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Theoretical Framework and Literature Review in Graduate Records Management Research

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Abstract

The paper discusses the importance, characteristics and benefits of a good literature review, and highlights some of the models/ theories that may be adapted to develop the theoretical framework in graduate records management research or thesis/dissertation. The paper emanates from the author's experiences as a tutor of the research methodology module to graduate students at the School of Information Sciences, Moi University, Kenya, and of the very common problem of such graduate students being unable to undertake good reviews of the literature or develop adequate theoretical framework for their research. The paper explains the concepts of records management, models and theories, and explores the link between theories and models in scientific research. Some of the existing records management models/theories and their suitability in investigating issues relating to the management of paper and electronic records are subsequently described and analyzed. The discussion of the models presented in this paper should be of interest to students and researchers undertaking master's and doctoral programmes in records and archives management schools within and outside Africa. Students and researchers should however evaluate the models themselves, in terms of their adaptability and relevance to the African setting, and adapt them to fit their research objectives and contexts.

Keywords

Records management, research, literature review, models, theoretical framework.

Introduction

Most universities, colleges and schools offering graduate education and training in records and archives management require that students write a master's or doctoral thesis/dissertation. For example, the newly established Master of Philosophy degree programme in Information Sciences (Records and Archives Management) at Moi University, Kenya, requires students to undertake coursework, as well as write a thesis which is equivalent to 20 units of coursework. The full-time Master of Philosophy degree programme in Information Sciences (Records and Archives Management) option takes 24 months and extends over four semesters, and the programme consists of 55 lecture units or their equivalent. The first year of study is devoted to coursework, developing research proposal and to the practical project. In the second year, semester one is devoted to thesis work, while semester two is devoted to thesis work and coursework. Thus, the thesis takes 20 units, while coursework and the project take 35 units of the students' time.

Oliver (2004) points out that a thesis is a piece of academic writing which reports on a research study. However, there is much diversity in both the structure and the content of master's and doctoral theses. Oliver (2004) observes that the components of a research proposal include an overview of the

context and related literature. The author further observes that one of the characteristics of a good thesis is adequate review of the literature, which is sufficiently contemporary to demonstrate the way in which the thesis is building upon contemporary research.

The key aspects of a research proposal include conducting an extensive literature survey, in order for the researcher to get acquainted with the selected research problem (Kothari 2004). The author opines that there are two types of literature - the conceptual literature concerning the concepts and theories, and the empirical literature consisting of studies made earlier, which are similar to the one proposed. Wisker (2001) points out that one of the positive features of a successful MPhil or PhD thesis is the candidate's engagement with the literature. Often, however, graduate students experience problems in writing their literature review chapter and choosing an appropriate theoretical model or framework for their research.

The discussion that follows defines the term records management and presents what may constitute a good chapter on literature review. It also highlights the role of theories and models in scientific research and some of the existing records management theories/models and their application in graduate research in the field.

Records Management

There is no universally accepted definition of the term "records management" and this is an indication that the discipline of records management is dynamic (Yusof and Chell 1999). However, ISO 15489-1 (2001) issued by the International Standards Organisation defines records management as the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance , use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

Government of South Australia (2005) notes that there are a multitude of benefits that can be expected from agencies and authorities achieving adequate records management such as:

- Ability to mitigate the considerable risks associated with inadequate records management practice, specifically, accountability, transparency, sound corporate governance, and public sector efficiency.
- Compliance with statutory requirements.
- Ability to provide enterprise-wide access to documents, records and information resources contained within multiple databases.
- Ability to manage electronic documents and records as inviolate and credible evidence.
- Knowledge of fundamental records management practices and how they relate to Freedom of Information and Information Privacy principles.
- Increased productivity and individual accountability.

Benefits and Characteristics of Literature Reviews

The benefits of conducting a literature review in any study were highlighted by various scholars (Peters, 1994; Saunders, Lewis and Thornhill, 1997; Birley and Moreland, 1998; Stilwell, 2000, 2004; Kaniki, 2002; Kothari, 2004; Pearce, 2005). Birley and Moreland (1998) pointed out that a literature review assisted in the achievement of a critical analysis of the existing literature in the proposed research area, in clarifying and framing research questions as it discovered what has been done and not done, prior to the proposed research, and in the provision of a comparative account of the suitability, advantages and disadvantages of particular research methodologies chosen in the past, which are relevant to the study. Other purposes include the literature review being useful in discovering research findings and how they relate to the existing appropriate literature.

