THE INTEGRATION OF RECORD MANAGEMENT FUNCTIONALITIES IN THE MANAGEMENT OF STUDENTS' RECORDS SYSTEMS AT THE UNIVERSITY OF ZULULAND SOUTH AFRICA

A dissertation submitted in fulfilment of the requirements for the Master's degree in Library and Information Science

in the

Department of Information Studies

Faculty of Arts

at the

University of Zululand, KwaDlangezwa

By

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2022

DECLARATION

I hereby declare that this is my original research work as part of the fulfilment of Master's degree in Library and Information Science in the Department of Information Studies at the University of Zululand. The Dissertation has not been submitted before for any other degree or examination at this or any other university. All information in this document was obtained and presented in accordance with academic guidelines and ethical procedures and conducts. I have also fully cited/referenced all materials and results in this work that are not purely my original ideas.

…… Date: ……

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Dr. L P Luthuli

DEDICATION

This work is dedicated to my daughter Ntombenhle, my supervisors, and my friends. I am grateful for your encouraging words, which will never leave my mind. You were there for me every step of the way, and I will be eternally grateful for your contributions to the research project.

ACKNOWLEDGEMENTS

I would like to express my appreciation to my supervisors, Prof. T. Kalusopa and Dr. L.P Luthuli, for their steadfast supervision, guidance, and support throughout the entire research project.

I am grateful to my family for their support of my work in some way.

Also, I am appreciative of my friends' inspiration and support. The endless support and contributions I received from the day I chose the topic for this study are highly appreciated. Your words of encouragement will be remembered forever.

Finally, I would like to thank the study participants who contributed significantly to the study's completion. The assistance of the heads of section at the University of Zululand is greatly appreciated.

May God abundantly bless you all.

ABSTRACT

This study sought to investigate the integration of records management functionalities into the management of students' records systems at the University of Zululand (UNIZULU). The investigation used tenets derived from the existing IRMT good practice indicators tool. The study examined the integration of records management functionality into the management of students' records; standards and procedures for integrating records; information management strategy; and tools for auditing records systems.

The study largely adopted a qualitative approach, with a case study research design. Data was collected through semi-structured questionnaires, semi-structured interviews, and observations.

The study targeted 60 respondents, which comprised of records management staff, Protective Service Department (PSD), student administration, and ICT Manager. Out of 60 targeted participants, 44 (73%) responded.

The study findings revealed that the level of record integration at UNIZULU is moderate. The study also revealed that when the system was implemented, the implementation process was considered. However, there are still some gaps that need to be filled by the institution. The study also found that there was no specific policy for records management at UNIZULU. There was no qualified records manager at the University of Zululand, even though there were employees who were hired by the university called records officers. There is a lack of proper training, workshops, and skills in records management at the University of Zululand. The study recommends that staff members be trained in records management practices and that policies, standards, and procedures which guide the management of both paper and electronic records be established. The study also recommends that the organisation seek funds from well-wishers and donors to improve the management system of records.

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LIST OF ABBREVIATIONS AND ACRONYMS

ECM	Enterprise Content Management
EDRM	Electronic Document and Records Management
ICT	Information Communication Technology
ILM	Information Lifecycle Management
IT	Information Technology
ITS	Integrated Tertiary Software
LIS	Library and Information Science
NARS	National Archive and Records Services of South Africa
RAM	Records Management Application
RM	Records Management
UNIZULU	University of Zululand

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1 Introduction

Prior to the advent of Information and Communication Technologies (ICT) systems and even technology, every human activity over the past two decades or so was executed manually. However, the digital era has brought some changes in the field of records management, and universities have gone through the process of moving from paper to electronic records. The record management field over the past decade has improved significantly, and this is due to the emergence of current ICT (Azad, 2008). The adoption of ICT systems in organisations has enhanced the performance of responsibilities (Wamkoya, 2005). Organizations today accept the use of ICT systems in order to deal with expanded knowledge within the organisation (Lyman, 2004). As a result of the above vision, universities have decided to include ICT systems in managing students' records in order to resolve problems in the transcript process caused by mark loss and miscalculation (Tusubira, 2002). Records Management Practices (2011) states that by being able to manage records well, solid decisions are made based on evidence as well as enriching operational efficiency and effectiveness. In this sense, records management can therefore be regarded as a very important aspect that needs to be taken seriously in a university setting. In the recent information age, ICT systems have taken over almost every aspect of human activity, including education, manufacturing, entertainment, and communication, among many others. Government agencies, tertiary institutions, and other organisations have taken advantage of the opportunities provided by modern information and communication technologies and are making good use of them. ICT refers to the application of information and communication technologies towards social, economic, and political development. "ICT refers to the processing and dissemination of information through the integration of computers with telecommunications" (Adogbeji & Akporhonor, 2005).

According to Franks (2013:32), "ICT is a shorthand for the computers, software, networks, satellite links, and related systems that allow people to access, analyze, create, exchange, and use data, information, and knowledge in ways that, until recently, were almost unimaginable." The term ICT is used almost interchangeably with the Internet (Beebe, 2004)

There has been a tremendous improvement in the working environment due to the emergence of ICT, and it has therefore become the basis for many activities rising in the information age (Vatanski et al., 2009). The modes of working, communicating, sharing of information, learning, teaching, storing of information, accessibility and usability have been made easier due to ICT. The distinctive feature of using ICTs in the management of records is that data is recorded on a medium which is also represented in symbols, that is, binary digits, and also, with the help of a computer, reading and understanding become easy (Muianga, 2019).

Several establishments in the world, such as schools, universities, research institutions, museums, and governmental organizations, retain data about students. In order to keep up with the students' performance, files are created, managed, preserved, and maintained for future reference. For the effective functioning of any organization, there must be one form of record or another (Iwhiwhu, 2005). A record is a written document that provides evidence of activities performed, happenings that took place, results achieved, or statements made. According to Research Clue (2014), the process of records management involves maintaining the records of an organisation from the time they are created up to the time they are disposed of. Records management may include the following: storing, securing, and destruction (or, in some cases, archival preparation) of records. Omoha (2013) further adds that the reason for records management is to make sure that records of students' achievement and growth are reliable and authentic; records on the activeness of the individual and matters that will help improve the efficiency and effectiveness of the school system are kept. Records management is essential when it comes to the documentation of information.

Records are created and preserved as evidence of the affairs that go on in businesses. The keeping and management of records are very important in every organisation that deals with humans, and this cannot be overemphasised. Record keeping in many developing countries is a serious problem which needs urgent attention. With the advent of ICT, record retrieval will be easier without having to go through the stress of capturing, processing, storing, and retrieving records. Schools are transforming into smart schools; hence, educational technology is also increasing (Omoha, 2013). Records management, to a large extent, is important because it enables an institution to: make decisions based on evidence that has been provided; meet operational, legal, and regulatory requirements; be accessible and accountable; provide efficiency and effectiveness; and keep up with organisational or collective memory (Government Record Services, 2011). The management of students' records all over the world has tremendously increased over the past years due to the rise of ICT systems in institutions (Akotia, 2012). They are created for students once they enrol in any programme of the institution. The records, after creation, will hold information on the student's relevant data throughout the period he or she will be in the institution. The records kept should be accurate, complete, accessible and usable (Okoampah, 2011). The concept behind records management is the idea that each record has a life cycle. Records should be managed effectively regardless of the phases in which they pass through and also to meet the objectives for which they were intended (Okoampah, 2011).

States University (2017) divides student records into three categories: permanent, temporary, and directory information. There are those that document the contractual relationship between the student and the institution; those that document the student as a learner; the programme in which the student is enrolled; his or her academic progress and performance; and those that document the student as an individual and consumer of services provided by the institution; those that document the use of accommodation services, counselling services, library and IT support services, career and employment services, and those that document the student as an individual and consumer of services provided by the institution (Squelch,1997).

Institutions that do not properly manage their records put themselves in an awkward position if a record is requested and not produced. Students' records, like any other record, are essential for the smooth operation of the institution. In any educational institution, the basic function of student academic information is the creation, maintenance, retention, and disposition of records (Out,

2011). Supervising the liaison between the student and the institution, in the event to support other services and dexterity pertaining to the student, supervising the students' academic performance, and keeping records of their achievements both at the institution and afterwards, and supporting the students after they complete their studies at the institution are the processes of creating and being able to keep up records relating to that of the student of an institution.

1.2. Conceptual setting

The University of Zululand began as an independent university in the 1960s and evolved into a comprehensive institution of higher education in 2004 (Coetzer, 2012). A comprehensive university, the University is a public institution that serves many functions, including research and liberal arts education. The university is the only one of its kind in the Kwa-Zulu Natal Province. In 2006, the University of Zululand replaced its in-house IT system with a new system designed specifically for higher education institutions. This system is known as Integrated Tertiary Software (ITS), and it is not a records management system, but rather an enterprise programme (ERMP) designed to capture and maintain student, financial, and staff personal records (ITS, 2018). According to the Integrated Tertiary Software User Group (2018), the system is intended to support administrative functions in higher education/further education and training institutions. The ITS can also be implemented as a fully integrated solution to support a university, polytechnic, or college's students, financial, human resources, payroll, and library business processes. Much research has been conducted in the field of Library and Information Science (LIS) on records management, but little has been conducted on the integration of ICT systems in record management.

Several studies on records management have been conducted (Kargbo, 2009; Kemoni, 2007; Mnjama, 2004; Moloi & Mutula, 2007; Mutula & Wamukoya, 2009; Nengomasha, 2009; Ngoepe & Van der Walt, 2009), but there is a lack of studies focusing solely on the integration of records management functionalities in the management of records systems in institutions of higher learning. Coetzer's (2012) study on the "status of records management at the University of Zululand" did not address the issue of records functionalities. This study discovered that, aside from the Institutional Tertiary System (ITS), an electronic record management system, the University of Zululand has no record management system that deals with general paperwork and electronic records such as email and books. According to Coetzer's research, there is no specific

policy that governs record management in the institution. As a result, the study aims to investigate the integration of record management functionalities in the management of student records systems and shed light on the changes that the University has undergone since the findings of Coetzer's above study reveal the results of records management prior to 2012.

1.3 Problem statement

Many organisations around the world are grappling with the conundrum of an integrated record management system. Several researchers believe that records management is the foundation for successful transparency and accountability initiatives (Rotich, Mathangani & Nzioka 2017:127). However, existing literature indicates that many African countries, including those participating in the Extractive Industries Transparency Initiative (EITI) in the International Council on Archives' Eastern and Southern Africa Regional Branch (ESARBICA), face challenges in managing records and information resources in both print and electronic formats (Asogwa, 2012; IRMT, 2003, 2008, 2011; Mnjama & Wamukoya, 2007: 279-282). The proliferation of ICTs in organisations has altered how businesses operate, including how they create, capture, alter, and manage information and records. Understanding the breadth, accessibility, and utilisation of ICTs in various segments of society has undoubtedly presented a number of opportunities and challenges.

According to URT (2011:3-4), the majority of the country's records management issues revolve around record creation, capture, receipt, classification and archiving, use and tracking, storage and protection, vital records, access, and disposition. However, Newa and Mwantimwa (2019:116), Mohamed, Rasheli and Mwagike (2018:51), Kamatula (2018: i-ii), and Oweru and Mnjama (2014:136) provide an extensive list of challenges, including: the absence of a comprehensive Records and Archives Management (RAM) policy; the absence of RAM guidelines; the inadequacy of RAM practices; the absence of preservation legislation; the weak implementation of policies, circulars, and standards Other challenges include insufficient funding to support training, infrastructure maintenance, and RAM activities; insufficient records storage space, equipment, and facilities; a lack of proper archival handling; a lack of adequate security and disaster preparedness measures; insufficient conservation and restoration facilities; and a shortage of competent staff for e-records.

According to the literature, most systems are developed without taking into account records management functionalities, and there is a scarcity of empirical studies conducted in the King Cetshwayo Area, Kwa-Zulu Natal. This void justifies the current investigation into the integration of records management functionalities in the management of students' records system at the University of Zululand, which has implemented the students' records system. As a result, the current study is important for policymakers, stakeholders, researchers, and other institutions, as well as information professionals, in order to make informed decisions. The findings of this study will contribute to academic knowledge while also serving as motivation for further research. Furthermore, this study will serve as a foundation for other researchers evaluating the use of ICT systems in student records management systems.

1.4 Aim of the study

The overall aim of the study was to investigate the integration of records management functionalities in the management of students' records systems at the University of Zululand, South Africa.

1.5 Objectives of the study

The following objectives were set.

- To determine the integration of records management functionality in the implementation and management of students' records.
- To determine standards and procedures for integrating records management systems in the management of students' records.
- To identify an information management strategy with a specific goal of integrating records management into ICT systems.
- To determine specific tools for auditing and evaluating records management integration in ICT systems.

1.6 Significance of the study

By demonstrating the importance of integrating records systems, the study will significantly contribute to the body of knowledge in the field of Library and Information Science, particularly Records Management. It is hoped that this study will fill this knowledge gap, as there have been

few studies conducted in the province of Kwa-Zulu Natal to investigate the integration of records management functionalities in the management of records systems. On the other hand, carrying out this research will add to the literature on integrating records systems in the context of students' records systems. Again, the study will provide a productive centre of knowledge sharing between records managers regarding the integration of ICT systems in record management, and the records departments will understand their weaknesses and strengths and, as a result, make necessary adjustments. The study's recommendations will aid in the improvement of records management practices while also acting as a catalyst for the modification and formulation of records management strategies and policies in universities and other institutions that face similar issues, such as record loss and record system implementation.

1.7 Scope and delimitations of the study

Bak (2004:23) believes that all research projects should have a beginning and ending point to help orient readers and make the study manageable. The current study looked into the integration of records management functionalities in the management of student records systems at the University of Zululand. The research study evaluates the system from the time records are created until they are disposed of. It also considered the benefits and drawbacks of combining these two management systems, manual and electronic records systems. The study made no attempt to investigate the technical aspects of software designed for records management at the University of Zululand and other institutions of higher learning.

1.8 Definition of Terms

1. Record- Iwhiwhu (2005: 345) defined a record as information that is necessary for decision making, planning, operations, evaluating results, and projecting for the future. In contrast, Popoola (2009: 205) defined records as information captured and stored or documented in a permanent medium. Records are byproducts of university system business transactions that serve as corporate memory (Popoola, 2009). Coetzer (2012: 3), on the other hand, stated that records can be electronic (e.g., emails, internet content, documents, databases, digitally recorded images) or physical/printed (any information that is paper-based).

2. Records Management – It is the capture and preservation of accurate, complete, reliable, and usable documentation of an organization's activities in order to meet legal, evidential accountability, and social/cultural requirements (Ngulube, 2005). According to Coetzer (2012: 5), records management aims to support an organisation's efficiency, effectiveness, and good governance.

3. Student records - According to Nakpodia (2011), student records are records kept by public or private universities about current and previous students. Students' records include information about students such as grades, address, name, parent and contact information, and individual education programme (Nakpodia, 2011).

4. ICTs - These are various technological tools and resources used to communicate as well as create, disseminate, store, and manage information. Computers, the Internet, broadcasting technologies, and telephony are examples of ICTs (Olaitan, 1995).

1.9. Chapter Outline – Organisation of the Thesis

Chapter 1: Introduction and background

This chapter gives an overview of the research. It includes background and motivation, an overview of the research site, the problem statement, research questions, research design, research methodology, data collection and analysis, and a conclusion. The chapter describes the study's scope and limitations, as well as definitions of key terms, ethical principles, and a chapter outline.

Chapter 2: Literature review

This chapter seeks to identify, locate, and synthesise completed reports, articles, books, and other research-related materials. In summary, it attempts to review the literature resulting from other researchers in the field of ICT systems in records management, including records management policies and procedures.

Chapter 3: Research methodology

This chapter focuses on the research methodology. It discusses the research methods used, the target population, data collection instruments, data collection techniques and procedures, and data analysis.

Chapter 4: Data presentation, analysis and interpretation

This chapter presents, analyses, and interprets data gathered through questionnaires from PSDs and ICT employees at the University of Zululand.

Chapter 5: Discussion of findings

This chapter interprets and discusses the findings presented in chapter four, as well as the questions raised in the study's first chapter. The researcher discusses the findings based on the data collected in the research in relation to the study's objectives.

Chapter 6: Summary, conclusion, and recommendations

This chapter provides the summary, conclusion and recommendations of the study based on the findings of the study.

1.10 Summary

This chapter served as the foundation for the entire study. The chapter provided the conceptual and contextual foundation for this study. The investigated problem, the study's aim, objectives, and research questions were all discussed. The study's contribution and constraints were discussed. There was an indication of a literature review, research methodology, and dissertation structure. This study was inspired by the integration of record management functionalities, which was identified as a major concern in the literature. The identified problems are thoroughly addressed in the following three chapters: Chapter 2 through a review of the literature, Chapter 5 through a discussion of the findings, and Chapter 6 through the provision of study recommendations. The following chapter examines existing literature in relation to the research objectives.

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction

The previous chapter discussed the study's introduction, problem statement, and objectives. This chapter summarises the literature on the integration of records management systems. According to Oliver (2004:4), the word "review" in literature review means to summarise the broad content of the research study and to indicate clear ties to other studies in the field. The primary goal of a literature review is to identify academic and research areas that are relevant to the subject under consideration. A literature review, according to Blaxter, Hughes and Tight (2001:120), is a systematic, explicit, and reproducible method for identifying, evaluating, and interpreting an existing body of recorded work produced by researchers, scholars, and practitioners.

According to Stilwell (2000:173), a good literature review must accurately portray and acknowledge the various points of view, agreements, disagreements, and trends of thought on the topic of research. According to the author, "a literature review must produce a conceptual framework, philosophical stances, theoretical assumptions, and theoretical problems." Pickard (2007:26) confirms that a literature review is a critical discussion of significant, publicly available literature that contributes to a subject's understanding. Mugenda (2003:29) agrees with Oliver, Blaxter, Hughes, Tight, Stilwell and Picard that conducting a literature review entails systematic identification, location, and analysis of documents containing information relevant to the problem under investigation. Pickard (2007:34) goes on to say that a literature review not only informs the researcher about the "state of knowledge" of the subject, but it also provides insight into a methodology. As a result, the researcher can provide not only a summary of the study but also an actual critique of the methodology's strengths and weaknesses. In summary, a literature review is a comprehensive analysis, combination, and evaluation of information sources in order to obtain an immediate and considerate view or understanding of the situation or problem under investigation. Kaniki (2002) identified the following types of literature reviews:

- Historical reviews that consider the chronological development of literature and divide it into stages.
- Theoretical reviews, which trace the theoretical developments in a particular area, often show how each theory is supported by empirical evidence.
- Thematic reviews, which are structured around different themes or perspectives and often focus on the debate between various scholars.
- Empirical reviews attempt to summarise the empirical findings from various methodologies.

