THE CONTRIBUTION OF KNOWLEDGE SHARING IN THE EFFECTIVE IMPLEMENTATION OF ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEMS IN THE NAMIBIAN PUBLIC SERVICE

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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ABSTRACT

The study investigated the contribution of Knowledge Sharing (KS) to the successful implementation of the Electronic Document and Records Management System (EDRMS) in the Namibian public service. Various reasons to justify the poor success of EDRMS implementation have been identified across several studies but the role and contribution of KS as a key element towards the successful implementation of EDRMS has not been established. In this regard, the study adopted an interpretivist research paradigm, a qualitative research approach for the data collection and a multiple case study research design. The study targeted three (3) Offices/Ministries/Agencies out of the first nine Offices/Ministries/Agencies that implemented the EDRMS between 2009 and 2010. The sample size consisted of twenty-one (21) participants, whereby seven (7) were from the Office of the Prime Minister, nine (9) from the National Archives of Namibia, and five (5) from the National Planning Commission. Data were collected through document analysis, semi-structured interviews and participant observations. The study found that the reason for the poor success of EDRMS implementation in the Namibian public service points to a lack of and/or poor sharing of knowledge during the implementation stages of EDRMS. This was because both key users and end users of EDRMS in the three O/M/As did not have adequate knowledge sharing opportunities, other than training sessions on EDRMS operations. Based on this, the study recommends that KS ought to be prioritised as a key element of change management, particularly with the introduction of new work processes and procedures. KS should take place at every stage and/or level of EDRMS implementation among all staff members in an institution. Therefore, institutions should deliberately design and create opportunities that would engage all employees and lead to active KS throughout all the divisions and units of an institution. Areas for further studies could include investigating the impact of team building and employees interrelationships towards the successful implementation of EDRMS.

Keywords: Business Classification Schemes/File Plans, Change Management, EDRMS Implementation, Information and Communication Technologies (ICT), Knowledge Sharing, Records Management and SECI model

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DECLARATION

I, Uetujama Kazavanga, hereby declare that this is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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Uetujama Kazavanga .... 1 October 2022

Name of Student Signature Date

DEDICATION

I dedicate this thesis to my parents, Mr Japhet Hindundu Kazavanga and Mrs Erica Kazavanga. Papaa, thank you for constantly pushing me through it all, Mamaa your prayers were heard, look at God!

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LIST OF ABBREVIATIONS AND ACRONYMS

CoP	Community of Practice
ED	Executive Director
EDRMS	Electronic Document and Records Management System
ICT	Information and Communication Technology
ISO	International Organisation for Standardisation
IT	Information Technology
KM	Knowledge Management
KS	Knowledge Sharing
MoF	Ministry of Finance
MHAI	Ministry of Home Affairs and Immigration
MICT	Ministry of Information and Communication Technology
NAN	National Archives of Namibia
NPC	National Planning Commission
O/M/A	Office/Ministry/Agency
OP	Office of the President
OPM	Office of the Prime Minister
RM	Records Management
SECI	Socialisation, Externalisation, Combination and Internalisation

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Introduction

This chapter introduces and provides a background to the study. The context and the problem statement which is the inquiry of the study is described, consequentially defining the research questions. Similarly, this introductory chapter explains and justifies why this study was significant for the body of knowledge and practical implementation thereof. The study was informed and guided by the SECI model of knowledge sharing proposed by Nonaka and Takeuchi in 1995. The explanation and relevance of the model for the study is discussed in Chapter Two. Finally, the chapter ends with an overview of how the study was divided across the five distinct chapters.

1.2 Orientation of the study

An electronic document and records management system (EDRMS) is a system that is adopted by various institutions to manage and control digitally produced records and physical records (Karlos & Nengomasha, 2018). In Namibia, the EDRMS was implemented in 2009 by the Office of the President and the Office of the Prime Minister (Office of the Prime Minister [OPM], 2010). After a year, the system was rolled out to seven other Offices, Ministries and Agencies (O/M/As) in the public service. These included: National Archives of Namibia (under the Ministry of Education, Arts and Culture), Ministry of Veterans Affairs, Ministry of Regional and Local Government, Housing and Rural Development (now called the Ministry of Urban and Rural Development), Ministry of Safety and Security, Ministry of Foreign Affairs now called (Ministry of International Relations), Anti-Corruption Commission and the National Planning Commission (OPM, 2010; Nengomasha & Chikomba, 2018). However, the full success and implementation of EDRMS in the seven O/M/As has not been ascertained.

Although Nengomasha and Chikomba (2018) reported that EDRMS was operational only in five of the seven O/M/As in the Namibian public sector, Kaupa and Chisa (2020) found that there were eleven O/M/As in the Namibian public service that had implemented EDRMS. A statistics report of 2019 from OPM obtained during document analysis, indicated that only eleven (11) O/M/As in the Namibian public service had implemented and have access to the EDRMS. However, the practical daily usage of EDRMS in these institutions still remains questionable. This is to say that although institutions in the Namibian public service have implemented EDRMS, the active usability of the system in offices has not yet been achieved. Based on the lack of EDRMS adoption in the Namibian public service, this study sought to explore if KS could contribute to the successful implementation of EDRMS in the Namibian public service.

Several factors have been mentioned that impede the implementation of EDRMS world-wide such as: perceived complexity of the system, lack of technical support infrastructure, lack of time to use the system, lack of training mechanisms, preferred learning styles of the users, incompetent ICT personnel, lack of technical and regulatory frameworks and lack of knowledge sharing (Asogwa, 2012; Kalusopa, 2016; Kwatscha, 2014; Madden, 2016; Mosweu, Bwalya & Mutshewa, 2017; Yin, 2014). Whereas, studies (such as those by Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) on EDRMS implementation in the Namibian public service have added to the list by highlighting issues of ineffective use of business classification schemes, lack of user awareness of EDRMS regulatory frameworks, poor user buy-in, lack of management support, ineffective change management strategies, system security concerns and unskilled records management personnel.

Knowledge is a key component of all activities/roles performed in any setting. Knowledge consists of the in-depth information attained by education, skills and/or experience to perform a particular task or activity effectively and efficiently (Oskouei, 2013). It is usually embedded in individuals' minds and thus needs to be communicated by dialogues, observation and/or documentary materials for it to be useful to undertake a certain task (Kumareswamy & Chitale, 2012). This communication of knowledge from one individual/group to another is referred to as knowledge sharing. There various benefits of KS that are discussed in Chapter 2, including employees working for the same goal in mind, competitive advantage in an industry and the production of innovative and effective employees in organisations (George, 2014; Goswami & Agrawal, 2020)

Whilst taking note of the above factors, the contribution of Knowledge Sharing (KS) towards the successful implementation of EDRMS in the Namibian public service has not been investigated and explored. The lack of KS as a factor that contributes to the unsuccessful implementation of EDRMS has been mentioned in previous studies (Kwatscha, 2014; Madden, 2016; Yin, 2014) outside Namibia, but not fully investigated and explored. Similarly, issues which were found in Namibian empirical literature on EDRMS implementation (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) all reflect the lack of KS although it has not been explicitly mentioned. Thus, the present study sought to assess the extent to which knowledge sharing is essential for the effective implementation of EDRMS in the Namibian public service.

1.3 Statement of the problem

Knowledge Sharing has been recognised as a key driver to the implementation of EDRMS in general (Kwatscha, 2014; Madden, 2016; Queensland State Archives, 2010; Yin, 2014). The overarching problem that prompted the current study is that while most literature reviewed and empirical research have cited several key issues such as technical infrastructure, management support, change management, training, user buy-in and absence/lack of awareness of legal and regulatory framework, and system security concerns (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) as drivers to the successful implementation of EDRMS in the Namibian public service, the issue of KS has not been fully investigated and well established.

Accordingly, this study sought to examine how knowledge is shared for the effective implementation of EDRMS in the Namibian public service. In doing this, the study may enable key beneficiaries such as policy makers, top-level management, records managers and archivists and ICT personnel to appreciate knowledge sharing in the implementation of EDRMS in the Namibian public service. This could enhance special mechanisms provision for knowledge sharing amongst stakeholders in Namibia, thus making the implementation of EDRMS in the Namibian public service a success.

1.4 Research questions

The main research question of this study is to find out the extent to which KS contributes to the successful implementation of EDRMS in the Namibian public service. The specific research questions are:

1.4.1 At which level is the implementation process of EDRMS in the three public sector O/M/As in Namibia?

1.4.2 What kind of knowledge sharing practices have been or are being experienced at the three selected public sector O/M/As of Namibia during the implementation of EDRMS?

1.4.3 How does the sharing or failure to share knowledge affect the implementation of EDRMS in the three selected public sector O/M/As of Namibia?

1.4.4 What type of knowledge needs to be shared in the three public sector O/M/As for the enhancement of the implementation of EDRMS?

1.4.5 What methods or strategies can be recommended on how staff members in the Namibian public service can share their knowledge to enrich the successful implementation of EDRMS?

1.5 Significance of the Study

Empirical literature (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) on EDRMS implementation in the Namibian public service confirmed that the system was not fully functional. This study contributes to the body of knowledge by confirming and adding factors attributed to the weaknesses of the implementation of EDRMS. Therefore, the significance of this study is that it can enlighten top-level management within the Namibian public service on developing structures and mechanisms which can accommodate the sharing of knowledge so as to make the implementation of EDRMS a success. Once these structures are in place, KS would be a norm in the Namibian public service. This would in-turn promote the effective and efficient implementation of EDRMS in terms of adoption/use and application.

1.6 Limitations

Due to the confidentiality of the Government of the Republic of Namibia's documents, some documents were not analysed in-depth in all of the three O/M/As. For this reason, the document analysis had to be supplemented with interviews and observational data. Furthermore, due to the fact that this study is entirely qualitative, the researcher was restricted to the opinions and views of the participants in the respective three O/M/As. To overcome this restriction from data proceeding from the interview, the opinions and views of the participants were verified through Observations and Document Reviews. Moreover, not all participants of the study were willing to review their interview responses for purposes of validity of responses. Thus, the researcher had to analyse the initial responses gained from some participants as valid due to the lack of time and interest from participants to verify their responses.

1.7 Delimitations

The study focused on O/M/As in the Namibian public service that were reported as having implemented the EDRMS. The study was not generalised to the entire Namibian public service given its focus on critical purposively selected, three public sector O/M/As. Similarly, the study included only officials in the three selected O/M/As whose functions were related to the implementation of EDRMS in their respective institutions.

1.8 Assumptions

The study was based on the following assumptions:

a. EDRMS have been implemented in the three selected O/M/As;

b. EDRMS was not actively adopted and used by officials in the three selected O/M/As; and

c. Knowledge Sharing amongst officials in the respective three O/M/As was not a prioritised activity during the implementation phases of EDRMS.

1.9 Definition of key terms

This section outlines the key terms that were used in this study.

1.9.1 EDRMS implementation

An EDRMS implementation involves processes and procedures used to configure, install, create, use, save and preserve digital and physically produced documents and records over a specified period of time (Kwatscha, 2010). There are nine stages that are involved in embedding the EDRMS in an institution's daily functions to manage and control digitally produced documents and records (National Archives of Australia, 2011). The nine stages of EDRMS according to the Queensland State Archives (2010) and the National Archives of Australia (2011), are as follows:

a. Business needs analysis;

b. Programme scope;

c. Senior sponsorship and clearly defined roles and responsibilities;

d. Right software product;

e. Project approach;

f. Stakeholder engagement and change management;

g. EDRMS policies, procedures, rules and requirements;

h. Training; and

i. Beyond implementation/ongoing maintenance.

1.9.2 Knowledge sharing

Knowledge sharing (KS) is a process which involves the exchange of experiences, thoughts, insights and information among individuals of an organisation, in an effort to create new organisational knowledge (Oskouei, 2013).

1.9.3 Change management

This includes various processes, procedures and activities of designing a plan on raising awareness, and engaging employees on new work procedures that may directly and/or indirectly affect previous work procedures (Queensland State Archives, 2010). Change management seeks to assist employees to take ownership and responsibility of a new change within an organisation (Karlos & Nengomasha, 2018).

1.9.4 SECI model

The SECI model is a theoretical framework proposed by Nonaka and Takeuchi on knowledge creation and transfer amongst individuals in an organisation, through four phases (Bolisani & Bratianu, 2018; Bratianu, 2010; Oskouei, 2013), namely:

a. Socialisation

b. Externalisation

c. Combination

d. Internalisation

These four phases of KS are discussed and applied in the nine phases of EDRMS implementation in Chapter Two.

1.9.5 Records management

Records management is the field of management that manages and controls the creation/receipt, use, maintenance and disposal of any records in any and every form/medium, that provides evidence of transpired activities/decisions within an organisation (ISO, 2016). This definition alludes to the management of records in any medium, whether digital or physical records, which makes records management the mother body of EDRMS.

1.9.6 Information and Communication Technologies (ICT)

Within the records management context, ICTs are networks, computers and tools that are used to create, store, disseminate and provide records so as to increase productivity and efficiency in institutions (Kalusopa, 2016). ICT tools are thus used to activate and run EDRMS in institutions.

1.9.7 Business classification schemes/File plans

This refers to an activity of classifying records according to the various activities performed by an institution (ISO, 2016). A business classification scheme is what is referred to as a file plan in the Namibian public service. It is usually a pre-requisite of EDRMS implementation in all O/M/As of the Namibian public service.

1.10 Organisation of the thesis

This thesis is outlined according to 6 different chapters:

Chapter One: This is the introductory chapter for the study. The main purpose of this chapter is to give an overview of the background and contextual information on the topic of knowledge sharing. The chapter ends with the ethical considerations that were used for the study.

Chapter Two: The theoretical framework and literature review is addressed in this chapter. The SECI model of knowledge sharing and/or transfer is discussed in correlation with the nine phases of EDRMS implementation. Additionally, the different ways on how to share knowledge in organisations, the benefits of KS, and the barriers to KS are discussed in this chapter. Finally, the empirical literature on EDRMS implementation is narrated in detail according to the research questions of this study.

Chapter Three: This is the chapter that addresses the methodological considerations in the collection and analysis of data for this particular study. The choice of the research paradigm and approach is discussed and compared in detail. This chapter also provides the justification as to why the qualitative approach was best fit for this study. Moreover, issues of target and study population are explained as well as the sampling procedures, data collection instruments and analysis methods. The chapter ends by justifying the ethical considerations in more detail.

Chapter Four: Data collected and analysed is presented in this chapter. This chapter does not interpret the data collected but focuses on simply presenting the data according to the themes derived from the data. This means that the data collected was analysed by identifying emerging themes coming out from the data itself and simply narrated.

Chapter Five: This is the chapter where the discussion and interpretation of the data occurs. This chapter interprets and discusses the data collected through interpretations and comparisons with the reviewed literature.

Chapter Six: This chapter is where the research questions of the study are accurately and concisely answered. This is also the concluding chapter of the entire study and it identifies areas for further study within the topic.

1.11 Summary

This chapter presented a background of the contemporary issues surrounding EDRMS implementation in the Namibian public service and around the globe. This prompted the study to conduct further investigations of knowledge sharing in the implementation processes of EDRMS. The justification of the study was stated through the spelling out of the problem statement and the specific research questions for this study. Additionally, the chapter explained how the study was limited and restricted to institutions that play a critical role in EDRMS implementation in the Namibian public service. Finally, the chapter ended with an outline of how the thesis is divided into five distinct chapters. The next chapter is on the theoretical framework that guides the thesis and the empirical literature review that informs the contemporary setting of the thesis.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theoretical framework and literature review on EDRMS implementation. First, it presents the theoretical framework adopted and its relevance to the study. Second, the conceptual and empirical literature that informs the study is presented.

2.2 Theoretical framework: The SECI model

A theoretical framework is a summary of clearly defined concepts and structures that have been developed, tested and published by experts in the field, and thus used to guide and develop future studies (Kivunja, 2018). The study adopted the SECI/Spiral model as advocated by Nonaka and Takeuchi (1995). The model is based on the sharing of tacit and explicit knowledge amongst individuals, in an attempt to transfer individual/group knowledge into organisational knowledge (Bratianu, 2010). It is the creation of new knowledge due to the interaction of explicit and tacit knowledge. The aim of this model is the creation of new knowledge that is to be used to benefit the organisation as a whole. Similarly, the study was aimed at investigating how the contribution of KS amongst individuals in organisations could lead to new EDRMS organisational knowledge that would positively impact the successful implementation of EDRMS in the Namibian public service. Nonaka (2007) proposed that organisational knowledge can be created through the processes of socialisation, externalisation, combination and internalisation. Through these processes, tacit knowledge is shared on an individual platform before it is converted into an explicit type of knowledge that is transferred from an individual to a group level, which eventually develops into new organisational knowledge (Farooq, 2018; Farnese, Barbieri, Chirumbolo, & Patriotta, 2019; Nonaka, 2007). Thus, when a group of individuals possesses explicit knowledge, it could easily be amplified into new organisational knowledge. Similarly, when ICT professionals share tacit knowledge on technical system functionalities, they could share and embed their tacit knowledge with records management officials. Through this, IT technical knowledge would be converted into explicit knowledge that can easily be shared to a group of individuals and eventually to an entire organisation.

Moreover, the epistemological and ontological dimensions of the SECI theory is one of the reasons that the model is often referred to as the Spiral Model. The epistemological dimension covers the process where tacit knowledge is identified, shared and transferred among individuals until it is converted into explicit knowledge (Bratianu, 2010; Farnese et al., 2019). The ontological dimension is the process where new explicit knowledge is tested, proven, combined and amplified through an organisation's knowledge base (Bratianu, 2010; Farnese et al., 2019). Thus, the two dimensions of the model are an illustration of how new organisational knowledge is created from an individual level and amplified to the group level, which matures to an organisational level. The four phases of the SECI model for knowledge creation reveal how knowledge is created through the epistemological and ontological dimensions.

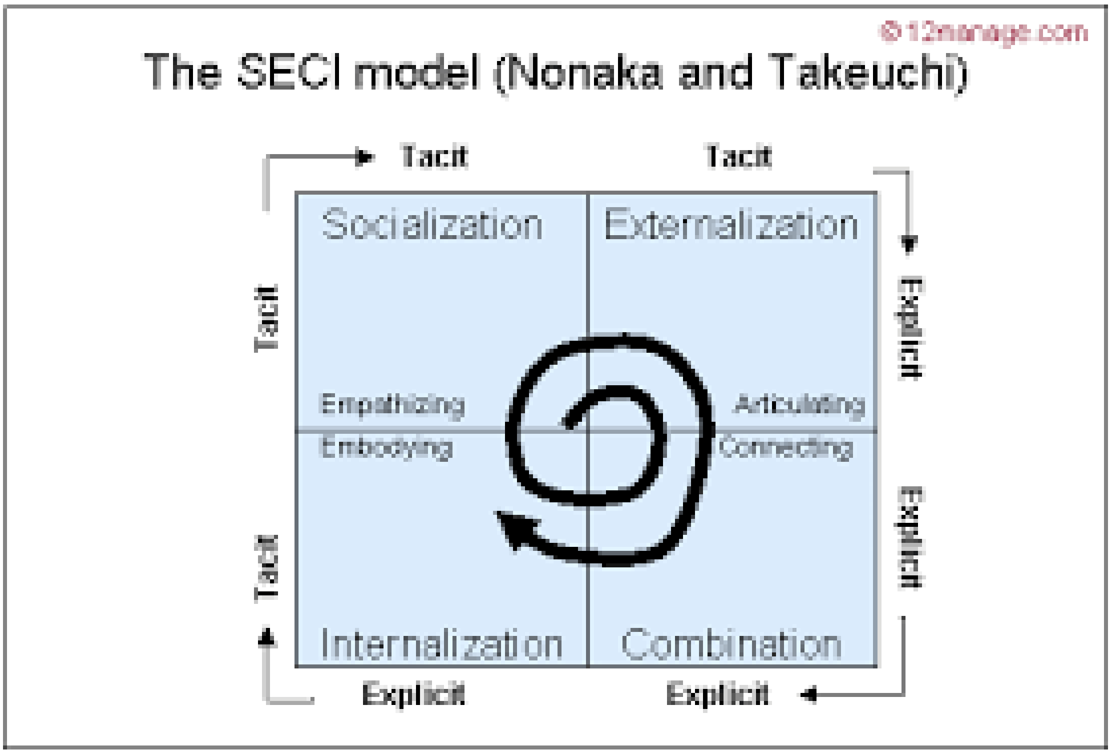

Figure 1: SECI/Spiral Model (Milovanović, 2006)

2.2.1 Socialisation

This is the first phase of the SECI/Spiral model. *Socialisation* is the phase at which *tacit knowledge* is shared and transferred from one individual to another (Nonaka, 2007). To give an analogy, an individual would observe another performing a task on the EDRMS, through step-by-step observation. The individual that is observing the performance of the task on the EDRMS would attain the *tacit knowledge* that is inhabited by the conductor of the task. This is the epistemological dimension where the spiral begins and the start of knowledge creation. As explained by Nonaka (2007), *tacit knowledge* resides in an individual's head and it cannot be expressed in words. It is usually shared among individuals through observing the skills and know-how of another. Clearly, the transfer of *tacit knowledge* from one individual to another would entail some form of social activity as implied in the first phase of this model.

The theory denotes that the effective sharing and transfer of *tacit knowledge* from one person to another underscores the demonstration of love, trust and empathy amongst the advocators. This is supported by Glisby and Holden (2003) who state that “individuals must fundamentally be willing to share and exchange knowledge internally in the organisation as well as externally with suppliers, customers and other stake-holders” (p. 30). To emphasise, employees would only be ‘willing’ to share their knowledge, especially *tacit knowledge*, if there is a relationship built on trust amongst them.

Furthermore, the process of *socialisation* can occur through formal/informal observation, imitations of practical work, networking amongst organisations and especially discussions amongst employees on every work activity to be performed (Andreeva & Ikhilchik, 2011; Farnese et al., 2019; Glisby & Holden, 2003; Mchombu & Mchombu, 2014; Nonaka, 2007; Song, Uhm & Yoon, 2011). Finally, for the process of *socialisation* to be effective, there should be a need for commitment towards organisational growth instead of individual competitiveness (Farnese et al., 2019; Glisby & Holden, 2003; Song et al., 2011).

2.2.2 Externalisation

It is vital to note that the aim of the SECI model is to create new knowledge in each of its four phases in an attempt to ultimately produce new organisational knowledge. Once *tacit knowledge* is shared and transferred among individuals through *socialisation*, it should be converted into *explicit knowledge* that can be easily communicated. Nonaka and Konno (1998) define explicit knowledge as that knowledge which can be communicated and transferred easily from one individual to another in the form of words and numbers, through manuals, formulae and even product/system specifications. This means that the *tacit knowledge* gained from an individual should be recorded or taken note of so that it can be shared and transferred to other individuals/groups in a concise manner.

The conversion of *tacit knowledge* into explicit knowledge is called *externalisation*. New *tacit knowledge* is first internalised through the sharing and transferring with individuals, before it is externalised so that the entire organisation can capture and implement it (Song et al., 2011). This process requires group commitment towards the ideas, values and beliefs that are being discussed/illustrated in order to note and document *tacit* into *explicit knowledge* (Andreeva & Ikhilchik, 2011; Nonaka & Konno, 1998). During the process of *externalisation*, the documented knowledge consists of unique, creative and innovative shared ideas and not the regular/familiar forms of external literature (Rice & Rice, 2002). The implication is that the knowledge gained and captured through externalisation is unique and brand new, which makes it effective and useful to perform the organisational functions like EDRMS implementation.

Additionally, the documentation produced from the process of *externalisation* needs to be contextual knowledge, otherwise it is merely information and not knowledge (Nonaka & Konno, 1998). Thus, new knowledge should be useful and effective to an organisation's functions and performance. Another study by Nonaka, Toyama and Konno (2007) introduced the concept of 'ba', which is a platform that creates and facilitates knowledge sharing and conversion thereof. Based on this, it is significant for an organisation to create activities during daily work routines that would provide opportunities to create, share and convert knowledge from one form to another. It is through these activities that an organisation's knowledge base would be increased.

2.2.3 Combination

At this stage of the SECI model, the explicit knowledge gained through the process of *externalisation* from the different groups in the organisation is *combined* (Nonaka & Konno, 1998; Song, et al., 2011). This is the phase where the new knowledge would be standardised and systematised in an organisation's knowledge base. Likewise, this is the phase where the ontological dimension of the Spiral model would begin as new knowledge is combined, tested and proven. According to Nonaka and Konno (1998), there are processes involved that would standardise the new knowledge in knowledge-based systems. Firstly, *explicit* knowledge is collected and gathered from the different groups either inside or outside the organisation. Secondly, the knowledge gained is communicated to all members of the organisation through formal/informal meetings, like business meetings and presentations. Finally, once this new knowledge is communicated, employees in the organisation discuss how this new knowledge can be embedded in existing organisational strategies. It is in this manner that knowledge is standardised and implemented in knowledge systems through reports, work plans, policies and procedural manuals/guidelines and even revamped organisational missions and values.

The challenge at this stage would be incorporating all knowledge collected from the various groups into the organisational knowledge system (Rice & Rice, 2002). It is therefore important to keep in mind that all knowledge gained from the various groups would be intuitive, creative and contextual; it is these elements which make such knowledge valuable and rich. It would be best to capture all the knowledge created in or outside the organisation, edit and process it, in order to standardise it. New knowledge created should never be discarded, but should be saved, even for future use and reference purposes, in order to strengthen and add value to the knowledge management cycle (Nonaka & Takeuchi, 1998 as cited in Lee & Kelkar, 2013).

2.2.4 Internalisation

Once employees in an organisation have gained access to *explicit* knowledge through the combination stage of the SECI model, this *explicit* knowledge is converted into *tacit knowledge* once again. Employees in an organisation internalise the new knowledge and turn it into habitual work routines, values and beliefs leading to personal experiences which are added to an individual's knowledge base (Lee & Kelkar, 2013; Rice & Rice, 2002). Additionally, the new *tacit knowledge* added to an individual's knowledge base creates and facilitates opportunities for *socialisation* on future work projects (Lee & Kelkar, 2013). Once employees have new tacit knowledge, they could similarly apply, use and share this new knowledge gained at new jobs or new tasks. This is what justifies the SECI model to be referred to as the *Spiral Model* of knowledge creation as the processes and dimensions of knowledge creation constantly intertwine.

Furthermore Nonaka (1994, as cited in Glisby & Holden (2003) highlights the rotation of employees in the organisation as a technique to facilitate the internalisation process. Once employees are 'learning by doing' various different tasks, they obtain *tacit knowledge* through experiences, values and beliefs of the organisation as a whole. Despite this good initiative, it keeps employees from specialising in a particular task as they are obligated to work in organisational sections that may not be their specialty (Glisby & Holden, 2003). However, the internalisation process would work best through the 'learning by doing' scheme introduced by Nonaka. To give an analogy, employees could familiarise themselves with documents like reports and/or procedural manuals that are created through the combination phase, while simultaneously applying what they are reading, and thus increasing their knowledge base through internalisation (Nonaka, Toyama & Konno, 2000). Consequently, the learning by doing scheme could be an organisational strategy that assists employees in the organisation to internalise new knowledge.

2.3 Relevance of theoretical framework to the study

Knowledge sharing is the main variable that was investigated in this study. Apart from the SECI model, the Theory of Reasoned Action (TRA), by Ajzen & Fishbein (1980), Theory of Planned Behaviour (TPB) by Ajzen (1999) and the Social Exchange Theory (SET) by Blau (1964) are commonly used as Knowledge Sharing theories (Akosile & Olatokun, 2020). These KS theories are focused on the factors which influence individuals' intention/desire to share knowledge, ultimately leading to the actual behaviour of sharing knowledge. Whereas the SECI model is focused on the processes of creating organisational knowledge from individual, group stage till it reaches the organisational level. Although the SECI model does not illustrate how employees reach the psychological intention of sharing knowledge, it depicts the process of how tacit and explicit knowledge in individuals can be used to create organisational knowledge. The study sought to investigate the contribution of KS towards the successful implementation of EDRMS in the Namibian public service. The four phases of SECI were used to indicate how knowledge can be shared during the EDRMS implementation phases from one individual and/or organisational department to another. This would ensure that new EDRMS organisational knowledge is created that would be accessible and used by each employee in an organisation. It is in this manner that the EDRMS implementation could be successful in the Namibian public sector O/M/As. Additionally, the four phases of the SECI model is what guided the interpretation and gave meaning to the research data. Similarly, this theoretical framework was used to assess the type and extent of KS that occurs in the three public sector institutions. It was through this investigation that the study made recommendations on how KS is to be embedded in the implementation of EDRMS within the three respective O/M/As. This is based on the SECI model that proposed that individuals share, transfer and document knowledge so that it is available to all individuals in an organisation (Farnese et al., 2019; Farooq, 2018).

2.4 Literature review

A literature review is a critical evaluation, analysis and summary of published information and a revelation on what has been studied on a particular research topic (University of Wolverhampton, 2018). Through the analysis of pre-existing information, gaps in literature are identified and pursued. The section below presents both a conceptual and empirical review of literature.

2.4.1 Conceptual literature review

As the term implies, the section below presents and gives an elaborate understanding on the concept of KS which is the focal concept of the study.

2.4.1.1 Understanding knowledge sharing

Knowledge sharing is defined by Tsui (2006) as an exchange of insights, information and experiences among individuals who play different roles in an organisation. The implication is that tacit and explicit knowledge can be shared within an organisation and this usually occurs with individuals and/or groups of varying disciplines. Camelo-Ordaz et al. (2011) (as cited in Rahman, Islam & Abdullah, 2017) further adds that knowledge sharing is the process of taking knowledge belonging to oneself and placing it out to the organisation for use. Through the latter definition of KS, the study is informed that KS should not be for self-enrichment but should be done for the organisation's overall benefit.

Another similar but insightful understanding on the concept of KS is presented by Rahman et al. (2017), who posit that KS is the sharing of know-how, know-who, skills and experiences and all types of knowledge that can be captured and documented. This implies that even records management plays a role in KS particularly with regards to the capturing, documenting and protecting of an organisation's information (Hase & Galt, 2010). Thus, it is critical for records management professionals to seek for ways to embed KS in organisational processes and practices particularly in EDRMS implementation.

Moreover, there are several ways in which tacit knowledge can be shared within organisational divisions. Tacit knowledge is mostly shared through employee interactions like informal meetings whereby informal communication is likely to take place (Balle, Steffen, Curado & Oliveira, 2019). Apart from these types of informal communication, Hase and Galt (2010) add that knowledge can be shared through employees' narrations on experiences, practices and know-how of certain tasks. The social activity that involves narratives and/or story telling could be an effective manner of sharing experiences, skills and insights on various subjects. Besides that, training also stands out as an efficient and effective method of tacit knowledge sharing. This is done through employees sharing and transferring knowledge with each other by observing the trainer performing certain functions (Nonaka, 2007). Equally, communities of practice (CoPs) are another technique in which tacit knowledge could be shared and transferred by observing a particular community's procedures of carrying out an activity (Mchombu & Mchombu, 2014; Nonaka, Toyama & Konno, 2000). Through this observation, the observers could take notes in order to transfer the tacit knowledge received into explicit knowledge. It is this explicit knowledge that can easily be communicated and transferred with other employees throughout an organisation (Nonaka, 2007).