A chapter on the literature review/theoretical framework needs to have boundaries, as one would not review everything, and there is also a need to state how one decided to limit the field (Bak 2004). According to Oliver (2004), the word "review" indicates that one should summarize the broad content of the research study, and also indicates clearly linkages with other studies in the field. Furthermore, the principle purpose of a literature review is to establish the academic and research areas that are of relevance to the subject of the research.

The characteristics of a good literature review include being exhaustive but not necessarily bulky, representative, directly related to the research

problem and being reviewed in chronological order (Peters 1994). Other characteristics are the review being critical and analytical and not resorting to castigating other scholars, if they fell short of a researcher's expectations. Saunders, Lewis and Thornhill (1997) observed that a literature review needed to be critical and should incorporate key academic theories within the chosen area of study and show how the research related to previous published research. It also needs to assess the strengths and weaknesses of previous work, including omissions or bias, taking into account central arguments and justifying arguments by referring to previous research.

A good literature review needs to indicate the different views, agreements, disagreements, and trends of thought on the topic of research and be accurately portrayed and acknowledged in the text (Stilwell 2000). It needs to produce a conceptual framework, including philosophical stances and theoretical assumptions and key assumptions and theoretical problems or contradictions; that is, the problems or issues set on the theory and structured around a clear focus on the research objectives. The essential requirements of a successful literature review are its evaluation, as well as its citation of the field, and its attempt to relate the work(s) reviewed to the thesis itself, either directly or indirectly (Pearce, 2005).

There are various types of literature review (Kaniki, 2002). These are:

- Historical reviews, which consider the chronological development of the literature, and breaks the literature into stages or phases.
- Thematic reviews, which are structured around different themes or perspectives, and often focus on debates between different schools.
- Theoretical reviews, which trace the theoretical developments in a particular area, often showing how each theory is supported by empirical evidence.
- Empirical reviews, which attempt to summarize the empirical findings on different methodologies.

Bak (2004) gives guidelines on what constitutes a literature review/theoretical framework chapter, namely:

- It should indicate the boundaries of the literature review.
- Clarify the way in which key concepts which the study draws from are used.
- Discuss the literature consulted in an organised and structured manner by grouping readings together under suitable themes. and
- End chapter with an overview of the main points that have emerged from the literature review.

Wisker (2001) notes that engagement with the literature constitutes one positive feature of postgraduate research work. A chapter on literature review should:

- Display comprehensive coverage of the field.
- Show breadth of contextual knowledge in the discipline.
- Successfully critique established positions.
- Engage critically with other significant work in the field.
- Draw on literature with a focus different from the viewpoint pursued in the thesis.
- Include scholarly notes, a comprehensive bibliography and use accurately academic conventions in citations.

The following discussion highlights the role of theories in research and the need for a theoretical framework. It also presents the link between theories and models in graduate research.

Theories, Models and the Theoretical Framework

According to Zeidler (n.d), doctoral students fear to hear those now famous words from a supervisor: "that sounds like a promising study, but what is your theoretical framework?" The author further points out that a theoretical framework may be a theory, and it answers two basic questions: what is the problem and why is your approach a feasible solution? The answers to these two questions can only come from one source, a thorough review of the literature.

The role of theories in scientific research has been highlighted by various scholars (Dale 1998; Mugenda and Mugenda 1999; Stacks and Hocking 1999; Cozby, 2001). According to Dale (1998), theories enabled researchers to draw new conclusions, improve action, and generate more sophisticated theories. Theories were drawn from observation and confirmed by observation, for example, Isaac Newton, who saw the apple fall and developed the theory of gravity.

A theory is a system for explaining phenomena which states constructs and the laws that interrelate the constructs to one another (Mugenda and Mugenda, 1999). Scientific theory serves several purposes, namely: to show commonalities in phenomena that may seem isolated at a glance; to help in making predictions and controlling events; to help to organize isolated findings from different research studies into an explanatory framework; and to help researchers to maintain consistency in any field of study. Theories are a set of interrelated constructs (concepts, definitions and prepositions) that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena (Stacks and Hocking, 1999).

Theories have four purposes in scientific research, namely: description, explanation, prediction, and control. Theories generate new knowledge and new hypotheses about behaviour, which could be confirmed or contested through research, and research could reveal weaknesses in a theory and force researchers to modify or develop a new and more comprehensive theory (Cozby, 2001).