The researcher opted for the thematic literature review, which is structured around different perspectives. The review of literature in the current study is centred on the following records management themes and models:

- The integration of records management functionality into the implementation and management of records.
- Standards and procedures for integrating record systems in the management of records.
- Integrating records management into ICT systems is an information management strategy.
- Tools for auditing and evaluating records in ICT systems.

2.1.1 The IRMT model

This section discusses the theoretical frameworks that underpin the current study. Several authors provide definitions of the term theory, both scientific and general (Eagleton, 2008; Johnathan, 2005; Kothari, 2004; Stoner et al., 2003; Mugenda & Mugenda, 1999). The gist of their definitions is that a theory is a collection of hypotheses, assumptions, or propositions that are logically or mathematically linked and offered as a general explanation for a wide range of connected natural observable phenomena. The term theory is commonly used to refer to a conjecture, opinion, or speculation that explains a set of observed facts in a specific field (Eagleton, 2008; Nonaka, 2005). A theory is an interconnected, coherent set of ideas and models that makes generalisations about observations. Theories aid researchers in drawing conclusions, expanding the body of knowledge, and even developing more advanced and improved theories (Eagleton, 2008; Johnathan, 2005; Kothari, 2004; Stoner et al., 2003; Cozby, 2001). According to Ocholla and Roux (2011), theory

serves as a lens through which a researcher examines a specific aspect of his or her subject field. A theory in research, according to Redish (2004), is a shared language and assumptions that can both guide and allow us to compare different approaches and ways of thinking. As a result, it is critical that every research project includes some theoretical inclination within the subject of study, against which the researcher can base his thinking and draw conclusions. In scientific research, Kemoni provides a broad perspective from which a case can be evaluated. They provide study structures and visions. According to Grant and Osanloo (2014), theoretical frameworks can be used to structure all aspects of research in quantitative, qualitative, and even mixed methods research. The current study used the IRMT framework from 2009 as its theoretical framework. The theoretical framework was formed by using all aspects of the models to guide the study.

The theoretical framework was critical in the current study in structuring the literature review, research questions, data collection, data analysis, and interpretation of the findings, as well as in developing the recommendations. An organization's activities serve a purpose. They are mutually beneficial and serve the organisation and its community. Latent functions exist in all organisations and behavioural patterns that benefit some dominant economic or political structure (Van Parijs, 1982: 501). This premise influenced the selection of the IRMT model 2009 as the theoretical framework for this study. An electronic record, according to IRMT (2009), is a record that is created, generated, sent, communicated, received, or stored electronically and that requires some form of computer technology to access and use. An electronic record is typically written on a magnetic or optical medium, such as magnetic tapes, CD-ROMs, DVDs, hard discs, USB sticks, and other digital storage devices that are accessed primarily through computer software and hardware.

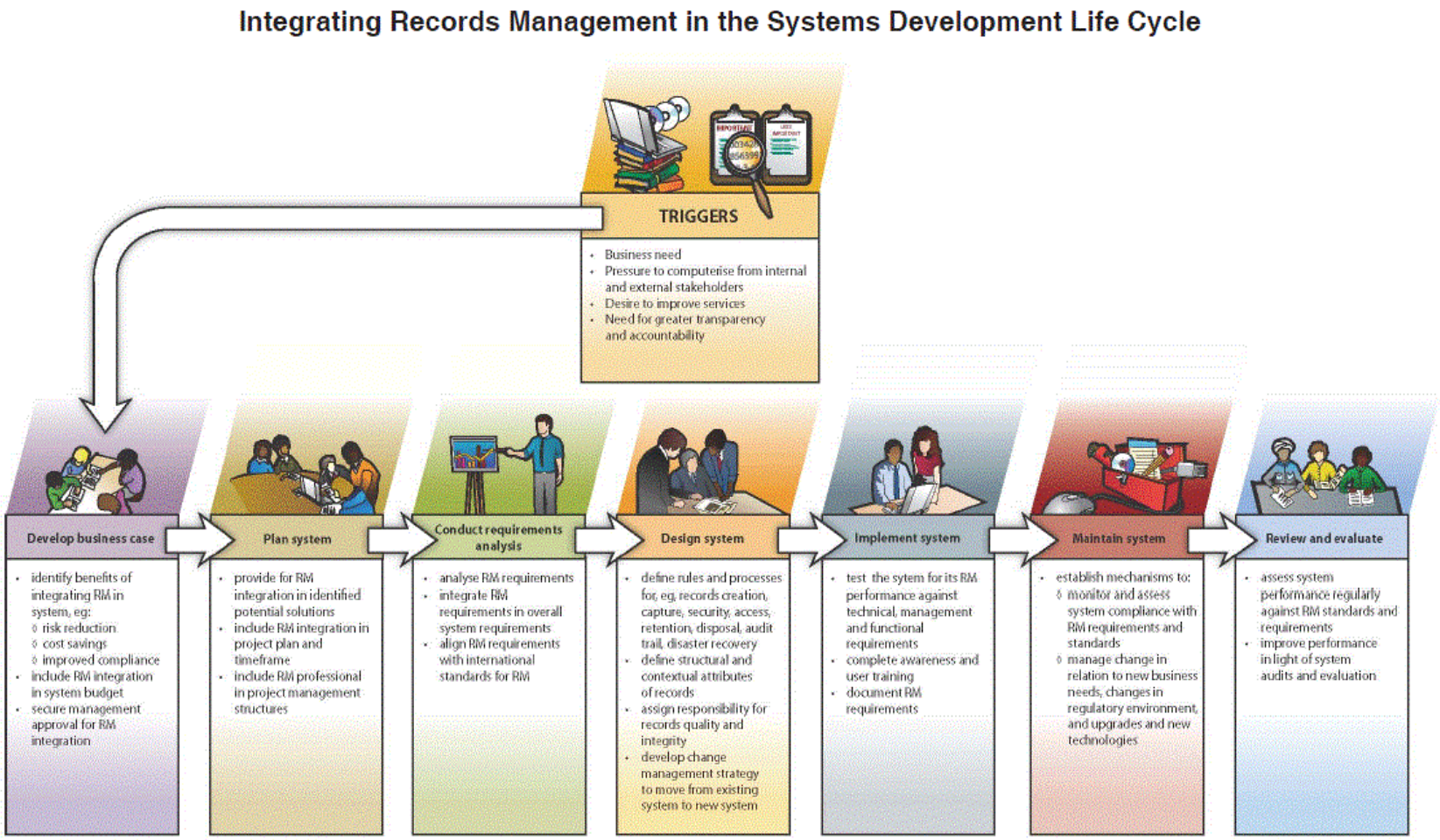


Figure 2. 1 IRMT: Good Practice Indicators

Source: (IRMT, 2009:v)

This model is intended to assist governments in determining whether records management requirements have been incorporated into ICT systems. It should help in identifying good practices and determining whether good practices have been achieved, from planning and design to implementation. The tool's specific purposes are threefold:

- To provide a high-level guide to integrating record management into ICT systems
- To define good practices for managing records created and held in ICT systems
- To provide selective indicators that can be used to determine whether or not good records management policies and practices are integrated into ICT systems.

This tool's good practice statements are based on widely accepted international standards and records management requirements. In some cases, the terminology has been modified so that non-records and information specialists can easily interpret the statements of good practise and conduct an assessment using the indicators.

A successful electronic records management programme requires an organisation to establish a sustainable records management infrastructure, which includes developing policies for the management of records and information in all forms, including electronic and paper. A records policy, according to IRMT (2009), is a written, formally approved statement that explains why an organisation should care for its records, whether electronic or paper, in an effective and appropriate manner, so that the records remain authentic and reliable evidence for as long as they need to be kept. A records policy:

- Provides clear guidance on what records are and why they need to be managed effectively
- Explains how good records management will serve the needs of the organization
- Sets out general principles and policies relevant to the organisation on specific aspects of records management, which then form the basis for the implementation of new records management programs
- Identifies statutory or other legal foundations for organisational record keeping.

2.1.2 Organisation of the framework

The IRMT model is intended to assess the strengths and weaknesses of records management integration across three distinct categories:

- The laws, policies, governance, strategies and evaluation mechanisms that must be in place to provide a compliance framework to ensure records management requirements are included in ICT systems.
- The integration of records management requirements into ICT systems during the systems development life cycle.
- The capability of an existing ICT system to meet record management requirements.

While the tool does not go into detail about the broader requirements for an overall records management programme, it acknowledges the need for a framework of records management policies, strategies, and responsibilities within which records management integration can take place.

Records management in ICT systems must adhere to the same organisational policies and accountability standards as records management in all other formats, including paper filing systems and records created and maintained by office systems (email, correspondence, memoranda, reports, spreadsheets, etc.). The good practise statements can be used to conduct a high-level evaluation of the legal, policy, and accountability framework that supports all types of records management. While the tool does not go into detail about the broader requirements for an overall records management programme, it acknowledges the need for a framework of records management policies, strategies, and responsibilities within which records management integration can take place. Records management in ICT systems must adhere to the same organisational policies and accountability standards as records management in all other formats, including paper filing systems and records created and maintained by office systems (email, correspondence, memoranda, reports, spreadsheets, etc.). The good practise statements can be used to conduct a high-level evaluation of the legal, policy, and accountability framework that supports all types of records management. The statements of good practice and the indicators that go with them are divided into three categories.

1. *Records Management Framework*: A framework must be in place to ensure that recordkeeping is considered when designing and implementing ICT systems.

   The following are the subcategories of this category:

   - legal and policy framework
   - Management structure
   - Records management strategy
   - Evaluation and audit

2. *Integrating Records Management into the Systems Development Life Cycle*: The integration of recordkeeping functionality in ICT systems is best accomplished in the context of system planning, design, testing, implementation, and review, according to this category. The sub-categories are as follows:

   - project initiation
   - planning
   - requirements analysis
   - design
   - implementation
   - maintenance
   - review and evaluation

3. *Integrating Records Management Functionality into ICT Systems:* This relates to how well records management has been integrated into existing ICT systems. It considers what the system must do to support record creation, organisation, use, retention, and disposal. The sub-categories are:

- Creating and capturing records
- Managing and maintaining records
- Managing hybrid records
- Searching, accessing, and retrieving records
- Retaining and disposing of records

2.1.3 Managing the Creation, Use and Disposal of Electronic Records

Essentially, there are four common ways of creating, using, and storing documents in an electronic environment: in personal computers, where individuals control the creation and use of the records, in shared computer servers, where individuals control the creation of records but share those records with others in the organisation, in shared servers with centralised control, where all individuals adhere to established procedures for creating and managing records, and in shared servers with centralised control, where all individuals adhere to established procedures for creating and managing records. Each of these approaches to creating and utilising electronic records can result in a variety of methods for managing those documents, particularly for naming, filing, and accessing records.

2.1.4 The management of physical and electronic records

Records management is critical to ensuring that both physical and electronic records are managed properly and effectively in an organisation. According to Makhura (2005:51), the management of both physical and electronic records is essential, and they must be captured as soon as they are generated.

2.1.5 Managing physical records

Records are a valuable corporate asset that can improve an organisation's efficiency and effectiveness because they are retained and reused as evidence of decision making and business activities. While there are costs associated with record management, good management practises are likely to lower these costs in the long run. By finding and producing relevant evidence contained in records, an organisation such as a university can reduce its risk of legal or regulatory challenges. By managing records, the university can ensure that decision-makers have access to all of the information they require to carry out their duties, improving the quality of decision making, business and long-term planning and reporting, and providing a quick and accurate punter service. Records are also kept to demonstrate changes.

2.2 The integration of records management functionality into the implementation and management of records

When implementing ERMS, records managers must first prepare for change by defining a change management strategy and forming a change management team to spearhead the transition, according to Galanti, Ndiaye, and St-Hilaire (2012). Following that, a sponsorship model is created to show who will be responsible for providing funds for the change management strategy's implementation. Second, to manage change, create a change management plan outlining how activities will be carried out. Following that, appropriate steps should be taken to put the plan into action. Finally, the change should be reinforced by collecting and analysing user feedback. Gaps can be identified, and employee resistance can be managed. Corrective actions can then be taken to ensure that the implementation goes smoothly. Having a strategy in place will lay the groundwork for implementing a change management methodology. A study conducted in Nairobi by Njung'e and Kagiri (2015) discovered that when precise change management strategies were implemented, electronic medical records (EMR) systems were successfully adopted by nurses.

When an organisation has multiple Management Systems (MSs), integrating records management systems is considered the best management practise. Integration is the process of combining various function-specific management systems into a single, more effective Information Management System (IMS) (Beckmerhagen et al,2004). The introduction of ICTs has drastically altered the landscape of African records management (Barata et al., 2001). Implementing technology-driven governance solutions is seen as part of their programme to demonstrate accountability to citizens, the courts, and the legislature, as well as to improve efficiency. Because managing electronic records has such significant implications for good governance, records systems should be designed to meet good governance and accountability requirements (Wamukoya, 2000). Mnjama and Wamukoya (2006:277) conclude that "the emergence and growing importance of e-records as a means of communicating and preserving corporate information poses new challenges hitherto unknown to administrators and records managers." Nations may lose valuable information if this issue is not addressed. According to InterPARES Trust (2018), current curriculum needs for archival education in Africa include more practical experience derived from ICT training. Professionals in archives and records management in ESARBICA lack ICT-related skills and competencies such as digital curation, digital preservation,

audio-visual and digital archiving, and digitization (Garaba 2015). The preference for traditional theory stalled records management programmes, leaving graduates with what Garaba (2015:217) described as "cosmetic practical exposure, spiced with small doses of digital technologies." The inability to retain staff in African countries in general is a problem (Ngoepe & Keakopa 2011; InterPARES Trust, 2016; Mosweu & Ngoepe, 2019), particularly those with digital skills and competencies (Kalusopa & Zulu 2009).

2.3.1 Standards and procedures for integrating records management systems into the management of records

According to the National Archives of the UK (2019), a records management policy is the foundation of effective records management in an organisation and is normally the guiding document for the development and implementation of a records management programme which promotes proper filing of records and their retrieval, controls movement of records and records retention and scheduling to support good governance. Records management is achieved within a framework of laws (Okello-Obura, 2011). An understanding of such laws enables a comprehension of the legal context in which records can and should be created and managed. Furthermore, organisations use legislation to ensure that their records and archives are appropriately managed and preserved over time for accountability and historical reasons. In the context of Southern Africa, records laws are outdated as their formulation was based on the management of paper records, excluding other formats such as microfilm, audiovisual, and electronic records (Ngoepe & Saurombe, 2016). Many laws were enacted just after the independence of African states; therefore, they did not keep up with developments in the profession. Barata and Cain (2001) observe that, in some African countries, the national archives play no role in records management. In such an environment, national institutions need to advocate for improved record management practises in organisations. Up-to-date records legislation facilitates an effective, integrated system for managing records and archives (Mosweu & Simon, 2018).

2.3.2 Standards on records management security

Information security refers to the preservation of confidentiality of records, which protect the information contained from unauthorised access and disclosure; integrity by safeguarding the authenticity, accuracy, and completeness of information and processing methods; and availability by ensuring that information and associated services are available to authorised users when required (The London School of Economics and Political Science, 2021: n.d.). In this case, records and information should be protected from unauthorised or unlawful access, destruction, loss, deletion, or alteration (State Records Authority of New South Wales, 2014:13). Charles Darwin University (2017) contends that, due to increased threats to an organization's information systems at present, public organisations are required not only to create, store, and use information but also must make records available securely while permitting access to those with a genuine need to know the information in the records. Indeed, organisations need to implement an information security framework to value the information contained in records (Northern Territory Government, 2010:14). Towards this end, organisations should develop a framework comprising guidelines for record creation and capture as well as the technology utilised to capture records, the security classification of records, and security profiles of all staff in the organization. Organizations should then ensure that issues of record security are covered in policies and staff training (State of New South Wales, 2004:12). 44 The London School of Economics and Political Science (2021: n.d.) also emphasises appropriate protection for all forms of information, paper or electronic, to ensure business continuity and efficiency and avoid breaches of statutory, regulatory or contractual obligations. In this regard, the information security policy and data protection policy act should come in handy. Myler and Broadbent (2006:43) maintain that information professionals need to address an ever-increasing threat to their information systems while maintaining access to critical information systems. The suggestion is that organisations can use ISO 17799, which provides a framework to establish risk management methods, policies, controls, countermeasures, and programme documentation. According to Myler and Broadbent (2006:44), ISO 17799 requires organisations to create information security policies and procedures; assign roles and responsibilities; provide consistent asset management; establish human and physical security mechanisms; document communication and operational procedures; determine access controls and associated systems; prepare for incident and business continuity management; and comply with

legal requirements and audit controls. In transparency and accountability endeavours such as the EITI covered in this study, information security provides a basis for information quality—authenticity. When such information is disclosed, users will believe it to be an accurate representation of what happened because the information has remained unaltered or otherwise uncorrupted throughout the time of its creation (Lee, 2005:2).

2.3.4 The importance of implementing an integrated records system

Ambrose and Paine (2018) asserted that the integration of electronic and paper records promotes systematic and well-planned access as well as control over their collections and information. However, on the other hand, they alluded to the fact that having an integrated approach at hand may not necessarily mean that it will solve all the problems encountered in using the system. In one way or the other, it is costly in terms of maintenance and operations. Burrington-Brown and Hughes (2018) are of the view that electronic records management systems can complement the manual system by providing an electronic catalogue on the internet. They, however, also argued that in the case of developing countries, they can be limited in terms of their resources. Therefore, it may be difficult for the expected audience to receive their services efficiently. Horsman (2002) indicated that an integrated records management system reduces the duplication of effort to ensure that consistent classification, security, access controls, and retention policies are applied across the board. It also gives a single point of access and a single index, facilitating cross-media information retrieval. This is powerful for data protection and freedom of information enquiries, and it is vital for knowledge management.

The International Records Management Trust (2009) alluded to the fact that the level of integration between paper-based systems and electronic systems should therefore be assessed adequately in an organization as it is critical to understanding. Keakopa (2006) concurs and alludes to examples of the Department of Public Enterprise (DPE) in South Africa that have implemented such an integrated system. Keakopa (2006), however, cautions that such a "kind of system can only be successful if alliances between professionals in the two environments are formed since IT experts

will be needed by records managers to help in the design and maintenance of the new systems". More recent studies in South Africa found the same principle relevant in an integrated environment (Katuu, 2015).