Employees are more likely to share explicit knowledge through social networks, telephone conversations, electronic mails (emails), contractual documents and even technology-based systems and/or applications (Balle, et al., 2019; George, 2014; Mchombu 2007; Mchombu & Mchombu, 2014) such as EDRMS. Explicit knowledge mostly consists of details on know-what and procedures/processes of organisational functions and activities. Unlike tacit knowledge, explicit knowledge can be easily communicated and transferred verbally so that it can be documented and recorded. In this manner, explicit knowledge could easily be exposed to employees. Through this exposure to new explicit knowledge, the new knowledge is learnt and embedded in the employee's head. It is in this manner that the internalisation process of knowledge creation takes place, when tacit knowledge is gained through exposure to explicit knowledge (Nonaka, Toyama & Konno, 2000). There are many methods an organisation can explore to leverage existing knowledge that resides in its workforce. These methods and strategies need to be implored and effected so that the knowledge contained in employees' minds is used to achieve organisational competitive advantage (George, 2014).

Additionally, there are many benefits that KS would bring to an organisation, one of them is competitive advantage in the industry (George, 2014; Goswami & Agrawal, 2020; Rahman et al., 2017). A competitive advantage would be gained when employees in an organisation share innovative knowledge through ideas and solutions to problems.

This leads to new and improved organisational products and/or services to its clientele base. Likewise, when employees are involved in KS, the entire organisation continues developing and improving its own knowledge base, hence the creation of new organisational knowledge (Rahman et al., 2017). This would ensure that all employees know where and how to reach knowledge which is based in the organisation and that nobody is left in the unknown. It is through this awareness of knowledge in an organisation that employees would develop the sharing of a common goal and identifying themselves to the organisation that they work for (Goswami & Agrawal, 2020). When employees agree and work towards achieving the same goal, the end result would be fruitful as it builds the loyalty an employee has towards an organisation. This is due to the fact that employees would work as a team in achieving a particular goal/task, and thus share knowledge for the purpose of achieving that common goal (Bakker, Leenders, Gabbey, Kratzer, & Engelen, 2006; Mchombu & Mchombu, 2014).

Based on the above, it has become evident that KS is a vital factor that every organisation needs to adopt. There are certain organisational processes and procedures which can facilitate the sharing of knowledge in an organisation according to Lilleoere & Hansen (2011), Kumaraswamy & Chitale (2012), Ouakouak & Ouedraogo (2017) and Rahman et al. (2017).

These include but are not limited to:

a. Effective organisational commitment;

b. Effective organisational culture;

c. Positive organisational leadership and support;

d. Trust and employees' interpersonal relationships;

e. Decentralised organisational structure and closer employee proximity; and

f. Effective information and communication technology (ICT) infrastructure.

The section below presents and explains the different six elements that can promote and facilitate KS.

2.4.1.2 Effective organisational commitment

Rahman et al. (2017) define organisational commitment as that factor which expresses an individual's level of identification with an organisation's functions, activities and goals. Organisational commitment is focused on an individual's psychological connection and interest/attachment to the organisation they find themselves in. Ouakouak and Ouedraogo (2017), and Meyer and Allen (1991, as cited in Rahman et al., 2017) point out three types of organisational commitment:

a. **Affective commitment**: an employee's emotional attachment to the organisation. The employee would have the desire to work for and partake in an organisation's functions, activities and goals.

b. **Continuance commitment**: this kind of commitment is based on a weight of benefits and risks. Employees are reluctant to leave the organisation after weighing the costs/consequences involved if they were to leave a particular organisation. Therefore, employees with this type of commitment only remain in the organisation due to lack of better options if they were to leave.

c. **Normative commitment**: employees in this category of commitment feel more obligated to remain in the organisation due to some positive treatment/benefits they have received from the organisation. Thus, they have a mind-set of feeling obligated to remain with the organisation as a manner of showing gratitude to the organisation.

All these types of commitment are centred on an individual's mind set. When employees have positive desires in their mind set of remaining in the organisation, as it is with affective commitment, they would be more likely to share knowledge with other employees in the organisation (Lilleoere & Hansen, 2011; Mchombu 2007; Rahman et al., 2017; Rohman, Eliyana & Purwana, 2020). This implies that employees with affective commitment are 'in tune' with the purposes and goals of the organisation they serve.

2.4.1.3 Effective organisational culture

This term refers to the value system of an organisation that influences and directs the behaviour of employees in a particular direction (Kumaresan, 2016; Rahman et al., 2017). Organisational culture sets the tune on how employees would respond to a particular situation/change. The concept of organisational culture includes elements like mutual respect, a reward culture, trust, a culture of sharing knowledge, team orientation, stability, innovation and even aggressiveness (Rahman et al., 2017; Rohman et al., 2020). Since organisational culture is related to the influencing and developing of an individual's behaviour, it could be the key strategy to facilitate KS at every stage of the implementation of EDRMS. For instance, mutual understanding could be one of the key tools to assist employees in accepting and managing change which comes with EDRMS implementation. This could be done by influencing an employee's mindset by the use of performance rewards and recognition systems (Kumaraswamy & Chitale, 2012; Rohman et al., 2020; Wendling, Oliveira & Maçada, 2013). When employees are rewarded, given incentives and/or recognised in the organisation for sharing knowledge, they could be motivated to share more knowledge. Similarly, the rewarding system for sharing knowledge could influence more employees to share their knowledge through a factor in an organisation which is referred to as 'social influence' (Mosweu et al., 2017). This would develop a value system/culture of constantly sharing knowledge amongst employees (Razmerita, Kirchner & Nielsen, 2016). Thus, there is a need for management officials to actively seek strategies for influencing and directing employees' behaviour towards KS, for the achievement of organisational goals. Hence, Mchombu (2007), implies that a lack of knowledge sharing culture in organisations is what leads to the poor performance/success of organisational projects and functions.

2.4.1.4 Positive organisational leadership and support

Kanungo (as cited in Rahman et al., 2017) defines leadership as the exercising of social power over others in an organisation in order to achieve a particular objective. Organisational leadership can lead to the success or failure of organisational projects (Mchombu, 2007), as management officials are usually responsible for steering a project in a particular direction. The manner in which leaders in an organisation manage or steer organisational processes or activities would determine employees' reaction to a particular change. Transformational leadership has been found to be one of the most effective leadership styles in introducing change/new behaviour in an organisation (Rahman et al., 2017). This is because transformational leadership is aimed at attempting to fulfil the needs of the employees in an organisation in order to create conditions that would stimulate affective and normative commitment in employees' mind-sets (Rahman et al., 2017). As noted above, affective and normative commitment mind-sets in employees enhance and facilitate effective KS among employees. Similarly, leadership support in the form of time schedules and budget allocation for managing new changes would facilitate KS (Rahman et al., 2017). Employees in an organisation could be more inclined to share knowledge if time and venues were provided for/made available from management. Usually, when the initiative of KS comes from the top, employees are likely to follow suit.

2.4.1.5 Trust and employee interpersonal relationships

The concept of using rewards/gifts to recognise employees' excellent behaviour and/or actions plays a major role in developing trust (Kumaraswamy & Chitale, 2012; Lilleoere & Hansen, 2011; Razmerita et al., 2016; Rohman et al., 2020), through transformational leadership. Razmerita et al. (2016) define trust as the belief that another party will act/behave as expected instead of taking advantage of the situation. Trust is a critical element which is required for employees to share knowledge with each other (Ouakouak & Ouedraogo, 2019). Hence, the role of transformational leadership in steering employees to develop trust not only towards the leaders but also among themselves as co-workers. Employees are more likely to share and seek knowledge from those whom they trust (Lilleoere & Hansen, 2011; Ouakouak & Ouedraogo, 2019; Rohman et al., 2020). This proves that trust is a process and not an end objective of a product or service. Bakker et al. (2006) support the idea that trust should not be understood as a goal but as the means to effectively achieving a particular organisational goal. The more employees trust each other in an organisation, the higher the chances of KS.

2.4.1.6 Decentralised organisational structure and closer employee proximity

Nonaka and Takeuchi (1995) proffer that the combination of a formal and non-hierarchical, self-organising structure facilitates the effective and efficient sharing of knowledge. This refers to the decentralisation of formal functions within an organisation. When functions in an organisation are decentralised, more employees can be involved in the decision-making process that would affect the entire organisation. This would influence employees to contribute and share knowledge with others due to their inclusivity in organisational decisions (Rahman et al., 2017). The decentralisation of functions and activities in an organisation also brings together employees in closer proximity, ultimately leading to the sharing of tacit and explicit knowledge as there would be more socialisation taking place in decentralised sub-units (Lilleoere & Hanse, 2011; Rahman et al., 2017; Rohman et al., 2020). This kind of a decentralised, formal, and self-governing structure would develop a sense of affective and normative commitment in employees, and thereby lead to more knowledge sharing occurring at the workplace.

2.4.1.7 Effective information and communication technology (ICT) infrastructure

The sharing of existing knowledge in modern organisations is mostly facilitated through ICT platforms (Mchombu, 2007; Rahman, et al., 2017). As previously mentioned above, most if not all mechanisms of sharing knowledge are based on ICT platforms (Razmerita et al., 2016). Therefore, the levels of sharing knowledge are directly and/or indirectly affected by the ICT infrastructure in an organisation. This is because of the four main advantages of the properties of ICT in modernised organisations (Iilonga, 2012; Mchombu, 2007; Rahman et al., 2017), namely that:

a. It reduces hindrances;

b. Provides platforms for easy and fast access to information;

c. Corrects the information flow process; and most importantly,

d. It identifies the location of the knowledge holder and the knowledge seeker.

In this manner, ICT platforms have the capability of bringing together employees' knowledge in one place. For these reasons, ICT should be appreciated and adopted in organisations as a key driver of KS. Instead of avoiding ICT platforms due to the risks it poses, the benefits it brings to an organisation should be carefully considered and calculated in comparison to the risks posed.

It should be noted that some of the issues mentioned as enablers of KS could act as barriers of KS if not administered correctly (Lilleoere & Hansen, 2011). Some of the barriers of KS include:

a. Poor organisation absorptive capabilities;

b. Employees' social dilemma/Knowledge hoarding;

c. Lack of time for sharing knowledge with co-workers;

d. Poor organisational culture and fear of sharing knowledge;

e. Big organisational size and lesser employee proximity; and

f. Unskilled employees in ICT.

2.4.1.8 Poor organisational absorptive capability

This term refers to an organisation's ability to capture, use, share and recognise the value of the knowledge it possesses (Cohen & Levinthal, 1990 as cited by Wendling, et al., 2013; Lilleoere & Hansen, 2011). When an organisation does not recognise the value of knowledge in its employees, the management officials would not recognise the need to create conditions that would facilitate the sharing and the creation of new knowledge. Similarly, when employees lack the capacity to internalise new knowledge and put it to practice, there would be poor KS taking place (Lilleoere & Hansen, 2011; Rohman et al., 2020). One of the reasons could be that individuals in an organisation are not able to understand, use and share new knowledge with others throughout the organisation, hence the need for organisations to influence and develop learning capacity abilities in its employees.

2.4.1.9 Employees social dilemma/Knowledge hoarding

This is the condition whereby an individual employee's interests differ from those of the organisation. An organisation would have an interest and/or goal of encouraging employees to create and share knowledge with each other, while some employees would not share the same interest as they would rather keep their own knowledge to themselves (Lilleoere & Hanse, 2011; Razmerita et al., 2016). There are various reasons that influence employees to avoid participation in the sharing of knowledge. Some include the fear of knowledge being unacceptable and not understandable to fellow employees; the desire to remain valuable to the organisation in order to maintain job security and also the lack of interpersonal relationships among employees (Lekhawipat, Wei, & Lin, 2018; Razmerita et al., 2016; Rohman et al., 2020; Wendling et al., 2013). As these factors hinder KS, the organisation would be deprived of rich and valuable knowledge which resides in its employees.

2.4.1.10 Lack of time for sharing of knowledge with co-workers

Razmerita et al. (2016) acknowledge the issue of insufficient time to engage and share knowledge among employees. Sharing of knowledge would require the socialisation and collaboration of employees in an organisation which could be time consuming. Employees would be required to set aside their normal work duties in order to engage with other employees in the sharing of both tacit and explicit knowledge. The reality is that not all employees are able to set their official duties aside to interact and form interpersonal relationships with co-workers. This is because some employees are overloaded with work to the extent of being incapable to engage and share, absorb and create knowledge from and with fellow employees (Wendling et al., 2013). This creates a major barrier in the sharing of knowledge. The remedy to this barrier would be if an organisation’s leaders could create activities that would allow for a sufficient amount of time for the purpose of KS.

2.4.1.11 Poor organisational culture and fear of sharing knowledge

This refers to an organisation’s characteristics or traits that facilitate the decision of adopting KS (Lekhawipat et al., 2018). It is not always a fact that KS would naturally occur among employees; it could be a process that may need to be fostered through a decision from an organisation’s management. It is the organisation’s top-level management that will create or hinder employees’ motivation and willingness to share knowledge, through recognition and rewarding systems or lack of such thereof (Lekhawipat et al., 2018; Wendling et al., 2013). If an organisation’s management/leaders do not create strategies and decisions to facilitate KS, employees would most likely be hindered from sharing their knowledge. Other employees may even develop a sense of fear to share knowledge if it is not an already existent organisational practice (Rohman et al., 2020). Fear could arise due to the perceived thought that management may assume that employees are wasting time and not being productive. When employees have this fear, there would be minimal if any socialisation taking place in an organisation, hence the significance of top management support in facilitating KS.

2.4.1.12 Big organisational size and lesser employee proximity

The size of an organisation could determine whether it is an enabler or a barrier to the sharing of knowledge. Organisations that are bigger are less flexible and they are less likely to share knowledge than smaller organisations (Lekhawipat et al., 2018). Rahman et al. (2017) on the other hand, contrastingly imply that bigger organisations would enable more KS due to the decentralisation of certain functions. This can be regarded as a two-sided coin whereby bigger organisations could be enablers of KS due to decentralised sub-divisions and/or units. At the same time, bigger organisations can act as barriers due to less interpersonal relationships among employees as they would be too crowded (Lekhawipat et al., 2018). As previously mentioned above, personal relationships of trust are critical among employees as they influence and positively affect the development of professional trust (Ouakouak & Ouedraogo, 2019) and relationships among employees. In order for KS to be effective, there should be relationships of trust, patience and mutual understanding among employees (Wendling et al., 2013). Since building trust, patience and understanding takes time and would involve employees' close proximity, such interpersonal relationships would be more likely to occur in organisations of a smaller staff size than bigger sized organisations. As such, the issue of organisational size is a probable barrier to the sharing of knowledge.

2.4.1.13 Unskilled employees in ICT

ICTs can also be a barrier to KS as those employees that lack the skills to use technology-based platforms could be unwilling to communicate on technology-based applications (Lekhawipat et al., 2018). In this manner, KS would involve some employees restricting others as some employees would be left out. Mchombu (2007) highlights that KS needs to involve an entire group of people in an organisation through the use of multiple methods so that all knowledge in an organisation is captured. Therefore, organisations should find strategies to ensure that all its employees are involved in KS, whether it is through narratives, multiple language translations, social networks or even informal meeting places (Lilleoere & Hanse, 2011; Rohman et al., 2020). Another way that ICTs can be a barrier is through incompatible system functionalities that can facilitate the sharing of knowledge (Lekhawipat et al., 2018). There could be some explicit knowledge on legacy systems in the organisation that may not be compatible with modern technological software and hardware. This would be a barrier to KS as important organisational knowledge would be at a risk of loss due to incompatibility issues.

As seen above, KS is focused on bringing together employees in and outside organisations for the purpose of knowledge exchange and knowledge gain. It was similarly revealed that KS is conducted for the overall success and advantage of organisational projects and products. Therefore, the EDRMS implementation could be successful in organisations if staff members from diverse professions deliberately shared knowledge at every phase of the implementation process. This would ensure that every staff member in an organisation is constantly aware and understands EDRMS during each phase of the implementation processes. In this way, problems such as poor management and end-user buy-in of EDRMS adoption, change management and perceived technical difficulties of computerised applications could be solved. If all employees shared knowledge effectively in an organisation, all employees would feel a sense of ownership and obligation to the successful implementation of EDRMS in their respective organisations. Based on this, leaders in an organisation have the responsibility of facilitating and promoting KS throughout the organisation, especially during the implementation of organisational projects such as EDRMS.

2.4.2 Empirical literature review on KS and implementation of EDRMS

The section below considers previous empirical literature and documents on KS and the implementation of EDRMS. The literature review which follows is discussed according to the five respective research questions of this study and thematically presented as follows:

a. Level of EDRMS implementation processes;

b. Knowledge sharing practices during the implementation of EDRMS;

c. Impact of sharing or not sharing of knowledge on the implementation of EDRMS;

d. The type of knowledge that needs to be shared for the enhancement of the implementation of EDRMS; and

e. Methods or strategies to enrich the successful implementation of EDRMS.

2.4.2.1 Level of EDRMS implementation processes

As previously stated in Chapter One, the implementation of EDRMS involves nine phases. The phases may differ in naming conventions according to different organisations and different authors. Despite the differences in naming conventions, the functions performed in each phase remain consistent. The EDRMS implementation phases discussed below were obtained from the National Archives of Australia (2011) and the Queensland State Archives (2010). As far as this researcher is aware, there is no empirical literature in Namibia which spells out how KS phases as per the SECI model can be embedded in each of the EDRMS implementation phases. Thus, this section integrates the KS phases of the SECI model along with the EDRMS implementation phases, and in this manner, contributing to the body of knowledge on KS and EDRMS implementation. The nine phases of EDRMS Implementation are:

a. Identification of business needs and benefits of the EDRMS for the organisation;

b. Design of EDRMS project/programme scope of the implementation process;

c. Senior sponsorship for EDRMS activities and clearly defined roles and responsibilities;

d. Review and selection of the right software product;

e. Review and selection of EDRMS project approach;

f. Stakeholder engagement and change management strategies for employees;

g. Design of EDRMS policies, procedures, rules and requirements;

h. Training of employees on EDRMS functionalities; and

i. Beyond implementation/Ongoing maintenance of EDRMS

a. Identification of business needs and benefits of the EDRMS for the organisation

Before an organisation procures a system, it should draw up a business plan (National Archives of Australia, 2011). The business plan would assist an organisation to outline all the functions and activities it performs. The Queensland State Archives (2010) supports this by explaining that a business case outlines the needs and draws up objectives to fulfil those identified business needs. When these needs are clearly spelt out and outlined, the organisation will be in a better place to decide which EDRMS software would best fulfil those needs. In other words, a prospective EDRMS will be analysed according to the current and future measurable benefits it would likely bring to an organisation's needs (National Archives of Australia, 2011; Queensland State Archives, 2010).

During this step of implementation, the *combination* process of KS would take precedence. This means that the *explicit knowledge* of different individuals from different divisions in the organisation are shared (Nonaka, 2007). The different forms of explicit knowledge from the different divisions within an organisation could outline the organisation's comprehensive needs and the benefits it requires from the fulfilment of those needs. The sharing and combining of this *explicit knowledge* will ensure that the business case is inclusive and beneficial to all functions instead of a single function within an organisation, thus, maximising the chances of the business case being approved by top management officials.

b. Design of EDRMS project/programme scope of the implementation process

At this phase, the organisation's business functions and activities, time schedules, the needed resources and the budget allocation will need to be clearly spelt out to the entire organisation (Queensland State Archives, 2010). Some organisations integrate this phase with the first phase of drawing up a business plan/business case presentation. However, the project scope unlike the business plan controls the activities involved, the time involved, the budget allocation, migration issues and the security aspects of the EDRMS implementation process (Queensland State Archives, 2010). Thus, the Business Case and the EDRMS project scope are two different activities in the implementation process and they should be treated as such in an organisation. One might say this phase would be what is referred to as the Work Plan of organisational activities within the Namibian public sector perspective. This however, would be a work plan for the implementation of EDRMS. Another item which will need to be in the scope of the EDRMS implementation programme is the how and when the new system will be tested, reviewed and evaluated (Queensland State Archives, 2010). This gives a time schedule on the implementation project to ensure that the project is monitored and that the implementation process is efficient and effective to an organisation's needs.

This step of EDRMS implementation speaks to the process of *externalisation* where *tacit knowledge* would be shared between individuals and/or groups, so that it is converted to *explicit knowledge* among the individuals in the group/organisation. Once individuals share experiences and insights regarding time scheduling, budget allocations, how to migrate and integrate systems, and business functions, it is a display of how individuals' *tacit knowledge* can be converted into group *explicit knowledge*. The process of collecting information on the functions of different divisions within the organisation will require the sharing/transferring of tacit to explicit knowledge. The insights, brainstorming and experience of different individuals and groups across the divisions of an organisation could play a big role in effective and efficient planning. While the first phase is about obtaining management buy-in for EDRMS implementation, this phase is centred on planning the execution of the EDRMS in an organisation.

c. Senior sponsorship and clearly defined roles and responsibilities

For any project to be successful in an organisation, it is critical to attain the support of the top-level management of an organisation. This could be the Managing Director/Chief Executive Officer or the Executive Director (ED), as referred to in the Namibian public service. The Executive Director should be the official that will be leading, controlling, steering and sponsoring the entire implementation process (Queensland State Archives, 2010). Therefore, there is a need to draw up and present a good business case according to the organisation's needs. If management officials understand the organisational needs and the measurable benefits of an EDRMS to fulfil those needs, management buy-in could be easily attained (Hase & Galt, 2010). The National Archives of Australia (2011) titled this phase resource commitment due to the need for a consistent supply of time, capital, equipment and even human resources. Likewise, the Queensland State Archives (2010) shares the same sentiment by adding that there should be a multi-disciplinary project team during the implementation of EDRMS. The multi-disciplinary project team would share knowledge, experiences and insights and skills in an effort to maintain management buy-in that would direct and complete the implementation project. It is thus vital to have clearly defined roles and responsibilities for every member of the project team (Queensland State Archives, 2010).

In order to attain management buy-in for a certain product/system, there should be mutual understanding of the organisation's functions, needs and the benefits the new system would bring. This involves the sharing and collecting of *explicit knowledge* from different areas of the organisation to ensure that the business case is comprehensive. The act of sharing this *explicit knowledge* with management officials would create a somewhat *tacit knowledge* within their minds. This is the *internalisation* phase of KS from the SECI model. Management officials would usually have little knowledge on all aspects of their organisation, and as such, the business case presentation would give them more insights and knowledge on all frontiers of the organisation. Thus, there is a need for a multi-disciplinary team as proposed by the Queensland State Archives (2010). It would not only be management officials benefitting from new *tacit knowledge* but also individuals from the multi-disciplinary project team (Queensland State Archives, 2010). The new *tacit knowledge* acquired in individuals' minds would build new insights and experiences regarding a different discipline of study/profession, that they could apply in their own respective disciplines. Similarly, the National Archives of Australia (2011) notes that EDRMS is about the implementation of a software to be used by all employees in an organisation. Therefore, it is not just a project for the IT staff but also requires the need for new and improved records management practices.

d. Review and selection of the right software product

The process of selecting the right software product for the organisation is strongly dependant on the functionalities and needs of an organisation, and the benefits the organisation desires from the EDRMS. Likewise, due to the fact that an EDRMS combines the functionalities of document management and records management, the product should be critically evaluated according to its strengths in either records or document management (Queensland State Archives, 2010). At this stage, factors like costs of ownership which includes maintenance, the compatibility of a system and the ability of an EDRMS to migrate/import/export information from other organisational systems should be considered (National Archives of Australia, 2011; Queensland State Archives, 2010). It is at this phase where records management officials and ICT officials will need to work in close collaboration in order to ensure that the right EDRMS is procured from a records management perspective and the informational technological perspective. In this manner, the right software product will be selected based on the organisation's functions, the expertise and knowledge of records management officials on information and records management, and the expertise and technical knowledge of ICT officials.

The best strategy for the project team to document the comprehensive functions of an organisation is through the *combination* stage of *explicit knowledge sharing*. This is conducted through consultations with representatives from all divisions in an organisation. These consultations involve the sharing of *explicit knowledge* amongst the different areas of disciplines. Officials from the finance department will need to be in consultation with vendors so as to share and gain *explicit knowledge* for budgeting on costs of ownership, and information management officials will need to share their *explicit knowledge* on records and document management functionalities. Similarly, ICT officials will need to share their knowledge explicitly on the technical requirements for a software that will benefit all facets of an organisation instead of just one area/function.

e. Review and selection of EDRMS project approach

The project management team/multi-disciplinary team that was mentioned above would usually be directed and controlled by a project methodology/project approach of the organisation's choice in the implementation of a software product. The project methodology determines, directs and controls the activities involved in the implementation and roll-out of a new system (Mutimba, 2014; Queensland State Archives, 2010). The determination of which approach to follow is largely based on the functions of a particular organisation and its needs and requirements. If the organisation needs to improve its records management procedures, it could apply the Design and Implementation of Records Keeping Systems (DIRKS) project methodology for example (Queensland State Archives 2010).

The *combination* stage of KS would take precedence at this phase of the EDRMS implementation. The representatives from the multi-disciplinary project team would need to outline their functions and combine them explicitly in order to find gaps/organisational areas that need improvement. This would determine the best methodology for the entire organisation. This combination of *explicit knowledge* from the different departments gives direction on the strategy that the organisation would need in implementing the EDRMS.

f. Stakeholder engagement and change management strategies

It is essential for a communication plan to be drawn up that will identify whom the stakeholders in the organisation are, how the stakeholders can use the EDRMS and the communication channels from stakeholders in terms of enquiries and KS (Queensland State Archives, 2010). Stakeholders need to be engaged on a regular basis if the EDRMS implementation is going to be a success. Stakeholders would be those individuals/groups that would be directly/indirectly affected by the implementation of EDRMS in an organisation or institution (Queensland State Archives, 2010). These could include the employees of an organisation, the organisation's clientele, the vendors/suppliers of the software product selected and the management officials in an organisation. Due to the fact that the implementation of EDRMS would lead to change of processes/systems in conducting daily functions, a change management strategy should be in place (National Archives of Australia, 2011; Queensland State Archives, 2010). The stakeholders of an organisation would need to trust the EDRMS in order to accept and make use of it. This can be done through knowledge of the processes involved in using the EDRMS. This is what stakeholder engagement and change management is focused on.

The process of engaging stakeholders on the usage and functionalities of the new system focuses on the 'how' question. This would involve the sharing and transferring of *tacit knowledge* from one individual/group to another through demonstrations and explanations, which constitutes the phase of *socialisation*. Users of the system may need to be engaged on matters like filing of records on the system which would require records management professionals to share and transfer their *tacit knowledge* through trainings and demonstrations. Similarly, vendors may need to share and transfer their *tacit knowledge* on EDRMS functionalities/enhancements to IT officials through observations and explanations in order for the IT officials to gain the know-how on EDRMS functionalities. The National Archives of Australia (2011) supports this by stating that an effective change management strategy is all about the sharing and transferring of knowledge amongst stakeholders. Once an organisation's stakeholders have sufficient knowledge on a new change, a sense of ownership, trust and responsibility towards the EDRMS would eventually develop (National Archives of Australia, 2011).

g. Design of EDRMS policies, procedures, rules and requirements

There should be clear policies and procedures that will guide users on the usage of the EDRMS. Procedural manuals and/or user guides should be handed out to end-users in order to guide them on system usage (Queensland State Archives, 2010). For instance, guidance on processes like how to file emails with attachments and how to handle paper records that are generated internally and externally. Rules and requirements of records management standards should also be in place to ensure that end-users know what is expected of them for their records management responsibilities (ISO, 2016). At this stage, issues like access control, the disposal of paper files, creating and managing both electronic and paper records will need to be addressed in documents like policies during the implementation of an EDRMS (National Archives of Australia, 2011). This phase of the implementation process is not there to control the people, but to control, direct and improve processes. Furthermore, it is critical to note that EDRMS implementation will not solve the information management problem in an organisation (National Archives of Australia, 2011). Therefore, records and information management should be up to par if the organisation is to cope with it on an electronic platform.

This phase would include the sharing and embedding of *explicit knowledge* in users' heads. When there are policies and clearly defined rules and procedures, users would study and familiarise themselves with this documentation so that they can perform functions on the EDRMS independently. This process is called the *internalisation* stage of knowledge creation according to the SECI model. The end-users of the EDRMS will have the responsibility of carrying out record management activities. Therefore, it is essential that they gain *tacit knowledge* on records management by studying and paying attention to explicitly prepared policies and procedural manuals.

h. Training of Employees on EDRMS functionalities

This is a critical phase of EDRMS implementation as it would most likely engage end-users actively on the new change. A training plan should be compiled which will seek to identify and understand different training needs for different end-users (Queensland State Archives, 2010; National Archives of Australia, 2011). Not all users would have the same level of skills and know-how with regards to daily system usage, hence the need to ensure that users are trained according to their unique needs. There should also be an outlined strategy on how different types of training will be offered to different groups, whether it is in group sessions, informal individual consultations and/or workshops (Queensland State Archives, 2010; National Archives of Australia, 2011). Similarly, since EDRMS will require all users to undertake certain records management responsibilities, users and even IT technical staff will need to be trained on basic records management practices. For instance, knowledge on what constitutes a record, linking of records and naming conventions with regards to saving documents on the EDRMS could be taught and demonstrated to end users. Likewise, records professionals and end-users will need to be trained on EDRMS ICT technical issues (National Archives of Australia, 2011; Queensland State Archives, 2010). Training would need to be an ongoing continual process to ensure that all users fully understand and engage the EDRMS.

The process of training would require *tacit knowledge* being shared and transferred among individuals/groups through the process of *socialisation*. This usually involves one person/group performing a certain task while another is observing, until the observer gets the chance to try and perform a task on their own. This could be training on basic computer skills, networking and enhancing software functionalities and even basic records management practices. It is critical for all employees in the organisation to gain *tacit knowledge* through training on EDRMS usage in all its facets.

i. Beyond implementation/ongoing maintenance of EDRMS

As the title infers, this stage deals with how the EDRMS will be tested, reviewed, evaluated and maintained. During EDRMS use, there could be need for enhancing the system to perform new functions (Queensland State Archives, 2010). This phase exists to ensure that the EDRMS is improved, upgraded and maintained in order to remain useful and relevant to the organisation's functions. Quality assurance strategies will be essential in order to ensure that the EDRMS is continually performing as it should, and to determine when software products may need to be updated (National Archives of Australia, 2011; Queensland State Archives, 2010). The stage also involves the project management team that would be responsible for ensuring that training needs of stakeholders are met and that new employees are inducted on EDRMS usage (National Archives of Australia, 2011). Therefore, EDRMS implementation does not necessarily stop as it is an ongoing continual process.

During this phase, *tacit knowledge* gained may need to be shared and transferred to *explicit knowledge* through the process of *externalisation*. A user may find that the system is lacking in a particular job function/process, and this knowledge could be transferred explicitly to IT officials that will look for software updates that may be required. A new employee being inducted may need to share and transfer his/her *tacit knowledge* to *explicit knowledge* so that training needs may be clearly identified and fulfilled.

Thus, it is evident that at every stage of the implementation process, knowledge could be shared from one individual/group to another. The introduction of a new system requires new knowledge to be created, and it is one of the best ways to ensure the effectiveness and efficiency of EDRMS implementation and active adoption by all users.