Models can be used to explain theories. The role of models in research is documented (Koutsoyiannis, 1979; Katz and Harvey, 1994; Dwivedi, 2001; Kebede, 2002). A model is a simplified representation of a real situation, including the main features of the real situation it represented. There are two main purposes of a model, namely: analysis and prediction (Koutsoyiannis, 1979). The validity of a model could be judged on several criteria, namely: its predictive power, the consistency and realism of its assumptions, the extent of information it provided, and its generality and simplicity. The physical world is too complicated to be studied without recourse to models.

According to Stockburger (2004), a model is a representation containing the essential structure of some objects or events in the real world and the representation of models may take two major forms, namely: physical, as in model airplane or architect's model of a building; or symbolic, as in a natural language, a computer program, or a set of mathematical equations. The author opines that the goal of the scientist is to create simple models that have a great deal of explanatory power, and models are necessarily incomplete and may be changed or manipulated with relative ease. Furthermore, the construction and verification of models involves four steps, namely: simplification/idealization, representation/measurement, manipulation/ transformation, and verification.

A model is a description of phenomena that is abstracted from the details of reality (Katz and Harvey, 1994). "Abstracting" from details means ignoring those details that are not directly essential to the understanding of the phenomenon at hand, hence enabling individuals to concentrate on important factors. Katz and Harvey (1994) established the link between theories and models by quoting the great theoretical physicist, Stephen Hawking, who noted that a theory was a good theory if it satisfied two requirements: accurately describing a large class of observations on the basis of a model that contains a few arbitrary elements and making definite predictions about the results of future observation.

The relevance and applicability of models to the real world depends on three factors, namely: realism of the model assumptions, consistency of the assumptions with one another, and accuracy of the data to validate the assumptions (Dwivedi, 2001). Kebede (2002) posited that models are useful for specifying what constituted the phenomena of interest, identifying research focuses, and advancing theory in relation to the phenomena they modelled.

Some Existing Records Management Models

Various records management models have been developed by national archival institutions, archives schools, international professional records and archives management organisations, and records and archives management scholars. According to Shepherd and Yeo (2003), all the models originated from the records life-cycle and records continuum approaches. Models focus on the management of electronic records, while others emphasize the management of both paper and electronic records. Tough and Moss (2006) point out, however, that among record-keeping professionals, the life cycle and the records continuum models have dominated discourse, with the life cycle approach challenged by the records continuum model. A literature search nevertheless revealed the following as some of the existing records management models:

- The Records Life-cycle Concept/Theory

- The Records Continuum Model
- The International Council on Archives (ICA) Electronic Records Management Guidelines (Model)
- The National Archives of Australia Records Management Guidelines (AS ISO 15489 2002)
- The National Archives of Australia Digital Recordkeeping Guidelines 2004
- The National Archives and Records Service of South Africa Guidelines (Model)
- The National Archives (TNA) 2005 Model
- The Victorian Electronic Records Strategy Model (VERS)
- The University of Pittsburgh Electronic Records Management Model
- State Records Authority of New South Wales
- The Design and Implementation of Record Keeping Systems (DIRKS) Model.

In the discussion that follows, each of the above models is presented, including their key elements and relevance to graduate research in records management. According to Shepherd and Yeo (2003), since the 1950's, many variants of the records life-cycle concept have been modelled. Most models aim to show a progression of actions taken at different times in the life of a record: typically, its creation, capture, storage, use and disposal. Some writers show this as a linear progression, while others describe a loop or circle. Thus, the theoretical base of the models presented in the paper above is the records life-cycle concept/theory (Shepherd and Yeo 2003).

Records Life-cycle Concept/Theory

The development and application of the Records Life-cycle concept in records management is a subject of discussion (Penn, Pennix and Coulson, 1994; Mnjama, 1996; Millar, 1997; Yusof and Chell, 2000; Shepherd and Yeo, 2003; Ngulube and Tafor, 2006). The Records Life-cycle theory was developed in the USA after the First World War, by the then National Records and Archives Administration (Penn, Pennix and Coulson, 1994). Mnjama (1996) observed that under the records life-cycle, records passed through three stages, namely: creation, semi-active and non-active stages. Yusof and Chell (2000) stated that the development of the records life-cycle concept began in the USA in the 1930s and was invented by the National Archives of the USA, in response to the ever-increasing volume of records produced by organisations. The records life-cycle concept had been regarded as a theory which provided the framework for the operation of a records management programme.