2.3.5 The classification system

According to the International Council on Archives (2011), each record must be assigned a unique reference number and organised in a consistent and logical classification scheme for easy retrieval and systematic disposal in accordance with the record retention and disposal schedules established. McKenzie (2003) asserted that in records classification, there is the introduction of an appropriate registration, classification, and indexing scheme for both electronic and physical records. Cornwell Management Consultants (2004) also stressed the need to specify the need for classification on disposition schedules and other related issues in both electronic and paper-based records. The ISO 15489-1(2016) concurs with the views mentioned above; however, it stresses that the shorthand method of referencing records by means other than the title is commonly used. The allocation of numbers or codes is usually undertaken for an aggregation of records. The above-mentioned facts can also help the current research in trying to assess the situation of the management system used to manage the integrated system at the University of Zululand.

2.3.6 The storage of records

According to 15489-1 (2016), there is supposed to be an appropriate environment and media to be considered when designing the records system. Storage is essential for managing records because it ensures that records are secure, intact, and accessible for as long as users need them (Shepherd & Yeo 2003:173). 15489-1(2016) states that records require storage conditions and handling processes that consider their physical and chemical properties. Records, irrespective of their formats, require high-quality storage and handling. Organizations should also store records in media that ensure their usability, reliability, authenticity, and preservation for as long as users need them. Some of these findings concur with those of Kemoni (2007:309), who found that the most common storage equipment in the public sector in Kenya was steel cabinets, and that there were problems with the inadequacy of storage equipment. Other studies, like those of Wamukoya and

Mutula (2005:75) in the ESARBICA and Nengomasha (2009:209) in Namibia, confirm the pattern.

2.3.7 Standards on records disposal

Thomas (2018:3) describes records retention and disposition as an essential component of the records management programme as it ensures that records exist when needed for litigation, audits, day-to-day business purposes, or historical research, but that unwanted records do not take up costly storage space. Also, retention schedules provide evidence that records that no longer exist were not destroyed to avoid their use as evidence of transparency and accountability. Paper or digital records cannot be retained indefinitely as this increases storage and maintenance costs as the volume of records grows, hence slowing down and complicating access (Shepherd & Yeo, 2017:146). Implementing records appraisal and disposal has several advantages, such as the improvement of overall utilisation of resources, control of the growth of records volume, demonstrating compliance with regulatory recordkeeping requirements, enforcing the consistent implementation of record-keeping policies, improving the ability to locate and retrieve records when required, and reducing litigation risks (Information Requirements Clearinghouse, 2021, n.d.). The State Records Authority of New South Wales (2014:14) argues that records and information can be systematically and accountably destroyed when legally appropriate. Accordingly, public organisations must dispose of records as per the provisions of the National Archives Act. They must demonstrate that such action has been performed with due regard to business, legal, and governance requirements as well as community expectations towards the retention and disposal of records. Public organisations must not dispose of records unless it is done in compliance with relevant practice, procedure, standard, or in accordance with legislation or court order (Northern Territory Government, 2018:17).

2.4.1 Information management strategies to integrate records management into ICT systems

The development of a records management strategy based on the ideals of ISO 15489-1 (2016) can help to establish physical and intellectual control over all records created by governments. The strategy should address the legal, policy, and regulatory framework; an appropriate organisational

structure; awareness raising; capacity building; and proper record storage. Financial investment is necessary for the strategy to succeed. A records management strategy provides direction for records and information management throughout an organisation (Keakopa, 2013). In Tanzania, the UK Department for International Development funded a records management improvement programme which, together with the newly enacted Records and Archives Management Act, positioned the National Archives and Records Management Department to be the overall overseer of current records management across government (IRMT, 2009).

Nengomasha (2009:178) cited the lack of training as one of the factors that led to poor recordkeeping in the public service in Namibia, where only 20% of the ten heads of the recordkeeping functions reported that they had attended some records management training or awareness course in respect of records management. Mazikana (2017) agrees that records staff are poorly trained and of low caliber. He goes further, indicating that there are only a few countries with record training schools. In some cases, such as Zimbabwe, a vibrant training school has been closed temporarily. The morale of registry staff is reported to be quite low in most countries, and they operate without recognition and some of the basic necessities. Africa lacks adequate training facilities for professional and technical staff. However, on the other hand, Keakopa (2018:178) asserted that Botswana had done quite well in training a records management cadre, although a challenge remained in terms of training in electronic records and generally inadequate staffing in the public sector. In the survey conducted by Kalusopa (2016) in Botswana, respondents indicated that most of the staff lacked relevant training and a few had, whilst others had low awareness of electronic records management. Keakopa (2018) also found this very prevalent in the public sector in Botswana, where there was a preference to deal more with paper records separately from electronic records. Keakopa (2018) cited the lack of skills and knowledge in electronic records and cautioned against the over reliance on the use of paper-based systems by stating that "although personal knowledge of the physical layout of a manual records unit may lead to quick retrievals, this is greatly impaired where storage covers a wide expanse of space. Well-designed computer systems will, however, retrieve information more quickly." The researcher in this study therefore intends to take a look at training that they have in regard to the way an integrated records management system is operated.

2.4.2 The knowledge on managing electronic and paper records

Kalusopa (2016) observed that labour organisations in Botswana tend to organise electronic and paper records separately, and systems seemed to operate in a disparate manner, and they appeared content with this. There was clearly a de-linkage between the management of paper-based and electronic records management in relation to their integrated system. These issues were not generally considered when planning new information systems. As the study has established, the major reason for this was the lack of depth in knowledge and skill in records management Kalusopa (2016). As earlier observed, the need for staffing and professional training in records management emerged as one of the critical areas in understanding the depth and breadth of electronic records management. The International Records Management Trust (2009) concurs with the findings of Kalusopa (2016) where he alluded to that success or failure to understand the nexus of paper-based and electronic systems was usually driven by the success or failure of electronic records management. The International Records Management Trust (2009) cited those lessons learned in Ghana, Tanzania, and Uganda as having conclusively shown that automated systems cannot simply be overlaid on dysfunctional or chaotic paper-based Gumbochuma (2009), however, indicated that the staff lacked adequate manpower development courses to upgrade their knowledge in relation to the advancement of technology. He also noted that quite a larger number of staff did not have formal training and, therefore, they would acquire knowledge from refresher courses, which they do once a year. Akotia (2000) further noted that the Ministry of Uganda had no capacity for requirements for managing electronic records and accurately documented policies, standard operating procedures, and formal methodologies for managing e-records. The basic elements of an electronic records programme include staff who understand the functional requirements for record keeping and have the competencies and skills required to manage electronic information delivery systems. The study also wants to look into the knowledge attained by the staff, particularly for the management of records in the implemented integrated approach.

2.5 Auditing and evaluating records management integration into ICT systems

The use of ICTs by institutions and government departments has had a serious impact on accounting and audit processes (Abiola , 2013:54; Abiola, 2014:1739; Amatya, 2016:84). The nature of digital evidence used to support an audit opinion requires an even greater level of

scepticism than that for physical evidence due to the ease with which digital records can be altered without trail (Renardi, 2018), making it problematic to prove the authenticity of digital documents for audit purposes (Park 2011). Comparatively, it is easier to detect the falsification of paper records than the falsification of digital records. Therefore, auditors have to exercise caution when auditing in a digital environment and not just rely blindly on evidence without weighing its sufficiency and competence (Nearon 2015:2). This raises the need to have clear criteria for determining whether digital records are authentic and reliable to support the audit process (Mukwevho & Jacobs, 2012; Auditor-General of South Africa, 2014). In fact, in a study of e-government readiness in the public sector of Botswana, Moloi and Mutula (2007:113) concluded that the greatest challenge in managing digital records produced by e-government platforms in Botswana lies in the management and preservation of such records as evidence of business transactions, a situation which could result in large informational gaps between e-records and paper-based records, leading to incomplete public records. For auditing purposes, these possible gaps could mean that the resulting digital records won't be accepted because auditors need real records to come to auditing conclusions (Ngoepe & Ngulube, 2014:142).

The use of ICTs to conduct business processes has affected the auditing profession and audit processes, requiring auditors to be adept in both information technology (IT) and auditing in order to keep up with technological developments (Carroll, 2006:1). The computerization of business records and the availability of computer-aided audit tools mean that these activities can be performed faster and more thoroughly. However, auditing in a digital environment needs to be supported by an appropriate regulatory and legislative framework. This is because legislation has a tremendous impact on how records are managed, including those that are created and stored in networked environments (Ngoepe & Saurombe, 2016:24). Countries such as Botswana, South Africa, Uganda, and Mauritius have legislative frameworks that recognise the use of digital records in the transaction of public services (Government of Mauritius, 2000; Government of South Africa, 2002; Uganda Law Reform Commission, 2004:49; Government of Botswana, 2014a). The legislative framework that demands accountability in the use of public funds and resources in Botswana, of which auditing forms a part, includes the Constitution of the Republic, the Public Audit Act and the Public Finance Management Act (Government of Botswana, 1966, 2011a, 2012). The national constitution established the Office of the Auditor General and mandates it to

audit the accounts of all public bodies in Botswana. The Public Audit Act (PAA) (Government of Botswana, 2012) specifies the Auditor General's specific functions. These pieces of legislation make it mandatory for the public sector to account for their actions and decisions with regard to public funds. An audit is usually performed to fulfil this obligation. The PAA requires the Auditor-General to audit the accounts and prepare the financial statements of public bodies as specified in the PFMA. According to the IRMT (2004a:53), the AGD views this regulation as the prime directive for good records management within the department. Because ICTs are used to keep track of student records and manage financial information, auditors have to check online systems (like ITS) and use online audit software as their main audit tool. They also have to collect evidence digitally.

2.6 Challenges faced in the management of records within an integrated system

Barry (2018) notes that technological implications such as fragility of media, file deterioration, media obsolescence, and hardware and software obsolescence pose a challenge to managing electronic records. Barry (2018), referring to the state of ERMS in developing countries, argues that in an environment where there is no technology architecture, countries are computerising inefficient manual recordkeeping systems. However, it should be noted that technology not only poses challenges but also offers opportunities in terms of access, retrieval, and user interface. The challenge is to determine what hardware and software are essential for ERMS. This is something that is becoming more difficult because of the increasing sophistication of information technology. The technological challenges are many.

Shepherd and Bearman (2017) indicate that electronic records and data are usually easy to delete and can be very easy to amend or update. The literature also indicates that both the survival and the readability of records can easily be endangered in the electronic environment. Thus, designing and building systems that ensure the survival, accessibility, availability, and integrity of electronic records is a challenge that every record keeper and organisation needs to meet. There are security concerns when it comes to the management of electronic records. Shepherd and Bearman (2016) stated that electronic records depend on technology for their generation, access, and use over time and that they should be protected from unauthorised and undocumented alteration or deletion. This

is because records that are made and kept in electronic form are always at risk of being changed by accident or on purpose.

Maintaining the security of electronic records over time is a big challenge for many governments. According to Cook, T. (2010), the maniputable nature of electronic records means that, in the absence of appropriate safeguards, it is relatively easy to alter or delete the electronic records—whether intentionally or unintentionally. Alterations to electronic records can be virtually undetectable, undermining their evidential value as records. Wato and Lekaukau (2012) have argued that technological developments have allowed easy access to records and caution record managers to take the necessary measures to maintain the safety of electronic records. Thibodeau (2012) says that one of the problems with keeping electronic records is how easy it is to change or delete them. Because of this, an electronic archive system needs to be made to minimise risks of this kind.

The challenge is to provide security controls to prevent potential abuse of recordkeeping systems. McLeod and Hare (2015) argue that without a high-level security framework, confidence in electronic systems would be difficult to build as records can easily be deleted or changed at any time. With IT, there is potential for ever expanding access to the entire information process involved in the conduct of business. This creates enhanced possibilities for compromising security concerns.

Rothenberg (2015) pointed out that there is also a danger that electronic records are particularly vulnerable to obsolescence, resulting in difficulties in reading the records in the future. Technological obsolescence can render records unusable, and this means that electronic records can become inaccessible. Hardware and software rapidly become obsolete, which makes it difficult to maintain electronic records over time. Skelton (2010) also discusses technological obsolescence when he states that records created using IT technologies do become unreadable. Keakopa (2017) warns that technology can become outdated in a matter of months, even though it is proving to be a great benefit to the organization. According to Keakopa (2017), when the equipment becomes outdated, it is a threat to the security of the records. It is also argued by Ngulube and Tafor (2006) that losing electronic records is common and is one of the most feared situations. Hence, there is a need to provide appropriate security controls in order to manage the electronic records and also as a means to promote confidence by users of ERMS systems.

Duranti (2009) reported that electronic records are far more vulnerable than paper records and must be carefully managed to ensure their accuracy and authenticity as proof of accountability; and that the term "preservation" as applied to electronic records no longer refers to the protection of the medium of the records, but to that of their meaning and trustworthiness as records.

Keakopa (2017) agrees with Bearman (2017) that the long-term preservation of electronic records is still a challenging task in a number of countries. Keakopa (2017) explains that long-term preservation of electronic records is one of the unresolved problems associated with the impact of technology on recordkeeping. The major concern is, as Cook (2010) put it, "If electronic records exist as virtual documents, how does an institution preserve evidence of and provide accountability for specific transactions?" This raises the question as to how the electronic records are stored and maintained in the UPS.

McLeod et al. (2015) and Katuu (2013) indicated that a key factor in meeting the ERMS challenge is the provision of education and/or training for employees and potential employees, for example, students. This proposition is grounded in the belief that ERMS can impact government efficiency and effectiveness. McLeod et al. (2015) note that managing records in the electronic environment is a major challenge, but they argue the training should be provided at the appropriate level of detail and in the appropriate areas of the subject and commensurate with roles and responsibilities so that these people can discharge, both effectively and efficiently, their responsibilities for managing records in the electronic environment. Katuu (2013) suggests that among the strategies to improve the management of records, the education and training strategies should be given priority to ensure that the people responsible for the recordkeeping infrastructure have the requisite knowledge, skills, and ability to manage these records.

2.7 Chapter summary

This chapter reviewed the literature on the implementation of an integrated system of electronic and paper records in universities. According to the literature, a system must be able to capture and maintain metadata relating to physical records in order to be referred to as an integrated electronic records system. This implies that markers, which are metadata profiles of records physically held outside, should be created. The literature review also looked at issues concerning staff training.

The majority of the emphasis on training produced by the reviewed literature indicated a lack of training and in-depth knowledge in record management. This becomes a challenge in the management of an integrated system because the system is comprised of both paper and electronic records. The ISO 15489-1 standard and procedures for integrating records management systems highlighted the creation, classification, retrieval and access, storage, and disposition schedule. The aforementioned aspects were clearly specified in the chapter in light of how they are expected to function in records management.

However, it has been stated that for any management system that is implemented, policies, procedures, and standards must be well documented and distributed to all participants. Scholars have identified one of the challenges in the management of records within an integrated system as a lack of resources that support the implementation of an integrated records system. Gaps that the researcher planned to fill were discussed in relation to the study's objectives. The study's research methodology is presented in the following chapter.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter reviewed literature on the integration of record management functionalities in student records management systems in South Africa. This chapter discusses the research methodology used in this study. The process and approaches used to conduct research are referred to as research methodology. Creswell (2012). According to Rajasekar et al. (2013), research is a rational and methodical search for new and valuable information on a specific topic. The authors agree that the objectives of research are not limited to validating and testing significant facts, developing new systematic tools, resolving existing social problems in our communities, identifying the cause and effect in various contexts or variables, but that research methodology also considers and elucidates the rationale behind research methods and techniques. According to Neumann (2011, p.26), research methodology entails detailed methods for selecting cases, measuring and perceiving aspects of social life, gathering and adjudicating data, analysing data, and reporting results. According to Welman et al. (2005), research methodology is the technique of acquiring knowledge through various methods and procedures. This also suggests research methodology for scientifically solving the research problem, as well as the detailed procedure for conducting the research in order to achieve the study's overall aim.

The third chapter discusses the research paradigm, research approach, population, sampling, data collection instruments, procedure, validity and reliability, data analysis, and ethical considerations. It also includes a summary of how the data was analysed and presented.

3.2 Research paradigm

Over time, research has been built on a number of competing paradigms or philosophies. In the social sciences, two major research traditions, positivist and interpretative, have guided reasoning styles and, ultimately, shaped specific research methodologies and outcomes (Kalusopa, 2011). On the one hand, positivist research is concerned with studying natural sciences, identifying causes, and testing hypotheses using statistics and numbers, whereas interpretive research is

concerned with understanding the meaning behind actions in a social context (Cranford, 2013; Kalusopa, 2011; Tupling, 2013). The interpretive approach developed as an alternative to positivism, focusing on understanding subjective experience rather than a strict adherence to facts and observation (Cranford, 2013). As a result of the foregoing, it is clear that there are three main evolving and competing research paradigms that can be used in social science research: qualitative, quantitative, and mixed method research. These are based on the two traditional research philosophical underpinnings discussed in the previous paragraph (positivism and interpretivism). To a large extent, quantitative research is positivist, whereas qualitative research is interpretive. Mixed methods is a hybrid of the two.

Quantitative research is an investigation into a specific problem that is based on testing a theory and is measured with numbers and analysed using statistical techniques (Leedy & Ormrod, 2005). The goal of quantitative methods is to determine whether a theory's predictive generalisations are correct. A study based on a qualitative process of inquiry, on the other hand, seeks to understand a social or human problem from multiple perspectives. Qualitative research is carried out in the field and involves the process of constructing a complex and holistic picture of the phenomenon of interest (Leedy & Ormrod, 2005). However, in the last decade, the mixed method has gained popularity. Ngulube (2010:254) defined mixed methods as: collecting, analysing, integrating, and interpreting qualitative and quantitative data concurrently or sequentially in a single study or series of studies investigating the same problem, regardless of which research methodology is dominant, in order to capitalise on the benefits of combining them and to improve the validity of the findings.

The purpose of combining quantitative and qualitative research designs (mixed method) is to preserve the strengths while reducing the weaknesses of both quantitative and qualitative designs (Caruth, 2013:113; Creswell, 2012).

In investigating the integration of records systems at the University of Zululand, this study used methodological triangulation of both qualitative and quantitative data collection methods. The rationale for selecting this approach is that it allows for interaction with human subjects in order to learn more about a phenomenon (management of student record). The method also enables the unit of study to be researched by interviewing those who work at the University of Zululand.