2.4.2.2 Knowledge sharing practices during the implementation of EDRMS

As previously noted, as far as this researcher is aware, there is a dearth of empirical literature on KS in the context of EDRMS implementation, both locally and globally. This proves that there is a gap in literature on the kind of KS practices performed during the implementation of EDRMS. However, world-wide studies (Ambira, 2016; Asogwa, 2012; Aziz, Mokhtar & Yusof, 2018; Hawash, Mokhtar, Yusof & Mukred, 2020; Kalusopa, 2016; Madden, 2016; Mosweu et al., 2017; Mutimba, 2014; Yin, 2014), on EDRMS implementation have highlighted issues of negative social influence, lack of policies and regulations, insufficient training, poor ICT skills, lack of change management plans and lack of file plans as having led to the ineffective and overall unsuccessful implementation of EDRMS. All of the factors listed above would imply the lack and/or poor knowledge sharing practices performed during EDRMS implementation phases. This is confirmed by Yin (2014) who argues on the need for an effective record sharing culture in an organisation as a prerequisite of EDRMS implementation. The study thus infers the need for an organisational culture that promotes KS amongst employees, especially between records management and IT personnel. If there is little to no KS practices between IT personnel and records management officials, EDRMS implementation is likely to fail, as was confirmed by the findings of Kalusopa (2016).

Moreover, it is critical to note that the sharing of knowledge entails and is centred on effective communication among staff members. To be specific and present illustrations, Nguyen, Swatman, Fraunholz and Salzman (2009) mention that raising awareness on records keeping practices through trainings and effective change management plans leads to the effective and efficient adoption of EDRMS. Through trainings and awareness campaigns, end users are approached in an effort to help them to understand and eventually accept a change that would directly/indirectly affect work procedures.

Kwatscha (2010) confirms that an effective change management plan involves good communication strategies that should be in place. Additionally, Kwatscha (2010) draws attention to the fact that a comprehensive business case presentation to management officials in an organisation would benefit and play a vital role in EDRMS understanding and acceptance. All these factors highlighted above were findings and recommendations that implied the need for KS during EDRMS implementation, among others. Despite these implications, an in-depth study on the role and contribution of KS towards the successful implementation of EDRMS has not been conducted, hence, the need and significance of this study.

Some studies (such as Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) in the Namibian perspective, did not drift away from the findings of global studies that were formerly presented. Factors related to KS such as poor user needs analysis, lack of user involvement, insufficient training on records management and poor change management strategies were identified as having impeded the implementation of EDRMS (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018). The results from these studies give an implication that a KS culture should be in existence within an organisation before EDRMS is implemented. In the absence of a KS culture, organisations would have poor users buy-in which are affected by an inadequate understanding of records management and insufficient trainings as found by Karlos and Nengomasha (2018). Ultimately, users would be prone to resistance to change. If users do not have sufficient knowledge on a new working system and the procedure they have to adopt, they would most likely be reluctant towards it.

It is clear that empirical literature (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018) on EDRMS implementation in the Namibian public service, did not fully investigate KS activities during the EDRMS implementation phases. Based on the factors mentioned above as having impeded the successful implementation of EDRMS, this study fills the gap in literature by investigating in-depth how KS could contribute to the successful implementation of EDRMS.

2.4.2.3 Impact of sharing or not sharing of knowledge during the implementation of EDRMS

The sub-section above has shown how EDRMS empirical literature implied, though indirectly, the need for KS in the implementation of EDRMS to ensure its success. Due to a lack of KS during the implementation of EDRMS, the implementation project is most likely prone to failure. This is confirmed by Asogwa (2012) who explained that if records management officials are excluded in project management teams, the organisational projects are likely to suffer due to lack of knowledge on records management responsibilities. Apart from knowledge in records management activities, EDRMS implementation fails due to lack of ICT skills, insufficient training, poor change management strategies, lack of procedural manuals, reluctance to change and anxiety relating to the use of the EDRMS/fear of computers (Ambira, 2016; Asogwa, 2012; Kalusopa, 2016; Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Kwatscha, 2010; Madden, 2016; Mosweu et al., 2017; Mutimba, 2014; Nengomasha & Chikomba, 2018; Yin, 2014). If KS practices were involved to equip employees with the necessary understanding and skills prior to the implementation process, EDRMS implementation could be a success. Although this has not been investigated yet prior to this study, Yin (2014) has acknowledged that the key to the success of EDRMS implementation is in an information/record sharing culture within an organisation. Thus, the present study investigated the effects and overall contribution of KS in the implementation of EDRMS.

Furthermore, it is critical to note that when users of a system are uncomfortable and resistant, it could be an indication of a lack of KS, hence, there is a need to accurately identify and analyse users' needs. This could be done through users' inclusion from the beginning of the implementation process and in the procurement of the right software product for an EDRMS. Kwatscha (2010) similarly highlighted the need for a well-structured, measurable and comprehensive business case to be compiled and presented before investing in a specific software product. It is this business case which would ensure that all users' needs are identified and that all employees are included in the implementation process of EDRMS.

Based on the above, it is evident that there was no study as per the present researcher's knowledge, which explicitly cited the lack of KS as a factor which impedes the implementation of EDRMS. However, most if not all the factors that have been cited to affect the implementation of EDRMS imply and are correlated to the lack of KS in organisations. Thus, it is safe to say that the lack of KS has a negative impact on EDRMS implementation, whereas, when KS is active in an organisation, EDRMS could be sure to succeed.

2.4.2.4 Types of knowledge that needs to be shared for the enhancement of the implementation of EDRMS

Based on the factors that impede EDRMS implementation mentioned above, it is indicative that technical know-how on EDRMS use is critically needed (Madden, 2016; Mutimba, 2014; Yin, 2014). Similarly, apart from the lack of know-how on EDRMS usage, some users also lack knowledge on using computers and information technology applications in general (Asogwa, 2012; Kalusopa, 2011; Karlos & Nengomasha, 2018; Mosweu et al., 2017). Thus, effective communication channels and strategies need to be in place in order to address the lack of knowledge and skills of employees prior to EDRMS implementation. Empirical literature (Kwatscha, 2010; Mutimba 2014; Yin, 2014) on EDRMS implementation has proven that a poor user buy-in was a result of poor communication among employees. Efforts to determine and fulfil users' needs at the beginning of the implementation process were most likely not effectively conducted. When users are not involved from the inception of the implementation process, they would be reluctant to use and adopt the EDRMS. This would be due to the limited knowledge that employees possess regarding not only the EDRMS functionalities, but even lack of knowledge on the definition/identification of a record (Karlos & Nengomasha, 2018). Mutimba (2014) and Kaupa and Chisa (2020) agree with the aforementioned by similarly reporting that EDRMS was not successful because users were not aware of the regulatory frameworks and policies that guided records management.

Moreover, poor change management strategies lead to the failure of EDRMS implementation (Karlos & Nengomasha, 2018). Again, this is an indication of poor KS in terms of lack of awareness campaigns on the new change. Kwatscha (2010) highlighted that the key tool to an effective change management strategy is KS on issues and concerns that arise among employees and stakeholders of an organisation. This proves the current researcher's stand-point that users will be reluctant to change if they have limited knowledge on the new change, in this case, the implementation of an EDRMS in organisations.

2.4.2.5 Methods or strategies to enrich the successful implementation of EDRMS

There are many different methods an institution can embark on to ensure that employees share knowledge with each other. Communities of practice (CoPs) have been proven as an effective and efficient strategy to share knowledge, mostly tacit knowledge (Jeon, Kim & Koh, 2011; Jørgensen, Edwards, Scarso & Ipsen, 2020). Through CoPs, different individuals could share personal experiences/insights on the activities and functionalities of the EDRMS. CoPs has been defined by Jeon et al. (2011) as a collaborative tool that allows individuals to voluntarily share tacit and explicit knowledge. The fact that KS is done on a voluntary basis, individuals and/or groups would willingly share individual experiences/insights/information and simultaneously seek to acquire new knowledge on the operations of the EDRMS. CoPs could be categorised as a form of mentorship whereby a trainee would spend significant time with a trainer to gain tacit knowledge from the practice of another (Jeon et al., 2011; Mchombu & Mchombu, 2014). Jørgensen et al. (2020) further clarify that CoPs are more than just a form of mentorship, but a manner in which certain groups of individuals think together on the most effective and efficient method of performing a task. Employees could share and gain know-how of using an EDRMS and ICT skills through CoPs by deliberating on the best strategy to adopt in performing a task on the EDRMS. Furthermore, it is of vital importance to highlight that CoPs are not limited to the sharing of tacit knowledge. CoPs are mostly conducted through meetings and face to face discussions (Jørgensen et al., 2020; Leith, 2019). In this manner, there is a transfer of knowledge from tacit to explicit knowledge if minutes of discussions and meetings are to be recorded and captured. The importance of recording and capturing minutes would be that new knowledge gained through CoPs, would be documented and made available not only to the individuals that were involved at the time, but to the entire organisation at large. Thus, new organisational knowledge would be created to benefit the entire organisation and not just a group of individuals.

Additionally, Mchombu and Mchombu (2014) also highlighted the importance of mentorship as an effective method for KS. The benefit of CoPs and one-on-one mentorship is that it improves existent work practices and facilitates collaboration amongst different individuals, which leads to the sharing and creation of *tacit knowledge* (Jeon et al., 2011; Jørgensen et al., 2020; Mchombu & Mchombu, 2014; Kumaraswamy & Chitale, 2012). In a lay-man's terms, CoPs and mentorships would constitute the *socialisation* process of knowledge sharing and knowledge creation among individuals in organisations. Although CoPs and mentorships seem similar, the difference between the two is that CoPs could occur with individuals from a similar discipline/profession. Whereas, mentorships could be widespread to gathering and sharing knowledge with individuals of the same profession as well as those of another entirely different profession or discipline. This is why both CoPs and mentorships could be best suited for sharing knowledge on EDRMS implementation and usage. While CoPs could constitute records management officials' and action officers' sharing of knowledge, mentorships could consist of ICT employees and records management officials' knowledge sharing practices.

Another method to ensure that employees in an organisation share knowledge is through the rewards and incentive system as a strategy to motivate employees to share knowledge within the organisation (Farooq, 2018; Kumaraswamy & Chitale, 2012; Razmerita et al., 2016). The use of rewards and incentives plays a role of motivating employees to perform a particular task in order to gain a particular perceived individual benefit. Razmerita et al. (2016) further elaborate that when employees perceive that the benefit/reward of sharing knowledge is higher than their effort or perceived cost involved to share knowledge, KS would occur more regularly in an organisation. If employees are recognised by their efforts to share knowledge at the organisations that they serve, other employees could be motivated to share knowledge in order to attain the same recognition. This is what Mosweu et al. (2017) refer to as social influence among employees in an organisation.

Hence, the factor of social influence that was mentioned above as a key factor towards the successful implementation of EDRMS.

Moreover, although most employees tend to shy away from ICTs due to lack of skills and computer anxieties as noted above, ICTs have still been recognised and highlighted as an efficient and effective tool for facilitating collaborative KS among employees (Ahmad & Karim, 2019; Farooq, 2018; Kumaraswamy et al., 2012; Mchombu & Mchombu, 2014; Mchombu, 2007). This is especially in times of the COVID-19 pandemic that the world is currently facing, ICT tools need to be embraced and adopted as the safest method to share knowledge with others in and outside of the organisation. ICT tools involve practices such as video-conferencing, telephonic conversations, electronic mails (emails), online discussion forums and instant messaging applications (Kumaraswamy et al., 2012; Mchombu & Mchombu, 2014; Mchombu, 2007). Some of these tools are common in everyday life as they are used in the conduct of an individual's daily life, such as telephonic conversations and instant messaging applications. In order to enhance organisational functions such as EDRMS and create new knowledge, these ICT tools would need to 'jump the bridge' from being used as personal communication tools to organisational communication tools. The only disadvantage for an organisation is that knowledge shared through ICT based platforms would mostly be *explicit knowledge* as *tacit knowledge* cannot be easily coded into words and explanations (Farooq, 2018).

In the final analysis, Mchombu and Mchombu (2014) have added other methods that can be used to facilitate KS in organisations such as workshops, study tours, expert visitations, conferences, knowledge fairs and organisational twinning. Knowledge fairs allow individuals/organisations to learn and share experiences with one another (Mchombu & Mchombu, 2014). This could be perceived as another strategy of CoPs/Mentorships which was discussed above. Similarly, organisational twinning is not so far away from being a form of CoP. Organisational twinning involves the collaboration of two organisations for the performance of a particular task, whereby one organisation will be more advanced than the other in particular areas of development (Mchombu & Mchombu, 2014). The goal of organisational twinning is to allow the less advanced organisation to gain new knowledge from the more skilled/advanced organisation (Mchombu & Mchombu, 2014). The activity of organisational twinning would be effective and efficient for organisations in the Namibian public service that struggle in certain areas related to EDRMS. For instance, the Office of the Prime Minister (OPM) could twin up with the National Archives of Namibia to gain knowledge and experience on effective and efficient records keeping practices that need to be in place before any institution could implement EDRMS. Similarly, some public sector institutions that are failing with EDRMS implementation may collaborate with other public sector institutions that have succeeded in the implementation process and in this manner, making the implementation of EDRMS a success, in the entire Namibian public service.

2.5 Chapter summary

This chapter began with presenting and describing the theoretical framework which was adopted for this study, namely the SECI model as proposed by Nonaka and Takeuch in 1995. The model describes the process of knowledge sharing and transfer which leads to organisational knowledge creation. Furthermore, the chapter elaborated on the concept of knowledge sharing and its enablers and barriers. Lastly, the chapter reviewed empirical literature and documents which thematically discussed as per the research questions of the study. Through the review of literature, it was established that there was a dearth of empirical literature which investigated and outlined KS processes and activities within EDRMS implementation phases as far as the present researcher was aware. Although there have been authors that recommended the need for KS during EDRMS implementation, an in-depth study which focused on KS during the implementation of EDRMS has not been conducted as per the researcher's knowledge. This study thus is the first of its kind in both the field of Knowledge Sharing and EDRMS implementation. Based on the factors which contributed to EDRMS implementation failures, the researcher drew implications of a need for KS practices. The chapter ended with elaborating methods and strategies that the Namibian public service could adopt, that is, to share knowledge during EDRMS implementation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was applied to this study. Research methodology is described by Ngulube (2015) as the process of selecting and specifying the best appropriate manner of collecting data that can answer and/or fulfil research questions/objectives. This chapter addresses the following areas of research: research design, population, sampling, research procedure, data analysis, research instruments and research ethics.

3.2 Research paradigm

Research paradigms are particular belief systems/philosophical assumptions and/or perspectives of the world-view that are understood and accepted differently by different types of researchers (Kivunja & Kuyini, 2017). Research is divided into five paradigms: positivist, post-positivist/postmodernism, interpretivist, critical and the pragmatic paradigm (Kivunja & Kuyini, 2017). Although there are five research paradigms, only two of these are commonly used in research: the interpretivist and the positivist paradigms. This study adopted the interpretivist paradigm based on the research questions. The interpretivist paradigm follows an inductive approach to study human behaviour in order to justify and give explanations for their actions; while the positivist paradigm aims to define a world-view of phenomena through the scientific method of data collection (Taylor & Medina, 2011; Kivunja & Kuyini, 2017). The main research question was to investigate the practices and effects of KS or lack of KS, on the implementation of EDRMS in the Namibian public service. The investigation used methods that would attempt to capture and understand the participants' opinions, beliefs and viewpoints (Krauss, 2005; Kalusopa, 2011;

Matangira, 2016; Kivunja & Kuyini, 2017) on the impact of KS during the implementation processes of EDRMS.

The interpretivist paradigm was found best appropriate for the reason that, the study sought to understand in-depth the world-view and opinion of the participants on why EDRMS was unsuccessful in their respective institutions. It has been revealed in the previous chapters that EDRMS implementation has been unsatisfactory in the public service of Namibia. This study adopted the epistemological interpretivist paradigm to move a step further in understanding and revealing the reasons why the EDRMS implementation has been unsuccessful in the Namibian public service from the participants' perspective.

3.3 Research approach

There are three different types of common approaches a research project can adopt: the qualitative, quantitative or mixed method approach (Grover, 2015). The qualitative research approach is aimed at analysing, interpreting and studying the manner in which people view and understand, by experience, their social reality (Mohajan, 2018; Queirós, Faria, Almeida, 2017). In this approach, the researcher attempts to understand and justify the behaviours and opinions of participants through data collection. This research approach tries to answer the why and the how question through exploring (Mohajan, 2018) different aspects of different behaviour, emotions and even experiences (Rahman, 2017).

This study adopted the qualitative approach to explore the root causes of the unsuccessful implementation of EDRMS in the Namibian public service. Besides that, the qualitative approach was best appropriate in order to explore and inductively present the impacts of KS practices during the implementation of EDRMS in the Namibian public service. This was achieved by spending considerable amounts of time with the participants to try to capture and understand their personal views, opinions and beliefs on the implementation process of EDRMS in their respective institutions. Through posing the ‘why’ and ‘how’ questions, the reasons why the participants rejected/accepted the EDRMS in their institutions were captured and understood. In this manner, implications and inductions were drawn to present new insights which can be used to generate new theories in the field of both KS and the implementation of EDRMS.

3.4 Research design

The study adopted a multiple case study research design. A multiple case research design analyses and empirically investigates more than one phenomenon of a particular subject area in order to draw similar and differing perspectives of a phenomena under study (Johansen, 2017). The multiple cases for this study were selected based on the critical roles the institutions performed in the implementation of EDRMS throughout the Namibian public service. The results obtained from the three respective O/M/As can have an impact on EDRMS implementation in all public sector institutions as a result of the powerful influence that these three O/M/As possess. Furthermore, the multiple case study increased and provided an in-depth understanding of how knowledge sharing affects the implementation of EDRMS in the Namibian public service. The differences and/or similarities from these institutions helped to offer a holistic picture of the contribution of KS in the effective implementation of EDRMS throughout the Namibian public service. Yin (2009) and Zainal (2007) confirm this by acknowledging that a case study involves examining data within its contextual setting in order to analyse the experiences, practices and behavioural patterns, thus, resulting in a holistic view of the phenomena under study.

3.5 Study population

The study population is a group of people or organisations of a common trait that has the potential of participating and fulfilling the research questions/objectives of a study (Nestor, Mensah & Oteng-Abayie, 2017). The terms study population and general population are usually used synonymously in research. Thus, the study population for the present research constituted of the first nine O/M/As that implemented the EDRMS between 2009 and 2010 in the Namibian public service. These are:

1. Office of the President;
2. Office of the Prime Minister;
3. National Archives of Namibia (under the Ministry of Education, Arts and Culture);
4. Ministry of Veterans Affairs,
5. Ministry of Regional and Local Government, Housing and Rural Development (now called the Ministry of Urban and Rural Development);
6. Ministry of Safety and Security;
7. Ministry of Foreign Affairs (now called Ministry of International Relations);
8. Anti-Corruption Commission; and
9. National Planning Commission

These nine O/M/As have the common trait of possessing the experience, skills and knowledge on the EDRMS implementation process. They form what could be referred to as the champion institutions of EDRMS in the Namibian public service.

3.6 Sampling

A sample is a sub-set of the study population from which the research data is obtained (Kalusopa, 2011; Lopez & Whitehead, 2013; Matangira, 2016; Showkat & Parveen, 2017). The study purposively sampled three O/M/As from the nine O/M/As as listed above, which constituted the study population. This was due to the critical role performed by these three O/M/As in the implementation strategies of EDRMS within the Namibian public service. These three O/M/As are more capable of impacting change with regards to KS in the implementation of EDRMS, towards the entire Namibian public service O/M/As. Furthermore, these three O/M/As were at the forefront of EDRMS implementation from its initial inception in the Namibian public service. It is for these reasons that the study sought to study in-depth how knowledge was and is shared during the implementation of EDRMS. The critical roles performed by the three O/M/As are discussed below.

1. The National Archives of Namibia: This is a key organisation as it is responsible for the regulation of all records management practices across all Namibian public service O/M/As.

2. The Office of the Prime Minister: This is the institution responsible for the roll-out/implementation of the EDRMS across all Namibian public service O/M/As.

3. The National Planning Commission of Namibia: The governmental entity responsible for the approval of national policies and projects across the Namibian public service.

Furthermore, the sample size consisted of a total of forty-one participants from all three O/M/As under study. These forty-one participants constituted what was referred to as the EDRMS project/focal committee members in the three respective O/M/As. Similarly, documents from the sampled organisations were sampled based on their ability to contextualise the EDRMS implementation processes and procedures in their respective organisations. The researcher sampled documents such as EDRMS Terms of Reference, Service Level Agreements, Agendas, Minutes and Reports of EDRMS committee meetings. Documents such as publications, newsletters and ephemeral matters were not analysed. Among the research interview and observation participants was a director and deputy director, chief archivist, senior archivist, archivists, assistant archivists, administrative officers, accountants and procurement officers, human resource personnel and IT personnel. Furthermore, the sample size's demographic figure was divided as follows:

1. National Archives of Namibia = Nine (9) participants
2. Office of the Prime Minister = Fifteen (15) participants
3. National Planning Commission = Seventeen (17) participants

Total = Forty-one (41) participants

3.7 Data collection instruments

This study adopted the following data collection instruments that are presented and discussed below:

a. Interviews
b. Observations
c. Document analysis

3.7.1 Interviews

Wilkinson and Birmingham (2003), described interviews as an instrument that involves one on one conversations as a means to explore and obtain in-depth information on a particular phenomenon. The main purpose of interviews is to 'get into the participants heads' in order to understand their perspective on the phenomenon under study. There are three distinct types of interviews: structured, semi-structured and unstructured interviews (Lopez & Whitehead, 2013; Ryan, Coughlan & Cronin, 2009). The main element which makes these interviews distinct is the formality and flexibility of the questions posed by the researcher (Lopez & Whitehead, 2013; Ryan et al., 2009).

This study adopted the two different semi-structured interviews to explore and understand research participants' views and opinions regarding the effects of KS during the implementation of EDRMS in their respective O/M/A. The interview process was based on pre-determined, flexible and open-ended questions which were based on the research questions of the study (Lopez & Whitehead, 2013; Ryan et al., 2009). This type of interview facilitates the fulfilling of all the research questions as it draws up an interview guide which is based on the main research questions of the study. This allows and prompts the interviewees to give in-depth explanations and opinions regarding KS in the implementation of EDRMS. Similarly, the flexibility of this type of interview allowed the researcher to pose follow-up questions based on the interviewees' elaborations.

It was critical to ensure that all the research questions were fulfilled in order to recommend appropriate and impactful findings regarding KS in the implementation of EDRMS to the Namibian public service. Furthermore, the study conducted an in-depth exploration in order to understand and establish the current EDRMS practices in the three public sector O/M/As.

Based on the above, two interview guides were used, one was for the action officers and records management participants (see Appendix 10), while the other interview guide was orchestrated for the IT officials in the three respective O/M/As (Appendix 11).

3.7.2 Observation

Observation is used to analyse and examine participants' behaviours, cultures and processes in their contextual settings (Kawulich, 2015). The observation was used to examine and investigate participants' familiarity, comfortability and know-how of EDRMS function. Similarly, the observation was used to verify data collected from the participants during interviews and what was missed in the interviews. This study adopted the observation data collection method through using a checklist as an instrument. Thus, the study employed a structured participant observation strategy. The checklist bestowed structure to the observation, while the researcher was observing behavioural practices in their contextual/natural settings (Kalusopa, 2011; Kawulich, 2015). The predetermined factors observed were based on examining participants' capability to effectively operate the EDRMS.

3.7.3 Document analysis

This method of data collection can be referred to as document review or document analysis. In this data collection method, documents are searched, identified, analysed and examined before interpretations are drawn (Bowen, 2009; Slakoff & Brennan, 2019). The researcher used document analysis to identify, analyse and examine records of written text within the three selected O/M/As. This was done in order to investigate the existence of EDRMS policies and implementation processes and practices that the three public sector O/M/As undertook. This study analysed documents like the appointment of members, agendas, minutes and reports of EDRMS project committees' meetings in the three respective O/M/As. The appointment of EDRMS committee members in O/M/As illustrated whether there was a sharing of knowledge amongst multi-disciplinary professionals. Agendas, minutes and reports of meetings similarly provided a context on the extent of KS, the type of knowledge was shared and among which employees. These types of documents yielded vital factual information regarding the EDRMS implementation process in the three respective O/M/As. This factual information was then categorised according to themes as per the research questions of the study. Additionally, data which was yielded from the document review was used to construct and direct the interview guide. Bowen (2009) has acknowledged that document analysis does indeed yield rich, insightful and in-depth information regarding practices and processes in an organisation.

3.8 Reliability and validity

Measuring the reliability and validity of qualitative studies becomes a challenge as this concept is related to the quantitative studies that are focused on objectivity and factual findings (Golafshani, 2003). Studies that are qualitative in nature on the other hand, attain reliability and validity of findings by establishing and maximising rigour of data collection methods and findings (Golafshani, 2003; Kalusopa, 2011). The study established rigour through triangulating the data collection methods. In this manner, the data collected through the document analysis was verified and augmented through the semi-structured interviews. Additionally, the interviews were designed in a semi-structured fashion so as to facilitate the flexibility of both the participants and the researcher. Through this flexibility, more insights were gained from the participants through elaborate explanations from follow-up probing questions. Similarly, the fact that the predetermined questions from the interviews were based on the research questions revealed the transparency of the interview process and the data that emanated from this instrument. Additionally, the observation performed the role of practically verifying data collected from interviews and document analysis. This was achieved through analysing and noting down participants' behaviours when they attempted accessing the EDRMS in their respective contextual settings. In this manner, the data collection instruments and findings proved to be reliable.

Moreover, to ensure that the results of this study were valid, the study used multiple case studies from which data was attained. This was done in an attempt to critically investigate KS during EDRMS implementation and to replicate the findings from one institution to another. Using this method, it could be possible to apply the study's findings to a similar situation of a different context. Furthermore, as a means to validate the results of this study, interview transcriptions were handed over to some of the participants to ensure that what had been recorded is indeed a reflection of their true views and opinions with regards to KS during EDRMS implementation. While some simply agreed on all that they had described, most of the participants were not interested in verifying their opinions due to lack of time. This process ensured that what was reported had been approved and authorised by the participants of this study. It is through these strategies that the study ensured that both the data collection instruments and the research findings were reliable and valid.

3.9 Data collection procedure

Before the commencement of any data collection, the researcher drafted a letter requesting permission to conduct research. This letter was addressed to the Executive Directors (ED) of the three respective O/M/As (see Appendix 2-4). At the same time, the research supervisor of this study similarly drafted a letter (Appendix 5) confirming the researcher's identity and aim of data collection for scholarly purposes. This letter supplemented the researcher's request for data collection to the ED's of the three respective O/M/As. The researcher received a prompt response (Appendix 6) from the ED of the Ministry of Education, Arts and Culture (MOEAC), of which the National Archives of Namibia falls under. The response from the ED of the MOEAC further played a significant role by encouraging other O/M/As to assist the researcher by approving the data collection request. Similarly, the Office of the Prime Minister (Appendix 7) and the National Planning Commission (Appendix 8) positively responded within a month's time from the time the request letter was delivered at the respective EDs' offices. Furthermore, before data collection commenced in the three public sector O/M/As, the University of Namibia had to issue the researcher with an ethical clearance certificate. The ethical clearance certificate was delayed with nine months from the date the initial ethical application was submitted.

Moreover, once the researcher received the ethical clearance certificate (Appendix 1), the data collection process began. The researcher started collecting data with the National Archives of Namibia, National Planning Commission and finally the Office of the Prime Minister in that particular sequence. The process began with requesting permission from the participants to analyse and review documents such as the terms of reference for EDRMS focal committee members, the appointment of EDRMS focal committee members, as well as the reports and minutes of EDRMS meetings. Interviews commenced after the document analysis was completed. The researcher handed over the informed consent letters for participants to sign and thus made prior appointments with each participant for interviews. The interviews lasted for a duration of 30 to 45 minutes with each participant.

Furthermore, before the interviews began, the researcher prepared participants for interviews by ensuring that each of them was appraised of their rights to end the interview/not answer questions that made them uncomfortable. The researcher also sought permission to use a digital voice recorder from each participant. However, most of the participants were not comfortable with being recorded and the researcher had to resort to note taking during the interview process. Furthermore, the researcher informed participants that observations were being held concurrently with the interviews. The researcher elaborated to the research participants the need for all three instruments of data collection. Although the participants were not directly involved in all the document analysis and the observation, the researcher found it ethical to keep participants informed of the supplementary data collection methods. Thus, none of the three O/M/As under study had a problem with either data collection instrument. Lastly, at the end of the data collection process, the researcher personally thanked each participant for their time to participate in this study. The response letters from the EDs of the three respective O/M/As requested for a copy of the final dissertation, which will be personally delivered to their offices at the end of this research project.

3.10 Data analysis

This study employed the thematic data analysis method to draw interpretations and findings from raw data. Thematic data analysis involves the systematic examining of unstructured data in order to discover differences and similarities that can draw up themes and patterns so as to present this data in a narrative and conclusive manner (Wong, 2008). In other words, data is examined for codes that eventually are translated into themes and patterns that are then presented in a narrative manner. Furthermore, thematic analysis was used to transcribe data collected from all the three instruments in order to derive themes that are compatible with the research questions. This is because the purpose of thematic analysis lies in answering and fulfilling research questions by organising raw data into descriptive themes (Kalusopa, 2011; Neuendorf, 2019).

Moreover, the themes were designed in such a way that they correlate with the research questions so that they can be narrated accordingly. Once the themes from the data were drawn and presented, the data was refined by comparing it with the theoretical framework and empirical literature. In this manner, the study was able to draw holistic findings and recommendations for the contribution that KS brings towards the implementation of EDRMS in the entire Namibian public service.

3.11 Ethical considerations

Ethical considerations are focused on ensuring the right, respectful and appropriate form of interactions of a researcher towards the participants of the study during and after data collection (Matangira, 2016; University of Namibia, 2013). The researcher submitted the research proposal and the ethical application for evaluation and approval to the University's Research Ethics Committee (UREC). This was done in an attempt to gain approval and clearance from the University of Namibia (UNAM) to proceed with data collection; as the University of Namibia (2013) research ethics policy states that "…no research shall be conducted without prior ethical clearance…" (p.11). The researcher was granted permission to proceed with data collection after an ethical clearance certificate no: FOHM/014/2020 (Appendix 8) was issued in June 2020.

Furthermore, upon receipt of the ethical clearance certificate, the researcher indicated to the participants that the study had been approved for data collection from the UREC. At the same time, the researcher sought informed consent (Appendix 9) from the participants as per the requirements from the University of Namibia (2013) research ethics policy which states that "researchers shall ensure informed consent based on the principle of self-determination, honesty, objectivity, and respect for intellectual property, avoiding harm and conferring benefits on research participants" (p.11). It was because of this requirement that the researcher ensured informing participants of all three data collection instruments and the reason for it. In this manner, the researcher upheld the principle of honesty, objectivity and respect for the intellectual property of all participants. Additionally, the disclosure from the researcher regarding the different methods for data collection upheld the principle of integrity as required by the University of Namibia (2013) research ethics policy.