According to Millar (1997), the records life-cycle concept was an analogy of the life of a biological organism, which was born, lived and died. In the same manner, a record was created, used as long as it had continuing value and was subsequently transferred to national archives or destroyed. The records life-cycle concept had four phases, namely: creation, distribution, maintenance and use, and appraisal and disposition. Shepherd and Yeo (2003) observed that since the 1950s, many variants of the records life-cycle concept have been modelled, and most models aimed to show a progression of actions taken at different times in the life of a record: typically, its creation, capture, storage, use and disposal. Some writers showed this as a linear progression, while others described it as a loop or circle.

Though the records life-cycle concept has influenced the development of records and archives management in many parts of the world, it has had its own critics. Atherton (1985) opined that the records life-cycle theory created a distinction between the roles of records managers and archivists during the records life-cycle. He proposed that the records life-cycle be changed into a more unified model consisting of four instead of eight stages, hence the records continuum model. Atherton (1985) argued that although the records life-cycle concept had been useful in promoting a sense of order in the overall management of records, strict adherence to its principles undermined any trend towards greater co-operation and co-ordination among archivists and records managers and hence ignored the many ways in which records and archives operations were interrelated.

The weaknesses of the records life-cycle concept, particularly, its application in managing electronic records, were noted by Yusof and Chell (2000). The authors pointed out that the records life-cycle concept would not be used in managing electronic records and needed to be replaced by a model which appropriately reflected the special characteristics of electronic records. In discussing

the weaknesses of the records life-cycle model in relation to management of electronic records, Yusof and Chell (2000) emphasised that as technology changed, the record was prone to transformation and conversion. The concept of the records continuum had thus been promoted in the records management world, as it addressed the management of paper and electronic records.

The perceived weaknesses of the records life-cycle concept led to the development of the records continuum model. Thus, the records life-cycle theory may be more applicable to those studies dealing with management of paper based records in organisations. The theory is not suitable for studies investigating management of electronic records.

Records Continuum Model

The records continuum model has gained acceptance worldwide as the best practice model for managing records and archives, including electronic records, as pointed out by An (2001). The author opined that the evolution of the concept of records continuum shows the processes of records management and archives management moving towards integration. The advantages of the records continuum model over the life-cycle model demonstrate that the mechanism behind the best practice is the integration of the management of documents, records and archives. Integrated approaches, integrated control and integrated framework can be components of a best practice framework. The records continuum model was more applicable in records and archives management studies, and therefore can be used as theoretical foundation of studies dealing with management of both paper and electronic records and archives.

The records continuum model is a subject of discussion by records and archives management scholars and institutions (Atherton, 1985; Millar, 1997; Sletten, 1999; Picot, 1999; Upward, 1998; McKemmish, 1998; An, 2001; Pemberton, 2003; Shepherd and Yeo, 2003; State Records New South Wales, 2004; Curtin University of Technology, 2005). The following discussion presents the model and its relevance to the study.

The records continuum model consolidated the eight stages of the record life-cycle concept into four stages, namely: creation, classification, scheduling and maintenance, and use of information (Atherton, 1985). Under the records continuum model, archivists and records managers would be involved in all the stages of managing records. The following would thus be realized: ensuring the creation of the right records containing the right information in the right formats; organizing the records to facilitate their use; systematically disposing of records no longer required, and protecting and preserving records.

The records continuum model originated from Canada, but was developed and adopted in Australia (Bantin, 2002). McKemmish (1998) recorded that the continuum model was developed by her Australian colleague, Frank Upward. The model provided a graphical tool for framing issues about the relationship between records managers and archivists, past, present and future, and for thinking strategically about working collaboratively and building partnerships with other stakeholders. Shepherd and Yeo (2003) stated that the records continuum concept was developed in the 1980s and 1990s, in response to criticism of the life-cycle models. In a continuum, there were no separate steps. Managing records was seen as a continuous process in which one element of the continuum passed seamlessly into another.

Concurring with Shepherd and Yeo (2003), Pemberton (2003) felt that the records continuum concept was a variation of the records life-cycle concept, and that it took a higher-order intellectual view of records, since it followed an integrated model rather than one made up of stages. The model stressed the need for records professionals to be involved in the earliest planning stage of information systems. The four actions of records care under the records continuum model were (Millar 1997):

- Identification and acquisition - Records management actions are the creation or acquisition of records, while archives management actions relate to the selection and acquisition of archives.
- Intellectual control - Records management actions include classification of records within a logical system, while archives management actions relate to the arrangement and description of archives.
- Access - Records management actions relate to the maintenance and use of records, while archives management actions relate to the

description of archives.