3.3 Research design

A research design, according to Kombo and Tromp (2006:71), is an arrangement of conditions for data collection and analysis that aims to combine relevance with the research purpose. A research design, according to Creswell and Clark (2007), is a procedure for collecting, analysing, interpreting, and reporting data in research studies. The research design serves as the study's road map. It is a detailed plan for how the study will be carried out. According to Yin (2014:29), the main purpose of a research design is to help avoid situations in which the evidence does not address the initial research questions.

The case study research design was used in the current study. Case study is defined by Yin (2014:237) as a research design that investigates a contemporary phenomenon in depth and in its real-world context. According to Yin (2014:31), a case can be any event or entity other than a single person.

The current study uses the Student Administration Department, Student Service Department, Protective Service Department, and ICT Department at the University of Zululand as a case study. The case study was chosen for the current study because it assisted the researcher in gathering detailed information on the use of ICTs in knowledge management processes. This viewpoint is supported by Kothari and Garg (2014:109), who point out that the case study is a method of studying in depth rather than breadth. According to Punch (2005:144), a case study in qualitative research aims to understand the case in depth and in its natural setting, identifying its complexity and context. A case study, on the other hand, according to Kombo and Tromp (2006:72), seeks to describe a unit in detail, context, and holistically.

Many social science researchers have raised the issue of generalising case study findings. Despite this reservation, the current study has no plans to generalise its findings. According to Polit and Beck (2012:504), the main concern with case studies is generalizability. As a result, even if researchers discover significant relationships, it is difficult to predict whether the same relationship will occur with others. According to Yin (2014:21), case studies, like experiments, are generalisable to theoretical propositions rather than populations or universes.

3.4 Study population

This study's population is divided into four groups. The first group is student administration personnel, who are primarily concerned with student administration. The second and third groups were referred to in the study as Student Service Department, and Protective Service Users, who deal with the majority of student records pertaining to their service and protection. Managers in the fourth group are in charge of records management processes and decision-making.

3.5 Sampling

The sample size is the number of people from whom the researcher will obtain the necessary information (Kumar, 2014).The desired size of the population does not only depend on the population but also on the alteration of variables. However, the size of the population is different from the sample being targeted (Welmar & Kruger, 2001). The study used convenience sampling, whereby the participants were selected based on their availability and accessibility (Elfil & Negida, 2017). Therefore, records personnel, student administrators, ICT technicians, and filing clerks were selected based on their availability from different units. including receptionists who were at their respective working stations in the records department.

There are two types of sampling procedures, namely: probability and non-probability sampling. Therefore, in research, there are probability (random) and non-probability (non-random) samples (Orodho 2008). In probability sampling, each sample has an equal opportunity of being selected. Non-probability sampling is when the researcher does not select samples from the study population but rather picks the objects or elements that are convenient to his study. Pole and Lampard (2002:3) opine that non-probability sampling is often used where the aim is not to generalise from a sample to the population and representativeness is thus of limited importance.

The current study used non-probability sampling. Non-probability sampling techniques include: purposive sampling, snowball sampling, and convenient or accidental sampling. The study used a purposive sampling technique. Bryman (2008:358) notes that in purposive sampling, the researcher samples on the basis of wanting to interview people who are relevant to the research questions, and he/she does not seek to sample research participants on a random basis. Pole and

Lampard (2002:3) add that in purposive sampling, researchers make theoretically informed decisions as to whom to include in their studies. On the other hand, Bryman (2008:415) states that the goal of purposive sampling is to sample research participants in a strategic way so that those sampled are relevant to the posed research questions.

The sample population for this study was four (4) heads of section from the University of Zululand. Table 3.1 summarises the study participants who were sampled.

Table 3.1 presents a summary of the sampled study participants

No	**Department**	**Population**
1	Student Administration	10
2	Students Service Department	9
3	ICT Department	2
4	Protective Service department	23
Total		**44**

3.6 Data collection

Data for the study was gathered through interviews, questionnaires, and observations. This was based on methodological triangulation, in which each data collection tool can complement each other to answer research questions because no single method is the best on its own (Bhattacherjee, 2012; Oates, 2006). Below is a discussion of how these methods were used in this study.

3.6.1 Questionnaire

According to Bhattacherjee (2012:74) "a questionnaire is a research instrument consisting of a set of questions (items) intended to capture responses from respondents in a standardised manner." The researcher collects and analyses the questionnaires after the respondents complete them. The researcher searches for patterns and makes decisions about the issue under investigation (Oates, 2006). According to Oates (2006), questionnaires can be self-administered, which means that respondents can complete the questionnaires without the researcher present. Questionnaires have previously proven useful in records and information management studies.

Semi-structured questionnaires based on the IRMT Good Practice Indicators tool were self-administered by the Student Administrator, Records Manager, ICT Manager, RMU supervisor, and Records Officers. The questions in the various questionnaires were based on the officers' areas of responsibility, leading to the use of a non-probability sampling methodology known as purposive sampling. The questions sought responses on the legal and policy framework; ICT infrastructure; training; awareness; and integration of records management at the University of Zululand in accordance with the IRMT components. Respondents had three to four weeks from the distribution date to reply. Some respondents, however, took up to five weeks to complete the questionnaires.

3.6.2 Interviews

Interviews allow the researcher and respondent to have a more personalised interaction. Personal or face-to-face interviews, group or focus group interviews, and telephone interviews are the three types of interviews (Oates, 2006). These interviews can all be structured, semi-structured, or unstructured (Oates, 2006). Personal interviews are "conducted directly with the respondent to ask questions and record their responses" (Bhattacherjee, 2012:78). The interviewer serves as a facilitator, leading discussions and ensuring that everyone has an opportunity to respond.

To supplement the semi-structured questionnaires, this study used personal/face-to-face semi-structured interviews with all identified respondents. Interviews were conducted with the Records Manager and the ICT Manager to gain a better understanding of the various variables under their purview. These officers were crucial in the management of student records and dealt with issues on a daily basis. These officers were chosen because they would be easier to manage than interviewing all of the officers listed in Table 3.2. The two officers were interviewed within the three-week time frame. Interviews, as observed by the University of Bradford (2003) and Oates (2006), are generally time consuming and resource-intensive, so it is preferable to interview as few respondents as possible, provided sufficient data is collected.

3.6.3 Observations

According to Oates (2006:202), “researchers use observations as a data generation method to find out what people actually do, rather than what they report they do when question.” According to Oates (2006), observation involves looking but can also include other senses such as hearing, smelling, touching, and tasting. The majority of the observations were used to supplement data from other data collection methods for this study (questionnaires and interviews). Observations included direct observation of how e-records are created and managed, as well as ICT infrastructure for e-records, based on an observation guide developed prior to the actual observation. The researcher also examined the ICT equipment, which included PCs, laptops, document scanners, and barcode scanners.

3.7 Data processing and analysis

The classification and interpretation of data collected in the field is referred to as data processing and analysis (Kalusopa, 2011:148). According to Tshotlo (2009:52), "data analysis methods enable researchers to summarise observations in order to find answers to research questions."

After data was collected using the aforementioned instruments, it was consolidated and organised according to thematic components of the IRMT tool. To analyse data collected through questionnaires, it was coded and analysed using Statistical Packages for the Social Sciences (SPSS). As a result, in order to summarise the findings, the researcher classified them according to the research objective presented in Chapter One. A description of the findings was presented under each category, accompanied by percentages where applicable. The study also used content analysis, which is defined as "the process of extracting desired information from a text by systematically and objectively identifying specified textual characteristics" (Smith in Nengomasha, 2009:17). The subject of qualitative content analysis can be any type of recorded communication, such as interview transcripts from open-ended, focused but exploratory interviews, observations, videotapes, documents, and so on (Mayring, 2000).

In the case of this study, these were interview transcripts based on open-ended questions and observations. The IRMT Good Practice Indicators tool guides users through the recommendations associated with each thematic component. The questionnaire responses were corroborated by interviews and observations to produce a single interpretation, and then conclusions were drawn.

3.8 Ethical considerations

Ethics is established rules for adhering to the standards of conduct of a particular profession or group. The same is true for research. Researchers are encouraged to follow research ethics in order to create knowledge, uphold the truth, and avoid errors (Gajjar, 2013). According to Gajjar (2013), research ethics prohibits fabricating, falsifying, or misrepresenting research data and promotes trust, accountability, mutual respect, and fairness on the part of both the researcher and the subject. The researcher was required to follow all of the above ethical considerations while conducting this study in accordance with the University of Zululand Policy on Research Ethics. Respondents were assured that this research project was required for a Master of Library and Information Science degree at the University of Zululand. Among other things, the University of Zululand Policy on Research Ethics states that participants in the study should not be forced to participate; rather, their consent must be obtained. To accommodate this, respondents were informed of their right to refuse to participate in or withdraw from the study at any time during the data collection process. To ensure confidentiality, the study used identification codes rather than names, and the respondent's personal information was not disclosed to third parties. Before they could be used, the data collection instruments were submitted to the Study Supervisor for approval. Before the research could begin, a letter was sent to the University of Zululand research ethics for permission to conduct the study.

3.9 Reliability and validity

The degree to which the data collection method used will produce consistent results if replicated by others is referred to as reliability (University of Bradford, 2003). In other words, reliability is more concerned with consistency than with the accuracy of a response to a phenomenon. Validity is defined by Bhattacherjee (2012:58) as "the extent to which a measure adequately represents the underlying construct that it is supposed to measure." The data collection instrument was pre-tested

at UNIZULU in September 2019. Piloting the data collection instruments allowed the researcher to recast unclear questions and instructions, as well as remove items that could have resulted in unusable data (Bell, 2005). The pilot respondents were not included in the study's final findings.

3.10 Summary

The chapter discussed the research methodology; that is, a case study. The chapter also discussed the population, sample population, and data collection instrument. To balance the study, a combination of qualitative and quantitative data collection instruments (methodological triangulation) was used. Quantitative data was processed and analysed using SPSS, and quantitative data were categorised according to research themes. The study's findings are presented in the following chapter.

CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION OF FINDINGS

The methodology used in this study was discussed in detail in the previous chapter. This chapter presents and analyses data collected using questionnaires, a semi-structured interview schedule, and an observation checklist. The data collected for each instrument were presented separately in this chapter in order to clearly present the study's findings for each group of respondents. The researcher illustrated various responses obtained through the research instruments using descriptive writing, tables, and graphs. Tables and graphs are ideal for presenting detailed information in a concise but thorough manner (Kumar, 2005:248). All percentages were rounded to the nearest decimal point. This chapter presented various thematic areas that were outlined in the research instruments, such as the demographic profiles of the respondents, the legislative and regulatory framework, and the respondents' educational level. The data presented in this chapter were not attributed to any respondents in order to comply with ethical requirements in scientific research. In order to obtain full and frank participation, covering letters assuring respondents that all of their responses would be treated confidentially were distributed with the questionnaire.

The findings of the study respond to the following research questions:

- Was records management functionality taken into account when implementing a student's records system?
- What are the standards and procedures for integrating records management systems into the management of students' records?
- Is there any information management strategy that includes a specific objective to integrate records management into ICT systems?
- Does the university have specific tools for auditing and evaluating records management integration in ICT systems?

The primary data collection instruments for this study were questionnaires and interviews, which were based on the above questions. On issues that were not clearly addressed by the questionnaires, interviews were conducted with the Student Administration heads, Student Protection Department, Finance Department, and ICT Department. Personal observations about records management practices were also included in the data collection strategy. In total, fifty-four (54) questionnaires

were distributed to the institution's male and female administrative staff, and forty (40) questionnaires were retrieved. Tables and graphs are used to display data. The sections that follow go over the findings under various headings. As a result, the presentation of the findings is guided and built around themes arising from the above research questions.

4.1.1 Demographic Information

This is the first aspect of the analysis that deals with the respondents' basic information (senior members, senior staff and junior staff). According to Bobbie and Mouton (2001:261), a response rate of 50% is considered adequate for analysis, 60% is considered good, and 70% is considered excellent. Though this is not a generalisable survey, it suggests that the response rate for this study was more than adequate. It was essential to ascertain the respondents' age, gender, and educational background. Because individual responses or perceptions on some issues may differ, these specific characteristics would influence their participation in the study.

The data include respondents' gender, age, level of education, and number of years of employment with the University of Zululand, which is presented below.

Table 4.1: Age Distribution of Respondents

Response	**Frequency**	**Percent**
25 years and below	0	0
26-35 years	6	15
36-45 years	10	25
46 years and above	24	60
Total	**40**	**100**

Table 4.1 depicts the age distribution of the respondents; 6 (15%) of the respondents were between the ages of 26 and 35. Again, 10 (25%) were between the ages of 36 and 45, 24 (60%) were between the ages of 46 and above, and 0 (0%) were between the ages of 25 and below. This implied that the majority of the University administrative staff are over the age of 46, are very knowledgeable, and can assist the institution in meeting its targets.

Table 4.2: Gender

Response	**Frequency**	**Percent**
Male	19	48
Female	21	52
Total	**40**	**100**

The gender distribution of the respondents is shown in Table 4.2. The table clearly shows that female respondents dominate the study, accounting for 21 (52%) of the total, while male respondents accounted for 19 (48%). This confirms the perception that administrative duties are dominated by women and that males are generally uninterested in them.

Table 4.3: Educational background of administrative staff

Response	**Frequency**	**Percent**
Basic	0	0
Senior High Sch.	0	0
College	12	30
University	28	70
Total	**40**	**100**

Table 4.3 shows the respondents' educational levels. 12 (30%) of those polled have a college education, and 28 (70%) have a university education, with no respondents having only a primary school education. This gives the impression that the majority of respondents are university graduates, so the researcher relied solely on questionnaires to collect data.

Table 4.4: Years of experience serviced by each respondent

Response	**Frequency**	**Percent**
0-5 years	4	10
6-10 years	11	27
11-15 years	16	40
16 and above	9	23
Total	**40**	**100**

Table 4.4 shows how long respondents have worked at the University of Zululand. Four (4) respondents, or 10%, have worked at the university for five years or less. Eleven (11) respondents (27%), have served in the University for 6-10 years, sixteen (16) respondents (40%), have served in the institution for 11-15 years, and the remaining 9 respondents (23%), and have served in the institution for more than 16 years. As a result, it indicates that respondents have experience with proper record management and contribute to the preservation of institutional memory. This is consistent with Gude's (1992) assertion that as people work continuously for a long time on a specific task, they become more familiar with the best practices and tenets of the work and, as a result, develop the best attitudes toward high performance.

Table 4.5: Category of staff

Response	**Frequency**	**Percent**
Senior Member	4	10
Senior Staff	9	23
Junior Staff	27	67
Total	**40**	**100**

The table 4.5 depicts that 4(10%) of the respondents were senior members, 9(23%) were senior staff and 27(67%) junior staff. The results show that majority of the respondents were senior staff who play active role in the University administration.

4.2.1 Implementation of an integration student records system

The actual implementation of an integrated record system raises numerous technical and social concerns. According to Laudon and Laudon (2006), the role of users in the implementation process, the degree of management support for and commitment to the implementation effort, the level of complexity and risk of the implementation project, and the quality of implementation process management all influence the implementation outcome. Implementing an integrated record system can take anywhere from a year for small, simple businesses to three years or more for complex multi-divisional businesses. The implementation process begins with system selection and ends with user training and post-implementation support. Chester also claims that implementation is always slower than anticipated.

4.2.2 The types of system used for managing student records

Participants were asked to identify the systems that they used on a daily basis to manage student records. The purpose of this question was to find out if the University of Zululand used a records management system. The following is how participants from the records department and student administration express themselves.

Respondent No	**Responses**
Respondent 1	*We are using a manual record-keeping system as well as an electronic record-keeping system to preserve students' records. Electronic records are preserved in micro file systems and Microsoft Office programs, e.g. Ms Word, Ms Excel, etc., and physical records are preserved in steel shelves and cupboards.*
Respondent 2	*We are using the ITS system. This system is sort of like a triangle, and we have a financial system, an HR system, and a student records system. The financial records system deals with financial records and in a financial system it includes other components like pay roll, asset management, the second leg is the HR system, which deals with the*

	hiring of staff. The third leg is the student records system. This student records system is managed at the registry. The registry department is the one that creates the accounts of students and they provide the level of access to the users. They are the ones who are also able to modify or make changes to the records and to the system.
Respondent 3	*We use the ITS system to capture records. Whatever information you give to us during the registration, we capture it into the system.* *So that in the future, when somebody needs to find information about you, you can log in to the system and access the information.* *But when somebody wants a hard copy of the records, we use a different system, which is called the Metro File System.* *The Metro file system is more on the hard copy or manual, although we are also using the electronic part of the metro file system where we scanned the records like ID copies, matric certificates, and other documents provided during registration. The ITS is used day to-day while the Metro file system is not used regularly.*
Respondent 4	*The University of Zululand has Integrated Tertiary Software (ITS), which also falls under the system as well. The ITS system keeps different types of records, including: student admissions/registration; student accounts; student records; student results; examination timetable; payroll; financial accounts; statements of accounts; graduation (grading and promotion).*

The University of Zululand creates records in two formats: paper records and digital records. The UNIZULU prefers electronic mail receipt and delivery. Students in their first year are registered using a digital process. The registration software is known as the ITS system, and it comes in two flavours: one managed by the administrator, who also happens to be the University's IT manager, and the other by the registry.

Table 4.8: The kind of records management system practiced in the University

Response	**Frequency**	**Percent**
Centralised	0	0
De-centralised	40	100
Total	**40**	**100**

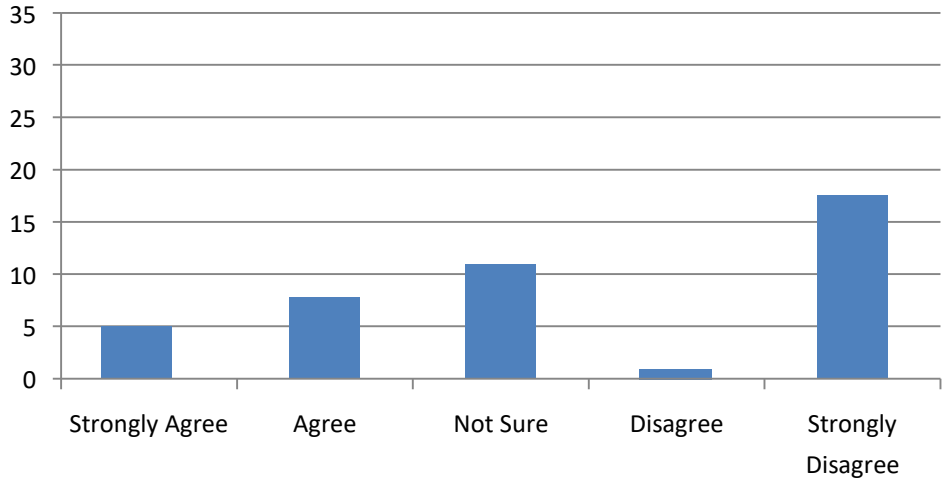
Table 4.8 described the type of records management system used at the University. No respondents use a centralised records management system. That is, all forty (40) respondents (100%) use a decentralised records management system at the University. This demonstrates that records are secured in various units/sections/departments/faculties, so one unit/department cannot access the records of another department without permission.