Another requirement of the University of Namibia (2013) ethics policy was that "the investigator shall ensure confidentiality of participants' research data" (p.11). The researcher undertook this requirement by ensuring that the names of the participants were not captured but simply their signatures for informed consent purposes. Similarly, in an attempt to protect the identity and responses of individual participants (Arifin, 2018), the names of the three O/M/As and the designated profiles of the participants were coded according to Institution A, B, and C. The identities of the participants were similarly coded and classified into clusters according to participant 1.A., 2.A., 3.A. etc. In this manner, the identities of the participants were only known by the researcher on an individual basis, thus ensuring the anonymity of research participants and their responses.

Lastly, after upholding all ethical principles as per the University of Namibia (2013) requirements, the raw data within the researcher's voice recorder, transcriptions and notes were deleted/shredded "…five years after the completion of the [research] project" (p.11). The researcher will shred the hand-written notes from the document analysis and the observation, while the interview voice recordings and transcriptions will be permanently deleted from the researcher’s computer hard-drive, the external hard-drive, Google drive and USB.

3.12 Chapter summary

This chapter discussed the research methodology that was employed for this study. The study adopted the interpretivist paradigm through the epistemological dimension and collected data through a qualitative approach. Furthermore, the chapter elaborated on and justified the research approach, research paradigm and the research design for this study. Similarly, the chapter illustrated the population and explained how the sample was drawn from the population. Additionally, the chapter discussed the data collection instruments that were employed, how the data was analysed, the data collection procedures, as well as how the study achieved reliability and validity through its instruments and findings. The chapter ended with the ethical considerations which were upheld for this study, based on the University of Namibia’s (2013) Research Ethics Policy. The following chapter (Chapter Four) presents the findings of the study.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents the findings collected through document analysis, semi-structured interviews and observations. In this chapter, the presentation of findings is guided by the following research questions:

a. At which level is the implementation process of EDRMS in the three public sector O/M/As in Namibia?

b. What kind of knowledge sharing practices have been or are being experienced at the three selected public sector O/M/As of Namibia during the implementation of EDRMS?

c. How does the sharing or not sharing of knowledge affect the implementation of EDRMS in the three selected public sector O/M/As of Namibia?

d. What type of knowledge needs to be shared in the three public sector O/M/As for the enhancement of the implementation of EDRMS?

e. What methods or strategies can be recommended on how staff members in the Namibian public service can share their knowledge to enrich the successful implementation of EDRMS?

Data analysis is defined by the Office of Research Integrity (n.d.) as a systematic and logical strategy to condense, describe and evaluate raw data. Based on this elaboration, the researcher sought to identify themes and patterns in the raw data, so as to present a descriptive narrative that would answer the research questions for this study. The narratives of the findings are supported by the responses of participants that were quoted verbatim from the interview and document transcripts. Additionally, it should be noted that the main instrument for this study was in-depth semi-structured interviews which obtained the primary data for this thesis. The document analysis was a supportive method to provide a contextual setting to the interviews to enrich and achieve a holistic understanding of the extent of knowledge sharing. The observation was used as a complementary instrument to verify data from the document analysis and the interviews. Before the data is presented, it is critical to give a description of how participants responded to the study. Furthermore, the section below coded the identities of the three O/M/As and their respective participants. This was done as a strategy to protect the participants' privacy and confidentiality.

4.2 Profile of the respondents and response rate

The study sought to collect data from the three institutions that played a significant role in the implementation of EDRMS in the Namibian Public Service, namely the: Office of the Prime Minister (OPM), the National Archives of Namibia (NAN), and the National Planning Commission (NPC). Research permission was granted to collect data from all the three institutions from the respective Executive Directors. While a total of forty-one participants from all three institutions were sought for interviews, the researcher only managed to reach twenty-one individuals who availed themselves to participate in the interviews. It is worth noting that because data was collected during the COVID-19 pandemic, it was difficult to reach participants for interviews and observations. This is due to the fact that the Government of Namibia allowed only a constricted number of employees to work at the offices during the COVID-19 pandemic, while others worked from home for a particular set of weeks. Consequentially, it became a challenge to reach employees that were working from home as the privacy of individuals would be compromised by the disclosure of personal/private contact details.

In addition, due to the confidentiality and the anonymity of the participants, the names of the institutions and the participants have been coded as Institution 1, 2 and 3, whereas names of participants were coded as A, B, C, and so forth. Therefore, a participant was identified by the number of an institution and their profile as per Table 4.1.

All these participants were a representation of the Key-Users of EDRMS in their respective institutions. Similarly, non-participant observations were conducted concurrently with interviews; while document analysis was only permitted at the OPM and NAN.

Management personnel (Director & Deputy Director)	**Action Officers/End Users (Accountant, Archivists, Assistant Archivists, Procurement & Human Resource personnel)**	**Records and Archives personnel/Key Users (including administrative officers)**	**ICT personnel**
1G	1E	1A	1C
3E	1F	1B	1D
	2A	2E	2F
	2B	2G	3D
	2C	2H	
	2D	2I	
	3B	3A	
	3C		

Table 1: Participants' profile cluster

4.3 Level of EDRMS implementation process in the public sector of Namibia

This research question sought to analyse and determine the phase of EDRMS implementation in all three of the respective three O/M/As under study. Besides that, the researcher also sought to determine if the participants had 'general knowledge' on how and when EDRMS came into existence in their respective institution. In that regard, the results were presented as per the following sub-themes:

a. End users lack of knowledge on EDRMS inception at institutions

b. End users' inaccessibility to EDRMS on personal computers

c. Diverging management support towards EDRMS activities amongst the three public sector institutions

d. End users' lack of confidence in EDRMS software

4.3.1 End users lack of knowledge on EDRMS inception at institutions

The study found that since EDRMS was implemented in 2009 and 2010 in the three O/M/As, the EDRMS was not practically used in the respective O/M/As. This was due to a lack of EDRMS equipment, lack of KS among employees and poor distribution of EDRMS activities within the three O/M/As respectively. Furthermore, the findings revealed that research participants were not confident with the EDRMS software that was purchased. While the participants perceived that the EDRMS was incompetent to the respective O/M/As functions, the in-depth investigation proved that participants were simply unaware of the add-on functions that simply needed to be installed.

Document analysis which included Memorandum of Understanding, Terms of Reference and Service Level Agreements, revealed that the EDRMS was officially introduced in the Namibian Public Service through a Memorandum of Understanding (MOU) signed between the Republic of Namibia and the Chinese developers of the E-office software CS & S-CA in April, 2007. More than a year later, the E-office was delivered and installed on the OPM server through the Department of Public Service

IT Management (DPSITM) on the 28th of November 2008. Additionally, the document analysis revealed that the E-office software is 80% proprietary software and 20% open-source software.

Likewise, the documentary review of the EDRMS Service Level Agreement of 2007 revealed that the EDRMS Project Office in collaboration with the CS & S-CA have drawn up an EDRMS implementation strategy with the following steps:

a. Business requirements matching,
b. Installing of E-office,
c. Configuration,
d. Customisation,
e. Testing final system,
f. Training key users and end users,
g. Go-live, and
h. Maintenance and support.

Through the above-mentioned strategy, the EDRMS Project Office, which is a division under the DPSITM installed the E-office software on the 3rd of June 2009. The EDRMS was only rolled out to the entire OPM on the 18th of November 2009. Soon after that, the EDRMS was rolled out to the Office of the President on the 8th of December 2009. Thus, these were the first two offices in the Namibian public service to implement EDRMS.

However, the interview responses proved that most of the participants, particularly those in the Action Officers cluster (see Table 4.1), lacked knowledge on the inception of EDRMS in their respective institutions. Similarly, it was found that those that had knowledge on the inception of EDRMS were the participants in the Records and Archives Management cluster. It is also worth noting that most of the interview participants were new to their institutions and they were not inducted on EDRMS implementation in their institutions. This indicates that the records and archives personnel did not share knowledge regarding the inception, implementation and benefits of EDRMS in their respective institutions, to new staff members.

Within Institution 1, most of the participants had general knowledge regarding EDRMS inception in their respective institutions. Participant 1.G. confirmed that EDRMS was implemented in "*2009 through meetings with developers*", and participants 1.B., 1.C., and 1.D. all acknowledged the same sentiment. While participants 1.E. and 1.F. said that they were "*not aware*" of how EDRMS began and was implemented in their institution, participant 1.A. further added that "*I am not sure when it was introduced but EDRMS was first an office on itself when electronic records management started then it was placed under a division of OPM*". The document analysis confirmed that the EDRMS was initially an independent Project Office before it was placed under the DPSITM of OPM.

On the other hand, Institution 2 implemented EDRMS in 2010 according to the document review, of which participant 2.E. also confirmed that "*EDRMS was installed here in 2010 and I got to know it through attending management meetings*". Participant 2. I. elaborated that "*EDRMS was installed here in 2011. I came to know about it when I started attending meetings that's when OPM realised they needed NAN with regard to the File Plan functionality*". The rest of the participants of Institution 2 lacked knowledge on the inception of EDRMS implementation at their institution. They were only trained on EDRMS functionalities by the OPM as revealed by participant 2.B. "*I am not sure when it got installed here but I only got to know EDRMS when I started working here through the training we received from OPM in 2016*".

Moreover, although the researcher did not have much access to the documents at Institution 3, the document analysis of Institution 2 such as reports of O/M/As that have gone live, revealed that Institution 3 also implemented EDRMS in 2010. Most of the respondents in Institution 3 had no knowledge with regards to when the first time EDRMS was introduced at their institution except Participant 3.A. who said that "*it [EDRMS] got introduced in 2010 and I got to know it through workshops and training*". Another participant who knew a little about the inception of EDRMS at Institution 3 was Participant 3.D. who said that "*it was introduced in about 2012/2013 and I got to know it through training at OPM*".

4.3.2 End users' inaccessibility to EDRMS on personal computers

Institution 1's practical use of the EDRMS was on hold due to the file plan that was pending approval by NAN as claimed by participant 1.G. that "*most things are on hold because of the file plan. The systems version of the file plan was not matching the manual file plan and that is being rectified before we can resume EDRMS operation"*. Additionally, the observation showed that the E-office/EDRMS application was not installed on the end-users' computers thus, end-users had no access to the system on their computers. The observation similarly revealed that the E-office was only installed in one of the key departments within Institution 1.

Although EDRMS was implemented at Institution 2 during 2010, the interviews and observation revealed that the EDRMS has not been used actively for a long time. When asked the question, 'What is happening with regards to EDRMS in the institution?'

many respondents replied that they did not know what was happening and the system was not even installed on their computers. Participant 2.B. said "*there is nothing installed so nothing is being done*", while Participant 2.E. shed more light on the situation by stating that "*there were no compatible computers with EDRMS but now they are there. Although activities are on hold because the scanner is not installed*". Additionally, respondent 2.G. confirmed this by stating that "*we are trying to fix the scanner in order to scan and upload documents*", while respondent 2.I. said that "*we are preparing to go Live*". It was observed that the system was not installed on users' computers as users could not access the system on their computers.

Moving on to Institution 3, it was observed that the EDRMS was actively used but mostly in the registry and not the other departments or divisions in the entire institution. Similarly, the observation confirmed that the system was installed in the computers of records personnel and secretaries only. All the participants in the institution were aware of the current activities of EDRMS which were all summed up by Participant 3.A. as; "*Sorting, setting reference numbers, scanning, uploading, filing and approving of records on the system*". However, just because all participants knew what was happening does not mean that they were all busy/involved with EDRMS. This is confirmed by participant 3.B. who stated that "*I know of EDRMS but I am not trained enough on it, I just send my documents to the registry for scanning and uploading, I do not know how to use the system*". The same was said by Participant 3.E. who stated that "*the system is not being used on my computer as there are technical errors known by the IT but I am really interested in getting to know the system and use it by myself, it is not good that only the registry officials know how to use the system*".

Moreover, the document analysis and the interviews proved that the OPM which is the institution that implements/rolls out the system is also the one that does the maintenance and the upgrading of the system. This is for the reason that the server which hosts the EDRMS is held at the DPSITM under OPM and it is not hosted at any other institution unless it is a high protocol institution like the Namibian Police as mention by Participant 1.C. that "*records are uploaded by the users. OPM hosts the system on its server through the DPSITM. Only high protocol institutions like NAMPOL host the system on their site*". Participant 3.D. further added that "*we do not do maintenance that is being done by OPM. Registry just uploads and scans*". Therefore, EDRMS maintenance activities were only conducted by the Office of the Prime Minister and not the respective institutions implementing it.

4.3.3 Diverging management support towards EDRMS activities amongst the three public service institutions

The document analysis of Service Level Agreements showed that top-level management officials were interested in having an EDRMS that allows them to retrieve records easily. This is so as the government of Namibia has spent US$ 1 096 400 to procure the E-office software in order to automate records management services country-wide. The data collected revealed that the management officials in the three institutions under study were interested in using the EDRMS. Despite their interest, availing funds for the cause of EDRMS was very poor as shown by the interview responses. When management officials were approached for data collection, the relevant directors and deputy directors of the directorates dealing with EDRMS showed great interest in participating in the study.

Most of the respondents from Institution 1 acknowledged that EDRMS was supported by management officials. Participant 1.G. stated that "*everyone wants the EDRMS, it is seen as the rescue to the fast world we live in. Items that are needed are easily purchased*". Participant 1.A. confirmed by noting that "*It is highly supported as management is involved in EDRMS as they request files electronically".* Participant 1.F. added an interesting comment worth noting, that "*they enforce for it to be implemented, it is just that there aren't enough resources available especially for the Human Resource registry*". However, participant 1.B. said that "*It [EDRMS] is not supported because management doesn't understand the basic importance of records management*". The statement of participant 1.B. corroborates with a statement found in a 2011 report from Institution 2 which reads: "*EDRMS Project will only be implemented successfully as O/M/As are becoming more aware of the importance of Records Management Practices*". This implies that when management officials are not well acquainted with the importance of records management, EDRMS would not be appreciated and implemented successfully. It would similarly not be well funded, if there is no great appreciation for it.

As much as Institution 1 revealed a good extent of management support and buy-in, Institution 2 on the contrary did not reveal much support from management. Participant 2.A. stated that "*There isn't much involvement or improvement in resource allocation in the support of management*". Similarly, participant 2.B. mentioned that "*with regards to OPM, EDRMS is well supported but here in terms of finance, it is not supported*". Likewise, participant 2.I. added that "*No, it is not supported, management is reluctant towards EDRMS*". It was evident that there was no management support although participant 2.G. said that there could be some new hope as "*they are trying with the new director although resource allocation is slow*".

Institution 3 on the other hand, painted a similar picture as Institution 1. The four respondents from Institution 3 reached consensus that the EDRMS was supported from management except participant 3.A. who stated that "*EDRMS is not supported, they accuse the registry of missing records while there is no evidence of missing files from the registry*". Apart from this respondent, other respondents gave a green light on management support and buy-in. Participant 3.C. stated that "*yes it is supported in that EDRMS is allocated a budget although there is just one scanner*" and participant 3.E. confirmed that "*yes, it has a budget".* Another participant (3.B.) added by stating that "*It is supported in the sense of they pay attention to records making sure all documents have reference numbers".* Although the participants of Institution 3 acknowledged management support, the efforts to poor procure EDRMS equipment like scanners proved to be slow. Although the EDRMS had a budget, the implementation was still lacking on sufficient equipment needed to operationalise it.

One of the documents reviewed which was in a report format had a statement which said that "*…because there is no records and archives management representative in senior management meetings, efforts and resources put in EDRMS implementation are undermined*."

4.3.4 End users lack of confidence in EDRMS software

Most of the participants did not have confidence that the E-office was the right and best software for their respective institutions. However, the participants' lack of confidence on the EDRMS software was based on inaccurate perceptions of the functionalities of EDRMS. The inaccurate perceptions arose as a result of poor KS among the staff members of the three respective O/M/As which were studied.

Participant 1.G. said that the E-office is a good software product "*... due to its records keeping functionalities*". Participant 1.A. was of the opinion that it is a good software "*because it is user-friendly*", whereas participant 1.B. on the contrary said that it is "*not the best, it is not user-friendly compared to other EDRMS softwares, it is time consuming*". Furthermore, participant 1.C. and participant 1.D. also did not approve of the EDRMS. Participant 1.C. said that "*no. there should be something better in stock. It's not a Microsoft product in terms of upgrades. It's not comfortable with* Outlook", whereas participant 1.D. added "*it has windows version errors and does not integrate well with Outlook*".

Most of the participants at Institution 2 were also of the opinion that the E-office is not the best software product for their institution, although there were a few participants who mentioned that it is a good product as it enables electronic filing, access restrictions, etc. Participant 2.H. stated that "*electronic wise it is a good system, it's just that it doesn't support archiving*", whereas participant 2.A. was also of the same opinion by stating "*I don't think it is the best but if it is able to apply records and archives functionality one could say it is a good system but it does not apply the archiving functionality*". Additionally, participant 2.I. added more light by explaining that it is "*Not the best product because it had issues of regarding the retention of a record, could not match the record category. Case files could not be loaded, that could be modified*". Similarly, participant 2.F. stated that "*no, I was told by our head that it is not a good product for archiving records*".

The third institution was different from the first two as all the participants with the exception of participant 3.D. claimed that it is the best software product as "*it makes work easier in terms of records retrieval*" as mentioned by participant 3.E. However, participant 3.D. differed with the other participants by stating that "*no, system does not perform much functions in relation to its price, it also does not support workflow*".

Despite the above, the document analysis of the Service Level Agreement revealed that the E-office that was procured comprises of the following functions:

a. E-office application server
b. Workflow management system
c. Virtual workflow designer
d. Archiving management
e. Exchange hub server

With all these functions that the E-office is able to perform, it was made with a customisation function where the below functions simply needed to be configured for their activation into the existent EDRMS:

a. E-office platform that provides a background function that supports all the application responses invoked from the clients' terminal device. This is the basic version of EDRMS which was implemented and configured in public service institutions.

b. E-office workflow, namely the work-flow designer and the workflow agent. The work-flow designer is a built-in function whereas the workflow agent will be used for monitoring and tracking the workflow specified by the user. This was not configured into the EDRMS implemented at public sector institutions.

c. E-office Archives Management for collecting the registered files formed by the organisational components of the Public Service of Namibia which are linked to the EDRMS. This was not configured into the EDRMS implemented at public sector institutions.

d. E-office Exchange Hub for providing real time information exchange between the workflow and the archives management function, to help archives management to collect all the registered files automatically. This was not configured into the EDRMS implemented at public sector institutions.

e. Testing system which is installed to ensure the EDRMS's continuous functionality and performance.

Due to this evidence from the document analysis, the researcher realised that there was a lack of KS within and among the three respective institutions. Some functions like archiving which Institution 2 was concerned with and perceived as missing was actually a sub-functionality of the E-Office that simply needed configuration. It is however clear that the participants from Institution 2 were not aware of these extra functions/add-ons since it has not been communicated to them by the OPM that was responsible for the EDRMS roll-out. The same can be said of Institution 3 that had concerns that the EDRMS could not support workflow. This function was also a sub-function of the E-office that simply required configuration. However, it is critical to note that participant 1.A. highlighted the fact that the E-office was being "*upgraded and it would come out better than it was before*".

4.4 KS practices during the implementation of EDRMS in the Namibian Public Service

This section sought to determine if there have been any KS practices during the initial implementation of EDRMS at the three public sector institutions. The data revealed that all participants in this study found it easy and were eager to share their knowledge with their fellow co-workers. The problem was that participants did not have sufficient methods and opportunities to share their knowledge effectively. KS practices were mostly conducted during EDRMS practical training sessions. These training sessions were mostly received from an external institution at Institutions 2 and 3 respectively, but only Institution 2 conducted internal training on EDRMS operations. Therefore, in order to understand and note the knowledge sharing practices at the three O/M/As, the following sub-themes and codes were derived:

a. Insufficient end-user training on EDRMS operations

b. KS in the form of illustrations and informal discussions during the implementation of EDRMS in public service institutions

c. The role of EDRMS focal committees in public service organisations to facilitate KS during the implementation processes

d. EDRMS Steering Committees as a form of CoP in the Namibian public service

4.4.1 Insufficient end-user training on EDRMS operations

Training was the most widely mentioned practice and platform where EDRMS know-how could be shared, transferred and acquired amongst the different participants from the three O/M/As. However, EDRMS training was received externally by two of the institutions under study. This was confirmed by participant 2.E. that "*[I got to know of*

EDRMS] through getting a secondment letter to work at OPM EDRMS Project temporarily, that is where I got advanced EDRMS training".

Although Institution 1 conducted internal training as confirmed by participant 1.A. that "*new people are always trained*"; participant 1.B. explained that "*we are frequently trained based on the needs, new people are always trained*". Participant 1.G. also confirmed internal training by mentioning that "*we have monthly trainings until it went on hold. We have a calendar for request of trainings*". These internal trainings were conducted irregularly and thus proved to be insufficient. Participant 1.B. said that "*…we hardly get training except on new functions. Although advanced training is needed*". Participant 1.E. similarly mentioned that "*very rare, I got training three years back*" while another (1.F.) said that "*I never received training*". When the participants were asked if they knew '…how to file, retrieve, store and approve records on the system', most participants from Institution 1 responded that '*yes, through training*'. The two participants (1.E. and 1.F.) were however of a different opinion when they both stated that they "*do not know how to use the EDRMS*".

Furthermore, Institution 2 proved that EDRMS training was insufficient and ineffectual. The second half response of participant 1.G. was confirmed by participant 2.E. who stated that "*training is not conducted often, it only occurs when it is requested by the users*". It was indeed proven that EDRMS training was quite rare at Institution 2 as participant 2.I. mentioned that "*I just got trained 5 years ago, which was in 2013/15*". The same was repeated by participant 2.B. who said that the "*Last training was in 2015, We are not really trained on it*". It is thus clear that training is indeed "*very rare*" as stated by participant 2.G. Additionally, since it has been established that EDRMS was not functional/used in Institution 2 at the time of this study, the training the participants received proved to be ineffective. If the EDRMS is not installed on users' computers in order to operate on it to apply knowledge acquired, then training on EDRMS would indeed be futile. This is for the reason that users are prone to forget new knowledge gained, if they do not apply it in their contemporary settings. This was confirmed by the participants in Institution 2 who were asked if they knew how to operate the EDRMS, and participant 2.G. said that "*No because EDRMS is not functional here*". In addition, participant 2.I. stated that "*Yes but I have forgotten. I need refresher trainings on that*", participant 2.B. was also of the same opinion by stating "*I knew how to do it but since the EDRMS is not being used, one will forget*".

Moreover, the issue of insufficient training was not different at Institution 3 as participant 3.C. reiterated that "*training was not often at all*" which was supported by participant 3.B. who mentioned that training is "*not often, maybe once a year*". Similarly, participant 3.E. mentioned that "*I only got small refresher training on uploading once, it has been a while now and I need advanced training on EDRMS to become more familiar with it as I am really interested in getting to know the system*".

Equally, at Institution 3, it was observed that the EDRMS was mostly being used by the participants in the records and archives cluster. Additionally, the observation proved that the EDRMS was not installed in the computers of end-users as some participants could not access the system on their computers. This was confirmed during interviews when participant 3.A., 3.C. and 3.D. responded that they knew how to perform EDRMS functionalities through training. Whereas participant 3.B. did not know how to operate the EDRMS and participant 3.E. added that "*I do not know how to do that as I got no training on that*".

The document review proved that both key-users and IT officials are supposed to receive technical advanced know-how training from the OPM. The interview responses proved that the key-users did in fact, receive technical know-how training as confirmed and summed up by participant 2.E. that "*we got trained on e-office software which included scanning, uploading, approving, searching, filing emails, entering file plan and the organogram on the system*". On the other hand, some IT officials like participant 1.C. "*got no training, it [the EDRMS] was bought, they sometimes only upgrade the system and when upgraded they give us manuals on how to manage and maintain the upgrades*". Participant 1.D. further added that *"[we] are not trained, we have to learn the system by ourselves through manuals when the system is upgraded"*. It was not only at Institution 1 where IT officials did not receive technical IT training on EDRMS, as it was also mentioned by participant 3.D. that "*I am not trained on it because I neither maintain nor host it, I only have web access to it. Once it is off, I just call the OPM EDRMS Liaison team members"*. However, it seemed that participant 2.F. was fortunate to receive a kind of training on EDRMS; "*I just received technical training once but that was three years ago*". This proves that IT officials across all of the three institutions did not receive sufficient training on EDRMS technical IT issues. In this manner, they are unable and unfit to effectively assist users that are experiencing challenges and hiccups during EDRMS usage.

Based on the above, the finding under this sub-theme was that the trainings proved to be an effective method that facilitated KS among key users and end-users on EDRMS know-how. The problem was that training was conducted irregularly and not as often as required by participants across all the three institutions studied.

4.4.2 Illustrations and informal discussions as a form of KS during the implementation of EDRMS in public service institutions

The second consistently mentioned knowledge sharing practice that was noted is that of employees sharing experiences with each other through meetings, informal discussions among co-workers and giving illustrations.

When the question was asked about how participants share their experiences with one another, participants from Institution 1 responded that they were willing to help out and share experiences when approached. Respondent 1.A. said that "*…when requested I will help through step-by-step illustration*". The same was uttered by participant 1.B. who said that "*Yes, during implementation registry officials are contacted and given one on one guidance on barcoding etc.*", and the same participant added by stating that "*We have daily and weekly meetings to discuss hiccups and help each other, we also have information sharing sessions in our department every Friday*". This was confirmed by participant 1.C. who stated that *"[we] discuss with the departmental team. Agree on issues we can agree on. Otherwise we approach the consultant through the Head of the EDRMS team*". Additionally, participant 1.E. also alluded to the issue of meetings by stating that "*through staff meetings we share ideas and solve challenges*". Although the participants at Institution 1 perceived that the EDRMS has not been implemented and actively used at their institution as mentioned by participant 1.G that "*the system is not being used*", the same participant still alluded to the fact that "*experiences and knowledge is shared through staff meetings by sharing ideas to solve challenges*". This is an indication that tacit and explicit knowledge was shared and transferred amongst individuals at Institution 1. The *socialisation* and *externalisation* processes/phases of the SECI model were occurring at this institution through employee interactions and collaboration via meetings and illustrations.

The participants at Institution 2 reiterated that the EDRMS was not functional and not being used, thus they do not share their knowledge or experiences with regards to the EDRMS. Participant 2.A. for instance mentioned that *"[I] can't share my experiences because EDRMS was not used. I Don't know if it is even user friendly*". However, when the follow-up question was asked about any knowledge sharing practices performed even during training sessions, participant 2.A. responded by saying that "*There was some extent of knowledge sharing during the training sessions among colleagues as we were able to assist others that were struggling through informal discussions and illustrations*". Participant 2.B. further said that "*Yes, we were helping each other during practical sessions, illustrating to other colleagues that were struggling*". Another participant (2.E.) also added by stating that "*yes through going office by office giving illustrations, I love working with the EDRMS and I am always eager and ready to assist*". Whilst, participant 2.D. said that *"[we share knowledge] through critical informal discussions with colleagues*". In this manner, both Institution 1's and Institution 2's participants were involved in *socialisation* and *externalisation* as a form of KS practice.

Although Institution 3 was using the EDRMS to a certain extent, some of the participants could not share their experiences because "*I have not used the system before*" which was the state of participant 3.E. while participant 3.B. simply said "*No because I am also struggling with the system*". However, the participants that were well acquainted with the EDRMS like participant 3.A. said "*yes when requested, I share what I know through showing others and giving illustrations*" while participant 3.C. mentioned that "*yes through showing examples and illustrations*".

4.4.3 The role of EDRMS focal committees in public service organisations to facilitate KS during the implementation processes

Document analysis of the EDRMS steering committee Minutes revealed that "*key-users received integrated advanced training in Beijing China so that they are equipped to train end users in their respective institutions. Although, there is one software trainer and one professional trainer sent from China to come assist the keys users to train when there is a need*". Based on this revelation, the formulation of EDRMS Focal Committees/Key Users Committees in all the three institutions was supposed to be one of the key drivers of KS during the implementation of the EDRMS. This however seemed not to be the case/reality of the situation at hand throughout the three institutions under study. The existence of these committees was ascertained in all three institutions under study through document analysis and interview responses. At Institution 1, the document analysis revealed that there was a 'focal team' for the entire institution which consisted of ten members and incorporated a representative from every department/directorate within the institution. At Institution 2, participant 2.E. elaborated that *"a key user team is selected for every ministry. Mostly registry officials are part of key-users committee*". Whereas, participant 3.A. said that "*there are focal team members in the different divisions and departments across the institution that are leading and directing EDRMS activities*".

Despite these responses, the interview responses from some end-users proved that these internal committees failed to carry out their designated KS roles during EDRMS implementation.

The participants from Institution 1 did not have much internal communication among themselves as the interview data revealed that they were more prone to contact the

OPM EDRMS Liaison officers or the E-Office Developers, instead of the key user experts at their institution; "*I call the EDRMS Team for training*" as mentioned by participant 1.A. Participant 1.B mentioned that "*Yes [I seek help] through consulting the Developers who are 24/7 accessible and always ready to help*". Additionally, participant 1.G. responded that "*through calling OPM EDRMS Team*". Most of the above participants were part of the EDRMS focal committees at Institution 1. Instead of mentioning that they received advanced training and thus were able to train others, they resorted to seeking assistance from the OPM EDRMS team. However, there were some participants who revealed a particular extent of internal knowledge sharing. Participant 1.A. sought assistance when experiencing challenges with the system by stating that "*I call OPM IT or our departmental IT*". There were also other two participants at Institution 1 who shared knowledge internally like participant 1.C. and participant 1.D. Participant 1.C. responded to the question of 'how do you handle challenges you face with the EDRMS by stating that *I discuss with the departmental team. Agree on issues that we can agree on. Otherwise we approach the consultant through the Head of the EDRMS team*", whereas participant 1.D. said something similar; "*we have regular meetings and discussions with the team*". Thus, it is evident that action officers sought assistance from the focal committee members before reaching out to the OPM EDRMS team with regards to EDRMS challenges. However, with regards to training, the institutional focal committee members would resort to contacting the OPM EDRMS team instead of taking up their designated roles to train end-users.

The situation in Institution 1 was not different to that of Institution 2. Participant 2.A. said that "*I call the training conductor or even fellow colleagues who were successful at the challenge I am experiencing*" while participant 2.C. and 2.D. mentioned that they "*call and write emails to the internal experts [when facing challenges]*". Besides that, participant 2.G. hit the nail on the head by stating that *"[I] consult with the colleague that received advanced training on EDRMS when I am experiencing challenges*". Participant 2.H. responded to the same question by stating that "*one will get experience while using the EDRMS but since I don't use the system, I don't get to acquire experiences from it*". Additionally, although participant 2.F. revealed that "*I don't use nor do I maintain the EDRMS*", a follow up question on how users are assisted was answered as follows by participant 2.F.; "*I make sure to create and maintain communication between the users and the OPM EDRMS Team".* Above all, the response of participant 2.E. should be noted with regards to gaining experiences from the system: "*I spent seven years at OPM, and received training at Beijing for one month and I used to go for training every month as the system upgrades*". Instead of the users seeking experience and knowledge from internal experienced staff like 2.E., they resorted to seek assistance and training from the OPM EDRMS team. Again, this is a result of poor KS between the focal committee members and the end-users. Similarly, participant 2.E. also sought assistance externally to resolve challenges encountered on the EDRMS; "*I call the EDRMS liaison officer for my institution when experiencing challenges, I also request staff trainings from the EDRMS liaison officer*". This is an indication that this key user/focal committee member that has been evidentially trained to train others, was failing to carry out his/her KS designated role.