- Physical control - Records management actions are the disposal by destruction of records, or their transfer to the national archives, while archives management actions relate to the preservation of archives.

The structural principles of the records continuum model, as presented by Upward (1998), relate to the concept of "records" which was inclusive of records of continuing value and which stressed their uses for transactional, evidential and memory purposes, and which unified approaches to archiving/ recordkeeping. Other structural principles focus on records as logical rather than physical entities, regardless of whether they are in paper or electronic form. Institutionalization of the recordkeeping profession's role requires a particular need to integrate recordkeeping into business and societal processes and purposes.

According to the State Records New South Wales Recordkeeping Manual (2004), the records continuum model offers an integrated approach to managing records, particularly electronic records. The model recognized that records passed through identifiable stages, but the stages acted as a point of reference rather than as functions of records management. The model allows records managers and archivists to operate at the appropriate stages of the records continuum to meet their sometimes different but harmonious objectives.

Citing the Australian Records Management Standard, AS 4390, Sletten (1997) defined the records continuum model as a consistent and coherent regime of management processes, from the time of records creation to their preservation and use as archives. Under the model, records do not pass through distinct stages, the records continuum model stages, as implied in the records life-cycle model. These stages were interrelated in the records continuum model, forming a continuum on which both records managers and archivists are involved to varying degrees in the management of recorded information.

Discussing the benefits of the records continuum model, McKemmish (1998) explained that the model provided a way of conceptualizing recordkeeping in organisations. It had the following features:

- identified key evidential, recordkeeping and contextual features of the continuum and placed them in relationship to each other.
- represented the multidimensional nature of the recordkeeping function.
- mapped the evidential, recordkeeping and contextual features of the continuum against the dimensions of the recordkeeping function.
- was itself placed in a broader socio-legal and technological environment.

According to Curtin University of Technology (2005), the records continuum model helped clarify the nature and scope of recordkeeping in organisations and society. The model presented an overview of a seamless and dynamic recordkeeping regime that transcended time and space to capture and manage records for as long as they were required to satisfy business, regulatory, social and cultural requirements.

Although the records continuum model has been, and continues to be, of benefit to recordkeeping professionals, the model has generated certain concerns and fears amongst them. For example, Picot (1999) observed that the model and notions of its theory generated a certain reaction of fear and loathing in many people in the records and archives industry. The fear was that records managers and archivists shared both territory and professional competencies and thus, the continuum model posed a threat to their autonomy. She cautioned that, though the model would be invoked to justify restructuring, job cuts or changes in workplace practices, these would not invalidate its usefulness.

ICA Electronic Records Management Model

The ICA model (2005) was developed by the ICA committee on electronic records, and was designed to help archival institutions reposition themselves to address the management of archival electronic records. The model discussed the technological, organisational and legal trends that impact on the ability of organisations, including archives to keep and manage records that are in electronic form. The key issues addressed by the model are: records in a database environment; records and archives in the electronic age; strategies for managing electronic archives; preservation of electronic archives, access and legal and policy implications for electronic archives.

Whereas the theoretical base of the ICA

electronic records model is provided by the records life-cycle and records continuum approaches (Shepherd and Yeo 2003), it is noted that there is a point of divergence between the ICA electronic records model and the records life-cycle theory. Whereas the records life-cycle concept/theory described the stages that a record passed through, namely: creation, distribution, maintenance, use, and disposition, and is not applicable in managing records in electronic formats (Yusuf and Chell 2000), the ICA electronic records model provides guidelines for managing and preserving electronic records. The model further points out the technological, policy and legal environment that may impact on the management, preservation and access of electronic records and archives.

The ICA (2005) model may be suitable to studies that deal with preservation, management, and access to electronic records and archives within archival institutions. The ICA is the professional organisation for the world archival community dedicated to the preservation, development and use of the world's archival heritage, and brings together national archival institutions, professional associations of archivists, regional and local archives, as well as individual archivists (ICA 1997). Since electronic records do not necessarily pass through a life-cycle, the ICA electronic records model borrows from the records continuum model. The records continuum model stresses the need for archivists and records managers to be involved in the management of records in paper or electronic formats, an aspect that the ICA electronic records model captures. The major strength of the ICA electronic records model is that, besides addressing the strategies for managing records in electronic formats, it addresses the policy, technological and legal framework for managing electronic records.