4.2.3 The process of creating record in the integrated record system

When properly implemented, an ICT system with integrated records management functionalities should typically allow for the capture, organisation, use, retention, and disposition of records (Kalusopa, 2016). The impact of the records system integration project was expressed by one student administration employee who is also the senior records administrator at the University of Zululand. This was stated by the interviewee.

Respondent Number	**Responses**
Respondent 1	*Prior to joining the institution, the university was using an in-house system or manual records system. The present system, called ITS, was implemented in 2006, and the Metro File system was adopted by the organisation in 2016. The Metro File system is plunged into two; it has a manual and an electronic system. The ITS system was not ready to keep all the records. We needed to return to the senior administration and persuade them why the integration of the records system was significant for the organisation. In the system we are using now, we can create a record, access and use it whenever we want, and distribute a record so that people can access it whenever they need it.*

Figure 4.1: University policies and procedure for creating and storing records in an integrated record system



According to Figure 4.1, 5(13%) strongly agree that the University of Zululand has policies and procedures in place for creating and storing records, 7(18%) agree, 11(27%) are unsure, 0(0%) disagree, and 17(42%) strongly disagree. This shows that the administrative staff were unsure whether the University of Zululand had records management policies and procedures in place to help with record management.

4.2.4 Legal and administrative requirements of managing student records

This question was designed to ascertain whether respondents were aware of national and records management-related legislation, policies, and operating procedures employed by the Student Records Department in the performance of their duties. Organisations must follow relevant legislation, laws, regulations, and standards (Franks, 2013: 31). Records management, as a function that promotes good governance and accountability, should set an example by adhering to relevant legislation. Some respondents indicated that the Student Records department met legal and administrative requirements, as evidenced by workshops they provided to University staff on relevant Acts such as Personal Information Protection and Promotion of Access to Information. Respondents viewed this positively, particularly in terms of access to staff and student personal information.

Respondents, on the other hand, did not demonstrate knowledge of the implementation of other relevant legislation, such as the National Archives and Records Services Act, 1996, the Provincial Archives Act, and the Promotion of Administrative Justice Act, 2000. Respondents who were aware of an approved records management policy stated that the existence of an approved policy demonstrates that the Student Administration is adhering to legal and administrative requirements. However, some respondents were unaware that the university had an approved Records Management policy or that relevant legislation existed. The following are common quotations from respondents to demonstrate institutional perceptions.

Respondent No	**Responses**
Respondent 1	*Currently we don't have a records manager who will implement the records management policies. However, the university has recruited a records manager who will start soon.*
Respondent 2	*We are not aware of those policies and procedures. But as managers of any documents that come to the records department, it's important we take very good care of them so that when they are needed, we can provide them. So here, we manage the records in a way that helps us. I am aware that PRAAD is the legal body responsible for ensuring that public institutions manage their records according to standards, but I don't know whether that is working because public institutions are not serious when it comes to records and they do it in their own way.*
Respondent 3	*There is no clear policy but the university is working on the programmes since students do not submit their records on time during registration, which makes it difficult for them when they have problems.*

Figure 4.2 Documented records retention schedule and expected retention time periods for University records

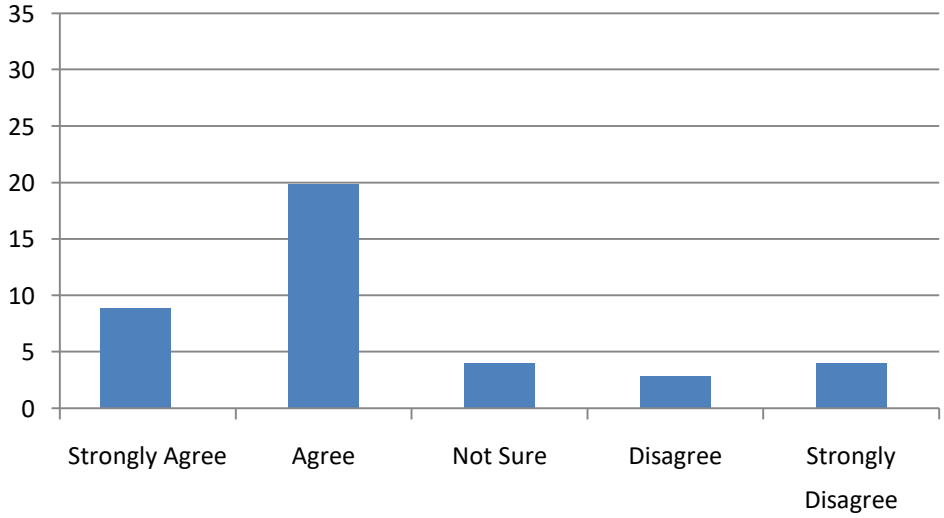


Figure 4.2 shows that 9 (23%) of respondents strongly agree, 20 (50%) agree, 4 (10%) are unsure, 3 (7%) disagree, and 4 (10%) strongly disagree. This implies that the University has a documented records retention schedule in which categories and expected retention time periods are recorded. It also prevents excessive record retention, which causes difficulties in retrieving records and causes space issues. This is consistent with De Wet and Du Toit is (2000) assertion that record management has evolved from a paper-based function concerned with the storage of an organization's miscellaneous documents to one concerned with the management of specific internal records in a variety of media from creation to disposal through their active use as sources of information and ultimate review against retention schedules for their eventual distraction.

4.2.5 Current stage of records management

In a records system, the current stage of records management examines how records are created, the types of records created and received, and how such current records are managed prior to their transformation to semi-current and finally non-current stages. Respondents were asked about the types of records created by their department, where the records are kept after creation, and whether the department has a formal filing system, filing procedure manuals, or an index.

Respondents stated that this is how their company creates records and that the majority, if not all, of their records are hard copy. Respondent 2 is from the IT department, Respondent 3 is from the finance department, and Respondent 4 is from the record department. The quotations below are typical of how records are created in their respective departments.

Respondent No	**Responses**
Respondent 2	*Records created in the registrar's office are students' registration documentation check lists. They include their biography and proof of payment, such as payroll records. "Payroll records are created in every academic year for both the first year students and returning students. Examination records (examination script) and graduation records" for all students who graduated at the University of Zululand. Students' results (academic records) for all faculties at the University of Zululand.*
Respondent 3	*Here in the finance department, we have different types of student records. We have student loan records, bursaries or let me say, we are dealing with a student statement of account which states the exact amount the student owes the institution.*
Respondent 4	*When the documents come to us, we receive a record and create a proper record for each student. After we are done doing that, we then scan the entire records and paste the barcode. After the recordings, we send them to the Metro-file departments.*

During the interview, the question of how records are created was also brought up. The following are common quotations from student administration respondents that demonstrate their institutional perceptions.

Respondent No	Responses
Respondent 1	*The creation of records involves the entering of the heading of the document, the date on which the document was created, the type of the document, and the version in which the record was created..*
Respondent 2	*For the creation of electronic records, we are held by the ICT department because some of us are not trained in the management of electronic records.*
Respondent 3	*When creating records electronically, the most important aspect that they consider is to save the heading of the record in the form of a Microsoft Word or PDF, which is much easier for them.*
Respondent 4	*IT experts stated that they have a basic understanding of how records are created; thus, they use the record heading, the date of creation, the type of record, and the version in which the record is found.*

4.2.2 Indexing of student records

The indexing format required for an integrated records system, as revealed by interviews and observations, is not available at the University of Zululand. Two records officers confirmed that they use numbers and codes when indexing their paper records. The senior records assistant stated that she is unfamiliar with electronic record indexing because they confirmed that the quickest way for her to locate an electronic record is to search the tittle. However, the records deputy register stated that they have an indexing format that is done manually, but they use metadata profiles electronically. This respondent expressed their understanding as follows.

Respondent No	Responses
Respondent 1	*We make use of numbers and codes for indexing records.*
Respondent 2	*I am not familiar with indexing electronic records.*
Respondent 3	*We have an indexing format that is done manually, but in an electronic record we make use of metadata profiles.*

Indexing is used more frequently in the records section for paper records than for electronic records. The data presented also revealed that there are no computerised indexing tools that facilitate electronic record retrieval. This indicates that the actual requirements expected in the management of both paper and electronic records in an integrated system are not being met, and thus indexing is inadequate.

4.2.6 Semi-current stage of records management

Records management practices include the management of semi-current records. These records are required for reference to the ministry on occasion. The study asked where these records were kept before transfer to the records Center, how frequently they were transferred to the records Center, how closed files were handled, how easy it is to access records transferred to the records Center, and whether the transfer was governed by retention schedule policy. The following is the response from a student administration respondent.

Respondent No	**Responses**
Respondent 1	*Space here is too small, so we also transfer them to the Metro-file. However, it takes some time to transfer the records to the Metro-file. For the retention schedule, we don't have something like that here. If it is a file, if it becomes bulky, we close it and open a new one as a volume. We don't throw away the old one* because you need to refer to it.
Respondent 2	*We do not have enough folders.*
Respondent 3	*We have a database backup system that is provided by Sunny Five System for managing records.*
Respondent 4	*Some of our cabinets we use to store paper records are not up to standard.*

4.2.7 The disposition of records management procedures

The inactive phase of the records management life cycle concept is where records have outlived their usefulness and are no longer required for day-to-day operations. Records had already been appraised at this point to confirm that they were no longer useful for day-to-day operations and

needed to be transferred to the archives for permanent preservation due to their enduring value. Respondents were asked in the study how they approached records at their outfit when they reached the inactive stage. When asked what legal requirements governed when records should be destroyed and what records should be permanently preserved, respondents were asked. The following is the respondent's response.

Respondent No	**Responses**
Respondent 1:	*I am sorry, I am not aware of any legal requirements. Here we are told that a record must last 5 to 15 years. Nothing is written down.*
Respondent 2:	*Ah! My brother, I don't want to lie when it comes to that. I have no idea. I only delete the records that I think are no longer useful.*
Respondent 3:	*We don't have a retention schedule, but those that are kept for so long and we know they won't ask for it again, we pack them somewhere. We cannot speak of any transfer policy. We know that sometimes people may come and look for certain records or we may simply transfer them to Metro File.*
Respondent 4	*We have a policy that guides us in disposing of paper records in a systematic manner and the records can be retrieved on the exchange server. Therefore, the records will have been only deleted on the machine. As we have a backup, it is not easy for them to just delete the records because we have a backup this side.*

Figure 4.3: Organisational file plan for functional unit level promotes easy locating of information without depending on any particular employee

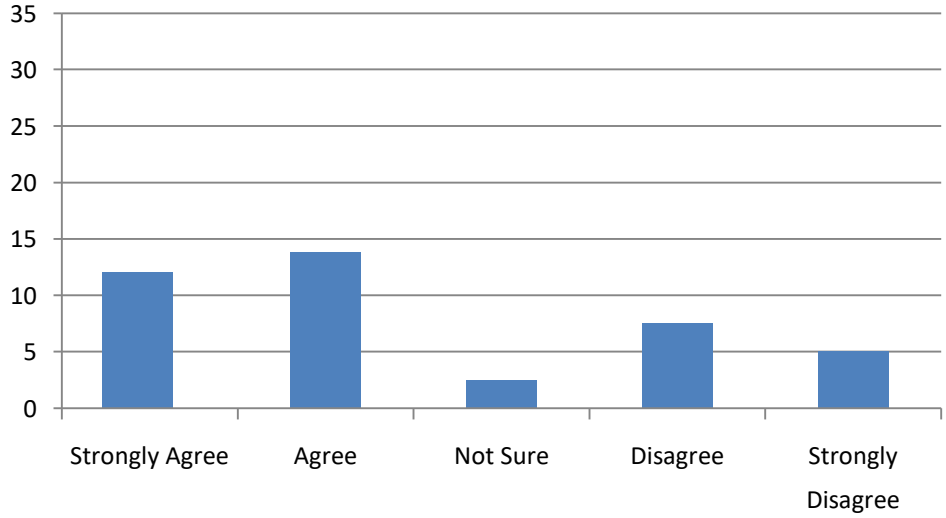
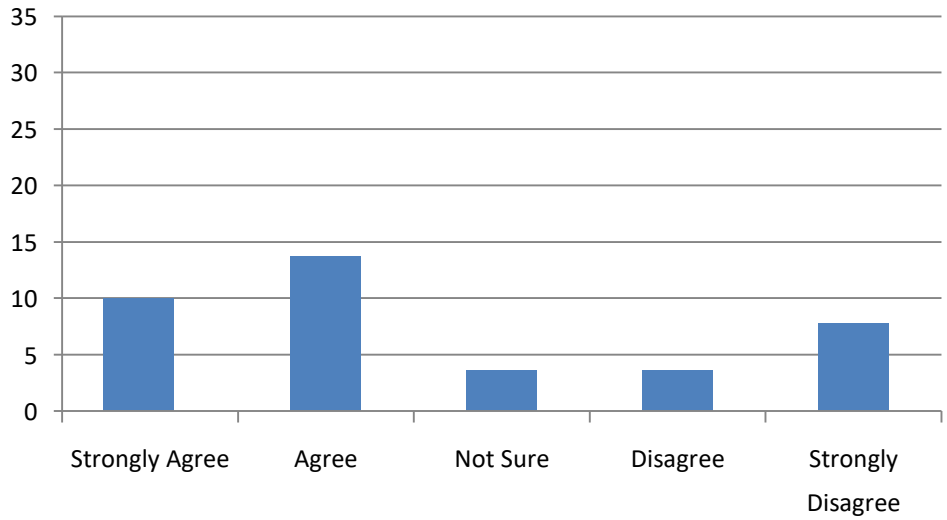


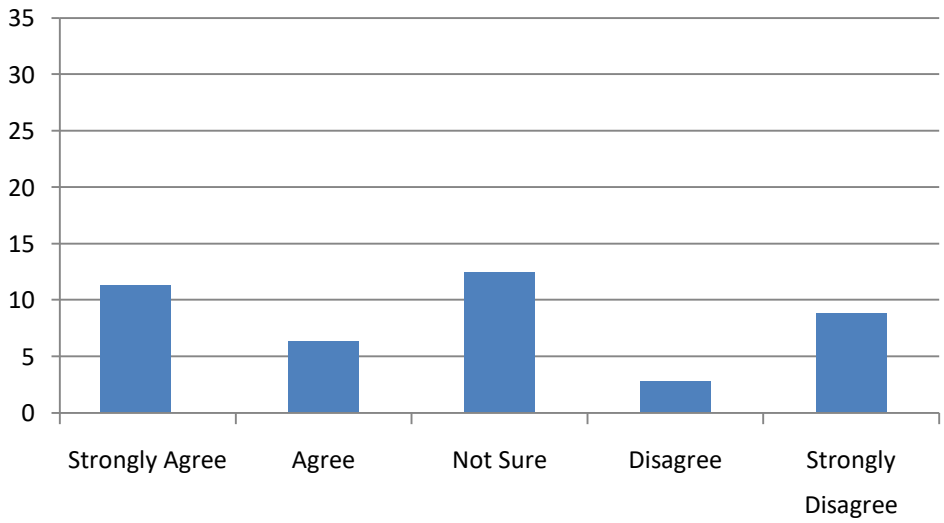
Figure 4.3 shows that 12 (30%) of respondents strongly agree, 14 (35% agree), 2 (5%) are unsure, 7 (18%) disagree, and 5 (12%) strongly disagree. The findings indicate that the institution has a file plan that directs officials on the assignment of file reference numbers for easy filing and retrieval.

Figure 4.4: The University has a vital records programme that serves as a back-up in case of a disaster



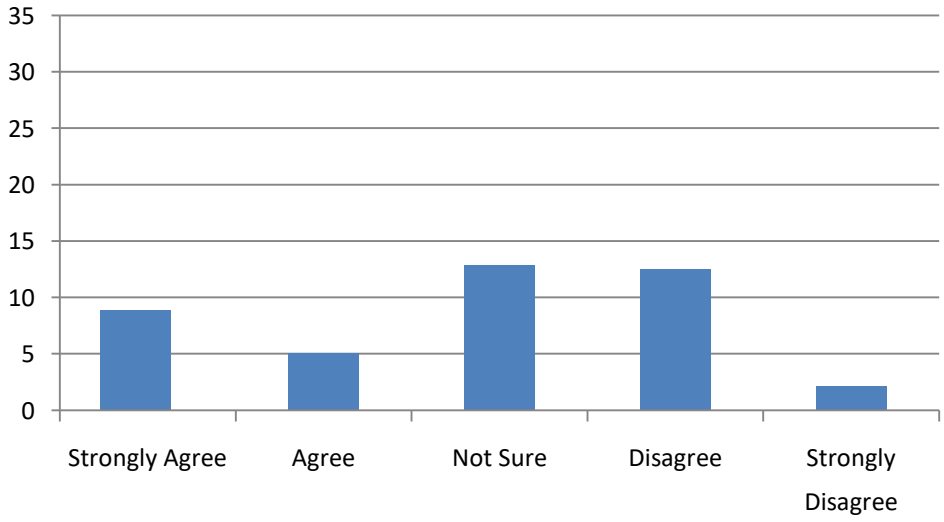
According to Figure 4.4, 10 (25%) respondents strongly agree, 14 (35% agree), 4 (10%) are unsure, 4 (10%) disagree, and 8 (20%) strongly disagree. This implies that the majority of respondents agreed that the University should have a vital records programme as a backup. According to Uwaifo (2004), generally records management must be guided by some level of confidentiality, proper maintenance, security, preservation of the content and context.

Figure 4.5: The University organises records management training programme annually to ensure that quality records are kept



According to Figure 4.5, 11 (27%) respondents strongly agree, 6 (15%) agree, 12 (30%) were unsure, 2 (5%) disagree, and 9 (23%) strongly disagree. It suggests that UNIZULU's administrative staff are unaware of the annual training programme designed to ensure that quality records are kept. This is in conflict with the University's records management policy framework, which requires annual records management training for staff. It also contradicts Kanzi's (2010) assertion that records office personnel should be trained in order to provide them with the necessary skills to carry out their duties properly.