Institution 3's KS proved to be more effective and efficient compared to the first two institutions under study. There seemed to be more internal communication than external as stated by participant 3.B.: "*I communicate with those in the Registry*". Similarly, participant 3.C. responded that "*IT comes to help or if they are struggling, I call OPM*". The other participant (3.A.) responded that "*I never faced challenges*".

Participant 3.E. responded that they gained experience by "*asking the experts mostly the ones in the registry*", while participant 3.D. did not have a comment as he/she stated that he/she "*did not use the EDRMS*".

It should be noted that although all three institutions under study reflected on the existence of key-users/focal team to guide, direct and train users on EDRMS activities, the interview responses proved that the members of these committees did not perform the roles that they were tasked with as per the terms of reference document reviewed. However, the focal committee members were willing and assisted action officers/end-users with challenges experienced on the EDRMS but they did not take up the responsibility to train their co-workers. This reveals a deficiency of KS between institutional focal committee members and end-users/action officers, particularly at Institution 1 and Institution 2.

4.4.4 EDRMS steering committees as a form of CoP in the Namibian public service

The document analysis of minutes and reports of meetings showed that there was another team which is referred to as the EDRMS Steering Committee in the Namibian public service. This Committee was responsible for training schedules on E-Office and setting up criteria for EDRMS implementation in the Namibian public service. Furthermore, the steering committee comprised of twelve members with representatives from different Offices/Ministries and Agencies (O/M/As) in the Namibian public sector like the: Office of the Prime Minister (OPM), Office of the President (OP), National Archives of Namibia (NAN), Ministry of Information and Communication Technology (MICT), National Planning Commission (NPC), former Ministry of Home Affairs and Immigration (MHAI) and the Ministry of Finance

(MoF) among others. It is in this manner that the EDRMS implementation engaged and shared knowledge with other O/M/As as stakeholder institutions. Similarly, the EDRMS steering committee was a form of community of practice (CoP) where institutions would share knowledge on their particular skills/core business. This was confirmed by participant 1.G. from Institution 1 who stated that "*NAN who is one of the stakeholders is involved as they are responsible for approving the File Plan. Whereas, Ministry of Finance and Auditor-General are also involved with regard to financing the EDRMS*". Additionally, the document review proved that Institution 1's stakeholder namely the "*NAN was involved in setting up the criteria for the implementation of EDRMS for all institutions in the Namibian public sector"*. Above that, the document review also had a report which stated that "*[Institution 1] requested the NAN for the release of a Senior Archivist to assist train the EDRMS project committee members in different O/M/As on records management practices before the system roll-out*".

Furthermore, it was observed that some of the participants were not aware of the existence of the EDRMS steering committee and its roles with regards to stakeholder involvement. Participant 1.B. mentioned that "*Stakeholders are hardly involved. It's only the developers that are really involved*". Additionally, participant 1.A. also had an opinion to the matter by stating that "*Ministry end-users are being trained they [OPM – EDRMS Team] always assist O/M/As when they face struggles, in this manner stakeholders are involved with EDRMS*". The rest of the participants from Institution 1 were not aware of how the institution's stakeholders were involved in the EDRMS.

Moving on to Institution 2, the document analysis has shown the manner in which the institution involved stakeholders through a "*records management workshop in* *collaboration with OPM whereby ten different O/M/As were trained on records keeping practices".* While most participants at Institution 2 were not aware of how their stakeholders were involved in the implementation of EDRMS, participant 2.E. highlighted that "*each O/M/A has nominated a steering committee representative at management level that will be part of EDRMS Project across the entire country".* Similarly, participant 2.B. reiterated that the stakeholders are involved as "*OPM trains the end-users*", while participant 2.C. said that "*they are involved as OPM which is one of the stakeholders is the one that rolls out the EDRMS to all O/M/As*". Besides that, participant 2.I. also mentioned an interesting note-worthy statement that "*Some stakeholders are excited for the EDRMS but later they get disappointed and frustrated when the system does not provide what it says it should*".

Moreover, the participants at Institution 3 did not have any knowledge on how the stakeholders of the institution were involved in the EDRMS. However, the only stakeholders that the participants could think of that were involved in the EDRMS are the staff members of the institution. Participant 3.C. said that "*they are involved as all departments have a focal person representation in the key users/focal committee*" while participant 3.A. also said that "*They [staff members] use the EDRMS quite well*".

In the final analysis, the research would assume that the EDRMS steering committee died a natural death. Document analysis revealed that the last minutes of meetings were held in 2014. There was no evidence of the current activeness of the EDRMS steering committee at the time of data collection for this study. Notwithstanding this, the responses from the participants clearly reveal how tacit knowledge is identified and shared amongst the O/M/As in the Namibian public sector, particularly the three O/M/As under study.

4.5 Impact of sharing and not sharing knowledge during the implementation of EDRMS in the Namibian public service

This research question sought to identify and outline the effects that poor KS practices had on EDRMS implementation in the three institutions. It was confirmed that poor KS and the lack of standardised work processes and procedures led to the EDRMS being a registry project. It was found that users did not use EDRMS for their operational duties as they lacked the know-how on EDRMS functionalities. Despite this finding, this theme also found participants acknowledging how KS would positively affect EDRMS implementation. All of the participants across all the three institutions were in agreement that KS would improve end-users' adoption and usage of EDRMS. In order to have an accurate interpretation and conclusion of how the sharing of knowledge affects EDRMS implementation and usage at the three public sector institutions which were studied, the following themes were derived:

a. Lack of policies and procedures on EDRMS operational requirements
b. EDRMS not being used for operational duties by all employees
c. Poor distribution of EDRMS roles and responsibilities throughout the three public sector O/M/As
d. Effective KS practices lead to improved EDRMS operation and adoption

4.5.1 Lack of policies and procedures on EDRMS operational requirements

It was found that the participants in all the three institutions were not reluctant to change and adopt the EDRMS. The problem was that the users were not confident to use the system because of lack of know-how and a lack of policies and procedures with regards to new work processes on the EDRMS.

The question was posed on how easy/difficult the EDRMS was with regards to usage at the time it was initially installed in all the three institutions. The participants that used the EDRMS at Institution 1 said that the EDRMS was "*difficult to use because it was not user-friendly, but the more I used it, the friendlier it became*", said participant 1.A. Participant 1. C. and participant 1.D. both said that the system was "*not difficul*t" to use. On the other hand, participant 1.B. said that it "*sometimes it's challenging…not user friendly at all*". Similarly, participant 1.G. said that "*it was difficult. But it was because of me not wanting to change. Resistance affected everything. It also becomes challenging because you don't know who is responsible for filing the records on the system when new records are received*." The response of this participant prompted the researcher to conduct further investigations through asking participants how they each managed the process of changing from manual record keeping to the EDRMS. Participant 1.A. responded by stating that "*[I] just got to practice with it*", while participant 1.B. said that "*they have never used any other system*". Interestingly, however, participant 1.G. stated that "*I didn't see the new system as necessary initially since the old worked perfectly well for me but eventually I got used to EDRMS because of the improvements and advantages it brought with it. If you don't move with change, you will not move to better things*". Similarly, participant 1.E. had an interesting view with regards to change management: "*people are reluctant and have the fear of losing their jobs, therefore counselling is needed*". Thus, it was proven that most of the participants in Institution 1 were not reluctant to change and adopt the EDRMS; they simply needed reassurance and sufficient knowledge on how to operationalise the EDRMS.

The employees at Institution 2 similarly needed more knowledge on new working procedures and processes with regards to EDRMS. While most of the participants at

Institution 2 could not answer the first question with regards to how easy/difficult the EDRMS was to use, there were a few who had used the system temporarily and could respond to the first question. For instance, participant 2.A. said that "*It was not so difficult but not so easy as well… [Although] it was understandable and friendly during training sessions due to the illustrations and examples that were given from the training conductor*", whereas participant 2.D. reiterated that "*it was easy…user-friendly*". Likewise, participant 2.E. stated that "*the first time it was strange as it is something new, we were at a very basic technical level; it was challenging to learn IT so first they trained many of us manually before we went electronically… [Now it is] very friendly as it is created according to a workflow functionality".* When the question of managing change was posed to the participants at Institution 2, participant 2.A. said that "*training should happen for guidance on how to use it [EDRMS] and how to apply the different functionalities of the EDRMS*". While participant 2.C. was of the same opinion as that of participant 2.A., participant 2.B. responded by stating that "*It is challenging, but I have to deal with it head-on*". However, participant 2.D. had a different opinion by stating that "*[I] adapt by equipping myself with the new knowledge through manuals or practice*". Likewise, participant 2.E. also said that "*it was an improvement to the old system [as] it is easy, system has linking of records functionality although it is time consuming*". The rest of the participants at Institution 2 simply reiterated the fact that the EDRMS was not in use at their respective institution. Institution 2's finding was the same as that of Institution 1. Users were not reluctant towards the change per se; they were simply not confident on how to use the EDRMS due to lack of know how.

Most of the participants at Institution 3 claimed that they found EDRMS easy to use and most of the participants said that the system is indeed user-friendly as per participant 3.E.'s statement; "*I can't access the system on the computer but I don't think it is difficult, the more you use a system, the more familiar you become with it. It is very interesting and I seek to know more about EDRMS*". However, there was an exception of participant 3.B. who said that *"[it is] difficult because training is not regular and one forgets*". Similarly, most of the participants never used any other system but EDRMS and they did not have to go through the process of change. However, there were a few participants like participant 3.B. who added that "*there will always be resistance but it [change] is good in order to grow, changes come with growth*". In the same way, participant 3.E. added that "*I use all the systems concurrently in a hybrid fashion*". Again, Institution 3 did not have an issue with changing to a new system, the problem was lack of knowledge on system usage due to insufficient training.

4.5.2 EDRMS not used for operational duties by all employees

As it has been noted that most of the users were deficient on EDRMS know-how and new work procedures and processes, this sub-theme revealed that EDRMS was not used actively in all the three institutions that were studied. If it were in use at all, it was only in the registry of Institution 1 and 3. Institution 2 admitted that nothing with regards to EDRMS was performed at the time of data collection. In order to reach that conclusion, the researcher asked all the participants across all the three institutions 'how often is the EDRMS used for your specific operational duties'.

All the participants at Institution 1 said that the EDRMS was not used for their operational duties and that if used it was "*very rare*" said participant 1.B. Participant 1.G. added that "*not at all, EDRMS is only used in the registry*". However, participant 1.A. said that "[*the system usage] depends on daily work whether I am* *uploading/scanning*". This shows that at Institution 1, the EDRMS was only used in the registry specifically by administrative officers. Archivists, Action Officers and Management officials were not using the EDRMS for their day to day/operational duties.

Similarly, all the participants at Institution 2 were not using the EDRMS for their operational duties as confirmed by observations and the interviews. It was observed that the E-office software was not installed in some of the users computers as the respondents did not know where to find and how to open the e-Office. Those respondents that had the E-office installed did not remember their usernames and passwords and ultimately struggled to find it on the web. Participant 2.C. responded that *"[it is] supposed to be used every day but it is not happening*". Additionally, participant 2.B. responded to the question by stating "*never*". Participant 2.E. confirmed that the system was "*not so much*" used for operational duties.

The situation was consistent even at Institution 3. Participant 3.B. stated that "*not at all, I forward all my documents to the registry*", while participant 3.E. said that "*it is not being used due to the technical error on my computer which makes me unable to use it*". However, participant 3.A. said that, "*there is a backlog of work but otherwise it is being used*".

4.5.3 Poor distribution of EDRMS roles and responsibilities throughout employees among the three public sector O/M/As

The question of 'how were the roles and responsibilities allocated for EDRMS' was posed to all participants in order to determine if there have been a level of knowledge sharing through the division of EDRMS responsibilities in the three respective institutions. The question was also posed to determine if participants were aware of their responsibility and role towards the implementation of EDRMS at their respective institutions. This sub-theme found that most EDRMS's responsibilities were undertaken by the staff members in the registry throughout the three O/M/As. However, all of the participants had knowledge of the fact that the registry was mostly responsible for EDRMS related duties. This is a result of lack of KS on new processes and procedures and also a lack of know-how of EDRMS functions. Most of the participants from Institution 1 and 3 were well aware of their roles and responsibilities, whereas most of the participants of Institution 2 were not aware of their roles and responsibilities but perceived EDRMS operation as the responsibility of those in the registry.

The interview responses revealed that most of the participants at Institution 1 were aware and confident of their roles and responsibilities towards EDRMS although there were a few participants that did not have as much knowledge on EDRMS implementation as others. Participant 1.A. stated that "*a 'to do' list where delegation is done for scanning, sorting, uploading etc. is compiled across departments*" while participant 1.B. explained that "*there is a team to update the organisational structure on the system, conduct changes on the file plan, departmental teams for scanning, uploading, sorting etc.*". Participant 1.C. and participant 1.D. were also aware of their roles by stating "*training*" as mentioned by participant C, whereas participant 1.D responded by saying that "*maintain the system, making sure the system is running and attending to user's needs*". Besides that, participants that were not aware and confident on their designated roles of EDRMS revealed more insight. Participant 1.F. said that *"[HR] registry only handles the performance agreement on EDRMS*", while participant 1.E. said that "*responsible staff members were selected to be a part of EDRMS*", and lastly, participant 1.G. explained that "*these are still to be done after* *the file plan is approved*". Since it has been established that EDRMS usage was on hold at Institution 1 due to the pending file plan awaiting approval, most of the participants still had knowledge of their designated roles towards EDRMS. This shows that there was a certain extent of KS during EDRMS implementation at Institution 1.

Conversely, most of the participants at Institution 2 were not aware of their roles and responsibilities towards EDRMS but they had knowledge on the duty of other co-workers with regards to EDRMS. Participant 2.G. confirmed that "*verbally in meetings it was assigned who will upload and scan*" and mentioned that their role was "*to scan and upload*". While participant 2.A. stated that "*EDRMS is not working and I have not been allocated a role/responsibility*". Participant 2.B. added that "*there is simply one section [in the institution] that got roles and responsibilities of EDRMS*"; this was confirmed by participant 2.H. who said that "*yes roles were allocated to someone who knew and worked with the system and the registry*". Participant 2.I. also acknowledged that EDRMS duties were conducted by one section in the institution; "*they were all handled under the Registry/Records Management section, registry will scan, upload while the HEAD will approve*". The same participant 2.I. added by saying "*No [I am not given a role], if I was given an EDRMS responsibility, I don't know it*". While other participants at Institution 1 were not aware of their roles and responsibilities, there were two participants who had roles to play towards EDRMS. There was the response of participant 2.E. that is worth highlighting; "*Yes [I am aware of my roles and responsibilities], it is about having the right spirit to use the system and push towards it being embraced by all in the workplace*". It is clear that the EDRMS was not functional/operational at Institution 2 and there has been no distribution of EDRMS activities that would be performed by the staff members. EDRMS related duties were only conducted by registry officials at Institution 2.

Contrastingly, Institution 3 participants seemed to all be aware of their different roles and responsibilities with the exception of participant 3.B. who said that "*I am not aware*". Most of the participants consistently mentioned their roles and responsibilities as mentioned comprehensively by participant 3.A. that "*scanning, sorting, uploading, correcting and verifying reference numbers and approving of records*". Additionally, participant 3.E. elaborated that "*refresher training course is needed to all other focal team members, scanning is mostly done in the registry. Others are uploading documents across the different departments throughout the organisation*". Furthermore, participant 3.D. also stated that "*my roles include supporting end-users, enabling connections and setting up scanners*". This is indicative of the fact that Institution 3 participants were involved in KS as almost everyone in the institution had knowledge regarding their respective role and responsibility towards EDRMS.

4.5.4 Effective KS could lead to improved EDRMS operation and adoption

This was another sub-theme that emerged from the data when the researcher posed the question: "How do you think knowledge sharing will affect EDRMS implementation?" The theme of efficiency and effectiveness of EDRMS through system improvement was consistent throughout all the three institutions, although every participant had their own unique opinion on how knowledge sharing would improve and lead to the successful implementation of EDRMS.

To start with, participant 1.A. from Institution 1 said that "*in a positive manner because the more people have knowledge, more jobs will be created*" while participant 1.B. mentioned that "*in a positive way as long as there is constant sharing of information*". Additionally, the responses of participant 1.E. and 1.F. were not very different from each other as participant 1.E. said "*new knowledge will be acquired in* *the organisation and everyone will be experts in the system*" whereas participant 1.F. added to this by stating that "*new knowledge will increase knowledge base in [Institution 1]*". Likewise, participant 1.C. was of the same opinion by saying that "*smaller work-load. Less call in through incapacitating others and would make my work easier*" while 1.D. said that "*it will allow less time to complete helping one user so that I can move to another*". Furthermore, participant 1.G. responded by saying that "*[it will] make everyone understand the importance of using a hybrid physical and electronic system and ease retrieval of records*".

Moving on to Institution 2, participant 2.A started by explaining that "*different expertise will come up with the right tools and standards with regard to EDRMS implementation. This will allow the system to perform the right function of records and archives management*". Similarly, participant 2.B.'s response was an addition to the previous response that "*it [knowledge sharing] will increase collaboration between NAN and OPM. Will give NAN the role to play in training institutions with regard to EDRMS*". Likewise, the responses of participants 2.C. and participant 2.D. were similar as they both alluded to how knowledge sharing will improve users' ability to perform functions on the EDRMS. However, participant 2.D. added to this by stating that it "*improves workflow and system will have less hiccups*". Furthermore, participant 2.E. also reiterated that "*it will affect very good. Registry will not struggle with lots of pressure to retrieve records and constantly circulating files which will increase efficiency as staff can access records through their personal computers".* Also, participant 2.G. mentioned the issue of system functionality although in a different manner from the rest by stating that "*KS will improve understanding in system functionalities*"; while participant 2.H. added to this by saying that "*it will help by using the system faster, errors will be minimised and rectified easily and faster*".

Finally, this was the response of participant 2.I. that should be highlighted: "*it would be a success if knowledge is shared with everyone whereby everyone gets the platform to ask questions/seek clarity and everyone in the organisation is involved in the system management and not just the registry*". Participant 2.F. said that "*yes it would*" and mentioned that more knowledge needs to be shared with "*IT people from OPM EDRMS team*".

The responses from Institution 3 were not different from those noted at the institutions above. Participant 3.A. started by stating that "*it will affect the implementation smoothly as the implementation process will go smooth from the beginning*". Likewise, participant 3.C. said something similar by stating that the "*implementation process will be affected positively as EDRMS is always a challenge with new staff members*". In the same manner, participant 3.D. stated that "*trainings will be improved as they are not set up right, knowledge also needs to be shared throughout Institution 3*". On the other hand, were participants 3.B. and 3.E. who were of the same opinion that "*it is good and helps everyone to save and trace their electronic documents*" and these were the words of participant 3.B., whereas participant 3.E. shed more light by saying that "*it would make work easier and much more effective and efficient*".

4.6 Types of knowledge that needs to be shared during the implementation of EDRMS in the Namibian public service

The answer to this research revealed participants' need for tacit knowledge on basic records management practices and the need for EDRMS technical know-how. According to the participants, this tacit knowledge would facilitate their individual adoption and daily use of EDRMS.

4.6.1 Knowledge needs on records management procedures and EDRMS technical know-how

Data analysis from all the three instruments revealed that most participants across all the three O/M/As critically needed practical know-how to help them to use the EDRMS effectively and efficiently, although participant 1.A. and 3.A. were of a different opinion. Some participants stated that resistance to change was the root cause of the unsuccessful implementation of EDRMS and this is evidenced by participant 1.A. who said that "*change of mind is needed [as there are] new ways of doing things and changing*", and participant 3.A. said that "*resistance is the only thing that keeps people from using the system. It is not difficult, it is just up to an individual*". In spite of these responses, it was found that the majority of the participants were in need of knowledge on the functions of EDRMS and know-how of the EDRMS operations in terms of use and file plan application. Knowledge on how to use and apply the file plan on an EDRMS is critical to how users would operate it, thus if users were knowledge deficient in that, they could be reluctant to use the EDRMS.

Furthermore, participant 1.B. identified their need for knowledge on "*basic records management and registry procedures. The EDRMS cannot be implemented without understanding the importance of records management*". While participant 1.F. mentioned the need for "*computer skills",* participant 1.E. added the need for *"training on the file plan".* Additionally, participant 1.G. said that "*training on EDRMS, information sharing on EDRMS itself, and using the system*" is the key to operate the EDRMS successfully. In Institution 1, technical EDRMS functionality knowledge and computer skills were crucial for EDRMS use. Similarly, technical knowledge on file plan use was a dire knowledge need which was identified. All this knowledge could require the process of *socialisation* so that critical *tacit knowledge* can be shared amongst co-workers.

Moving on to Institution 2, participant 2.C. and 2.H. both mentioned the need for EDRMS operational know-how. Participant 2.A. added that "*practical knowledge on system operations is needed, theory one can easily forget, more practicals are needed*", whereas participant 2.D. also added by stating that "*IT technical knowledge and allocating file reference numbers*". Likewise, participant 2.E. also referred to practical knowledge by stating that "*colleagues handling file plan should share knowledge on how to use the file plan*". However, participant 2.G. had something more to say by having stated that "*system was just painted black. People need knowledge on how the system works best when it is running parallel with the manual system*". Also, the response of participant 2.I. was not very different from the previous respondent: "*EDRMS Office functionalities need to have features like allowing case files and disposal and retention schedules. Regular training on the system is needed, as EDRMS is being upgraded*". Besides all this was the response of participant 2.B. which should be specially noted: "*people should be trained and qualified in IT and records management in order to be an effective training conductor*". This shows that at Institution 2, the most type of knowledge that was needed was technical know-how on EDRMS functions and technical file plan knowledge. What was needed could be translated as *tacit knowledge*.

Finally, respondents from Institution 3 also highlighted different kinds of practical knowledge that was needed. Participant 3.B. responded with the following that should also be specially noted; "*people spearheading the EDRMS should give end-users more training on EDRMS practically so that we work independently in order to save* *documents on my own without needing to send to the registry*". Additionally, the response of participant 3.E. was not very different; "*detailed training empowered with skills development*". Lastly, participant 3.C. said that "*knowledge on how to reference files correctly is what is needed".* Thus, the findings of Institution 1 and 2 were replicated at Institution 3 as well.

4.7 Methods and strategies of KS to enrich the successful implementation of EDRMS in the Namibian public service

All the participants across the three public sector O/M/As acknowledged the need for KS as a strategy to improve the implementation and adoption of EDRMS, as found and reported on the above theme. Thus, in order to recommend the most appropriate methods to enhance the sharing of knowledge during and after the implementation of EDRMS, the researcher found it best and fitting to first seek the participants' views and opinions on the subject. Based on the views and the responses of the participants, the researcher drew some recommendations that can be applied to the three public sector O/M/As respectively. Thus, the following themes were generated as strategies and methods to improve KS:

a. Need for frequent end-user practical trainings on EDRMS operations
b. Team building activities among employees to facilitate KS
c. Directives from management officials for employees to use and operate the EDRMS
d. End-user need to adapt to technology
e. Division of EDRMS roles and responsibilities among employees in the three respective O/M/As

f. Key users/focal committee members to share knowledge gained with the entire organisation

g. Knowledge retention through documentation

4.7.1 Need for frequent user practical trainings on EDRMS functionalities

The researcher posed the question, "How can staff members share their knowledge better with everyone in the organisation", and some of the participants at Institution 1 did not have an idea of how knowledge sharing can be improved, although there were some participants like participant 1.A. who said that *"through workshops, meetings and more/new projects*". When a follow-up question ("How can trainings be improved") was posed, participant 1.A. stated that "*offer more refresher trainings and advanced training*". Similarly, the participants who did not know what to suggest on the first question were however commenting on how the trainings can be improved, Participant 1.B. said that "*change management should be introduced as a module in training*", while participant 1.D. added that "*more frequently to make sure people don't forget as the system is not used every day*". Participant 1.C. also added to participant 1.D.'s statement by stating that "*training environment should be improved*". Similarly, participant 1.E. alluded to the issue of training by having stated "*make it more practical, the EDRMS should be installed in our computers before training is received*", whilst participant 1.F. said "*make training of EDRMS apart of employee induction*". The last participant at Institution 1, participant 1.G., was of the opinion to "*push the offices to finalise the file plan*". Frequent and refresher training was the consistent method in which EDRMS implementation and adoption could be improved at Institution 1 according to its participants. Training is centred on the sharing and imparting of knowledge from one individual/group to another. In this manner, the conclusion that participants at Institution 1 needed knowledge on EDRMS functions and activities through training can be drawn.

The need for knowledge sharing and transfer through training was replicated at Institution 2. Participant 2.A. supported the idea of training by stating that "*induction training would enhance KS on EDRMS usage*", while participant 2.C. said that "*through training which involves equal participation, the training conductor should be impartial*". Furthermore, when the question about 'how trainings can be improved' was posed, participant 2.A. mentioned that "*everyone working here [at Institution 2] should be trained not just those working [actively] on the system*". Whereas, participant 2.B. coincided with participant 1.E. by stating that "*install EDRMS on end-users' computers before training so people can apply knowledge gained from training lest they forget*", and in like manner the participant's view was supported by participant 2.D. who mentioned that "*more frequent training, EDRMS should be implemented before training*". Additionally, participant 2.C.'s opinion regarding training was to "*schedule training and let it be communicated well in advance*", while participant 2.E. brought in the issue of finance by mentioning that there is a need to have "*more budget allocation towards training*". Similarly, participant 2.F. also supported the training method by reiterating that "*training end-users in IT*". On the other hand, participant 2.G. said that "*supervisors should request more trainings so that knowledge of EDRMS is shared and gained among employees*", while participant 2.H. shed more light by stating that "*include NAN staff in training as manual and electronic Records Management work hand in hand*". The explanation of participant 2.I. on training should be noted, that "*after training, offer course evaluation forms to the participants, also give more refresher trainings and see where participants struggle and include records management in their training*". It seemed that training was the most efficient and effective method to share knowledge on EDRMS according to the participants at Institution 2. Also, their need for knowledge on IT technical issues and records management came on top of the list with regards to the content/scope of training.

Furthermore, the case was not different at Institution 3 although only participant 3.A. and 3.D. mentioned the need for training as a means to enhance the sharing of knowledge. The other participants had other activities in mind which are discussed below. Participant 3.A. explained that "*through OPM training key users so that they [keys users] come train all end users, people in [Institution 3] should use the system, induction training should be there so that whoever wants to use the system will be free to*". Whereas, participant 3.D. said "*through workshops, knowledge will be gained and transferred amongst colleagues*". However, when all the participants at Institution 3 were asked about how trainings can be improved, participant 3.A. and 3.B. were of the same opinion by saying that "*frequent refresher trainings should be done /they should be more regular*", whereas participant 3.C. specified the time period of trainings by stating that "*monthly trainings would be best*". Participant 3.E. alluded to another activity that needs to be done which is discussed below. Likewise, this is indicative of the fact that training was perceived as one of the effective and efficient methods to collaborate employees for the sharing of knowledge.

4.7.2 Team building activities among employees to facilitate KS

This was another form in which KS could be enhanced during the implementation of EDRMS as pointed out by the participants. The term was brought up by participant 1.B. who mentioned "*team building activities*" as a method of enhancing knowledge sharing and also "*daily use of the EDRMS*". Another participant who also advocated for team-building activities to be implemented for the enhancement of knowledge sharing and the effective implementation of EDRMS was participant 2.H. who advocated for the need to "*have more social activities to bring employees together to form interrelationships*". Similarly, participant 2.G. was also of this opinion although it was stated in a different manner; "*building trust relationships, some people are resistant to share their knowledge because of fear of losing the power they have in possessing certain knowledge*". Lastly, there was one participant from Institution 3, participant 3.E., who reiterated that "*team-work, uplifting spirits to make sure everyone has a sense of belonging*". These participants have understood that employees would form interrelationships through teamwork activities. This interaction would also build trust among co-workers, and provide a strong foundation for the sharing of knowledge.

4.7.3 Directives from management officials for employees to use and operate the EDRMS

This theme was raised by the participants across all the three institutions as a strategy to enhance knowledge sharing and the daily use of the EDRMS. Participant 1.B. was the first to refer to management motivation by having stated "*making sure that the Executive Director (ED) makes a directive that all staff should access records through the system*" which was supported by participant 1.E. who added, "*senior officials to grant juniors the opportunity to take ownership of the system, so that they participate*".

The idea was also reiterated at Institution 2 when participant 2.B. stated that "*discipline is needed, everyone should be disciplined and management should motivate employees to make employees feel appreciated, in this way, they will share knowledge and improve on EDRMS usage*". Also, participant 2.D. advocated for management motivation by stating that "*everyone should use it effectively starting from the HEAD* *to the junior in the organisation, if the head is not using it, why would someone below the hierarchy love it, it needs to be enforced from above*". Similarly, participant 2.G. alluded to management motivation by stating that "*put policies in place that will facilitate and allow colleagues to share their knowledge*". Participant 2.I. also referred to and supported the idea of participant 2.D. and 2.G. by explaining that "*there should be a directive from the top-level office to state the new working procedure. Regular inspections and door to door inspections should be done, to see how colleagues are coping. If the EDRMS is upgrading, people should be trained in all offices, end users-should also be trained*".

Similarly, participant 3.E. supported participant 2.I. by stating that "…*a supervisor heading the team should do inspections on a weekly or monthly basis to see how everyone is using the system, in order to check on a regular basis how many records were uploaded/approved/scanned and so forth*" Thus, it is evident that the participants from all the three institutions were confident that the active involvement and motivation from management in EDRMS implementation would play a big role in EDRMS adoption and use, especially for end-users/action officers.

4.7.4 End-Users need to adapt to technology

It should be noted that quite a number of participants across all the three institutions alluded to and advocated for both key and end users to be actively involved in EDRMS operation.

The issue of adapting to new technology was brought by participant 1.C. who stated that "*there is a help-desk where there is a solutions tab, so that all new knowledge can be set there so that everyone in the organisation can have access to it*". Participant 1.D. confirmed the existence of the help-desk line and advocated that "*users should* *adapt to technology and make use of the help-desk line*" in order to enhance knowledge sharing in the implementation of EDRMS. Also, participant 1.C. said that "*records keeping staff should upload records on the system, and end users should be refused physical copies so that records are accessed electronically*", whereas participant 1.D. added that "*records should be borrowed/downloaded online*". Similarly, participant 1.G. reiterated that "*we need to have a paper-less culture so that users can view documents and records on the system, the EDRMS should also be fast enough*".

In the same way, participant 2.B. highlighted "*adapt and improve on technology usage like emails and zoom meetings instead of face-to-face trainings*", as a manner in which knowledge can be shared by all in the institution and thus enhance the daily usage of the EDRMS as well. Participant 2.D. was of the same opinion as he/she said that knowledge can be best shared with everyone in the organisation "*through various platforms like emails and telephones*" In addition, was participant 2.C. who also said that "*other systems should phase out, so that staff members have no other alternative but to use EDRMS. There is resistance to change, so to embrace the new system, the old one should phase out completely*" in order to enhance daily system usage. Participant 2.H. added that "*system should be installed in all staff members computers and the responsibility of EDRMS should be divided and allocated to each and everyone in the organisation*" for enhancing daily system usage as well as knowledge sharing. While other participants advocated for users to adapt and use more technological platforms, there were other participants like 2.I. and 3.B. who mentioned that "*have internal common platforms like newsletters and regular meetings*" as said by participant 2.I., as well as "*meetings and regular trainings should take place*" said participant 3.B., as a method of involving all staff members in knowledge sharing and thus enhancing daily EDRMS usage.