National Archives of Australia Records Management Model

The National Archives of Australia Records Management Model is based on the Australian Standard AS ISO 15489 2002. The Australian Records Management standard borrowed from the International Records Management AS ISO 15489-1 Records Management Standard (2001). The first records management standard AS4390 was developed in Australia (Swan, Cunningham and Robertson 2002). The State Records of South Australia (2004) further noted that, Australia became the first country in the world to approve a standard on records management –AS 4390. Thus, AS ISO 15489 2002 replaces the old standard AS 4390 developed in 1996.

The State Records of South Australia (2004) notes that AS ISO 15489 2002 provides guidance on managing records in both public and private organisations to ensure that an organisation's systems create, capture and maintain records. The standard applies to the management of records in all formats or media, created or received in the conduct of an organisation's activities, and provides instruction on the design and implementation of a records system. The State Records of South Australia (2004) notes that some of the key elements of the National Archives of Australia AS ISO 15489 2002 are:

- Records-creation to archive;
- Planned management of official records;
- Designing and implementing a records system;
- Recordkeeping metadata;
- Creating, capturing, classifying, storing, finding and managing access to official records;
- Appraisal, and disposal of records;
- Records management policies, procedures and practices;
- Records management training; and
- Disaster management.

The National Archives of Australia Records Management Model is suitable for those studies investigating how records are managed in organisations during their active life. Thus, the theoretical base of the model is the records life-cycle and records continuum approaches. The National Archives of Australia Records Management Model is suitable for graduate research, since it is based on International Standard ISO 15489-1 (2001)-Information and Documentation-Records Management which has universal applicability. ISO 15489-1 (2001) applies to management of records in all formats; provides guidance on determining the responsibilities of organisations for records and records policies, procedures, systems and processes; provides guidance on records management in support of a quality process framework to comply with ISO 9001 and ISO 14001; and provides guidance on the design and implementation of a records system.

Although the AS ISO 15489 2002 model addresses the question of disaster management, it does not exhaustively discuss how archival records are managed and lays emphasis on managing records during their active phase. Thus, the model may not be suitable to graduate research in records and archives management investigating the management of archives in paper and electronic formats. This tends to contradict the records continuum principle, which perceives records and archives management as one unified discipline (Shepherd and Yeo (2003).

National Archives of Australia Digital Recordkeeping Guidelines 2004

The National Archives of Australia (2004) has also developed digital recordkeeping guidelines which address the creation, management and preservation of digital records. The guidelines cover the following areas namely: importance of digital records, digital recordkeeping framework, creating digital records, creating information about digital records, determining how long to keep digital records, storing and securing digital records. Other areas covered include business continuity planning for digital records, preservation, access and disposal of digital records. The guidelines further provide information on managing some common types of digital records such as electronic messages, web-based digital records, and records subject to online security processes and records in business information systems. Students undertaking graduate research regarding management and preservation of electronic records may consider using these guidelines as the theoretical foundation of their research.

The major strength of the National Archives of Australia Digital Recordkeeping Guidelines (2004) is that they provide a comprehensive help to assist organisations manage their electronic records. The guidelines also address the key challenges associated with management of electronic records such as creation and capture of electronic records, storage security, appraisal, disposal and business continuity planning for electronic records. Furthermore, the guidelines provide help relating to managing web-based digital records.

National Archives and Records Service of South Africa Records Management Model

The mission of the National Archives of South Africa is to foster a national identity and the protection of rights by preserving a national archival heritage for use by the government and people of South Africa, and promote efficient, accountable and transparent government through the proper management and care of government records (National Archives of South Africa 2005). The mission stems from the recognition that the racialised fragmentation of a South African identity and the violation of rights, which had characterised the Apartheid political system, needed to be redressed, in order for a post-apartheid democratic social order to become entrenched.

According to the National Archives of South Africa Records Management Model (2005), the responsibility for records management should be shared among record creating organisations, record users, and the National Archives and Records Service. According to the model, the elements of a sound records management programme for both paper and electronic records include the presence of a records management policy endorsed by the heads of government bodies and their top management teams, as well as by the national archives and records service; records management procedures to back the records management policy and such procedures should be designed by the national archives and records service and taking into account the unique functions, structures and resources of each government body.

Other elements of a sound records programme include presence of records classification systems which should include a file plan, schedules for records other than correspondence, paper-based records other than correspondence systems, microfilm records, electronic records system, and audio-visual records. Other elements include the presence of records disposal programme, which should be implemented by applying the national archives and records service general disposal authorities for records that are common to most offices and ensuring that disposal authorities are carried out on a regular basis. The issue of records managers attending

training courses designed by the national archives and records service is also covered.