Figure 4.6: Periodic audits and assessment the clarity of records management procedures.



According to Figure 4.6, 8 (20%) respondents strongly agree, 5 (13%) agree, 13 (33%) were unsure, 12 (30%) disagree, and 2 (5%) strongly disagree. According to the data, most records management staff are unaware that records management procedures are audited for clarity on a regular basis.

Figure 4.7: Adequacy of data privacy and security of records in the University

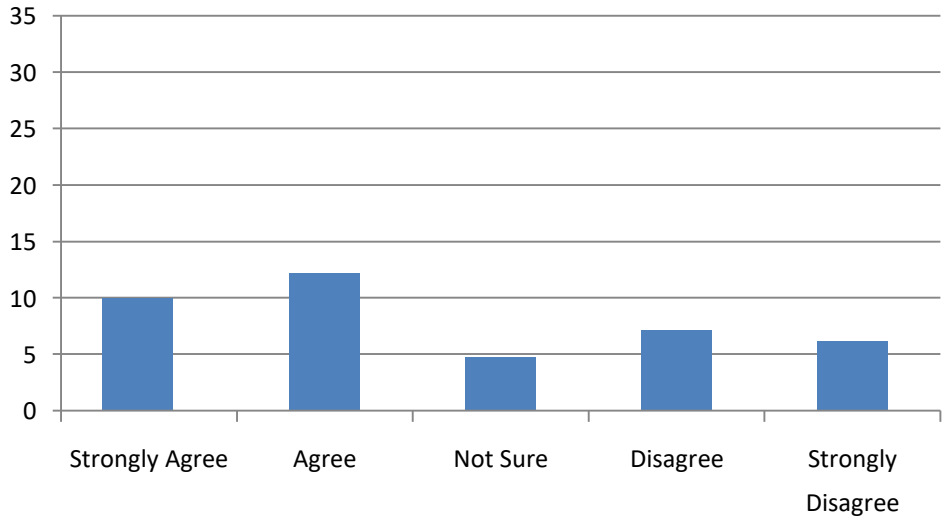


Figure 4.7 shows that 10 (24%) respondents strongly agree, 12 (30%) agree, 5 (13%) are unsure, 7 (18%) disagree, and 6 (15%) strongly disagree. This confirms the assertion that data privacy and record security are adequate at UNIZULU.

Table 4.6: The storage of student records

Response	Frequency	Percent
Manual	5	13
Electronic	7	17
Integrated	28	70
Total	**40**	**100**

Table 4.6 clearly shows that 5 (13%) of office documents are kept manually, 7 (17%) are stored electronically, and 28 (70%) are stored in an integrated records system format. The results show that the majority of respondents used an integrated records system in data storage, making record retrieval simple.

Table 4.7: The filing of student records

Response	Frequency	Percent
Daily	24	60
Weekly	5	12
Monthly	11	28
Total	**40**	**100**

The frequency with which office documents are filed at the University is shown in Table 4.7. Out of the 40 responses, 24 (60%) file their documents daily, 5 (12%) file weekly, and 11 (28%) file monthly. Surprisingly, the majority of them (60%) file their correspondence daily. This demonstrates how UNIZULU values their records, as evidenced by the need to keep them up to date on a daily basis.

Table 4.9: Officers in-charge of records monitoring, control and management

Response	**Frequency**	**Percent**
Record Manager	0	0
Individuals	18	45
Others	22	55
Total	**40**	**100**

Table 4.9 specifies the officers in charge of records management in the University. As such, 22 respondents, representing 55%, indicated that others are in charge of monitoring and controlling records in their various units/sections/departments/faculties were in-charge of records management, while 18 respondents, representing 45%, were against this assertion.

4.2.7 The Storage of Records or Environment

The study also evaluated the record storage facilities and the environment in which the records were kept. This was significant because records storage facilities and the environment play a significant role in the security and preservation of records. Respondents stated that the main storage facilities were metal cabinets, and that they also had scanners where they could scan documents and save them as soft copies.

Respondent No	**Responses**
Respondent 1	*We also have metal cabinets, and in case there is a fire outbreak, it will not affect the file like the old one where we were using wooden cabinets. We also have fire distinguishers, and we also have fire dictators.*

Further investigation revealed that the storage environment contained artificial control equipment. Personal observation revealed that, in addition to the office air conditioning system, the records department had fire detection and suppression. However, it was discovered that there were no written guidelines for record handling.

4.2.8 Security Majors

Security is a major concern in records management. The records are vulnerable to theft, unauthorised access, and disaster due to a lack of adequate security measures. Respondents were asked about the state of record security in the office, including the presence of a fire protection system, a burglar-proof bar, who has access to record storage areas, and how access to records is controlled. It was reported that the records department has a fire protection system. There were no burglar-proof bars, closed-circuit television cameras (CCTV), or an intruder alarm system at the office.

Respondent No	**Responses**
Respondent 1	*We don't have any inside CCTV cameras here, but the whole building does have cameras. In the electronic system, which is ITS, we have passwords. No one can access or modify a record without knowing a password, and every person has his or her own password, so we can know who has logged on to the system and changed the record.*
Respondent 2	*No one can modify or change the information in the records without us. We are the only people who are able to change the information of the student. Unless you give someone your password, they can access the records, but we are able to track who enters into the system and change the file.*
Respondent 3	*In the record system, it takes a minute to retrieve a document when compared to the manual system. The manual system is more time-consuming.*

The only security measure that was mentioned was access to the records. Only records officers were said to have access to the records, and no one else could take records from the office or change a record in the system.

4.2.9 Training on Records management

In response to the question of whether they had attended records management training, the majority of respondents, as previously stated, had. Other respondents had received customised hands-on training from records management staff in their units, where each staff member received records management guidelines. A few respondents said they learned about records management

during a guided tour of the Student Administration; others said they did not attend training because they were not invited. Some of their responses are as follows.

Respondent No	Responses
Respondent 1	*I am not trained on E records, but I am trained on how to use the ITS system.*
Respondent 2	*We do not have funds for the training. That is why we do not train them.*
Respondent 4	*We don't have proper training here.*

Records personnel training is an essential component of a sound records management system (Wamukoya & Mutula, 2005). Training records personnel and staffs ensured that they gained in-depth knowledge of the concepts and skills required to perform their duties as records officers. Personnel and staffs would appreciate the value of records management at every stage of the records life with the necessary training records, and ensure that records are properly maintained and managed to help organisations achieve their goals.

According to the International Records Management Trust, public officials in various institutions lack the necessary skills regarding the type of information and information keeping, as well as why these records must be kept safe and properly managed. These public officials are simply unaware of their long-term roles in the proper handling of these records. Wamukoya and Mutula (2005) conducted a survey on capacity building requirements for records management into public sector organisations in Eastern and Southern Africa and reported a lack of skills in records management in Sub-Saharan Africa, emphasising the need for records management awareness, education, and training, as well as continuing professional development. However, respondents in the study stated that they had no training in records management since starting work.

Respondents' perspectives in this context show that records officers lack adequate training on records management, which obviously accounts for the department's poor attitude toward records management, which mostly delays decision making due to difficulties in retrieving documents.

4.2.10 Classification of student records in a system

The records department was asked how records were classified in order to understand how student records were classified during their records management function. The following is the respondent's response.

Respondent No	Responses
Respondent 1	*Each employee has their own individual code that is automatically generated, which helps us to classify records according to the user (student number).*
Respondent 2	*The classification scheme that we are currently using is an organizational-generated classification system for our hardcopy and e-records.*
Respondent 4	*There is no classification system that we are using here.*

The classification of records was an important component of the study. Respondents defined classification as the creation of file numbers for documents in order for them to be located when needed. The study confirmed that the Ministry had some form of classification system in place that was consistent with international standards. Respondents used a classification scheme and divided all records received by the office into two categories: South African students and international students. The study also discovered that records were assigned a reference number for identification purposes. Respondents also stated that every record has a file number to aid in record identification.

Respondent No	Responses
Respondent	*Classification is the file number assigned to the files. Like here, we have international student files and South African students. Also, every record has its own file number. For example, the record of an international student has its own reference number.*

4.2.11. The electronic records management system

The study also sought to learn about the existence and management of electronic records at the University of Zululand. Respondents confirmed that they save electronic documents such as e-mails and scans. However, findings revealed that the Ministry's electronic records management system was not fully adopted and incorporated, as the Ministry continues to create and rely primarily on manual systems.

Respondent No	Responses
Respondent 1	*When the records come here, we have to record them. We record the subject of the record, the date, and the reference number. The person who receives it signs, and it's important because someone can say it was not him who signed.*

4.2.12 Summary

The chapter presented data that had been analysed and interpreted based on empirical findings from questionnaires, observations, and interviews. The researcher began by analysing data based on pre-determined thematic areas that corresponded to the study's objectives and research questions. The findings revealed that the University of Zululand lagged behind in some aspects of integrating records from the IRMT Tool. The records department's low level of awareness for the records management function may explain the department's average adherence to policies and procedures. There is also no records policy, which leaves a gap in the provision of an internal framework for guiding the development and implementation of a records management programme at the University of Zululand. The study also revealed that there was insufficient records management staffing and that these employees did not receive regular training. It has also been revealed that the current record storage space is insufficient and cannot keep up with the growing volume of new records. However, some positives have emerged, such as above-average compliance with the records classification scheme, the availability of resources for the ITS and Metro file project, and the high level of commitment shown by UNIZULU senior management to the project. The next chapter presents the discussion of the findings of the study.

CHAPTER FIVE

INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS

5.0 Introduction

The previous chapter presented and analysed the study's findings. This chapter interprets and discusses the findings of the research presented in Chapter 4. It answers the research question from Chapter 1 and explains the issues raised by the research problem. The chapter also addresses whether each research objective has been met through critical analysis. The discussion and interpretation also considers the findings in light of the literature, particularly best practices from which recommendations were derived (Nengomasha, 2009). The interpretation of research findings is required so that the researcher can expose the relationships and processes that underpin findings. Accurate conclusions can also be reached through interpretation (Kothari, 2004). According to Kothari (2004:344), interpretation is "essential for the simple reason that the usefulness and utility of research findings are dependent on proper interpretation."

The presentation of data interpretation and discussions follows the same order as in Chapter 4, according to the themes derived from the research objectives, namely:

- To determine the integration of records management functionality in the implementation and management of students' records.
- To determine standards and procedures for integrating records management systems in the management of students' records
- To identify an information management strategy with a specific goal of integrating records management into ICT systems.
- To determine specific tools for auditing and evaluating records management integration in ICT systems.

5.1.1 Implementing the functional records system

When properly implemented, an ICT system with integrated records management functionalities should typically allow for the capture, organisation, use, retention, and disposition of records (Kalusopa, 2016). The study discovered that UNIZULU employs two distinct systems: the Metro file system, which is divided into two parts, manual and online, and the ITS system, which was

implemented in 2006 to replace the manual system. According to the findings of the study, the University of Zululand uses the ITS system as their primary records system. This system maintains various types of records such as student admissions, student accounts, student records, student results, staff details, student housing, payroll, financial accounts, statements of accounts, buying and store details, money transfers, departmental entity numbers and accounts, student societies, human resources, library services, procurement, and tending. The various records are linked to a centralised and decentralised database; for example, from the student account, one can access all of the student's information, including financial status, results, whether he/she lives on or off campus, and so on.

Records created in an integrated environment do not have defined rules for creating and capturing records due to how the integrated records system has been implemented. It should be noted that the usability and completeness of physical records do not correspond to those in electronic format. The classification, indexing, records retrieval, storage facilities, and disposition of records appear to differ from what the IRMT, 2009 tool advocates. According to Moreq (2001), an integrated record system will include both an electronic and a physical file. The electronic records management system must permit a physical file associated with an integrated electronic record to use the same file title and numerical reference code as the integrated electronic record, but with the added indication that it is an integrated physical file. The expected integration of paper and electronic records is not being carried out well in terms of indexing, classification, and retrieval of records. However, the practise of record creation, classification, indexing, retrieval and access, storage, and disposal at the University of Zululand differs from what is advocated in the existing literature.

According to Moreq (2001), the electronic records management system must allow for the configuration of a different metadata element set for physical and electronic records. The physical metadata of the physical record must include information on its physical location. To support other tracking systems for physical records, electronic records management should support printing and recognition of indexing or mark outs. According to Howard (2002), accessing files and records, and then viewing records, will necessitate a flexible and broad range of searching, retrieval, and rendering functions to meet the demands of various types of users.

Although this is not a traditional records management function, the required functionality is described here because electronic records management without good retrieval facilities is of limited value. At least two naming mechanisms for electronic files and classes in the classification scheme, as well as a mechanism for allocating a structured numeric or alphanumeric reference code, must be provided by the electronic records management system. That is, each electronic file should have a unique identifier within the classification scheme.

According to Moreq (2001), electronic records management should be able to register physical files under the same classification scheme as electronic records and provide for the management of "integrated files" of electronic and physical records in order to operate in an integrated management environment. The electronic records system must be able to define physical files and volumes in the classification scheme, and the presence of physical records in these volumes must be reflected and managed in the same way as electronic records. In an integrated environment, an electronic records management system must define in its classification scheme files that (logically) contain both electronic and physical records, and both types of records must be managed in an integrated manner.

However, this could be a different scenario for the records managed at UNIZULU because their physical record classification system was discovered to be separate from that of their electronic records. The electronic records management system must ensure that the metadata for both electronic and paper records associated with an integrated file is retrieved when the integrated file is retrieved (Moreq, 2001). In an integrated environment, the electronic record management system must include features to control and record access to physical files, such as controls based on security category, that are comparable to features for electronic files. According to scholars, the integrated record system at the University of Zululand is not being implemented well.

5.1.2 Staff training and responsibilities in managing records management

According to the study's findings, the majority of the staff in the records section lacks the necessary knowledge in record management in an integrated records system. This raises the question of how well the integrated record system is being implemented. It is primarily due to a lack of training in the management of both electronic and paper records. According to Nengomasha (2009), skills for managing records in general are lacking. Most people who manage records lack formal qualifications in records management and have a low level of knowledge to manage the more intellectual aspects of records management. The fact that the staff managing records is not well trained in the use of electronic records, as well as the field of occupation, is affecting integrated record management. Mazikana (1999) also confirmed that the majority of Zimbabwe's vibrant training schools for records management were temporarily closed. As a result, the majority of the registry staff is forced to work in record sections without the necessary equipment. According to Kalusopa (2011), staff in records management lack relevant training skills, while others are unaware of electronic records management. As previously discussed, a lack of training in electronic records management has proven to be a major factor limiting proper record management in an integrated approach. Section 11 of ISO 15489-1 recommends training for all members of management, employees, and individuals who are "responsible for the whole or part of an organization's business activity in making records during their work and capturing those records into records systems" (ISO, 2001, p. 17). A model for managing records at UNIZULU should therefore recognise the importance of records management training and skills.

5.1.3 The records management awareness and its importance

The purpose of this theme was to determine whether there was records management awareness, close cooperation between the records management unit and other University departments, records management compliance with relevant legislation, and whether records management was regarded as important at the University. The records management unit at UNIZULU has been in operation since 2006. Due to a lack of awareness and knowledge of the unit and its function, the study discovered that the records management unit is underutilised and not fully integrated into digital processes. The postal services component, for example, should be a large part of the records management function but is not currently.

The study discovered that a lack of records management marketing had resulted in limited awareness of the function within the University, resulting in minimal knowledge and use by some departments. Some respondents stated that they were unaware of the Records department's location and that information about records management was only available at records management training workshops and committee meetings.

According to Chapter 4, some respondents believed that records managers had a high staff turnover and that there were delays in filling the position. The findings revealed that the University's management did not value records management, as evidenced by the time it took to fill such a critical position. Long periods without a records manager to direct the implementation of records management services, according to the study, resulted in a lack of continuity in projects and a lack of trust in the records management unit. The disadvantage of not having a records manager for extended periods of time was that records management fell off the radar of management. According to Filos and Banahan (2001: 101), an integrated organisation is one that values and uses information to become competitive and respond to a constantly changing landscape.

5.1.4 The safety security and confidentiality of student records

The introduction of ICT has had an impact on how the organisation preserves records in their custody. The researcher examined security in terms of virus infections, backup practices, and access level and permission to paper and e-Records, including computer files, to determine the safety, security, and confidentiality of student records within UNIZULU departments. According to Nengomasha (2009:215), "eGovernment necessitates the protection of individual privacy by ensuring that records are protected against unauthorised access." According to Wamukoya and Mutula (2005:12), "it is critical for governments to have records security controls in place to ensure the safety of both hardcopy and electronic records."

The current study discovered that the records department lacked a security system that administered checks and controls for both paper and electronic records. According to the current study, inadequate safety and security measures pose a significant risk to institutional corporate memory. “This implies that databases containing student records and individual records, for

example, may be extremely useful to the individuals themselves, but without proper security safeguards, that information may be accessed by others, threatening the owners' privacy. People nowadays have an inherent right to privacy, which can be violated intentionally or unintentionally in an electronic environment. The current study findings are similar to those of a study by Luyombya (2010) on a framework for effective public digital records management in Uganda, which revealed that there is no security system in the Uganda Public Service that administers checks and controls for both paper and e-Records. The action officers were concerned about information privacy, unauthorised access, and preventing users from one office from accessing or viewing records from another office.

5.1.5 The disposal procedure of student records

The ministries have a retention schedule, but it was not being followed because most registry employees were unaware of it. Even those who were aware of the legal requirement did not follow it. Records that were supposed to be destroyed or sent to Metro-file archives were kept on top of cabinets in the registries. The majority of these records had to be audited. Due to auditing delays, offices kept records for longer than their retention period required, even when there was no room for them.

5.2.1. Standards and procedures for integrating record systems

The University of Zululand lacks documented standards and procedures to guide them in the implementation of the integrated records system. Several studies have revealed the challenges associated with effective legislative and regulatory frameworks for managing records, regardless of format, in countries in the International Council on Archives' East and Southern Africa Regional Branch (ESARBICA) (IRMT, 2008; Keakopa, 2006; Nengomasha, 2009). According to Mnjama and Wamukonya (2004), the gradual integration of the manual paper system with the computerised system by focusing on specific products to support the business process has not been documented within the East and Southern Africa region's institutions with statutory responsibility for records. The findings also demonstrated that there are no standards and procedures in place for paper and electronic records (integrated approach), which can have a significant impact on record management at the organisation. Riley (2003) asserted that records management procedures

relating to records management systems found in organisations are frequently ignored and disregarded.