Another participant who also supported the idea of users adapting to technology was participant 3.E. who stated that "… *[There should be a] link on their [OPM-EDRMS) webpage whereby staff can give their views on EDRMS, based on that, they (EDRMS team] will see users' needs and address those common problems*". Although participants 1.C. and 1.D. encouraged the use of the "*help-desk line"*, not all EDRMS users were aware of this method of communication, as verified by participant 3.E.'s response.

4.7.5 Division of EDRMS roles and responsibilities among employees in the three respective O/M/As

Another method of sharing knowledge and enhancing EDRMS implementation which emerged was that of sharing the responsibilities of EDRMS implementation through clearly defined roles and responsibilities. Sharing of the EDRMS's different functionalities was brought forth by participant 1.A. as a method of enhancing knowledge sharing and to ensure that users at Institution 1 use the EDRMS for the "*delegation of activities, exchanging EDRMS duties through departments*".

Additionally, participant 2.G. also referred to the sharing of tasks at the institution as a means to make sure that users are using the system daily and thus sharing knowledge. Participant 2.G. said that "*some people will not even look for a reference number or log on the EDRMS knowing that there is a registry clerk, so staff should be given records keeping responsibilities. Documents should not be accepted without a reference number from staff. That should be a staff rule*". Participant 3.C. agreed with this by saying that "*always return physical files to the registry so that electronic files are accessed and thus used*".

Furthermore, participant 2.E. explained how users and the focal committee members can share responsibility on EDRMS use:

"*there should be a daily report form to assign to every staff member to indicate problems encountered, what they have done on the system and their experience on the system. The Team Leader should do door to door training and record these, pick up complaints and suggestions from staff members and end users*".

4.7.6 Key users/focal committee members to share knowledge gained with the entire organisation

The input and insight of the key users/focal committee members in the three respective O/M/As was also mentioned as a strategy that would help involve end-users during EDRMS implementation.

Besides involving users in the system, participant 2.E. raised the issue of ensuring that keys users also give their input in order to ensure that the system is being used daily by everyone in the institution and that knowledge is shared. This is what participant 2.E. said; "*the key users that are members on the focal committees, should bring their inputs, share their skills and experiences through attending meetings*".

4.7.7 Knowledge retention through documentation

The question, "How do you think knowledge shared can be retained in your institution" was posed to the participants. Some participants like 1.B. and 2.D. had an opinion regarding the sharing of knowledge for organisational retention. Participant 1.B. explained that "*it is difficult to retain knowledge as people don't like sharing knowledge as they are afraid to lose their sense of power*". Whereas, participant 2.D. also gave a very interesting opinion by saying that "*knowledge can only be shared and* *retained through a level of confidentiality*". Most of the participants across all the three O/M/As raised the issue of retaining knowledge through documentation.

Participant 1.A. was the first to mention the issue of documentation as he/she explained that "*recording interviews with those leaving the organisation and documenting it, also through team building, shifting of duties, outreach and changing of programmes, then, the passion will come*". Similarly, participant 2.G. was of the same opinion by stating that "*putting measures in place to ensure colleagues leaving the work-place do not take along organisational knowledge and through keeping flyers and filing them*".

Additionally, participant 2.F. responded with the sentiment that "*by keeping records*", whereas participant 2.A. added in support of documentation by responding that "*by passing it from person to person and documenting it*". Participant 2.B. added by stating: "*keep records by documenting knowledge shared*". Furthermore, participant 2.H. also said, "*activities [where knowledge is shared] can be recorded digitally and archived so that it is documented*". The last participant at Institution 2, participant 2.I., also supported the documentation of knowledge by stating that "*besides being shared, it can be written down for others to refer to*". Moreover, although all the participants from Institution 1 were for the option of documenting knowledge, two participants from Institution 2 mentioned the option of retaining knowledge through organisational meetings: "*Frequent meetings. Reviving good working environment among staff. Experts of the EDRMS should be approachable, friendly and polite to easily allow others to approach them when needed*" was the view of participant 2.C. which was supported by participant 2.E.: "*after addressing issues [through meetings], change will arise*". Apart from retaining explicit knowledge as alluded to by previous participants, the last two participants had a better strategy of retaining tacit knowledge in employees' minds by encouraging different kinds of reasoning and exchange of knowledge in the form of meetings.

Participant 3.A. was of the same opinion of documenting knowledge by stating, "*taking notes and documenting it*" whereas the other participants at Institution 3 recommended knowledge retention through meetings. Participant 3.B explained, "*after training have a meeting to discuss way forward and document that. Have refresher trainings for all staff every second month*". Whereas, participant 3.E. responded, "*regular meetings whereby new information can be shared on system improvements*".

In this manner, the participants across all the three O/M/As reflected on the sharing, creation and retention of both tacit and explicit knowledge.

4.8 Chapter summary

This chapter presented the data collected from the three O/M/As under study that were coded for the purpose of confidentiality and the anonymity of participants. The data presented has shown that the EDRMS was not actively used in all of the O/M/As, although at Institution 3, EDRMS can be categorised as having been used semi-actively. Similarly, the data answered the main research question of the study which was to determine if knowledge sharing will affect the effective implementation of EDRMS across the three public sector O/M/As. The chapter has revealed that KS was performed among the action officers during the implementation of EDRMS. However, the key users/EDRMS focal committee members and the IT staff were not sharing knowledge to a maximum extent with the end-users of EDRMS. It has similarly been found that most of the IT officials did not receive advanced technical training on EDRMS operations. IT officials had to learn the system by themselves through manuals and user guides. This can affect their commitment to the use of the EDRMS, since they will have limited knowledge on EDRMS technicalities to share with users, hence the poor usage of the EDRMS in institutions. Furthermore, it has been found that officials in the three O/M/As were not reluctant to change and adopt the EDRMS. They simply needed more knowledge on how to operationalise the EDRMS. It was also found that after the EDRMS was implemented in the three O/M/As, there were no policies/guidelines to guide users on new work processes. This gives users a lack of confidence to operate the EDRMS as they do not know how to embed the EDRMS in their daily work routines. With regards to top management support, management was found to have an interest in EDRMS implementation. However, although EDRMS had a budget in institutions 1 and 3, resource allocation for EDRMS equipment was very poor and slow. This is for the reason that although management had an interest in EDRMS implementation, they did not understand and did not have adequate buy-in on the critical importance of records management. Due to that, the EDRMS would not be financed and prioritised as much as any other project/functions in the institutions. All the participants in the respective three O/M/As acknowledged that KS to its full extent would lead to great change in EDRMS implementation as they would easily adopt and use the EDRMS smoothly. The EDRMS implementation was found to have failed due to lack of knowledge sharing amongst the key users/focal committee members and the end-users/action officers, IT officials and records and archives management personnel, and that management officials had poor knowledge of records management. The chapter ended with participants' recommended methods and strategies on the enhancement of KS for the successful implementation of EDRMS. The responses of the participants were quoted verbatim from the interviews and document analysis.

The data is interpreted and discussed in the next chapter in order to accurately and clearly fulfil each research question of this study.

CHAPTER FIVE

DISCUSSION AND INTERPRETATION OF FINDINGS

5.1 Introduction

This chapter focuses on the discussion of the findings presented in the previous chapter (Chapter Four). In this chapter, the findings are discussed and interpreted according to the SECI theoretical framework and empirical literature on EDRMS implementation. This is done to compare and contrast the findings of this study with empirical literature and to link the findings to the processes/phases of KS that were suggested by the SECI theoretical framework. Through this, the research questions of the study are accurately fulfilled. The discussion is based and constructed according to the five research questions of this study. However, the fifth research question that dealt with recommending the methods and strategies for KS is discussed in Chapter Six where all other recommendations for the study are mentioned.

5.2 Level of EDRMS implementation process in the public sector of Namibia O/M/As

This research question is discussed according to the following sub-themes in order to clarify the findings.

a. End users lack of knowledge on EDRMS inception at institutions

b. End users’ inaccessibility to EDRMS on personal computers

c. Diverging management support towards EDRMS activities amongst the three public sector institutions

d. End users’ lack of confidence in EDRMS software

5.2.1 End-users lack of knowledge on EDRMS inception at the institutions

It has been established that most users of EDRMS did not have knowledge on how the EDRMS came to be in existence in the three respective O/M/As. Most of the participants were new at the respective O/M/As that were studied, and this is also an indication that end-users were not actively involved at the beginning of the EDRMS implementation process. Kaupa and Chisa (2020), Kwatscha (2010) and Yin (2014) have similarly found and reported that one of the factors which led to the failure of EDRMS implementation was that end-users were not involved at the beginning of the EDRMS implementation process and they were thus reluctant to adopt the EDRMS for daily work routines. Although Kwatscha (2010) mentions that a lack of communication at the early implementation of EDRMS resulted in poor user involvement, the role of a lack of KS as a factor which led to poor user involvement was not explicitly mentioned, but it can be implied. Furthermore, Shonhe and Grand (2020) also mention the need of having a people-centred implementation strategy for EDRMS. This implies that all employees in an institution are supposed to be involved in the implementation and overall management of the EDRMS from its initial inception in the organisation. This would motivate employees to get to know more of the EDRMS, adopt it for daily use, and desire to take action towards its successful implementation in the organisation (Shonhe & Grand, 2020). This study found that most of the participants at the three respective O/M/As did not have knowledge regarding the inception of EDRMS at their respective institutions. This sets the foundation/base that there was a lack of KS at the three respective O/M/As from the start of the EDRMS implementation project. This already is indicative of the fact that KS on EDRMS implementation and its historical context in the organisation was not conducted effectively among employees at all of the three O/M/As respectively.

5.2.2 End users' inaccessibility to EDRMS on personal computers

Although the document review revealed that the EDRMS has been implemented in all of the three O/M/As, the study found that EDRMS was not entirely functional at the three O/M/As. At institutions 1 and 3, the EDRMS was only used in the registry whereas at Institution 2, the EDRMS was not functional in any way. This finding concurs with that of Karlos and Nengomasha (2018), who found that the EDRMS in the Namibian public sector was only implemented and used in governmental registries. EDRMS implementation refers to an organisation's decision to adopt a software that can assist in the creation, management, use, storage, maintenance and disposal of both electronic and physical records (National Archives of Australia, 2011; Queensland State Archives, 2010). Empirical studies on EDRMS implementation (Kaupa & Chisa, 2020; Kwatscha, 2010; Nengomasha & Chikomba, 2018; Yin, 2014) described EDRMS implementation as an information system that automates and manages workflow processes through the control and management of both physical and electronic records. Thus, for an institution to be classified as having implemented an EDRMS, it should be using the EDRMS in daily work routines so as to create, control and manage both digitally produced and physical records in the organisation's custody. This was not the case at the three O/M/As under study as the E-office software was not installed in most of the participants' computers. The participants that had E-office on their computers were registry officials and they were the officials that conducted duties related to EDRMS like the scanning and uploading of physical/hard copy records as mentioned by participant 1.A. that "*filing, scanning and uploading*" and 3.A. "*sorting, setting and verifying reference numbers, scanning, uploading and approving of records on the system"*. The automation of work processes through workflow and the creation, filing, storage and retention of electronic records was found to be non-existent at the three O/M/As that were studied. This was so because there was no evidence of the creation and overall management of electronic records produced at the institutions. However, there was a controversy which arose as a result of lack of KS among the three O/M/As regarding the functionalities and capabilities of the EDRMS such as workflow and archiving. Since Institution 2 and 3 opposed the EDRMS due to lack of knowledge on the functionalities of EDRMS. This implies that the OPM responsible for implementing the EDRMS did not inform public sector institutions on the add-on functions of the EDRMS which simply needed to be configured to activate them.

Furthermore, the document review revealed that the EDRMS implementation phases of the Namibian public service differed from the phases suggested by the National Archives of Australia (2011) and the Queensland State Archives (2010). The contrast is shown in Table 2.

OPM Service Level Agreement (2007)	Queensland State Archives (2010)
1. Business requirements matching	Business needs analysis and benefits
2. Installing of e-office	Scope of the programme
3. Configuration	Senior sponsorship and clearly defined roles and responsibilities
4. Customisation	Selecting the right software product
5. Testing final system	Project approach
6. Training key users and end users	Stakeholder engagement and change management
7. Go-Live	EDRMS policies, procedures, rules and requirements
8. Maintenance and Support	Training
	9. Beyond implementation/On-going maintenance

Table 2:OPM SLA (2007) vs Queensland State Archives

Through the different approaches of implementing EDRMS, one can see some similarities and differences. For instance, both approaches prioritise the analysis and scoping of the business needs of organisations as the first step towards EDRMS implementation. However, while the 2007 Service Level Agreement installs the software after analysing business needs; the Queensland State Archives (2010) has other procedures that need to be done. These are procedures like scoping of the implementation programme which involves planning by setting up schedules on how and when the new EDRMS will be implemented and how pre-existing systems can be integrated in the EDRMS. The next phase involves seeking sponsorship from management and having clearly defined roles and responsibilities towards ongoing system management. Only after these aforementioned phases does the Queensland State Archives (2010) address the: Selection of the Right Software Product and the Project Approach which specifically directs the installation and configuration of technicalities of the EDRMS within the organisation (Kwatscha, 2010; Queensland State Archives, 2010).

The reason why these differences are critical to highlight is to indicate how the Queensland State Archives (2010) approach provides maximum opportunities for knowledge sharing amongst employees during the EDRMS implementation compared with the 2007 SLA that the OPM follows. It is for this reason that in choosing the right software product, identifying/compiling the scope of the programme, obtaining senior sponsorship and having defined roles and responsibilities, employees in an organisation would need to collaborate in order to brainstorm ideas together in an attempt to move from one level of the implementation process to another. When compiling the scope of the programme for instance, it would involve considering the different units/divisions of the organisation and considering all the systems that are currently being run in the organisation. Once all these are considered, different people from different disciplines in the organisation need to come together and deliberate (Kwatscha, 2010; Yin, 2014) on the best method to integrate and deal with legacy systems that exist in the organisation. Besides that, in choosing the right software product for the organisation, different representatives from various disciplines in the organisation need to 'put their heads together' in order to choose the best software product that benefits the entire organisation at large.

The implementation phases that have been mentioned in the service level agreement of 2007 do not depict a picture that provides much opportunity for knowledge sharing amongst employees in an organisation, hence the unsuccessful implementation of EDRMS in the Namibian public sector. The only opportunities that could facilitate knowledge sharing according to the service level agreement would be at phases like the customisation of the system and the training of key and end users. That is the reason why most participants mentioned training as the most effective and efficient platform for KS during EDRMS implementation.

5.2.3 Diverging management support towards EDRMS activities amongst the three public sector institutions

Another sub-theme with regards to KS practices during the implementation processes of EDRMS was a finding of the differences in management support towards EDRMS across the three O/M/As. The study found that management officials at Institution 1 and Institution 3 had a great interest in the implementation of EDRMS as they have reportedly sponsored the procurement of EDRMS equipment once upon a time. However, the constant support for EDRMS equipment was not steady. This is consistent with the findings of Nengomasha and Chikomba (2018) who reported that "over the years there have not been enough funds allocated for maintenance and upkeep of the system" (p. 259). A study by Karlos and Nengomasha (2018) also cited poor and a downgrade of management sponsorship for EDRMS implementation at institutions of the Namibian public service. However, despite the need for EDRMS sponsorship and buy-in from management officials, Kwatscha (2010) has added that a resilient and dedicated EDRMS project team can still lead and manage the successful implementation of EDRMS in institutions, though if the EDRMS project team is to direct the EDRMS implementation process, top-management officials would need to grant the project team all the resources and power required to take actions that could successfully implement the EDRMS. Kwatscha (2010) further adds that management officials need to have trust in the project and the project team members equally. This is where transformational leadership which is based on trust can take precedence. Trust is based on the belief from one individual or group that another individual will perform as expected, instead of taking advantage of the situation at hand (Razmerita et al., 2016). The implication is that management buy-in, management support/sponsorship for EDRMS activities and transformational leadership are interrelated factors that are dependent on the extent of KS during EDRMS implementation. For instance, management officials need enough insight and knowledge regarding the purpose and benefits of EDRMS implementation if they are to buy-in into the EDRMS. Based on this, management will sponsor an EDRMS project only if they see the beneficial value that it can bring to an organisation. In this manner, transformational leadership can take place in the means of management officials granting the EDRMS project team a sufficient budget, allocating time schedules for KS and overall power to spearhead the successful implementation of EDRMS.

The fact that sponsorship from management officials has downgraded from past years could be an indication/reflection of management officials' low appreciation and value for EDRMS. This is due to the fact that "*management do not understand the importance and value of records-keeping practices*" as stated by participant 1.A. Thus, this study found that management officials lack sufficient knowledge regarding the importance and overall implementation of EDRMS. This led to low appreciation and value attachment towards the successful implementation of EDRMS in the Namibian public sector institutions.

5.2.4 End users' lack of confidence in EDRMS software

It has been established that most of the end users/action officers and even IT officials across the three public sector O/M/As did not have confidence that the E-office software was the best EDRMS for the Namibian public service. This was due to officials' perceived beliefs that the EDRMS lacked the retention and archiving of records functionality, limited workflow functionality and poor technological constructions. The problems that the records management and action officers had regarding the limitations of the E-office software could be attributed to a lack of knowledge on the functional factors of the EDRMS that was procured. The document review revealed that the E-office is able to archive and manage workflow processes; it was just a matter of the required configurations to activate these functionalities on the E-office. Although this information on EDRMS functionalities was contained in the terms of reference documentation, the explicit knowledge contained in such documents was not shared with all O/M/As and their employees in the Namibian public service, hence, the participants' concern. However, the Queensland State Archives (2010) recommends that when procuring an EDRMS software, it is vital to weigh and evaluate the core standard functions of the software against the additional functions that may need to be configured. This evaluation should be based on the organisation's functional requirements so that the right software which is cost-efficient can be procured. Functions such as workflow coordination and retention and archiving of electronic records that need extra configuration can even come at a higher cost than what the Government of Namibia is already paying. This is a result of not involving public sector institutions like the National Archives of Namibia to share their records and archives management skills and expertise for the selection and procurement of a suitable and cost efficient EDRMS software for the entire Namibian public service at large. Participant 2.I. implied that NAN was not involved in the procurement of EDRMS, "…*that is when OPM realised they needed the NAN with regard to file plan functionalities of the EDRMS*". A lack of KS amongst records and archives professionals and IT professionals will lead to the procurement of an EDRMS software which may not be suitable for an organisation; either on the records management perspective or on the information technological perspective. In the Namibian public sector, the E-office software selected was found to be weak on both the IT and records management perspective as similarly reported by Namibian empirical literature on EDRMS (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Nengomasha & Chikomba, 2018). Queensland State Archives (2010) elaborates on how the evaluation criteria of the EDRMS and its value must first be identified and agreed upon before an institution embarks on procuring an EDRMS software. It is at this point that the knowledge in the form of expertise, skills and know-how of various key individuals in an organisation should be collaborated. Records Management officials, Information Technology specialists, Risk and Compliance officers and financial officers could share knowledge so as to procure an EDRMS that will befit the entire organisation at large. The International Records Management Trust (2009) acknowledges that when an institution should choose the right software product for an EDRMS, it should be an organisation-wide decision and not that of a single division or unit. This is for the reason that an EDRMS software should be based on an organisational-wide requirement and strategy (International Records Management Trust, 2009). Through this, the evaluation criteria for an EDRMS software would be based on costs of ownership, records and archives requirements, document management requirements, workflow requirements and informational technological specifications. Due to the fact that EDRMS E-office was procured for the entire public service implementation, the selection of the software was supposed to be based on the evaluation criteria set by representatives across the different O/M/As of the Namibian public service, not only one Office within the entire public service O/M/As. The Ministry of Finance, Ministry of Information and Communication Technology, Office of the Prime Minister, National Planning Commission, and especially the National Archives of Namibia (NAN) are some of the institutions that were supposed to set the evaluation criteria for an EDRMS software befitting the Namibian public service. One would wonder that if the NAN, which is the records and archives coordinator and regulator in the Namibian public service, was not involved in the procurement of the E-office, which other institution would manage to set up an appropriate and standardised records management evaluation criterion for the Namibian public service?

5.3 KS practices in the implementation of EDRMS in the three public sector O/M/As

There was a dearth of empirical literature according to the researcher's knowledge on KS during the implementation phases of EDRMS. This theme investigated and identified practices that allowed and facilitated the sharing of knowledge during EDRMS implementation in the three public sector O/M/As.

a. Insufficient end-user training on EDRMS operations

b. KS in the form of illustrations and informal discussions during the implementation of EDRMS in public service institutions

c. The role of EDRMS focal committees in public service organisations to facilitate KS during the implementation processes

d. EDRMS Steering Committees as a form of CoP in the Namibian public service

5.3.1 Insufficient end-user training on EDRMS operations

Training has emerged as a method and technique of KS which was commonly used and consistently mentioned across the three selected public sector O/M/As as revealed in Chapter Four. Training exists to identify the skills and expertise of individuals and to upgrade those skills and expertise according to new found practices and procedures (Queensland State Archives, 2010). Mutimba (2014) elaborates that training in EDRMS is conducted for the purpose of familiarising users with the EDRMS so that users are able to understand and operationalise it. Participants reported that training was the most effective method in which technical know-how on EDRMS functionalities and file plan skills were attained. Thus, training key-users and end-users was conducted in an effort to impart knowledge and skills of EDRMS operations from the trainers to the trainers. In this way, training could be summed up as the *socialisation* phase of KS whereby tacit knowledge on EDRMS technical functionalities is shared with others in order to improve and upgrade another individual's/group's tacit knowledge base (Farnese et al., 2019; McQueen & Janson, 2016; Song et al., 2011). Despite training being an effective method for KS on technical issues of EDRMS operations, the irregularity of training sessions among the participants reduced the effectiveness of the strategy. Most of the participants were in desperate need for additional and advanced training on EDRMS functions in order to operationalise it. Mutimba (2014) confirms that EDRMS implementation projects and any other records management projects usually fail due to insufficient training. If training is to be effective, it should be conducted at regular intervals according to the needs of both key-users and end-users of the EDRMS. Insufficient training as a factor which led to the unsuccessful implementation of EDRMS was consistently reported in world-wide EDRMS empirical literature (Bastaki, Haak-Saheem & Darwish, 2020; Karlos & Nengomasha, 2018; Lee, Malik, Rosenberger III & Sharma, 2020; Kaupa & Chisa, 2020; Kwatscha, 2010; McQueen & Janson, 2016; Mosweu et al., 2017; Mutimba, 2014; Nengomasha & Chikomba, 2018; Yin, 2014). Furthermore, although the outcry for refresher trainings came from all corners of participants across all the three O/M/As, participant 2.I. mentioned that "*give more refresher trainings to individuals in order to see where they are struggling and include records management basics in trainings*". This is supported by McQueen and Janson (2016) and Kwatscha (2010) who elaborated that ongoing and refresher trainings need to be offered to users on a regular basis to ensure that users have the technical skills that they need in order to make use of the EDRMS to its maximum extent. Additionally, Kwatscha (2010) adds that when users stop using the EDRMS, training should be offered to encourage them to use the EDRMS again. The author further elaborates that there should be on-going schedules or time intervals of training users in order to maintain active EDRMS usage (Kwatscha, 2010). Based on the above, it has been established that training is one of the most critical methods of KS on EDRMS implementation if used effectively and efficiently. Should the strategy of training not be administered efficiently, training would be an obstruction instead of a facilitator of the successful implementation of EDRMS in institutions.

5.3.2 KS in the form of Illustrations and informal discussions during the implementation of EDRMS in Namibian public service institutions

The use of meetings, illustrations and informal discussions was another method of tacit and explicit KS practice that was performed amongst co-workers during the implementation of EDRMS.

This sub-theme revealed that employees in the three respective O/M/As were mostly keen on sharing and transferring tacit knowledge amongst each other through illustrations; this refers to the *socialisation* phase of knowledge sharing according to the SECI model. However, *externalisation* was also used to share and convert tacit to explicit knowledge through discussions in meetings. In this manner, *tacit knowledge* gained would be converted to *explicit knowledge* through the capturing of minutes of meetings which were held. Critical informal discussions could similarly allow and facilitate the compilation of EDRMS procedural manuals through *explicit knowledge combination* from different individuals and groups. Additionally, *internalisation* would take place when IT participants at Institution 1 familiarised themselves with EDRMS procedural manuals in order to gain knowledge on EDRMS technicalities.

Galeazzo and Furlan (2019) classify meetings, illustrations and discussions as part of the participative practice of KS. It is worth noting that informal discussions among employees, especially when illustrative practices are involved would be an effective manner of sharing and transferring tacit knowledge from one individual/group to another (Nonaka, 2007). This is for the reason that other individuals would learn by observing while participating in informal discussions. In this manner, knowledge in the form of skills and expertise in EDRMS operation is shared and transferred. This is what would be referred to as tacit KS and transfer through *socialisation*. Galeazzo and Furlan (2019) support this standpoint as they suggest that effective communication and collaboration among employees can foster and enhance the sharing of tacit knowledge among employees, and also facilitate the transformation of tacit knowledge into explicit knowledge. Besides that, McQueen and Janson (2016) also acknowledge that the initiative of organisational knowledge sharing that could lead to the creation and formation of tacit knowledge among employees, whereby processes and procedures learnt are embedded in the minds of employees and can be applied in action. One can thus say that the practice of meetings, conducting illustrations and informal discussions is a strategy that embraces the *socialisation*, *externalisation* and *internalisation* process of *tacit* and *explicit knowledge* creation and sharing. This leads to employees being able to perform EDRMS functions by themselves without necessarily having to consult procedural manuals. Thus, effective meetings supplemented with the capturing of minutes, illustrations and discussions are an effective method of sharing knowledge and transferring knowledge both from *tacit* to *explicit* and from *explicit* to *tacit knowledge*.

5.3.3 The role of EDRMS focal committees in public service organisations to facilitate KS during the implementation processes

The data revealed that when O/M/As in the Namibian public service were implementing the EDRMS, the respective institution implementing the EDRMS had to select certain of its employees that would constitute what is referred to as the EDRMS Focal Committees/Key Users committee. Most of the individuals in these committees at every public sector institution in Namibia were offered advanced training on EDRMS functionalities in order to train and direct EDRMS activities within their respective institutions. This process of training the trainers in EDRMS implementation is represented in the Scope of the Programme and the Project Approach stages of EDRMS implementation mentioned by the Queensland State Archives (2010). The aim of these phases is to collaborate through multi-disciplinary employees to take on responsibility of the EDRMS implementation and roll it out through training end-users (Queensland State Archives, 2010; Yin, 2014). This collaboration of multi-disciplinary employees in EDRMS focal committees would ensure that there is a representative from every function/division of an organisation involved during the implementation of EDRMS. This grouping would also then create a form of Community of Practice (CoP) within the organisation which facilitates and enhances KS amongst employees of various disciplines as suggested by Kumaraswamy and Chitale (2012) and also Jeon et al. (2011). Likewise, findings from this study revealed that only at Institution 1 and Institution 3 was there a collaboration of multi-disciplinary employees that constituted the organisational EDRMS focal committees. The EDRMS focal committees at these institutions included registry officials, IT personnel, some management officials and few action officers that are in other fields such as procurement, finance and human resources. This is confirmed by the finding of Nengomasha and Chikomba (2018), that there are in fact multi-disciplinary EDRMS focal teams in O/M/As that have implemented EDRMS in the Namibian public sector. The multi-disciplinary team at Institution 2 consisted of IT staff and records and archives management officials at the institution. End users such as procurement officials, human resource officials, and finance officials were not included in the EDRMS focal committee of Institution 2. Nengomasha and Chikomba (2018) similarly found that these multi-disciplinary committees were mostly constituted by IT personnel and records and archives management staff members.

Although EDRMS focal committees were existent in all the three O/M/As mentioned above, it has been revealed that these committees did not carry out the functions as they were supposed to as stated in the EDRMS Committee Terms of Reference documentation. When employees or end users needed training, the end users would contact the team leader of the EDRMS focal committee within their respective institution. Instead of the team leader taking it upon him/herself to fulfil a training need, the team leader rather called in the OPM EDRMS Liaison officers to perform the task of training. This is indicative of the fact that the key users that received advanced training were not engaged in the sharing and transferring of their newly gained knowledge to their fellow co-workers. Nevertheless, it should be noted that the key users across the three O/M/As were keen on sharing their skills and knowledge with end users/action officers, but only upon request. With regards to training however, they always opted for external means by contacting the OPM EDRMS team to conduct the training. This is indicative of poor KS among EDRMS focal committees and end users/action officers at institutions of the Namibian public service.

5.3.4 EDRMS Steering Committees as a form of CoP in the Namibian public service

The document review revealed that there was another bigger EDRMS committee in the Namibian public service apart from the institutional focal committee, which was called the EDRMS Steering Committee. This steering committee as shown by the document review comprised of representatives across the Namibian public service O/M/As like the OPM, NAN, NPC, Ministry of Finance, Auditor-General, Ministry of Justice, Ministry of Information and Communication Technology, to name just a few. The responsibility of this committee was to discuss issues such as criteria for EDRMS implementation, training agendas, and training schedules among others. The committee was responsible for assisting the OPM in directing and managing the EDRMS implementation across the Namibian public sector hence the term 'Steering Committee'. This was a manner in which knowledge was shared across the different institutions that were skilled and experienced in multi-disciplinary areas of the profession. The steering committee, one would say, was a form of CoP as it included individuals from different disciplines intra-organisationally. The steering committee was formulated in order to share skills, experiences and knowledge, in an attempt to attain a mutual understanding and share thinking capacities on a common practice (Jørgensen et al.; 2020Kumaraswamy & Chitale, 2012; Yin, 2014), namely, EDRMS implementation across the Namibian public sector organisations. However, it was not clear as to whether this steering committee was active at the time of this study. Although it could be assumed that this steering committee was no longer active as it was not acknowledged by most of the interview participants and there were no recent minutes of meetings or any recent documentary evidence of the activities performed by this committee. The last documentary evidence regarding this committee was in 2014. This governmental CoP may have lasted for four years since its inception in 2011. When individuals are brought together in a group or when there are individuals of different disciplines brought together in the form of meetings and workshops, this process would enhance and facilitate collaboration which leads to better organisational KS practices (Jeon et al., 2011; Jørgensen et al., 2020; Kumaraswamy & Chitale, 2012; Yin, 2014). More than the fact that this will enhance KS and collaboration amongst employees is that such practices of bringing together individuals inter/intra organisationally could also facilitate the formation of Communities of Practice (CoP). This is supported by Kumaraswamy and Chitale (2012) and Jørgensen et al. (2020), who define CoPs as groups of individuals that gather to share knowledge, skills and understanding on mutual practices. CoPs could most likely be placed under the *socialisation, externalisation* and *combination* phases of knowledge sharing and transfer. This is because in these collaborative sessions, different individuals brainstorm collaboratively; explicitly document ideas, thoughts and skills, and finally combine their different explicit knowledge to create standards, procedures and criteria for EDRMS implementation in the Namibian public service. Therefore, CoPs could have such a great impact on EDRMS implementation through meetings and workshops with multi-disciplinary individuals across the key O/M/As in the Namibian public sector. The key O/M/As would be those that would play a significant role and add value or weight to the evaluation process of selecting a new EDRMS software. The problem encountered was that the OPM lodged this form of CoP late. This CoP was supposed to already be in place from the year 2007, in which deliberations on procuring the E-office software of EDRMS began. In this manner, with the help, knowledge, skills and experiences of the CoP, the Namibian public sector would have invested in a better and suitable EDRMS. The reason why the EDRMS steering committee died a natural death is still unknown, but it is worth investigating. It is in this manner that the sharing of knowledge is most vital inter and intra-organisationally. Regardless of this, CoPs could still be used in the then and now in order to determine the methods of how the E-office can be improved and upgraded to suit the functions performed by the O/M/As in the Namibian public service.