The South African Records Management model may be applicable to graduate research in records management that seeks to investigate the role of national archival institutions in managing public sector records and the partnership between a national archives and government agencies in developing a records management infrastructure. Thus, this may involve investigating aspects such as the involvement of a national archives in developing current systems and procedures used for managing records, presence or absence of records management policy, and record classification schemes used, and procedures for the control of records, records appraisal and disposal and provision of records management education and training to registry staff. It is noted that although one of the core mandate of a national archives is to acquire, preserve and ensure access to archival materials, the South African Model may not be applicable to graduate research investigating role of a national archives in preserving and managing its documentary heritage. Furthermore, the model attempts to address the management of records following the various stages of a records life-cycle, thus the theoretical foundation of the model is the records life-cycle concept/theory.

In addition, the National archives and records service of South Africa has developed electronic records guidelines, which require government bodies to implement and maintain integrated document and records management systems. The guidelines were borrowed from US DoD 5015.2 Design criteria Standard for Electronic Records Management Systems and the UK Public Records Offices Functional Requirements for Electronic Records Management Systems (National Archives and Records Service of South Africa, 2005).

These guidelines provide, as a minimum, the following electronic records management functionality, namely: managing the following: a corporate file plan according to which records are filed; e-mail and web-sites as records, disposal processes, constructing and managing audit trails, record version control, managing the integrity and reliability of records, and managing records in all formats an integrated manner. The strength of the South African electronic records guidelines is that although they borrowed from the US DoD 5015.2 Design Criteria Standard for Electronic Records Management Systems and the UK Public Records Offices Functional Requirements for Electronic Records Management Systems, the guidelines are domesticated to suit the African environment. Furthermore, they also address the management of e-mails and web-sites records.

National Archives (TNA) Records Management Model

According to Blake (2005), the TNA 2005 model is based on the British Records Management Code. The Freedom of Information (FOI) Act was implemented fully in the United Kingdom in 2005. The Act creates a right of access to official information and places a duty on public authorities to publish information in accordance with publication schemes and maintain their records in accordance with the provisions of a Code of Practice issued by the Lord Chancellor under section 46 of the Act giving guidance on the practice which, in his opinion, it would be desirable for them to follow in connection with the keeping, management and destruction of records (British Records Management Code).

Blake (2005) further observed that TNA developed the code to assist public authorities in assessing conformance of their records management systems to the Records Management Code (The Records Management Code is available at: http://www.dca.gov.uk/foi/codesprac.htm) to comply with the FOI Act. The Code is divided into two parts: Part 1 sets out practices which relevant authorities should follow in relation to the creation, keeping, management and destruction of their records, while Part 2 describes the arrangements which public record bodies should follow in reviewing public records and transferring them to the Public Records Office (now known as The National Archives).

The TNA 2005 model focuses on areas listed in the Records Management Code for action, and the Model elements include the following:

- Records management function, needed to establish records management as a strategic corporate function and close links between records management and Freedom of Information Legislation, data protection, and other information management functions;

- Records management policy statement, supported and mandated by senior management across the organisation;
- Roles and responsibilities clearly defined and provision of training awareness to records staff;
- Active records management, records creation and recordkeeping;
- Records maintenance through adequate storage facilities, tracking systems, access controls and business recovery plans;
- Records disposal through use of retention and disposal schedules;
- Establishing an appropriate records access regime to manage requests for information under the FOI Act 2000;
- Performance measurement to relate records activities to needs, to assess the efficiency or effectiveness of records activities, and to demonstrate value and accountability;
- Risk evaluation and development of records mitigation strategies: risk reference, risk type, description of risk, indicators, related programme objectives, countermeasures, contingency, senior officer responsible; Sector specific guidance and regulations of records management: central government (departments, agencies, and non-departmental public bodies), Northern Ireland, Scotland, local government, health sector, education and police.

Although the TNA (2005) model was specifically developed to make public agencies restructure their records management practices to meet the requirements of the FOI law which came into force in the United Kingdom in January 2005, the model may be relevant to graduate research in records management that seeks to investigate aspects relating to the role of a national archives in providing records management advice to public agencies in line with the requirements of FOI in other countries where FOI law has been enacted. Thus, the model is applicable in those studies dealing with records management and implementation of FOI laws.

