2005b) also established that records management in general and e-records management in particular in the ESARBICA region was severely under resourced resulting in inadequate capacity and skill gaps. The study was limited to ESARBICA member countries, whereas it would have been more inclusive if all the countries of east and southern Africa were involved. The researchers therefore recommended that more research was therefore needed to cover the rest of the region.

Ngulube and Tafor (2006a, 2006b) conducted a study titled "The Management of Public Records and Archives in the Member Countries of ESARBICA". The aim of the study was to investigate the challenges faced by national archival institutions in the ESARBICA, and depending on the results of the survey, recommend a programme of action to improve the management of public records and archives in the region. This article discussed the findings of a cross-sectional study conducted between 2004 and 2005 to determine the extent to which archival institutions within ESARBICA managed public records and archives. Data for the

research were obtained through interviews, content analysis of documents and self-administered questionnaires that were mailed to the 13 member states that comprised ESARBICA. These countries included Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Tanzania, South Africa, Swaziland, Zambia, Zanzibar and Zimbabwe. The findings of the study reflected that national archives within ESARBICA had limited resources for records management functions. Furthermore, the study noted that records management processes were neither governed by standards nor guided by a professional code of ethics. The study findings also showed that records management staff were not adequately trained, electronic records were in danger of being lost due to benign neglect and legislation that mandated archival institutions to manage records through their life-cycle was not comprehensive in certain instances. The study also established that strategies used for public programming activities were rather limited and not clearly targeted at some archival institutions.

Asogwa in 2012 conducted a study titled "The challenge of managing electronic records in developing countries Implications for records managers in sub-Saharan Africa". The paper highlighted that electronic records management was new to most records officers and archivists in contemporary sub-Saharan Africa. The study also highlighted that e-records management transformed the traditional mode of recordkeeping and brought with it some constraints which records managers had to contend with if they were to remain relevant in the information society. The purpose of the study was therefore to examine the background of the problems brought about by e-records management, as well as the strategies for e-records management in Africa. The study reviewed relevant literature on archives development in Africa, electronic records, information technology and records management. The findings of the study pointed to the fact that the major problems of e-records management in Africa were administrative and the technically induced challenge and the benefits of managing hybrid records in Africa could only be realized if appropriate infrastructures, workable legislation and regulatory frameworks, adequate finance and competent ICT personnel are available. The study findings also highlighted that in the electronic age, records managers in Africa were facing challenges such as working in a digital environment, with new tools and different work approach. The study lamented that experience and training of archivists and records managers in the sub-Saharan Africa were at most inadequate to face the challenges, which included weak legislation, absence of organizational frameworks, inadequate ICT skills and competencies, colonial legacy, corruption and political instability, inter alia. The study recommended that the most important step to curtail these changes is for record managers in developing countries to get more closely involved with the other professionals in electronic information ventures.

Katuu (2012) conducted a study titled "Enterprise Content Management Implementation: An Overview of Phases, Standards and Best Practice Guidelines." The study highlighted that discussions on the application systems used to manage digital records and other digital content have often used different terminology, frequently interchangeably, with little regard to nuanced differences. Katuu also illumined that a number of standards and best practice guidelines have been developed in different countries to address the challenges of assessing and implementing these applications. While it may look like a lot of resources are available to records professionals as they tackle the challenges of implementing software applications, there is need to clarify terminology and identify implementation phases, as well as the appropriate standards and best practice guidelines. The study reviewed literature and suggested a definitional clarity and connectedness of different terms used for enterprise content management (ECM) applications. The literature review identified the various phases of implementation of ECM applications and it offered an overview of standards and best

practice guidelines. The study also assessed the connection between phases of implementation in relation to standards and best practice guidelines, providing a gap analysis while also suggesting ways of addressing the variance. The financial resources and human effort invested in the implementation process of ECMs, however, do not always bear fruit and there have been a considerable number of projects that have failed.

The findings of the study demonstrated that, at a practical level, records professionals were getting assistance in the areas of greatest weakness, which was the post-installation phase. The study recommended that there was a need for a more detailed crosswalk of the standards and best practice guidelines. Katuu highlighted that scholars had conducted crosswalks on different kinds of metadata standards, but were yet to be conducted with ECM implementation. The study also highlighted the need to conduct empirical research on how standards and best practice guidelines have been used for purposes of ECM implementation because these will reveal, in greater detail, where the weaknesses exist.

Nengomasha (2009) also conducted a PhD study titled "A study of electronic records management in the Namibian Public Service in the context of e-government". The study aimed at answering the research question: "How can the electronic records environment be strengthened to support e-government in Namibia?" The study applied existing records management models, and attempted to establish whether or not the Public Service of Namibia has the capacity to create, manage, share and use electronic records to support e-government. This capacity is referred to as e-records readiness. The study was a multi-case study of seven Ministries, two Local Authorities and two Regional Councils. The methodology used was a qualitative approach which made use of interviews, document search and observation to collect data. The data were analysed manually using content analysis and presented in descriptive narrative with some illustrative tables and figures. The study findings showed that e-government in the Public Service of Namibia were in the initial phase of implementation, and led to an increase in the creation of electronic records.

The study further highlighted that the status of records management in the Public Service of Namibia was very poor. Nengomasha highlighted that there was lack of understanding of what records were and the importance of records management; inadequate legal and regulatory environment; failure to follow laid down procedures and standards; absence of a records management disaster plan, including digital preservation strategy; and inadequate resources, which included the lack of staff and skills to manage records in general and in particular, electronic records. The study also highlighted that the Public Service of Namibia's score of 55 out of 120 in an e-records readiness assessment carried out as part of the study, signified high risk, which meant that government's e- records were at risk of misuse and loss. The study concluded that Namibia's e-government initiatives were not supported by a strong records management programme.

The study recommended among other things, an integrated records management programme for the Public Service of Namibia to promote records management awareness, determine resource requirements, review the legal and regulatory framework, review records management standards and procedures, implement an electronic records management system and ensure the sustainability of the programme through staff training and regular monitoring and evaluation. The study also recommended the adoption of ECM, and further investigation into the electronic information systems running in the Public Service and the possibilities for their integration with an electronic records management system, which the Office of the Prime Minister planned to roll out to the entire Public Service.

Conclusions and recommendations

The research data display a lamentable outlook in the contribution to the electronic records management body of knowledge from the ESARBICA region. Few research papers from professionals in the records and archives management are being published in scholarly journals. These figures call for increased investments in electronic records management research by institutions in ESARBICA, as management of electronic content has become the centre of political and socio-economic development. Follow-up studies need to be done to counter limitations placed on this research paper. The study findings show that there is under production of research publications in the ESARBICA region. The region only contributed 2 per cent of the total world output in the period under review and in the study of electronic records management from journals indexed by Scopus. These may be due to a number of factors that will need to be researched further to understand the correlation between research outputs, funding, number of practicing academics and the information management schools in institutions of learning in this region. The researchers, therefore, recommend the promotion of empirical studies on e-records management research in the ESARBICA region. Such studies can go a long way in analysing e-records management systems which have been implemented by different governments and organisations. Results from such studies can go a long way in providing valuable lessons for other countries and organisations in the region, which are yet to implement e-records management systems. Furthermore, researchers also recommend that conferences and journal publications be dedicated to the presentation and publication of e-records management research findings in the ESARBICA region.

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