5.4 Impact of not sharing knowledge during the implementation of EDRMS in the Namibian public service

This research question was aimed at outlining the effects of poor KS on the implementation of EDRMS in the three Namibian public sector O/M/As. The following sub-themes were generated from the data:

a. Lack of policies and procedures on EDRMS operational requirements

b. EDRMS not being used for operational duties by all employees

c. Poor distribution of EDRMS roles and responsibilities throughout the three public sector O/M/As

d. Effective KS practices lead to improved EDRMS operation and adoption

5.4.1 Lack of policies and procedures on EDRMS operational requirements

It has been established that there were no clear policies and procedural guidelines of new work processes for the implementation of EDRMS in all of the three O/M/As which were studied. While the document review and observation found that there were no existent policies to guide users on EDRMS usage, the interview responses verified that most of the participants received the know-how of EDRMS through trainings, except the IT officials that engaged in self-learning processes of procedural manuals. Other than the IT officials, all other participants consistently mentioned training as a strategy of facilitating KS, hence, some participants abandoned and resisted EDRMS usage due to lack of training. Training sessions were an agent and facilitator of EDRMS usage, guidance and direction. Thus, some end users that were also action officers did not have knowledge on how they are to embed and use the EDRMS in their daily operational duties (see next sub-theme 5.4.2). Policies and procedural guidelines are critical to the successful implementation of EDRMS. It is through policies and procedural guidelines that end users/action officers are guided on how to use the EDRMS in the fulfilment of their daily routines (International Records Management Trust, 2009; Queensland State Archives, 2010). Due to the absence of policies and guidelines on EDRMS functionalities, action officers did not put the

EDRMS to use as they lacked knowledge on how it can be used in their specific daily routines. Therefore, the EDRMS in the Namibian public sector was only operated in the registry where it is relevant for the duties of records keeping as it has been found in this study. Similarly, Karlos and Nengomasha (2018) found that EDRMS in public sector institutions of Namibia was not implemented organisation-wide as action officers perceived the EDRMS as a registry project. Policies and procedural manuals of EDRMS in an institution would consist of directives and guidelines on the creation and filing of electronic records, email content and attachment saving, how to retrieve records in all formats, access controls, audit trail usage and the retrieval and disposal of both electronic and physical records (National Archives of Australia, 2011). The process of compiling and standardising clear policies and procedural manuals would involve the sharing and documentation of *explicit knowledge* from various records managers and archivists in institutions, through the *combination* process of knowledge creation (Nonaka & Konno, 1998; Nonaka, Toyama, & Konno, 2000). Records management professionals in an institution could explicitly note down how records keeping practices can be administered by every individual in an organisation, on an electronic platform. In this manner, records management professionals and IT professions would collaborate their knowledge, skills and information explicitly to create new organisational knowledge through *combination*. It is through this method, that records management officials' *explicit knowledge* can be combined with *explicit knowledge* from the IT professionals group, in order to create policies and guidelines that direct not only the records management processes on EDRMS, but also the informational technical procedures of operating the EDRMS.

Thus, it is evident that records management professionals in the three respective O/M/As did not share and collaborate their tacit knowledge, skills and information with each other in order to compile records management implicative policies and guidelines for the usage of EDRMS. Since every employee in an institution could create records, every individual in an institution should be able to undertake a certain extent of records keeping responsibility. Similarly, Kwatscha (2010), Mutimba (2014) and Yin (2014) note that if records keeping standards and individual responsibilities are not up to par in institutions, EDRMS implementation is likely to fail. The reason for this could be that once the EDRMS is implemented in an institution, records keeping should become an individual responsibility for all employees. However, these individual records keeping responsibilities should be directed and controlled by organisational wide records management policies, guidelines or procedural manuals. In the case of the three public sector O/M/As, there were no records management/EDRMS policies and guidelines that were issued to action officers to help guide and direct their respective EDRMS duties.

5.4.2 EDRMS not used for operational duties by all employees

This sub-theme revealed that the EDRMS functions performed at the Namibian public sector institutions constituted the managing, controlling, scanning and uploading of physical records in the registry on the EDRMS. Electronic records on the other hand, were not created, managed and controlled nor were there document management functions of EDRMS conducted at the three O/M/As. Thus, the EDRMS was not used for operational functions. This finding confirms and verifies those of Karlos and Nengomasha (2018), Nengomasha and Chikomba (2018) as well as Kaupa and Chisa (2020) which highlighted the non-functional use of the EDRMS at Namibian public sector institutions. As mentioned above, this was a result of insufficient KS on the functionalities of the EDRMS and poor KS focused on how to conduct daily work routines through the EDRMS. Additionally, another reason that was mentioned for not operating the system was that the EDRMS was found to not be user-friendly and that it was time consuming to operate. This finding was also reported by Kwatsha's (2010) study that found that users found the system time consuming and not user friendly. Relatedly, some participants specifically at Institution 2 were reluctant on adopting the EDRMS as they perceived that the EDRMS does not support the management of case files, and does not manage and control the retention and disposal of records, and especially the fact that the system did not have the archiving functionality. In the same way, Kwatsha (2010) found the same issues, that users rejected the EDRMS as a result of its incapability to manage the retention, disposal and archiving of records on the system. However, although at the time of this study the EDRMS did not have the functionality to manage case files (workflow) as well as the retention and archiving of records, it was not because the EDRMS could not support it. The E-office was designed according to the records and archives management functionalities and workflow but those functions were not included in the standard/core package of the software. These functions need to be configured in the E-office so that the Namibian public sector O/M/As can operationalise these functions of the EDRMS. The data collected from the document analysis and the interviews proved that most of the participants which were employees of the three respective O/M/As studied did not know about these extra functions of EDRMS, which simply required configuration. However, these functions were supposed to be configured in the customisation phase of the implementation of EDRMS as stated in the OPM-EDRMS Service Level Agreement of 2007. It could be that these were not configured as most of the users were not aware that these records management functions could be installed. Another possible justification of these functions not being installed could be that these extra configurations could have come at a higher cost for the Namibian government. This and the aforementioned is indicative of a lack of knowledge regarding EDRMS functions among its users, which is the result of ineffective and insufficient KS. It is critical to note that the EDRMS may not be used for operational duties by employees of an institution if users do not have comprehensive knowledge about its functionalities and operational/technical skills needed to adopt and use the EDRMS in their daily work routines.

5.4.3 Poor distribution of EDRMS roles and responsibilities throughout the three public sector O/M/As of Namibia

It was evident that most of the action officers and/or end-users did not know of their roles and responsibilities towards EDRMS implementation in their respective O/M/A. This is a new finding on the empirical EDRMS implementation literature of Namibia as far as the researcher is aware. Participants at Institution 1 that were based in the registry explained that "*there is a team to update the organisational structure on the EDRMS, make file plan changes, departmental teams for scanning, uploading, sorting etc.*" Participant 2.B. also added by saying that "*simply one section [in the institution] got roles and responsibilities [towards EDRMS]*". Data from all the three instruments administered during this study revealed that EDRMS was only in the registries of Namibian public sector institutions, hence it was mostly registry and some IT officials across the three public sector O/M/As that were aware of their roles and responsibilities regarding EDRMS implementation and use. This is an implication that EDRMS responsibilities and duties were mostly assigned to registry officials. However, literature has informed this study that everyone in the institution was supposed to have a responsibility or a role to play towards the effective implementation of EDRMS in their respective institutions (International Records Management Trust, 2009). The results of this study indicate that users, particularly end users were not involved and actively engaged during the implementation of the EDRMS upon its inception in public sector institutions. It is critical to note that when employees do not have a responsibility or role to play in the implementation and management of an EDRMS, they can be reluctant towards the EDRMS with the perception that 'the system does not affect me in any way'. Although this perception is not be factual, it only arises among end-users due to lack of knowledge on how to operate the EDRMS in the conduct of their daily tasks. Action officers/end-users need knowledge to operate the EDRMS through workflow by retrieving records and making use of document management functionalities in order to create, manage and control electronic records produced in the conduct of their tasks (International Records Management Trust, 2009; National Archives of Australia, 2011; Queensland State Archives, 2010). It is a matter of fact that registry officials are most likely to use the EDRMS more than action officers/end-users, since they are usually referred to as EDRMS power users (Pan, 2017) in literature. Notwithstanding the foregoing, individuals in an organisation should take up their individual records keeping responsibilities as creators of records in institutions by adaptation and active use of the EDRMS. If officials create and make use of records, they should also be allocated a responsibility of effectively and efficiently creating and using both electronic and physical records, while the overall management and control responsibility of records and files lies with records and archives management specialists.

5.4.4 Effective KS practices lead to improved EDRMS operation and adoption

Participants across all the three O/M/As acknowledged the need for KS practices as an effort that can improve their adoption and subsequent usage of the EDRMS. The participants mentioned various factors on how the sharing of knowledge can improve EDRMS adoption and usage as shown in Chapter Four. The main and most consistently mentioned benefit of KS practices is that end-users will know how to operate the EDRMS and as such they will be able to draw the boundary line between their individual duties and those of the registry officials in the institution on the EDRMS. Additionally, this study has proven that if the issues that led to the unsuccessful implementation of EDRMS such as lack of procedural guidelines for EDRMS, poor ICT skills, anxieties about computer usage, insufficient training, poor change management strategies, and lack of early users' involvement in EDRMS implementation (Ambira, 2016; Asogwa, 2012; Kalusopa, 2016; Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Kwatscha, 2010; Madden, 2016; Mosweu, et.al., 2017; Mutimba, 2014; Yin, 2014) are fulfilled through knowledge sharing, EDRMS implementation is bound to be successful at any institution. This is for the reason that when both key-users and end-users are actively engaged on EDRMS through effective KS from the date it is introduced at an institution, all employees will be able to understand and share a common goal of implementing the EDRMS successfully within the entire organisation (Goswami & Agrawal, 2020). This common goal could form organisational commitment in employees' affections so that they can identify with a particular organisation and its goals. That is most likely the goal of every institution when implementing an EDRMS, that all its employees can share and have an organisational commitment that can allow them to share in this common goal and thus adopt the use and embracing of the EDRMS in their daily work routines. This can only be achieved if employees understand how the goal can benefit the entire organisation, specifically how EDRMS can improve their respective individual duties. The only way to achieve this would be through the effective sharing of knowledge among the implementors of EDRMS, key users and end users of EDRMS. When employees of an institution understand the benefits of EDRMS and share in this common organisational goal, they will work as a team to ensure that the EDRMS is implemented successfully in their institution. Therefore, if EDRMS implementation should be a success in institutions, the sharing of knowledge during EDRMS implementation phases should be prioritised. Lastly, as previously stated, the only author as far as the researcher is aware, that agreed on the positive impact of KS on EDRMS implementation is Yin (2014). However, Yin’s (2014) study highlighted the importance of an organisational culture that constantly shares information during the implementation of an EDRMS. This study therefore added to and fleshed Yin’s (2014) statement by indicating how the culture of sharing information and knowledge will improve EDRMS implementation across institutions.

5.5 Types of knowledge that needs to be shared during the implementation of EDRMS in the Namibian public service

This research found that all users of EDRMS across all the three O/M/As required more tacit practical knowledge on records management procedures and EDRMS technical operations, as discussed below.

5.5.1 Knowledge needs on records management procedures and EDRMS technical know-how

The study reported that end-users/action officers were in need of records management/registry management knowledge and IT technical know-how in order to adopt and operate the EDRMS. This lack of knowledge played a big role in their poor adoption of EDRMS. This finding added another perspective from what previous empirical EDRMS literature (Karlos & Nengomasha, 2018; Kaupa & Chisa, 2020; Kwatscha, 2010; Nengomasha & Chikomba, 2018) found that users did not adopt the EDRMS as they feared the digital and technological platforms of record keeping and as such they were thus reluctant. However, these authors did not go further into investigating what it is, which made users to fear the new change of records keeping brought by the EDRMS. The present researcher found that users did not fear the new change per se, they simply lacked knowledge on the new change; and this is what causes resistance to change. This is supported by the findings of Pan (2017) whereby employees' anxiety of using the EDRMS grew even more because they were already struggling to perform their organisational duties and this is now accompanied by having to perform their duties on a system which has become even more challenging. That is why it is advisable that institutions get their manual records keeping practices on par with the records management standards before adopting the electronic method of performing records management functionalities. Similarly, a study by Karlos and Nengomasha (2018) on EDRMS implementation in the Namibian public service found that employees lack some specific skills and therefore need technical skills on computer usage through training in order to foster the usage of EDRMS. As a consequence of employees not having sufficient know-how on EDRMS operations and computers usage, the employees start resisting the system due to 'computer-anxiety' as indicated by Mosweu et al. (2017). If users had sufficient knowledge on operating on a new working procedure, there wouldn't have been reluctance to change. It was found that users in this study were not accepting and adopting the EDRMS due to lack of technical know-how on EDRMS operationalisation.

Furthermore, apart from 'computer-anxiety' and fear of operating on technological platforms, end-users also rejected the EDRMS due to lack of knowledge in records management practices. Due to the fact that the EDRMS is centred on records management by the use and application of organisational file plans, end-users that have little knowledge on using the file plan would be reluctant to operate the EDRMS for fear of messing up the system. While Kwatscha (2010) and Nengomasha and Chikomba (2018) found that EDRMS implementation failed due to incompetent staff who could not compile and get the file plan approved, this study found that end-users did not know how to apply and use file reference numbers which were contained in file plans on the EDRMS. The same was reported by Katuu's (2016) study on transforming South Africa's health sector, that employees needed technical skills on using the system and using the file plan electronically. If employees cannot compile and use the file plan manually, it would be even more challenging to use and apply the file plan on an electronic platform, hence, end-users did not actively make use of the EDRMS.

5.6 Chapter summary

This chapter focused on interpreting and discussing the findings and the themes that emanated from the data in an attempt to clearly and accurately answer the research questions for this study. It was established that although the EDRMS has been proven to be implemented across the three public sector O/M/As that were studied, the system was not actively used at any of the three O/M/As. At Institution 1, the EDRMS was on hold due to the pending file plan awaiting approval, whereas at Institution 2 the system was not being used at all. Institution 3 was the only institution where the EDRMS was in use, although not completely as it was being used mostly by the registry officials. Additionally, all the participants acknowledged the fact that KS does indeed foster and enhance the successful implementation of EDRMS within institutions. It was correspondingly found that the three O/M/As had key users committees which are referred to as the Focal Committees, which were set up for the intent of guiding, directing and managing the successful implementation of EDRMS through KS. The findings revealed that the committees were not actively sharing the knowledge they had attained with end-users as per their intended role within their respective institutions. The chapter also revealed how the not sharing of knowledge led to the unsuccessful implementation of EDRMS. This is because the participants lacked knowledge on EDRMS operational functionalities. Finally, the chapter ended with explanations on the type of knowledge the end-users needed to adopt and use the EDRMS. The fifth research question was centred on drawing up recommendations on how employees can share their knowledge more effectively during the implementation of EDRMS in institutions. The discussion of the fifth research question is elaborated in Chapter Six so at to avoid the duplication of information as it forms a part of the recommendations for the study. Therefore, apart from drawing implications and recommendations for institutions in the Namibian public sector, Chapter Six summarises the main findings of this study and concludes on how exactly the research questions were answered and fulfilled.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The findings and discussions of data as presented in Chapters Four and Five are summarised in this chapter (Chapter Six) as per the research questions of the study. This chapter further concludes with showing how each of the five research questions were fulfilled and satisfied. The chapter also proves how the study in its entirety contributes to the body of knowledge by combining two major fields of study into one study. Moreover, the chapter provides recommendations on how KS can be used to enrich and enhance EDRMS implementation in the Namibian public service. These recommendations could be applied not only to the institutions which were studied but any other institution or country that seeks to implement EDRMS as an organisational project. Lastly, this study provided a foundation for some areas that can be studied further, regarding EDRMS implementation and KS.

6.2 Summary of the findings of the study

This section of the chapter presents the main findings of the study as guided by the research questions of the study. The research questions were modelled in a manner that would help to determine the contribution of KS towards the effective implementation of EDRMS in the Namibian public service. As in the previous chapter (Chapter Five), the fifth research question that dealt with establishing strategies and methods for KS in EDRMS implementation, is addressed at the Recommendations sub-section 6.4.

6.2.1 Level of EDRMS implementation process at the three public sector O/M/As of Namibia

The study has confirmed that the EDRMS has been implemented in all the three public sector O/M/As under study. Institution 1 implemented EDRMS organisational-wide during 2009. The EDRMS was not in active use at Institution 1 due to pending approval of the file plan; thus, most EDRMS activities needed to be set on hold. Despite the pending file plan, the study revealed that the EDRMS was mostly used at the registry of the Institution. It should be noted that the EDRMS was only used partially in the registries through activities like sorting, scanning and uploading of physical records on the system. Action officers/end-users at Institution 1 were not using the EDRMS for their operational duties. This indicates that end-users were not actively involved in the adoption and usage of the EDRMS at Institution 1.

In the same manner, the data has proven that the EDRMS was implemented at Institution 2 and 3 during the year of 2010. The EDRMS was used for a short period of time at Institution 2 for sorting, scanning, uploading and managing physical records on the EDRMS. There was no evidence of the creation, usage and management of electronic records at Institution 2. Soon after 2010, the EDRMS implementation process had come to a standstill due to lack of resources and financial support. The data presented has shown that EDRMS was non-functional at Institution 2 and thus it needs to be revived.

At Institution 3, the EDRMS was proven to have been implemented but it was actively used only in the registry and by the secretaries of senior management officials. The EDRMS activities that were performed at this institution included the sorting and referencing of records, scanning, uploading of records and barcoding of physical files.

Due to the Covid-19 pandemic, there was a backlog of EDRMS activities as officials were working in weekly shifts. At the time of data collection, the officials gave most attention to the sorting and managing of the physical/paper records.

6.2.2 KS practices during the implementation of EDRMS at the three public sector O/M/As of Namibia

Training was found to be the most effective and efficient platform whereby key-users and end-users shared, exchanged and acquired knowledge during the implementation of EDRMS at the three public sector O/M/As. Particularly, at Institution 2, key-users and end-users shared knowledge by means of illustrations and informal discussions during training sessions.

Another practice of KS during the implementation of EDRMS that was conducted by all the three public sector O/M/As, was meetings and workshops. It was through meetings that critical discussions on EDRMS inception, implementation and usage were held among the three O/M/As. There were little internal KS practices that took place throughout the three O/M/As. It is only at Institution 1 where internal meetings on EDRMS operations were conducted. These meetings were only at divisional level and they did not engage the entire institution. Trainings, meetings and workshops at Institution 2 and Institution 3 were usually held and undertaken by external institutions.

Once institutions of the Namibian public sector implemented the EDRMS, there were focal committees which were formulated to share knowledge on EDRMS operations within and for that respective institution. The members of this focal committee were also elected from the employees of a respective institution that implemented the

EDRMS. This focal committee was proven to have failed particularly at Institution 2 and Institution 3.

Furthermore, the EDRMS steering committee was found to be another practice where the sharing of knowledge took place among different key O/M/As in the Namibian public service. The EDRMS steering committee comprised of representatives from different O/M/As that shared knowledge based on their institutional experiences, skills and mandate. Nonetheless, this steering committee had not been in operation since 2014.

6.2.3 Impact of not sharing knowledge during the implementation of EDRMS at the three public sector O/M/As of the Namibia

The main effect of poor/lack of KS during EDRMS implementation was that the users of EDRMS in all the three O/M/As were not satisfied with the E-office software product of the EDRMS due to its perceived inability to perform critical organisational functions. These critical functions included activities such as workflow, retention schedules, and archiving of records. The users of EDRMS throughout the three public sector O/M/As did not know that these functions were made in the E-office product and simply needed to be activated by configuring them. The reason the users did not have knowledge of this fact is due to a lack of KS from the OPM (as the implementor of EDRMS), regarding the overall capabilities of EDRMS. This lack of critical KS led to users and institutions rejecting the EDRMS because of lack of knowledge on the E-offices' full capabilities and functions.

Another effect due to lack of KS is that the Government of the Republic of Namibia (GRN) procured an EDRMS software whose standard/core package did not include key functions like workflow, retention and archiving of records. The GRN through the

OPM procured an EDRMS software without consulting key institutions like the National Archives of Namibia (NAN) in order to gain knowledge on the required specifications of an EDRMS such as records keeping functionalities. If the NAN had been involved from the inception of the EDRMS, it could have shared knowledge, skills and expertise on EDRMS standard requirements. This however did not take precedence as the NAN was only involved after the EDRMS had been purchased and installed on the OPM server. The only reason the NAN was consulted after the procurement of the E-office was for the setting of the implementation criteria for O/M/As in the Namibian public service.

Additionally, the lack of KS in institutions during the implementation of EDRMS led to a lack of policies and procedural manuals on EDRMS functionalities to direct and guide action officers when operating the EDRMS. This was found to be a result of lack of KS among records management officials as country-wide information professionals and IT officials. As a result of poor KS, there was no division of responsibilities or duties on EDRMS activities among employees in the three respective O/M/As. Thus, action officers transferred all the EDRMS duties to the work of registry officials as they did not have clarity on their individual responsibility or duty towards EDRMS.

6.2.4 Types of knowledge that need to be shared during the implementation of EDRMS in the Namibian public service

It was found that all users of the EDRMS lacked knowledge in some area of the functionality of EDRMS. While end-users needed knowledge on how to operate and use the EDRMS in the conduct of daily routines, Records and Archives officials needed knowledge on IT technicalities of the EDRMS; IT officials also needed knowledge on how to operate the EDRMS technically as most of them were not trained on technical technological functions of the EDRMS. It was found that most IT officials were issued with manuals and guidelines on how to operate the EDRMS technically. These IT technical manuals and guidelines however proved to be insufficient as IT officials acknowledged their need for knowledge through advanced EDRMS training on technical issues regarding the use of the EDRMS.

6.3 Conclusions

This sub-section provides the final analysis and conclusion that this study has established according to the first four research questions, as the fifth research question is dealt with in the next sub-section. In this sub-section, it is explained how this study fulfilled and answered the research questions. The main research question was to assess how KS affects and contributes to the successful implementation of EDRMS in the Namibian public sector. Therefore, this aim was sub-divided into five research questions which are discussed below:

6.3.1 Level of EDRMS implementation process at the three public sector O/M/As of Namibia

It was established that the EDRMS was implemented in all the three O/M/As which were studied although they were not at the same level/status of the implementation process.

Institution 1 implemented EDRMS in 2009 but EDRMS activities were on hold due to the institutional file plan which was awaiting approval from the National Archives of Namibia. Apart from the uploading of physical records onto the EDRMS, there was no evidence of the creation, management and control of electronic records nor documents on the EDRMS. Therefore, this study concludes that the level of EDRMS implementation at Institution 1 was at the Beyond Implementation phase. This is due to the fact that the institution had implemented EDRMS and was thus seeking to improve its records management functionalities in order to use the EDRMS effectively and efficiently. Since most of the participant employees of Institution 1 joined the institution after the initial EDRMS implementation in 2009, the employees of the institution needed to be engaged on how they can adopt and use the EDRMS in their daily work functions.

Institution 2 on the other hand was not using the EDRMS or the E-Office software in any form at the institution, despite the fact that the EDRMS was implemented at this institution during 2010. The only activities conducted with regards to the EDRMS at Institution 2 was the sorting and referencing of physical records and files. Therefore, it is concluded that at Institution 2 the EDRMS implementation proved to be non-functional and thus needs to be revived at the Beyond Implementation phase of EDRMS.

The level of EDRMS implementation at Institution 3 was at the Training end users on EDRMS use and application. The EDRMS was installed during 2010 at Institution 3 and it was being used to sort, reference, scan, upload and retrieve records online. The EDRMS was accessible to all employees at the institution but it was mostly used by registry officials and secretaries of senior management officials. Senior management officials and other end users simply needed training to enable them to retrieve and use the EDRMS independently.

6.3.2 KS practices during the implementation of EDRMS at the three public sector O/M/As of Namibia

The study found that there was not much opportunity and platforms for KS amongst employees in the three public sector O/M/As, respectively.

Most of the participants got to know of EDRMS through the training that was conducted by the OPM EDRMS Liaison Officers. Thus, training on EDRMS functionalities was received externally at two of the O/M/As under study. In some cases, the training was conducted during induction particularly at Institution 1. Institution 2 and Institution 3 received training on EDRMS during workshops and invitations for training. Requests for training would be done through the EDRMS Focal Committee members/key users of the respective institutions after detecting a need for training and thus contacting the OPM Liaison Officers.

The key users demonstrated KS practices through meetings, one on one illustrations and explanations when help was sought from them by other co-workers throughout the three public sector O/M/As. Although members of the EDRMS focal committee/key-users committee received advanced training on EDRMS so that they can train end-users, they sought for external training sessions from the OPM liaison officers.

Therefore, it is concluded that the KS practices across the three public sector O/M/As was centred on meetings, trainings or workshops that would facilitate internal illustrations and informal discussions amongst employees.

6.3.3 Impact of not sharing of knowledge during the implementation of EDRMS in the Namibian public service

The consequences of poor KS during EDRMS implementation impacted not only the three O/M/As that were studied but the entire Namibian public service.

The effect of poor KS that was experienced at all the three institutions produced consequences like resistance to change, lack of practical know-how on EDRMS operations by end-users and 'white-elephant EDRMS implementation'. Therefore, it is concluded that the effect of insufficient KS during EDRMS implementation causes resistance on EDRMS adoption and use; thus, making the system non-functional and unusable in any institution. This all comes down to one root, which is lack of knowledge and information on the functionalities of the EDRMS and insufficient knowledge on system operation. When users do not know how to operate the EDRMS, they will not adopt and use it; thereby making the EDRMS implementation a ‘white elephant’ in the institution, as was the case with Institution 2.

6.3.4 Types of knowledge that needs to be shared during the implementation of EDRMS in the Namibian public service

All the participants across the three public sector O/M/As agreed that practical know-how on EDRMS operations was needed to enhance the implementation of EDRMS. While training sessions focused more on theoretical and explicit knowledge sharing and transfer, the end-user participants required more practical tacit knowledge sharing on EDRMS operational know-how and IT technical knowledge. This tacit knowledge shared could then be shared and transferred into explicit knowledge through policies, procedural manuals, training manuals and minutes of meetings. In this manner, knowledge would be available for the next generation of employees.

It is in this regard that the study concludes that practical, tacit knowledge was needed to enhance the implementation process of EDRMS in the three public sector O/M/As.

6.3.5 Strategies on improving KS to enrich the successful implementation of EDRMS

As mentioned in the summary of Chapter Five, this research question was not discussed in Chapter Five due to the fact that it is centred on and presents recommendations on KS and EDRMS implementation. The most common suggestion from the participants was the formulation of a culture that facilitates and promotes KS in O/M/As through social activities such as team building. This is for the reason that team building was perceived as a manner of increasing and building inter-personal relationships amongst employees in institutions. It is through these inter-personal relationships that trust would be formed which could act as a foundation for effective KS in an institution. Therefore, the study concludes that the most effective strategy on improving KS in order to enhance and enrich the successful implementation of EDRMS is through creating and building trust among its workforce. It is this trust, which can be formed through interpersonal relationships amongst employees by the means of team building and social activities. More recommendations on strategies and methods of KS are discussed at the next sub-section (6.4).

6.4 Recommendations

The recommendations outlined in this section are based on the findings of the study, of which all the recommendations are presented according to a specific finding from a particular research question.

6.4.1 Level of EDRMS implementation in the three Namibian public sector O/M/As

a) It is recommended that the O/M/As in the Namibian public sector collaborate with all the key institutions in the country and compile a comprehensive business case on what they need the EDRMS to perform for the entire public service.

b) Through this, the current E-office could be upgraded by means of configurating add-ons so that the EDRMS matches business requirements to ensure that the system can be used for different business operations. It is neither right nor appropriate for the

Government of the Republic of Namibia to annually pay maintenance fees for an EDRMS that is not used as it does not meet the business requirements of institutions in the Namibian public sector.

c) Furthermore, it is strongly recommended that Institution 2 embarks on the revival of EDRMS implementation once the workflow and archiving functionalities are configured. In this manner, the EDRMS would be useful and appropriate in the conduct of Institution 2's employees' official duties.

d) Lastly, Institution 1 and 3 should ensure that the E-office software is accessible through all employees' computers and that it remains functional/accessible, so that users are able to use the EDRMS independently.

6.4.2 KS practices during the implementation of EDRMS at the three public sector O/M/As

a) Participants across all the three O/M/As which were studied recommended that regular practical training is needed to help them to use the EDRMS better.

b) Apart from practical trainings, O/M/As in the Namibian public service should embark on re-establishing Communities of Practice (CoP). The EDRMS Steering Committee could be referred to as a Namibian public sector CoP during the EDRMS implementation processes. This is a manner of including all stakeholders of the Namibian public sector in EDRMS implementation. This public sector CoP would be a platform for effective and efficient KS among representatives from key O/M/As to deliberate and share knowledge on EDRMS implementation. This EDRMS steering committee should be revived. The EDRMS steering committee could include all key O/M/As like the Ministry of Finance, the Ministry of Information and Communication Technology, the National Archives of Namibia, the Office of the Prime Minister, the National Planning Commission, the Ministry of Justice, the Attorney-General and the Office of the President. In this manner, there would be effective and efficient KS regarding all aspects and phases of the EDRMS implementation. Budgeting, legal obligations, time scheduling for EDRMS implementation and roll out, training on EDRMS functionalities and criteria/pre-requisites of EDRMS implementation in the Namibian public sector O/M/As would be effectively set through comprehensive knowledge sharing from all key O/M/As of the Namibian public sector.

c) Furthermore, the three public sector O/M/As should respectively embark on internal monthly meetings/workshops during EDRMS implementation to ensure that all employees share knowledge of their skills and experiences on EDRMS adoption and usage. Thus, all employees would be moving at the same pace in the use and adoption of the EDRMS.

d) Mentorship activities should be promoted and encouraged in the three O/M/As according to a system of recognition and rewards. This would ensure that an employee who holds more knowledge and skills on EDRMS usage shares and mentors others in their institution on

EDRMS operability. This can be done through recognising, appreciating and rewarding those employees that share their knowledge. In this way, more tacit knowledge among employees would be identified and shared, thus increasing the organisational knowledge base on EDRMS operability.

e) Due to this time/age of Covid-19 that the world is facing, it is recommended that O/M/As adapt to and embrace the use of ICTs as communication and KS platforms. There are emails, zoom meetings, video-conferencing tools, skype and many other ICT tools that can be used to share knowledge amongst individuals and organisations, effectively and efficiently. Now is the time for the Namibian public sector to integrate the use of ICTs in business processes and activities. This can only be possible if employees in the Namibian public sector O/M/As are adequately trained on the use of ICTs.