According to the interviews conducted at the University of Zululand, the organisation does not have any documented standards and procedures for the management of student records. Wamukonya and Mutula (2005) agreed that organisations are suffering from a lack of legislation, policies, and procedures to guide the management of both paper and electronic records. The main cause of missing records at the organisation is a failure to have standards and procedures in place that specify different responsibilities for the staff. ISO 15489-1 (Section 6.3) recommended that records management responsibilities and authorities be defined and promulgated throughout the organisation, so that when a specific need to create and capture records is identified, it is clear who is responsible for taking the necessary action.

The ISO (15489-1) (2001) records management standard emphasises the importance of assigning responsibilities for records management, stating that "responsibilities should be assigned to all employees of the organisation." Records managers, allied information professionals, executives, business unit managers, system administrators, and others who create records as part of their job should be included in job descriptions (ISO, 2001).

An approved file plan, records management policy, and procedures are all important tools for good records management and access to records. The study discovered that, while UNIZULU has an approved records management policy and procedures, these tools are not widely known or used by the majority of staff. According to the findings of the study, knowledge of the UNIZULU records management policy and procedures is limited. This could be due to the policy not being implemented. The planned implementation date was 2006, but no implementation occurred during the study.

The study discovered that the University of Zululand did not have an approved file plan in place to provide instructions on how records should be managed and to ensure proper record filing. When asked how they control, file, access, and manage records created in their offices, respondents stated that their offices had in-house filing systems for access and filing.

According to Saffady (1974: 204), the benefits of a university records management programme include the protection of important records from unauthorised destruction and the easy identification and storage of inactive records. The lack of an approved file plan at UNIZULU causes chaos in records management, resulting in mismanagement and unauthorised destruction of records. According to Külcü (2009: 87), records play an important role in an institution and must therefore be properly managed. Efficient systems and procedures for record creation, organisation, and disposition must also be developed.

Due to the lack of an approved file plan and awareness of the records management policy, the University of Zululand may not be considered to have an integrated records system because corporate memory may have been lost or inaccessible. Furthermore, no sound records management processes are in place at the University of Zululand.

South Africa's National Archives and Records Service developed a South African Records Management model in 2005. The model applies not only to governmental bodies, but also to educational institutions (Coetzer, 2012: 44). A good records management programme, according to the model, should include a records management policy and procedures. Furthermore, Ngoepe (2008: 150) developed a records capability model to assist organisations in measuring themselves against this model in order to determine where they stand in terms of records management and how to advance to the next level. In comparison to Ngoepe's model, UNIZULU records management is in the early stages because the file plan and approved records management policy and procedures have yet to be implemented.

5.3.1 Information management strategy to integrate records into ICT systems

According to ISO 15489-1(2016:8), records systems should include and apply access controls to ensure that the integrity of the records is not jeopardised. According to the IRMT (2004:12) e-Readiness tool, senior management and action officers "must be aware of the importance of trustworthy and well managed records for delivering effective records and information services as well as protecting institutional accountability and integrity." This, combined with sound records management policies, procedures, tools, and resources, would result in sound records

management." Records management policies, procedures, and tools will be "ineffective unless internal staff commit to implementing them."

According to the current study, the University of Zululand has a digital preservation strategy. Furthermore, the officers appeared to be aware of the importance of a preservation strategy in student record management. According to the findings, electronic records are stored on hard drives and other secondary devices such as external hard drives. The security of electronic records is critical in order to prevent unauthorised access or data alteration. As stated by (Stewart & Westgate, 2002), "security is a major concern." Backups of electronic storage should be kept in a secure location with restricted access so that files cannot be altered." It was discovered that passwords were used to access the information, and that such information could not be accessed by any unauthorised users. It was also discovered that firewalls were used to prevent unauthorised access to or from a private network: firewalls can be implemented in both hardware and software, as well as antivirus to prevent virus attack. The ICT department manages the University's electronic records and ensures that their machines are serviced every quarter to prevent hardware failure.

5.3.2 Disaster planning and preparedness plan

Another aspect that is important for the preservation and protection of records, as well as their accessibility in times of disaster, is disaster planning and preparedness. These enable organisations to respond to emergencies more quickly. Disasters, according to Przybyla and Huth (2004), are unexpected events that significantly destroy records or prevent access to the information they contain. According to Nsibirwa (2012:199), "it is critical to take preventative measures to avoid unnecessary man-made disasters, as well as being prepared for natural disasters."

The primary feature of disasters is that they endanger the physical safety and integrity of records. To reduce the impact of disasters, records and archival institutions must establish a proper disaster preparedness plan. As a result, some record institutions should include a disaster plan as part of their larger records management activities. The current study's findings established that the majority of respondents believe The University of Zululand has a disaster preparedness plan. The

presence of a disaster management plan ensures that the University of Zululand will not lose valuable records in its offices and departments.

5.4 Tools for auditing and evaluating records management systems

Record information systems are expected to create and maintain trustworthy digital records, which are thus authentic and reliable (State of Alaska, 2009:6). Electronic records must be kept authentic for the duration of their use in business transactions (Jansen, 2014:39). Auditors demand authentic records when auditing for the undeniable reason that they link records management with the audit process. One study finding indicated that UNIZULU has a record system that is well-positioned to create and store authentic student records due to system-built database security features. Because digital records are prone to accidental or deliberate alteration (Boudrez, 2005:1; Xie, 2011:577), maintaining the authenticity of such records once created is critical (Duranti & Blanchette, 2004; Mason, 2007:32). This can be accomplished by authenticating digital records in the system (McDaniel, 2006:4; Mason, 2007:32).

Users must be authenticated before they can transact business through the system, according to UNIZULU. Some of the procedures in place to ensure that only authorised personnel have access to the system to transact business are firewalls, passwords, and segregation of duties. However, the study's findings revealed that the majority of records management staff are unaware that records management procedures are audited for clarity on a regular basis.

5.5.1 Challenges faced in management of records in integrated system

Data gathered from interviews revealed challenges confronting the organisation's records section. Some of them include a lack of equipment as well as financial constraints. According to InterPARES (2002), the lack of adequate equipment to effectively manage electronic records in public tertiary institutions is a major indictment on the commitment to managing records using any system available. This is due to the fact that adequate equipment and human capacity are required for effective record keeping. Mnjama and Wamukoya (2004) agreed that the lack of budgets dedicated to records management is a significant challenge for most organisations. This is especially important in the maintenance of integrated systems, which may be cost effective.

Wamukoya and Mutula (2005) added that one of the records management issues confronting ESARBICA countries is the lack of budgets dedicated to records management. The University of Zululand does not have a separate budget for records management. Records management falls under general services and is frequently overlooked. The challenges presented are not dissimilar to those encountered by other organisations in Botswana, as mentioned by Mampe and Kalusopa (2013) and Mazikana (2009). Mazikana (2001) also noted that in many countries, the majority of the budget is consumed by staff salaries, leaving very little for recurring expenditure.

As mentioned in the preceding discussion on staff competence, the issue of training has also been a major challenge in the management of records in integrated record systems. Staff lacks record management skills because records management personnel do not have the same access to training as those in other disciplines. Another issue that records staff raised in terms of managing their records using an integrated approach was computer obsolescence. This is when computers may fail to function properly and require ongoing maintenance. According to Millar (2004, p. 4), records management is given low priority, which is also true at the University of Zululand. For example, respondents indicated that the majority of them work without a position specifically assigned to the functions of records management.

5.5.2 Summary

This chapter provided an interpretation and discussion of the research findings presented in Chapter 4. The interpretation and discussions were organised around thematic areas that corresponded to the study's objectives and research questions as defined by the IRMT Good Practice Indicators tool. According to the IRMT (2009), the system must be scored to determine whether records management functionality was considered when implementing the records system and at what level based on the IRMT framework. According to the findings, the University of Zululand is at Level B: the system meets the majority of the functional capabilities required for record capture, organisation, use, retention, and disposition. There is evidence that the system meets the minimum functionality requirements to meet specific areas of good practice, such as creating rules to control the selection of metadata, managing integrated records, centrally managing access controls, or creating and maintaining an audit trail.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

The previous chapter discussed the findings of the study. This chapter summarises the findings, and provides conclusions and recommendations. According to Mathipa et al. (2014:191), the final chapter of a thesis should be about the study findings' conclusions and recommendations. This satisfies the researcher's desire to reflect on the journey taken while writing the thesis and to demonstrate how the research plan and problem were addressed (Zimu-Biyela, 2016:171). The summary of findings, conclusions and recommendations are presented logically and in accordance with the study's research objectives.

6.1 Implementing functional records system

Any modern institution of higher learning is critically dependent on the smooth operation of new information and communication technology innovations (Tusubira, 2005). The study's first objective was to determine how records management functionality was integrated into the implementation and management of student records.

The study findings were as follows:

(a) UNIZULU has two records systems, which are the metro file system and the ITS system, and the ITS system is used as the main records system.

(b) The study has found that there is general use of ICT that provides the infrastructure and platform for the creation of records and e-records through the use of networked computers and photocopying services, email, telephones, faxes, and scanners. Other ICT equipment such as PCs and laptops is being used for the daily activities of UNIZULU.

(c) The ITS system is used to store records like: student admissions; student accounts; student records; student results; staff details; student housing; payroll; financial accounts; statements of accounts; buying and store details; money transfers; departmental entity numbers and accounts; student societies; human resources; library services; procurement; tenders; and graduation.

(d) The records are linked to a central and decentralised database.

(e) Through interviews and observation, it has been revealed that officers who have not been trained in records management are given clear records management responsibilities. However, the questionnaire responses indicate that there is a general feeling that the records management staff is insufficient for the management of both electronic and manual records, and the findings from the interviews revealed that UNIZULU does not have a records committee that is responsible for record management issues.

(f) The majority of respondents used classification schemes; however, while the majority of employees used classification schemes, they were not trained on how to use them.

(g) The classification system was unknown to the majority of the staff, and those who were aware of its existence did not know how to use it.

6.2 Standards and procedures for integrating record systems

The study's second objective was to establish standards and procedures for integrating records management systems into the management of student records. One of the measures in assessing e-records readiness, according to the IRMT Good Practice Indicators Tool, is determining the legal and policy environment that impacts records and information management. ISO 15489-1:2001 also requires organisations to identify the regulatory environment that influences their activities and to document those activities.

The study findings were as follows:

(a) The study assessed the level of compliance with records management policies, standards, tools, procedures, and responsibilities as defined by the IRMT Good Practice Indicators Tool. ISO 14589 (2001) emphasises the importance of policies, standards, and tools in providing a framework for the development and implementation of a records management programme, as well as instilling commitment and buy-in from all stakeholders in an organisation. It was discovered that there is no records management policy in place to provide a framework for UNIZULU's records management programme. It has been discovered that a lack of a records management policy contributes to a lack of management commitment to records management, particularly with the development of an integrated records management programme (IRMT, 2004, 2007; Moloi, 2006).

(b) The study found that there is no national policy for the management of e-records, particularly in the context of the integrated record system project. The policy should serve as a foundation for the design and implementation of the e-records management programme. According to the findings of the study, there is a lack of awareness of the legal and policy framework for records and information management, particularly among Action Officers at the University of Zululand, according to 42% of respondents who strongly agree. It has also been revealed that there is no FOI legislation in the national legal and policy framework.

(c) The University of Zululand had no policies for developing records systems or training and recruiting qualified records management staff.

6.3 Information management strategy to integrate records into ICT systems

The third objective of the study was to determine an information management strategy that includes a specific objective of integrating records management in ICT systems.

The study findings were as follows:

(a) The University of Zululand has implemented a records management strategy to integrate records.
(b) According to the findings of the study, electronic records are stored on hard drives and other secondary devices such as external hard drives.
(c) The University of Zululand has a disaster management plan in place to protect vital records.

6.4 Tools for auditing and evaluating records management systems

The fourth objective of the study was to determine specific tools for auditing and evaluating records management integration in ICT systems.

The study findings were as follows:

(a) The study found that because of system-built database security features, UNIZULU has a record system that is well positioned to create and store authentic student records.
(b) UNIZULU requires users to authenticate before transacting business through the system.

(c) Some of the procedures in place to ensure that only authorised personnel have access to the system to conduct business include firewalls, passwords, and segregation of duties.
(d) The ministries have a retention schedule, but it is not being followed because most registry employees are unaware of it.
(e) Most records must have been audited, but due to auditing delays, offices kept records for longer than their retention period required, even if there was no space or room for them.

6.5 Conclusions of the study

The following conclusions have been reached and discussed based on the study's findings, the literature reviewed, and the theoretical framework IRMT: Good Practice Indicators (2009).

The University of Zululand has implemented a records system; however, the study concludes that there is a lack of knowledge and staff training in the management of integrated paper and electronic records. According to the findings, there is no incorporation of record keeping requirements in electronic information systems. In an integrated environment where the electronic filing system is supposed to mirror the paper filing system, there are no required standards and procedures. However, as previously stated, records classification, mail referencing, and file use are not well practised. The ability to manage electronic records, which is one component of the integrated system, is lagging. In the management of the implemented integrated record system, there is a shortage of professionally qualified record managers. The highest qualification in the records department is a degree obtained by the records Supervisor, but some have certificates and others have no qualifications in records management at all. As a result, it is feasible to conclude that a lack of training and required knowledge in record management is affecting the overall management of records at the University of Zululand. This is because knowledge is the foundation of effective and efficient record management, and without it, the results are poor record management.

The study can also conclude that the organisation lacks documented standards and procedures for managing their implemented integrated record system. It was clearly demonstrated by how the records staff managed their records from creation to disposition. The research also concluded that the organisation is facing challenges such as a lack of equipment, financial constraints, technological obsolescence, and a lack of training.

The researcher discovered that the problems mentioned are simply common to those already identified by various scholars in different countries such as Botswana and Namibia. It can also be concluded that record misplacement and missing are caused by the organization's failure to follow the required method of managing paper and electronic records in an integrated approach. This has been demonstrated by a number of factors, including an inability to effectively create, classify, store, and dispose of integrated paper and electronic records. The lack of standards and procedures to guide the implemented integrated system also contributed to the system's failure to function as expected. It should also be noted that a lack of staff training and knowledge contributed to the missing and misplaced records in the integrated environment.

6.6 Recommendations

The records management function should be integrated into the overall strategic planning initiatives of the organisation. Most importantly, senior management must embrace the records management function in order for it to be effective, and it must be incorporated into their performance management targets (Tapec, 2019). The study's recommendations are as follows:

The study reveals the importance of a records manager, and it is unfortunate that the University of Zululand does not have one. The institution must appoint a records manager whose responsibilities will include compiling, implementing, maintaining, and utilising approved new policies and records filed in accordance with these systems. Again, records management is a field that requires experienced professionals who understand the strategic role of the records and their keeping. As a result, the University of Zululand must retrain their records management staff to obtain a records management qualification.

Also, the University of Zululand should organise workshops and seminars to train staff on record management. The University of Zululand must improve its record integration system, and additional mechanisms must be developed to ensure that system audit findings are acted upon and used to improve system functionality and performance.

6.7 The creation of records in the integrated system

The study discovered that there were no recognised procedures or standards for titling, indexing, classifying, or describing records in order for organisations to arrange them systematically and easily retrieve them. As a result, organisations should develop policies that guide the requirements for capturing, registering, classifying, retaining, storing, accessing, and disposing of both paper and electronic records. The policies and procedures developed should specify to organisational staff what is required for record creation in an integrated system. This will help to reduce the rate of information loss and retrieval delays.

6.8 The Standards and Procedures of managing records

The study found that there are no documented standards or procedures in place. The findings did not provide detailed guidance on the policies and practices that are currently in use. As a result, in order for the University of Zululand to be informed about the regulations for managing integrated records systems, a variety of internal policies, standards, and procedures must be developed and implemented in order for them to fulfil their statutory obligations and improve their operational efficiency. They could also use other countries as models for benchmarking their policies, such as Australia and the United States of America (USA). These countries' models emphasise responsibilities and obligations, as well as monitoring and compliance mechanisms. The best of these models also acknowledge the interdependence of paper and digital records, as well as the need to integrate and coordinate record management across all media. Furthermore, appropriate attention and protection do not apply to all records, and the evidence and information contained within them cannot be retrieved effectively and efficiently due to a lack of a policy that governs the entire records management process. The availability of a records management policy at the University of Zululand could aid in the protection of student records as well as the interests and rights of students, clients, and current and future stakeholders, as well as provide continuity in the event of a disaster. A policy would also ensure that satisfactory records of all of the University's core activities are kept; there would be support in the form of documented records of current and future research, developments, and achievements; and institutional memory would be preserved.

6.9 The staff training in integrated records system

Records management is a field that requires experienced professionals who understand the strategic role they have to play. As a result, the organisation must recruit records management personnel who have relevant qualifications in records management or Library Science. It is critical to train records management personnel on the electronic records management system. Since the majority of the staff lacked knowledge in operating the system, this was one of the factors that had a significant impact on record management using an integrated system. Staff must be trained and retrained in new skills and competencies in order to operate effectively with new technology.

6.10 Knowledge of records management

The quality of any records management programme is directly proportional to the quality of the personnel who run it. All other stages of the programme may not be adequately executed without knowledgeable and experienced personnel. The plan is to hire a skilled records manager to work with the institution's various stakeholders in reviewing legislation, developing policies, developing, analysing procedures and standards, and conducting training. Policies and procedures are meaningless unless they can be implemented and executed. There is a need to gain knowledge and understanding of the aspects that are expected for integrated approach to managing both paper and electronic records. This will assist the working staff in understanding the system's requirements. It is recommended that for the management of both electronic and paper records, continuous refresher courses be attended, and that programmes be designed and implemented on a regular basis to sensitise staff to managing records and good record management practices.

6.11 Suggestions for further research

This study does not go beyond recommendations for addressing identified problems. Further research could look into an evaluation of current electronic information management systems in order to establish an effective management system of managing records in an integrated approach, as well as factors affecting the implementation of an integrated records management system in higher education institutions.

Furthermore, studies should be conducted to establish records management practises in the private sector, such as banking, insurance, and non-governmental organisations, as well as the agricultural and health care sectors. A study of this kind would provide useful comparative data on record-keeping practises in the public and private sectors. Furthermore, future research could examine the role of records management in improving accountability, the role of records management in combating corruption, and the significance of training in ensuring sound records management.

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LIST OF APPENDICES

Appendix A: Letter seeking permission to conduct research on the integration of record management functionalities in the management of student records systems at the university of Zululand South Africa.