Victorian Electronic Records Strategy (VERS) Model

The VERS Model (2004) developed in Australia is a framework of standards, guidance and implementation projects, which were centred on the goal of reliably and authentically archiving electronic records created or managed by the Victorian government. The model has the following functions:

- Specifies a single, minimal framework for the management of electronic records.
- Specifies long-term format for the capture of electronic records, which need to be preserved for an extended period.
- It is generic but extensible, so that it will work in conjunction with agency's existing recordkeeping and business practices.
- Ensures that all records are stored in a long-term format to facilitate viewing of records in the distant future, regardless of the system that created them.
- Specifies methods to automate the capture of records from desktop and agency business systems.
- Ways and forms in which to capture information about records, and encapsulate this with the records to ensure that records in the future will be understood in context.
- Details methods for securing electronic records, so that unauthorised changes are detectable.

The model may be applicable to graduate research investigating electronic record-keeping in organisations, and in particular, issues such as creation, capture, preservation and security of electronic records. The VERS model has an implementation toolkit - a step-by-step guide to VERS implementation, information for vendors, and answers to frequently asked questions.

University of Pittsburgh Electronic Records Management Model

The University of Pittsburgh Electronic Records Management Model (2004) was developed as a result of a research project undertaken by the School of Library and Information Sciences at the University of Pittsburgh, United States of America (USA). The model integrated and built upon three existing branches of knowledge: business process improvement, information systems development and electronic records management and archival requirements. The model aimed at integrating records and archives management requirements and systems

development methodologies in an electronic records management environment. The model is more suitable to records management studies dealing with the design and implementation of electronic records management systems.

Design and Implementation of Record Keeping Systems (DIRKS) Model

The DIRKS model was produced by the National Archives of Australia in conjunction with the State Records Authority of New South Wales (The State Records New South Wales 2005). The model sets out a methodology which can be used for reviewing existing recordkeeping systems or building new ones. Tough and Moss (2006) note that DIRKS is an eight-stage methodology for the managed strategic improvement of recordkeeping systems. Some of the stages can be undertaken concurrently. The most up-to-date manual and other supporting materials are available from the National Archives of Australia Website (http://www.naa.gov.au). The stages of the DIRKS methodology are:

- Preliminary investigation of the organisation's boundaries, mission, decision-making processes, mandate and corporate culture;
- Analysis of business activity including the identification of core functions and the processes by means of which they are delivered;
- Identification of evidential needs and record-keeping requirements;
- Assessment of the organisations existing systems;
- Identification of strategies for recordkeeping;
- Design of a recordkeeping system;
- Implementation;
- Review and monitoring.

It is further noted by Tough and Moss (2006) that the DIRKS project approach is resource intensive and may involve the services of project managers, record-keeping professionals, information managers, information technology specialists, corporate governance and risk management specialists (including auditors and lawyers), business area experts, and staff representatives. The DIRKS model may be applicable to studies investigating the design and implementation of records management systems in organisations.

Additional Sources of Records Management Models

The models presented in this paper are by no means exhaustive. Postgraduate students and researchers are encouraged to consider using other records management models not highlighted in the paper, such as:

- Indiana University Electronic Records Project designed to implement and test the Functional Requirements for Evidence in Recordkeeping model developed by David Bearman, Richard Cox;
- New York State Archives, Models for Action: Developing Practical Approaches to Electronic Records;
- International Research on Permanent Authentic Records in Electronic Systems (InterPARES) Project based at the School of Library, Archival and Information Studies at the University of British Columbia;
- MoREq1 and MoREq2: Model Requirements Specifications for the Management of Electronic Records developed by the European Union. The model defines generic requirements for an electronic records management system (ERMS); and
- The International Records management Trust (2004) E-Readiness Tool aims to enable governments conduct high-level assessment of key areas of e-records readiness in relation to other aspects of e-government and to determine whether the records and information management infrastructure is capable of supporting e-government initiatives.

Summary and Recommendation

The paper has presented various theories/models that may underpin the theoretical framework for students undertaking graduate research in records management research. It defined the term records management and attempted to discuss the benefits and characteristics of a good literature review. The paper defined models and theories, and highlighted the link between theories and models in research. Various records management models and their suitability in records management graduate research were indicated. The paper has also provided

suggestions for further research. The discussion of the models presented in this paper should be of interest to students and researchers undertaking master's and doctoral programmes in records and archives management schools within and outside Africa. Students and researchers should also evaluate different model(s) themselves in terms of their adaptability and relevance to the African setting, and adapt them to fit their research objectives and contexts.

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