6.4.3 Impact of not sharing of knowledge during the implementation of EDRMS in the Namibian public service O/M/As

a) With regards to this research question, it is recommended that the three O/M/As deliberately involve all their respective employees in EDRMS implementation activities. Institutions should have monthly information sharing sessions on improvements/updates on the EDRMS. This would enable both key users as well as senior management officials and IT officials to contribute through the sharing of knowledge, initiatives and strategies that would assist the smooth and swift implementation of EDRMS within their respective institutions.

b) Since it has been established that poor change management strategies have roots that go back to poor or a lack of KS, the study recommends that the three O/M/As each plans its change management strategies. The new strategy on change management should be based and centred on knowledge and information sharing on EDRMS implementation in the institution. For users to accept and adopt the EDRMS, they would need to understand its importance and benefits with regards to their daily work routines.

c) Additionally, the three respective O/M/As should each compile new work processes and procedural guidelines so that all the employees may know what is expected of them for their EDRMS responsibilities. Each employee in the institutions should have a responsibility towards EDRMS, as individuals that create and use records.

6.4.4 Knowledge needs during the implementation of EDRMS in the three public sector O/M/As

a) It has been found that users are in need of practical know-how and technical knowledge on EDRMS functionalities. Based on this, the OPM which is responsible for EDRMS implementation should compile EDRMS usage policies, guidelines and directives to issue to all its end users across the various O/M/As.

b) Practical step-by-step guidelines should be used to direct and add knowledge to users during EDRMS operation; as is the case with the guidelines and directives on compiling and using a file plan that the National Archives of Namibia issued to all O/M/As and State-Owned Enterprises in the Namibian public service.

c) Apart from the OPM compiling and issuing EDRMS guidelines, the OPM should also arrange to offer advanced EDRMS technical training for IT officials from every O/M/A in the Namibian public sector so that they are able to assist end-users on EDRMS technical matters.

d) Records and archives professionals in the Namibian public sector should collaborate to compile a records management policy to guide and direct action officers on records management activities, especially the use and application of file plans. This would guide users when creating, retrieving and using electronic records as the EDRMS is centred and based on the use and application of file/records reference numbers.

6.4.5 Strategies and methods of KS to enrich the successful implementation of EDRMS

a) Teamwork was widely mentioned by research participants as a method in which the sharing of knowledge can take place during EDRMS implementation. The element of trust is needed to share knowledge, hence the need for collaborating employees through team building interactions to create that trust. Teamwork could help collaborate employees to share a common organisational goal of understanding the necessity/need for the successful implementation of EDRMS.

That is why teamwork activities should be arranged and conducted regularly during the implementation of EDRMS.

b) Apart from teamwork, it was suggested by participants that exit interviews should be prioritised in institutions, so that employees do not leave institutions with rich organisational knowledge. In this manner, if employees that received advanced training on EDRMS decide to leave an institution, the knowledge gained should be shared with others so that other employees are able to use and apply this knowledge during EDRMS implementation.

c) Management motivation plays a vital role in enhancing KS for the successful implementation of EDRMS. Management officials should motivate employees through recognition and rewards mechanisms systems so that more employees are encouraged to share knowledge and adopt the EDRMS.

d) Another strategy of KS to enhance the implementation of EDRMS is users' adaptation to technology. Employees in the three public sector O/M/As should be encouraged and empowered with ICT skills so that they can share and attain knowledge on ICT platforms and thus be able to use the EDRMS effectively and efficiently.

e) Similarly, it was strongly suggested and recommended by participants that the key users/focal committee members share knowledge with each other during meetings and workshops. KS among the focal committee members and end-users is the key towards comprehensive and adequate knowledge in an institution during EDRMS implementation. The knowledge shared among EDRMS focal committee team members could lead to the compilation of internal policies and procedural guidelines to direct EDRMS operations.

f) Lastly, in order to enhance the successful implementation of EDRMS, the knowledge shared should be recorded and documented for future reference. In this manner, the knowledge shared and gained by an institution does not remain in the heads of existing employees but it can be made freely available and accessible to new individuals who join the institution in the future.

6.5 Contribution to the body of knowledge

This study contributed to the body of knowledge by filling the gap in empirical literature of knowledge sharing and EDRMS implementation. There has not been a study in the Namibian sector, as far as this researcher is aware, that came up with the idea of investigating how KS could contribute to the successful implementation of EDRMS in the Namibian public service. Furthermore, previous literature on KS has not specifically studied the role and contribution of KS in the context of big organisational projects like the implementation of EDRMS. Therefore, this study adds to existing literature in two ways: giving a solution to the implementation strategy of EDRMS by adding the element of KS, and adding to the body of knowledge in the Knowledge Management and KS field by analysing the effects of KS when implementing big organisational projects, that would involve most employees in an institution. Furthermore, while most KS studies (Acharya & Mishra, 2017; Agarwal & Islam, 2015; Bastaki et al., 2020; Jeon et al., 2011; Jørgensen et al., 2020; Kumaraswamy & Chitale, 2012; Lee et al., 2020; Levy, 2011; Razmerita et al., 2016) have focused on the value and effects of KS across different institutions, as far as this researcher is aware, this is the first KS study in Africa, specifically in Namibia, which focussed on the effects and contributions that KS brings towards the implementation of EDRMS. Similarly, whereas most EDRMS studies (Karlos & Nengomasha, 2018; Katuu, 2012; Katuu, 2016; Kaupa & Chisa, 2020; Kwatsha, 2010; Mosweu et al., 2016; Nengomasha & Chikomba, 2018; Pan, 2017; Shonhe & Grand, 2020; Yin, 2014) focused on the implementation processes, benefits and challenges of EDRMS, this particular study focused on the 'how' KS contributes to the successful implementation of EDRMS in the Namibian public sector.

6.6 Areas for further research

This study investigated and suggested the element of KS as an effective factor towards the successful implementation of EDRMS. Further studies could consider the following:

a. Investigating in-depth the role of ICTs in enhancing the implementation of EDRMS.

b. Analysing the correlation of interpersonal relationships and trust as a facilitator of knowledge sharing in institutions.

c. The existence and the contribution of EDRMS committees towards the successful implementation of EDRMS on a national and institutional level.

d. The development of a theoretical framework/model on EDRMS implementation which is based on the SECI model of knowledge creation, sharing and transfer and the theories of Knowledge Sharing.

6.7 Final conclusion

The study sought to assess how and what causes the implementation of EDRMS in the Namibian public service to fail. This study further analysed the role that knowledge sharing can play and the contribution it would make towards the successful implementation of EDRMS. The study found out that the root of the key reasons that caused a failure in the successful implementation of EDRMS is lack of information and knowledge on what EDRMS is, how to operate it and the benefits it brings to an individual's work routines. This was the root of users' reluctance to change and poor management buy-in towards EDRMS. Users did not understand why the change was necessary. Therefore, the study has proven that the key to resolving and administering change is through helping users and clients in general, to understand why change is necessary through knowledge sharing and transfer. This was confirmed by participants of this study who agreed that KS would play a pivotal role in the successful implementation of EDRMS as everything would go smoother when everyone knows what they are doing and how to operate or perform their tasks in an efficient and effective manner. It is with these reasons that the study concludes that Knowledge Sharing indeed needs to improve and thereby play a significant role towards the successful implementation of EDRMS in institutions.

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APPENDICES

Appendix 1: Ethical Clearance Certificate

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FOHM/014/2020 **Date: 31-06-2020**

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: IMPLEMENTATION OF ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEMS (EDRMS) IN THE NAMIBIAN PUBLIC SERVICE.

Nature/Level of Project: MASTERS STUDY-HON-HEALTH

Researcher: UETUJAMA HILRIKA KAZAVANGA

Student Number: 201208678

Faculty: FACULTY OF HUMANITIES

Supervisors: PROF. T. KALUSOPA

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.

(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.

(c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.

(d) The UREC retains the right to:

(i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

(ii) Request for an ethical compliance report at any point during the course of the research.

REC wishes you the best in your research.

REC Chairperson
Prof CJ Wilders

CJWilders

(Signature)

Appendix 2: Introductory Letter to the Ministry of Education, Arts and Culture

Ms. Uetujama H. Kazavanga
P.O. Box 70515
Khomasdal
Windhoek
Cell: 081 62 777 87
11 June 2020

Ms. Sanet L. Steenkamp
Executive Director
Ministry of Education, Arts & Culture
Private Bag 13186
Windhoek

Dear Ms. Steenkamp,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE NATIONAL ARCHIVES OF NAMIBIA (NAN)

The above mentioned subject heading bears reference. I am a Masters of Arts in Records and Archives Management student at the University of Namibia (UNAM), currently in the second year of study. The Masters programme is by thesis whereby a proposal was compiled and approved by the University.

A prerequisite towards the completion of this programme is conducting research. The topic for this study is **"The Contribution of Knowledge Sharing in the Effective Implementation of Electronic Document and Records Management System (EDRMS) in the Namibian Public Service".** The study is looking at investigating the kind of knowledge that gets shared and need to be shared in order to make the implementation of EDRMS a success in the Namibian public service.

Therefore, I am kindly requesting the Executive Director to grant me permission to conduct an investigation for this study at the National Archives of Namibia. The research findings would be used only for the study and the participants identities would be kept confidential to this researcher.
Attached is the verification letter from UNAM and the approved proposal for your perusal.

Counting on your usual support.

Yours sincerely,

____

Ms. Uetujama H. Kazavanga
Archivist
National Archives of Namibia

Appendix 3: Introductory Letter to the Office of the Prime Minister

Ms. Uetujama H. Kazavanga
P.O. Box 70515
Khomasdal
Windhoek
Cell: 081 62 777 87
16 June 2020

Mr. I-Ben Nashandi
Executive Director
Office of the Prime Minister
Private Bag 13338
Windhoek

Dear Mr. Nashandi,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE OFFICE OF THE PRIME MINISTER (OPM)

The above mentioned subject heading bears reference. I am a Masters of Arts in Records and Archives Management student at the University of Namibia (UNAM), currently in the second year of study. The Masters programme is by thesis whereby a proposal was compiled and approved by the University.

A prerequisite towards the completion of this programme is conducting research. The topic for this study is **"The Contribution of Knowledge Sharing in the Effective Implementation of Electronic Document and Records Management System (EDRMS) in the Namibian Public Service".** The study is looking at investigating the kind of knowledge that gets shared and need to be shared in order to make the implementation of EDRMS a success in the Namibian public service.

Therefore, I am kindly requesting the Executive Director to grant me permission to conduct an investigation for this study at the Office of the Prime Minister. The research findings would be used only for the study and the participants identities would be kept confidential to this researcher.
Attached is the verification letter from UNAM and the approved proposal for your perusal.

Counting on your usual support.

Yours sincerely,

____

Ms. Uetujama H. Kazavanga
Archivist
National Archives of Namibia

Appendix 4: Introductory Letter to the National Planning Commission

Ms. Uetujama H. Kazavanga
P.O. Box 70515
Khomasdal
Windhoek
Cell: 081 62 777 87
17 June 2020

Mrs. Annely Haiphene
Executive Director
National Planning Commission
Private Bag 13356
Windhoek

Dear Mrs. Haiphene,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE NATIONAL PLANNING COMMISSION (NPC)

The above mentioned subject heading bears reference. I am a Masters of Arts in Records and Archives Management student at the University of Namibia (UNAM), currently in the second year of study. The Masters programme is by thesis whereby a proposal was compiled and approved by the University.

A prerequisite towards the completion of this programme is conducting research. The topic for this study is **"The Contribution of Knowledge Sharing in the Effective Implementation of Electronic Document and Records Management System (EDRMS) in the Namibian Public Service".** The study is looking at investigating the kind of knowledge that gets shared and need to be shared in order to make the implementation of EDRMS a success in the Namibian public service.

Therefore, I am kindly requesting the Executive Director to grant me permission to conduct an investigation for this study at the National Planning Commission. The research findings would be used only for the study and the participants identities would be kept confidential to this researcher.

Attached is the verification letter from UNAM and the approved proposal for your perusal.

Counting on your usual support.

Yours sincerely,

____

Ms. Uetujama H. Kazavanga
Archivist
National Archives of Namibia

Appendix 5: Researchers Supervisor's Support Letter

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneerspark
☎ +264 61 206 3111; URL.: http//www.unam.edu.na

UNAM
UNIVERSITY OF NAMIBIA

TO WHOM IT MAY CONCERN

This is to certify that Ms. Uetujama Kazavanga is a student at the University of Namibia pursuing a Masters of Arts in Records and Archives Management. Ms. Kazavanga has completed the proposal stage and should start with data collection as soon as possible. The topic the student is researching on is: '*The Contribution of Knowledge Sharing in the Effective Implementation of Electronic Document and Records Management System (EDRMS) in the Namibian Public Service'*. The study will be focused on 3 Offices/Ministries/Agencies in the Namibian public service. These are: the National Archives of Namibia (NAN), the National Planning Commission (NPC) and the Office of the Prime Minister (OPM), respectively.

Based on the above, I am hereby requesting your office to give the student the necessary support to collect data for the above mentioned study. The approved proposal for the study, is attached to this letter for your perusal.

For any further enquiries, please do not hesitate to contact me on the contact details provided.

Yours sincerely,

Prof. Trywell Kalusopa
Supervisor
081 614 1870

Appendix 6: Ministry of Education, Arts and Culture Research Approval

REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Tel: (061) 2935215
Fax: (061) 2935217
Enquiries: Ms. B. Matongo
Email: Beauty.Matongo@nlas.gov.na

Private Bag 13186
Windhoek

Ref No.: 16/3/1/1

TO WHOM IT MAY CONCERN

RE: ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEM (EDRMS) RESEARCH IN THE NAMIBIAN PUBLIC SERVICE: UETUJAMA KAZAVANGA.

This is to confirm that, Ms. Uetujama Kazavanga is an employee of the Ministry of Education, Arts and Culture (MOEAC) working as an Archivist at the National Archives of Namibia. Ms. Kazavanga (Student number 201208678) is pursuing a Masters of Arts in Records and Archives Management at the University of Namibia (UNAM) and our Ministry has endorsed her research work on a model for the effective and efficient implementation of EDRMS in the Namibian public service.

Having gone through her research synopsis, the MOEAC finds her study beneficial, not only for the fulfilment of the requirements for the Masters of Arts in Records and Archives Management, but the recommendations emanating from the findings of the study would go a long way towards enhancing the effective implementation of EDRMS in public institutions in Namibia. The following has been specifically noted:

- Findings from her research will aid the ongoing improvements to records management in Offices/Ministries/Agencies (O/M/A's).
- Nationally, this could be a ground breaking research whose outcomes could be of interest to records management practitioners and academics.

Based on the above, the MOEAC is kindly requesting all key stakeholders to support Kazavanga on her studies.

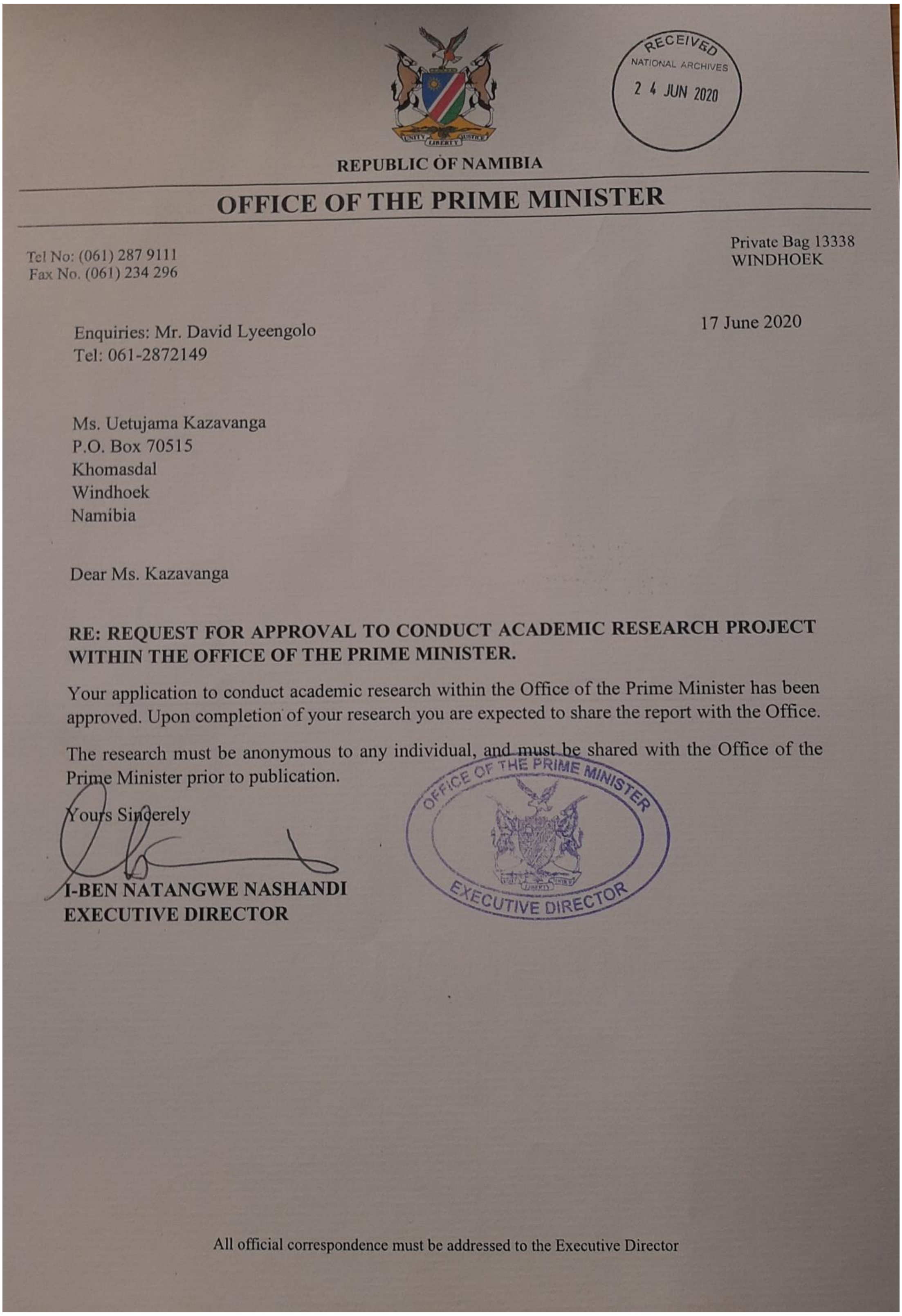
Ministry of Education, Arts and Culture
Office of the Executive Director
2019 -06- 15
Tel 2933523/4
Fax 061-253671
Private Bag 13186, Windhoek, Namibia

15/6/2019

Sanet L. Steenkamp
EXECUTIVE DIRECTOR

All official correspondence must be addressed to the Executive Director

Appendix 7: Office of the Prime Minister Research Approval



RECEIVED
NATIONAL ARCHIVES
24 JUN 2020

REPUBLIC OF NAMIBIA

OFFICE OF THE PRIME MINISTER

Tel No: (061) 287 9111
Fax No. (061) 234 296

Private Bag 13338
WINDHOEK

17 June 2020

Enquiries: Mr. David Lyeengolo
Tel: 061-2872149

Ms. Uetujama Kazavanga
P.O. Box 70515
Khomasdal
Windhoek
Namibia

Dear Ms. Kazavanga

RE: REQUEST FOR APPROVAL TO CONDUCT ACADEMIC RESEARCH PROJECT WITHIN THE OFFICE OF THE PRIME MINISTER.

Your application to conduct academic research within the Office of the Prime Minister has been approved. Upon completion of your research you are expected to share the report with the Office.

The research must be anonymous to any individual, and must be shared with the Office of the Prime Minister prior to publication.

Yours Sincerely

I-BEN NATANGWE NASHANDI
EXECUTIVE DIRECTOR

OFFICE OF THE PRIME MINISTER
EXECUTIVE DIRECTOR

All official correspondence must be addressed to the Executive Director

Appendix 8: National Planning Commission Research Approval

DED LLL A+C → NLAS
Kindly assist the colleague with this request. Prepare a reply accordingly for E.D. sig.
Thank You Ewson
02.7.2020

Ministry of Education, Arts and Culture
Executive Director
2020 -07- 01
RECEIVED

REPUBLIC OF NAMIBIA

OFFICE OF THE PRESIDENT

NATIONAL PLANNING COMMISSION

Tel: (061) 283 4111
Fax: (061) 226501
E-mail: enquiries@npc.gov.na

Government Office Park
Luther Street
Private Bag 13356
WINDHOEK
15 June 2020

Ms. Sanet L. Steenkamp
Executive Director
Ministry of Education, Arts and Culture
Private Bag 13388
WINDHOEK

Dear Ms. Steenkamp

ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEM (EDRMS) RESEARCH IN THE NAMIBIAN PUBLIC SERVICE: UETUJAMA KAZAVANGA

This serves to acknowledge receipt of your letter on the afore-stated subject.

Kindly be informed that permission is hereby granted to MS. **UETUJAMA KAZAVANGA (201208678)** to conduct her practical research within the National Planning Commission, provided that Ms. Kazavanga will adhere to research ethics of confidentiality of information.

Please note that the contact person within NPC will be Ms. Monika Uandara (Tel.: 2834073).

Yours Sincerely

NATIONAL PLANNING COMMISSION
OFFICE OF THE EXECUTIVE DIRECTOR
2020 -06- 29
PRIVATE BAG WINDHOEK NAMIBIA

Annely Haiphene
EXECUTIVE DIRECTOR

All official correspondence must be addressed to the Permanent Secretary

Appendix 9: Informed Consent Leaflet

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: THE CONTRIBUTION OF KNOWLEDGE SHARING (KS) IN THE EFFECTIVE IMPLEMENTATION OF ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEMS (EDRMS) IN THE NAMIBIAN PUBLIC SERVICE.

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: Ms. Uetujama Kazavanga

ADDRESS: P. O. Box 70515, Khomasdal, WINDHOEK

CONTACT NUMBER: 081 62 777 87/ 061 293 5214

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Research Ethics Committee at The University of Namibia and will be conducted according to the ethical guidelines and principles of the Namibian National Research Ethics Guidelines.

1. What is this research study all about?

a) *The study will be conducted at the Office of the Prime Minister, National Planning Commission and at the National Archives of Namibia. The total number of expected participants from all 3 institutions combined will be 41 individuals.*
b) *This study aims to find out if the sharing of knowledge amongst staff members can improve the implementation of EDRMS. This is because EDRMS has not been fully functional in many O/M/A's and this study seeks to find a solution to this problem.*

c) *Data will be collected using 3 instruments namely, 2 different semi-structured interview guides, one for the users and administrators the other for the IT officials; document review to analyse documents related to the implementation of EDRMS; finally, an observation will be administered.*

d) *Participants have been selected according to their membership in the EDRMS project committee of their respective offices.*

2. Why have you been invited to participate?

You have been invited to participate in this study as your contribution as a member of the EDRMS Project Committee in your office is highly esteemed.

3. What will your responsibilities be?

Therefore, your only responsibility would be to answer interview questions as honestly as you most possibly can unless you opt to not answer particular questions. Additionally, the researcher would expect for you to avail documents like minutes and reports of meetings which you may regard as important for this study. The duration of the interview would take about 30mins to 1 hour of your time.

4. Will you benefit from taking part in this research?

This study would be beneficial to you as a staff member in the sense of you may obtain new knowledge and insight in the conduct of your daily duties. This study may increase your understanding and comfortability in the usage of the EDRMS.

5. Are there any risks involved in your taking part in this research?

There are no foreseeable risks of you participating in this study as anonymity will be upheld at all times.

6. If you do not agree to take part, what alternatives do you have?

If you are not comfortable in participating in this study, there will be no negative treatment towards you in any way. As the final results of this study would still be made available to you.

7. Will you be paid to take part in this study and are there any costs involved?

Participation of this study will be free of charge on a voluntary basis. The only costs will be towards the researcher in terms of transport costs to reach potential participants.

***8.* Is there anything else that you should know or do?**

It would be advisable to seek for permission from your supervisor before participating in this study by means of interview, offering the research organisational document and observing participants when using the EDRMS. *You can contact the Centre for Research and Publications* **at +264 061 2063061; pclaassen@unam.na** *if you have any concerns or complaints that have not been adequately addressed by the investigator. You will receive a copy of this information and consent form for your own records.*

9. Declaration by participant

By signing below, I ………………………………..…………. agree to take part in a research study entitled *(THE CONTRIBUTION OF KNOWLEDGE SHARING (KS)*

IN THE EFFECTIVE IMPLEMENTATION OF ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEMS (EDRMS) IN THE NAMIBIAN PUBLIC SERVICE).

I declare that:

a) I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
b) I have had a chance to ask questions and all my questions have been adequately answered.
c) I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
d) I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
e) I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ....…........…………….. on (*date*) …………...……….. 2020.

... **...**

Signature of participant Signature of witness

10. Declaration by investigator

I *Uetujama Kazavanga* declare that:

- I explained the information in this document to …………………………………..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) ....…........…………….. on (*date*) …………...……….. 2020.

....

Signature of investigator   Signature of witness

11. Declaration by interpreter

I *(name)*declare that:

a) I assisted the investigator Ms. Uetujama Kazavanga. to explain the information in this document to (*name of participant*) ……………..…………………………….. using the language medium of (Oshiwambo, Otjiherero, Afrikaans, etc.)

Appendix 10: Interview Guide Records Participants

Interview Guide: Management, Chief Archivists, Archivists, Administrative Officers

Title: *The contribution of Knowledge Sharing (KS) in the effective implementation of an Electronic Document and Records Management System (EDRMS) in the Namibian Public Sector*

Name: Uetujama Hilrika Kazavanga Student Number: 201208678

SECTION A: LEVEL OF IMPLEMENTATION	
1. When and how was EDRMS introduced in your organisation?	
2. What are the activities currently being done with regard to EDRMS?	
3. How does EDRMS fulfil your business needs	
4. How is EDRMS supported by management in terms of resource allocation	
SECTION B: KS PRACTICES	
1. How often are you trained on EDRMS?	
2. What kind of training have you had on EDRMS?	
3. How did you come to know of EDRMS?	
4. Do you know how to file, retrieve, store and approve records on the system? If so, how did you get to know that?	
5. Do you share experiences and information with others who struggle with the system? If yes, how do you share? If no, what keeps you from sharing?	
6. Do you seek help when stuck while using the system?	
7. What convinced you that this is the best software product for your organisation	

8. How often were there meetings before the installation of the system	
9. How do you gain experiences from experts of the system?	
10. How do you communicate when facing challenges with the system?	
11. How easy is it for you to share knowledge with colleagues in the organisation?	
12. How do you manage change from using one system to another?	
13. How are stake-holders of the organisation involved in the system?	
SECTION C: EFFECTS OF KS ON EDRMS IMPLEMENTATION	
1. How easy/difficult was the system when it was initially installed?	
2. How the understandable and friendly is the system?	
3. How is the system working for you personally? What is your comfortability like with the system	
4. How often is the system used for operational duties	
5. How were the roles and responsibilities allocated for EDRMS?	
6. Are you comfortable with regard to clarity of your responsibilities with regard to system usage?	
SECTION D: TYPES OF KS PRACTICES FOR BETTER EDRMS IMPLEMENTATION	
1. How do you think knowledge sharing will affect EDRMS implementation?	
2. What kind of knowledge can improve system usage?	
3. What kind of activities would best facilitate knowledge sharing?	
4. How can knowledge shared be retained in the organisation?	
SECTION E: STRATEGIES AND TECHNIQUES ON BETTERING KS FOR EDRMS IMPLMENTATION	
1. How can trainings be improved?	
2. How can knowledge be better shared with everyone in the organisation?	

3. What practices/culture needs to be in place after implementation of the system to ensure daily system usage?	

Appendix 11: Interview Guide IT Participants

Interview Guide: ICT Officials

Title: *The contribution of Knowledge Sharing (KS) in the effective implementation of an Electronic Document and Records Management System (EDRMS) in the Namibian Public Sector*

Name: Uetujama Hilrika Kazavanga Student Number: 201208678

SECTION A: LEVEL OF IMPLEMENTATION	
1. When and how was EDRMS introduced in your organisation?	
2. What are the activities currently being done with regard to EDRMS?	
3. Do you have an on-going commitment plan to system maintenance?	
SECTION B: KS PRACTICES	
1. How did you know of EDRMS?	
2. How often are you trained on EDRMS maintenance?	
3. How do you communicate or handle challenges you face with system maintenance?	
4. How are electronic records uploaded, maintained on the system?	
5. How often is system upgraded?	
6. What mechanisms do you use to help you maintain the system and help users?	
7. How do you make sure all electronic records on the system are safe? What kind of back-up is there in place?	
8. Are you convinced that this is the right product for your organisation? If not, why not?	
9. How often were there meetings before the installation of the system	
10. How do you gain experiences from experts of the system?	

11. How do users of the system communicate when facing challenges with the system? Is there a helpdesk?	
12. How is EDRMS compatible with other systems in your organisations?	
13. Does EDRMS support workflow in this organisation?	
14. How are other systems/websites in your organisations integrated with the EDRMS?	
SECTION C: EFFECTS OF KS ON EDRMS	
1. How easy/difficult is the system to manage and maintain?	
2. What challenges do you encounter when helping users perform their duties on EDRMS?	
3. Could you please explain your roles and responsibilities with the system	
4. Are you comfortable with regard to clarity of your responsibilities with regard to system usage?	
5. Was the project implemented in the right way? If not, what do you think could have been done instead?	
SECTION D: TYPES OF KS PRACTICES FOR BETTER EDRMS IMPLEMENTATION	
1. Do you think knowledge sharing can improve EDRMS maintenance and use	
2. In what ways do you think knowledge sharing can improve system maintenance?	
3. Who are the people you would need to share knowledge with?	
SECTION E: STRATEGIES AND TECHNIQUES ON BETTERING KS FOR EDRMS IMPLEMENTATION	
1. How can trainings be improved?	
2. How can knowledge be better shared with everyone in the organisation?	
3. What practices/culture needs to be in place after implementation of the system to ensure daily system usage?	

Appendix 12: Observation Checklist

OBSERVATION CHECKLIST: FOR EVERYONE

Title: *The contribution of Knowledge Sharing (KS) in the effective implementation of an Electronic Document and Records Management System (EDRMS) in the Namibian Public Sector*

Name: Uetujama Hilrika Kazavanga Student Number: 201208678

ITEM	NOT SEEN	OBSERVED	COMMENTS
1. Policy or procedural manual in place			
2. System user guide for IT officials			
3. System upgrade schedule			
4. EDRMS installed on all participants desktops			
5. Participants can access the system			
6. Participants can file, retrieve and store documents on system			
7. Participants struggle with usage of the system			
8. Colleagues share knowledge with regard to system			

usage experience			
9. IT officials capable of helping users when struggling			
10. Users share records management knowledge with IT when needed			
11. EDRMS resource allocation on budgets			
12. Knowledge shared amongst colleagues is retained and easily accessible			
13. Users feel free to share knowledge			