University of Zululand
Private Bag X1001
KwaDlangezwa
3886

To: Director (Research and innovation)

RE: Introducing Thusi S'busiso Mduduzi -Student No: 201239029 – Masters Student at the University of Zululand

This letter serves to confirm that Mr Thusi S'busiso Mduduzi is a registered candidate for a Bachelor of Library and Information Science Masters (AMAS13) with the Department of Information Studies at the University of Zululand. The title of his research is: - The integration records management functionalities in the management of student records systems at the university of Zululand South Africa. The study outcomes will act as the foundation of other studies by contributing in the body of knowledge both in theory and in practice. The researcher anticipates that Universities will get a better understanding of the integration of ICT systems in the management of student records since they invented information system as to improve records management within the University. As part of the requirements for the award of a Master's degree, the researcher is expected to undertake original research in an environment and place of his choice. The University of Zululand ethical compliance regulations require him to provide proof (letter or email) that the relevant authority where the research is to be undertaken has given approval. We thus request you as his chosen organization to grant him the required permission to conduct his research.

We appreciate your support and understanding in this regard. Should you need any further clarification, do not hesitate to contact us (supervisors) or Mr Thusi.

Thank you in advance.

Supervisor: Prof T Kalusopa

Email: tkalusopa@unam.na

Ms L.P Luthuli-Ngidi (Co-supervisor)

Email: NgidiL@unizulu.ac.za

Tel. W: +27 35902 6810

Mobile: 083 870 0116

Researcher: Thusi S'busiso Mduduzi

Email: sbu.m.thusi@gmail.com

Appendix B: Informed agreement

Informed Agreement Document

Dear Participant

My name is S'busiso Mduduzi Thusi a registered candidate for a Bachelor of Library and Information Science Masters (AMAS13) with the Department of Information Studies at the University of Zululand. The title of my research is: The integration records management functionalities in the management of student records systems at the university of Zululand South Africa.

I am interested in interviewing/ giving you my questionnaire so you can share your experiences and observations on the subject matter.

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not be penalized for taking such an action.
- Your views in this interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will take about 60 minutes.
- The record as well as other items associated with the interview will be held in a password-protected file accessible only to me and my supervisors.
- If you agree to participate please sign the declaration attached to this statement (a separate sheet will be provided for signatures)

I can be contacted physically at:

The University of Zululand, Department of Information Studies

Other contact details:

Email:sbu.m.thusi@gmail.com

mailto:213571311@stu.ukzn.ac.zaMobile: 073 495 4478

Appendix C: Declaration

Declaration

I…… (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project. I hereby consent / do not consent to have this interview recorded.

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

Signature of Participant Date

……... ……

APPENDIX D: ETHICAL CLEARANCE GRANTING PERMISSION TO CONDUCT RESEARCH

UNIVERSITY OF ZULULAND
RESEARCH ETHICS COMMITTEE
(Reg No: UZREC 171110-030)

RESEARCH & INNOVATION
Website: http://www.unizulu.ac.za
Private Bag X1001
KwaDlangezwa 3886
Tel: 035 902 6731
Fax: 035 902 6222
Email: DlelanaM@unizulu.ac.za

ETHICAL CLEARANCE CERTIFICATE

Certificate Number	**UZREC 171110-030 PGM 2019/23**							
Project Title	**THE INTEGRATION OF RECORD MANAGEMENT FUNCTIONALITIES IN THE MANAGEMENT OF STUDENT RECORDS SYSTEMS AT THE UNIVERSITY OF ZULULAND SOUTH AFRICA**							
Principal Researcher/ Investigator	S'busiso M. Thusi							
Supervisor and Co-supervisor	Prof T Kalusopa		Ms. L.P Luthuli					
Department	Library and Information Science							
Faculty	Arts							
Type of Risk	Med Risk – Data collection from people							
Nature of Project	Honours/4th Year		Master's	x	Doctoral		Departmental	

The University of Zululand's Research Ethics Committee (UZREC) hereby gives ethical approval in respect of the undertakings contained in the above-mentioned project. The Researcher may therefore commence with data collection as from the date of this Certificate, using the certificate number indicated above.

Special conditions:

(1) This certificate is valid for 1 year from the date of issue.
(2) Principal researcher must provide an annual report to the UZREC in the prescribed format [due date-15 July 2020]
(3) Principal researcher must submit a report at the end of project in respect of ethical compliance.
(4) The UZREC must be informed immediately of any material change in the conditions or undertakings mentioned in the documents that were presented to the meeting.

The UZREC wishes the researcher well in conducting research.

Professor Gideon De Wet
Chairperson: University Research Ethics Committee
Deputy Vice-Chancellor: Research & Innovation
16 July 2019

CHAIRPERSON
UNIVERSITY OF ZULULAND RESEARCH ETHICS COMMITTEE (UZREC)
REG NO: UZREC 171110-30
16 -07- 2019
RESEARCH & INNOVATION OFFICE

THIS IS SUPPORTED. KINDLY LIAISE WITH RECORDS DEPARTMENT.
Deputy Registrar

UNIVERSITY OF ZULULAND
DEPUTY REGISTRAR
STUDENT ADMINISTRATION
06-08-
24 MAY 2019
PRIVATE BAG X1001
KWADLANGEZWA 3886

APPENDIX E: Letter asking for permission to conduct a study

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

Department of Information Studies

Private Bag 1001, KwaDlangezwa, 3886, Internal Box25

T: 035 902 6169, C: 082 936 2370, Email:EvansN@unizulu.ac.za
www.lis.uzulu.ac.za, www.unizulu.ac.za

22 July 2019

To The Head: Director: Teaching and Learning, Dr. Y Rugbeer

RE: Introducing Thusi S'busiso Mduduzi (201239029)

– Masters Student at the University of Zululand

This letter serves to confirm that Mr. Thusi S'busiso Mduduzi is registered for a Masters in Library and Information Science qualification in the Department of Information Studies at the University of Zululand. The title of his research is "The integration of record management functionalities in the management of students' records systems at the university of Zululand South Africa". We note that many organizations in South Africa have adopted ICT systems in managing records for day to day functioning. Yet, challenges relate to absence of organizational plans for managing both paper and electronic records are still encountered.

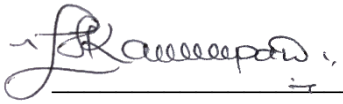
As part of the requirements for the award of a Master's degree, the researcher is expected to undertake original research in an environment and place of his choice. The UNIZULU ethical compliance regulations require him to provide proof (letter or email) that the relevant authority where the research is to be undertaken has given approval. We thus request you as his chosen organization to grant him the required permission to conduct his research.

We appreciate your support and understanding in this regard. Should you need any further clarification, do not hesitate to contact me.

Thanks,

1. Supervisor: Prof T Kalusopa

   Email: tkalusopa@unam.na/tkalusopa@unam.na



2. Co-Supervisor: Ms L.P Luthuli Email: NgidiL@unizulu.ac.za

   Cell:

   083870 0116

APPENDIX F: Letter asking for permission to conduct a study

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

Department of Information Studies

Private Bag 1001, KwaDlangezwa, 3886, Internal Box25

T: 035 902 6169, C: 082 936 2370, Email:EvansN@unizulu.ac.za
www.lis.uzulu.ac.za, www.unizulu.ac.za

22 July 2019

To The Head: ICT Department, Mr. L.Manci

RE: Introducing Thusi S'busiso Mduduzi (201239029)

– Masters Student at the University of Zululand

This letter serves to confirm that Mr. Thusi S'busiso Mduduzi is registered for a Masters in Library and Information Science qualification in the Department of Information Studies at the University of Zululand. The title of his research is "The integration of record management functionalities in the management of students' records systems at the university of Zululand South Africa". We note that many organizations in South Africa have adopted ICT systems in managing records for day to day functioning. Yet, challenges relate to absence of organizational plans for managing both paper and electronic records are still encountered.

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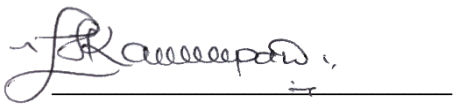
We appreciate your support and understanding in this regard. Should you need any further clarification, do not hesitate to contact me.

Thanks,

1. Supervisor: Prof T Kalusopa

   Email: tkalusopa@unam.na/tkalusopa@unam.na



2. Co-Supervisor: Ms L.P Luthuli Email: NgidiL@unizulu.ac.za

   Cell:

   083870 0116

APPENDIX G: Letter asking for permission to conduct a study

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

Department of Information Studies

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www.lis.uzulu.ac.za, www.unizulu.ac.za

22 July 2019

To The Head: Deputy Registrar: Student Administration, Mr. Z Gumede

RE: Introducing Thusi S'busiso Mduduzi (201239029)

– Masters Student at the University of Zululand

This letter serves to confirm that Mr. Thusi S'busiso Mduduzi is registered for a Masters in Library and Information Science qualification in the Department of Information Studies at the University of Zululand. The title of his research is "The integration of record management functionalities in the management of students' records systems at the university of Zululand South Africa". We note that many organizations in South Africa have adopted ICT systems in managing records for day to day functioning. Yet, challenges relate to absence of organizational plans for managing both paper and electronic records are still encountered.

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Thanks,

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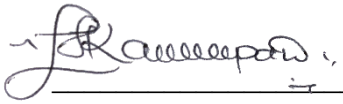
   Email: tkalusopa@unam.na/tkalusopa@unam.na



2. Co-Supervisor: Ms L.P Luthuli Email: NgidiL@unizulu.ac.za

   Cell:

   083870 0116

APPENDIX H: Letter asking for permission to conduct a study

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

Department of Information Studies

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T: 035 902 6169, C: 082 936 2370, Email:EvansN@unizulu.ac.za
www.lis.uzulu.ac.za, www.unizulu.ac.za

22 July 2019

To The Head: Director: Protection Services Department, Mr A Mukheli

RE: Introducing Thusi S'busiso Mduduzi (201239029)

– Masters Student at the University of Zululand

This letter serves to confirm that Mr Thusi S'busiso Mduduzi is registered for a Masters in Library and Information Science qualification in the Department of Information Studies at the University of Zululand. The title of his research is "The integration of record management functionalities in the management of students' records systems at the university of Zululand South Africa". We note that many organizations in South Africa have adopted ICT systems in managing records for day to day functioning. Yet, challenges relate to absence of organizational plans for managing both paper and electronic records are still encountered.

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We appreciate your support and understanding in this regard. Should you need any further clarification, do not hesitate to contact me.

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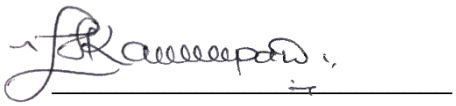

2. Co-Supervisor: Ms L.P Luthuli Email: NgidiL@unizulu.ac.za

   Cell:

   083870 0116

Appendix I: Interview guides

Interview schedule

Dear repondents

I am Thusi S'busiso Mduduzi student number (201239029), a Master of Arts student in Library and Information Science degree (AMAS13) in the Department of Information Studies (DIS) at the University of Zululand. I am conducting a study on

The integration record management functionalities in the management of students records systems at the university of Zululand South Africa. The study is aimed at investigate the integration record management functionalities in the management of students records systems at the University of Zululand South Africa.

As part of the requirements for the fulfilment of the Master's degree, I kindly ask for your participation in my research project by taking part in this interview. Be assured that all information provided will be used for research purposes only. Anonymity and confidentiality will be observed. I humbly request that you take part in this study. Your contribution will be greatly valued and look I forward to sharing the results of the study with you.

For any queries, please do not hesitate to contact us:

1. Researcher: Thusi S'busiso Mduduzi
   Email: sbu.m.thusi@gmail.com
   Cell: +27 73 495 4478

2. Supervisor: Prof T Kalusopa
   Email: tkalusopa@unam.na

3. Supervisor: Ms L.P Luthuli
   Email: NgidiL@unizulu.ac.za
   Cell: 083870 0116

Thank you in advance

Interview guide for ICT specialist and records managers

This interview has four (4) sections Records Management framework; Legal and policy Framework; Integrating records management in the system development life cycle; Integrating records management functionality in ICT systems and should take about 20 minutes.

- ❖ The integration of records management functionalities in the implementation and management of students records systems

1. There is any guiding framework that governs you in the management of paper and electronic records?
2. There is a legal mandate or policy for records management which the University comply with?
3. If yes, does the legal mandate or policy cover records in all formats?
4. Does the legal policy provide a framework for developing and issuing standards, guidelines and procedures for records management throughout the organization?
5. Does the legal mandate or policy allow a central authority to oversee the implementation of standards or guidelines for integrating records management in ICT systems?

- ❖ Standards and procedures for integrating records management systems in the management of students records

1. Do the staff understand the records management issues and are they prepared to support effort to find solutions?
2. Does the University have a wide records management strategy in place which is consistent with international standards?
3. Does the university have a-wide governance committee whose responsibilities for records management integration issues?
4. There are any Standards and procedures which are in place for records management in the University which apply to all records, regardless of format?
5. Are there any Standards and procedures in place for integrating records management in ICT systems?

- ❖ Information management strategy and specific objectives to integrate records systems

1. Was records management functionality taken into account when implementing student's records system?
2. Does the University have a plan in place which describes the organization strategy for integrating records management in its ICT system?
3. The strategic plan for integrating records management in ICT systems is linked to or incorporated in the organization's strategic ICT and business plans.
4. There is any mechanism which is in place to ensure the strategic plan is regularly reviewed and updated as needed?

❖ Specific tools for audit and Evaluation of ITC system

1. Are there any Audit and evaluation mechanisms in place to assess the effectiveness of integrating records management in ICT systems?
2. Does the University have specific tools for auditing and evaluating records management integration in ICT systems?
3. Does the university have legal mandate/policy for auditing and evaluating records management practices?
4. Does the legal policy require the audit and evaluation of records management practices in ICT systems?
5. Do you face any challenges when you integrate records?

I appreciate the time you took for this interview. Is there anything else you think would be helpful for me to know that would be potentially useful in this study?

Questionnaire

Dear respondent

I am Thusi S'busiso Mduduzi student number (201239029), a Master of Arts student in Library and Information Science degree (AMAS13) in the Department of Information Studies (DIS) at the University of Zululand. I am conducting a study on "The integration of record management functionalities in the management of students records systems at the university of Zululand South Africa. The study is aimed at investigate the integration of record management functionalities in the management of students records systems at the University of Zululand South Africa.

As part of the requirements for the fulfilment of the Master's degree, I kindly ask for your participation in my research project by taking part in this questionnaire. Be assured that all information provided will be used for research purposes only. Anonymity and confidentiality will be observed. I humbly request that you take part in this study. Your contribution will be greatly valued and look I forward to sharing the results of the study with you.

For any queries, please do not hesitate to contact us:

1. Researcher: Thusi S'busiso Mduduzi
   Email: sbu.m.thusi@gmail.com
   Cell: 073 495 4478

2. Supervisor: Prof T Kalusopa
   Email: tkalusopa@unam.na

3. Ms L.P Luthuli-Ngidi (Co-supervisor)

   Email: NgidiL@unizulu.ac.za

   Tel. W: +27 35902 6810

   Mobile: 083 870 0116

Thank you in advance

Instructions

This document is divided into four (6) sections:

SECTION A: Biographical data

SECTION B: Project Initiation/ implementation of ICT system by university

SECTION C: Maintenance of the system

SECTION D: Review and Evaluation of the system

SECTION E: legal and policy framework

SECTION F: compliance to policies, standards, tools, procedures and responsibilities for records management

Please go through the questions and where relevant, mark your choice with an "X" or a "tick."

- Please note that some questions require a single response while others may require more than one response.
- The information you provide will be treated confidentially and only be used for the completion of the afore-mentioned qualification.

SECTION A: Biographical Details

1. Name of Department:

Department	
Student administration	
ICT	
SSD	
PSD	

❖ SECTION B: Project Initiation of the ICT system

1. Do you have a qualification in records management?

Yes	
No	

2. Did you do A business needs analysis when you implement a records system?

Yes	
No	

3. If yes does the analysis includes a consideration of records management issues?

Yes	
No	

4. Did you check risks associated with records management and potential solutions have been assessed and documented?

Yes	
No	

If yes what were they?_____

5. Are the students' records systems integrated with other systems like the library, Protective service department?

Yes	
No	

6. Does the staff understand the records management issues and is prepared to support effort to find solutions?

Yes	
No	

7. Does the University have a central authority or agency that is assigned for overseeing the integration records management in ICT systems?

Yes	
No	

If No, Why_____

❖ Maintenance of the ICT system

1. Do you have Mechanisms in place to assess system that it does comply with the records management requirements through timely?

Yes	
No	

If No, Why_____

2. If yes are Mechanisms in place for managing changes in records management requirements which may result from new business needs, regulatory requirements?

Yes	
No	

3. Does the University have mechanism in place for monitoring the security of the system?

Yes	
No	

If No, Why? _____

❖ Review and Evaluation of the ICT system

1. Are there any performance assessment mechanisms for assessing the ICT systems to check that it complies with performance standards, including records management?

Yes	
No	

2. What are the major challenges that are being faced in integrating records management?

_____

_____

_____

3. What do you thing should be done to improve management of paper and electronic records management?

❖ LEGAL AND POLICY FRAMEWORK

4. Does UNIZULU have a policy on records management

Yes	
No	

5. What is the general level of adherence to the Records Policy?
   I. High
   II. Above average
   III. Average
   IV. Below average
   V. Low

6. Does the policy adequately cover all types of records? i.e. paper, electronic

Yes	
No	

If 'No', please explain further

_____

7. Does the policy stipulate clear responsibilities for all internal stakeholders i.e. management, supervisors, Records Management staff etc

Yes	
No	

❖ COMPLIANCE TO POLICIES, STANDARDS, TOOLS, PROCEDURES AND RESPONSIBILITIES FOR RECORDS MANAGEMENT

8. What is the general level of compliance to policies on Records Management?
   I. High
   II. Above average
   III. Average
   IV. Below average

V. Low

9. What is the general level of compliance to international standards on Records Management?
   I. High
   II. Above average
   III. Average
   IV. Below average
   V. Low
10. Does your organization have a centralized classification scheme for all records?

Yes	
No	

11. If yes above, what is the general level of compliance to the records classification?
   I. High
   II. Above average
   III. Average
   IV. Below average
   V. Low
12. Does your organization have records management procedures to guide staff on both physical and electronic records?

Yes	
No	

13. If yes above, what is the level of compliance to procedures on both manual and e-records?
   I. High
   II. Above average
   III. Average
   IV. Below average
   V. Low
14. Does your organization have a records retention schedule of all records?

Yes	
No	