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**THE ROLE OF IMPLEMENTING
PAPERLESS MANAGEMENT SYSTEM IN
ENHANCING PUBLIC SERVICE DELIVERY
(CASE STUDY OF KADUNA STATE
SCHOLARSHIPS AND LOANS BOARD,
NIGERIA)**
MASTER'S THESIS

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**PABERIVABA ASJAAJAMISE
PÕHIMÕTETE RAKENDAMINE AVALIKE
TEENUSTE PARENDAMISEKS (KADUNA
OSARIIGI STIPENDIUMITE JA
LAENUSÜSTEEMI JUHTUMI NÄITEL
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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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Abstract

Records management as an act is widely regarded as a pivotal element of public administration. The use of paperless management system of record keeping is rampant among developed countries of the world among both public and private organizations. Existing researches on ERMS revealed the increase in public administration effectiveness and efficiency as a result of its adoption and implementation.

This thesis aimed at investigating the prospects and challenges of ERMS adoption in enhancing public service delivery with a primary focus on KADSSLB. The problem statement was to seek a possible way of increasing the effectiveness and efficiency of records management in the agency since what is obtainable presently remains paper-based record management, which has proven not dependable. Other specific objectives were to ascertain the efficiency level in the workflow if ERMS is implemented and, lastly, the structural changes required if the system is eventually put into practice by the agency. In order to achieve our goal, the case study research design was employed, interviews and surveys were the data collection methods while literatures on ERMS and theoretical frameworks relevant to the research objectives and questions were used. Results indicated that challenges such as inadequate IT infrastructures, resistance to change, corruption, lack of skilled staff, among others, are responsible for the current state of record management in the agency. Also, for ERMS to be implemented successfully, adequate training, sensitization of the employees, adequate funding, and provision of legislation to enhance structural changes must be ensured. In the event of these findings, the researchers designed a TO-BE Model to help the implementation of ERMS and proposed recommendations to serve as a roadmap for the successful transformation of the agency to a paperless management system.

In conclusion, the implementation of ERMS will play a key role in enhancing the public service delivery if all the required measures are well taken into consideration, thereby, resulting in a more effective and efficient agency. The Master thesis is written in English and comprises fifty pages, including seven chapters, six figures, and five tables.

Keywords: ERMS, Record management, ERMS implementation, KADSSLB

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List of abbreviations and terms

BPM	Business Process Management
CATS	Change As Three Steps
CAQDAS	Computer Assisted Quality Data Analysis Software
EDMS	Electronic Document Management System
EHR	Electronic Health Records
ERMS	Electronic Records Management System
HR	Human Reesource
ICT	Information and Communication Technology
IT	Information Technology
KADSSLB	Kaduna State Scholarship and Loans Board
KDSG	Kaduna State Government
LGA	Local Government Area
NPM	New Public Management
RM	Record Management
RQDA	Research Quality Data Analysis
TQM	Total Quality Management

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1 Introduction

The importance of proper management of records cannot be overemphasized. Many organizations today rely on various records for their activities. Some organization cannot even protect their organization against litigation without their records. It is evident that records play a vital role in an organization today, it can be seen today that many organizations have realized the importance of records and are racing towards the introduction of a robust system to help protect and manage their records. Many developed countries have since introduced roadmaps and policies to guide their records management. Some of them have already moved to the electronic system of records. The public service in some countries is mandated to use the Electronic Records Management system(ERMS) in a bid to ensure the security, safety, and quality of records in the country.

It is high time that developing countries, especially countries like Nigeria, with a large population key into the digital era of the 21st century. There is no scepticism with regards to the ongoing digital revolution, and this is one of those “the earlier, the better” instances where the country as a whole has to act swiftly in order not to be left out. It is also certain that embracing the digital revolution will reduce a large amount of administrative burden the public sector is struggling with at the moment. Also, the number of human investments that are needed to keep up the current system - which is, without any doubt, not sustainable in the long-run, is costly. This solution is relevant for the government and its agencies as it will provide them with much-needed answers to most of their questions around the feasibility of implementing a paperless management system.

Although Nigeria has been making some stride in the adoption and promotion of ICT in the governmental institutions and their dealings, there is still so much to be done. The to-do list includes in the area of educating the relevant stakeholders, the area of educating the public servants, and giving them the right training to equip them with the skill that will help them carry out their duties effectively. Enlightenment and training amongst the public should be treated with urgency, as they are going to be at the centre of these solutions – in that case, the knowledge of using these services must be bestowed on them.

The government also needs to look at providing the right environment for this project to be a success. One of the most critical driving forces will be having the right legal framework in place. This framework will provide the legal backing for these projects to become a reality. The e-Governance drive in Nigeria is quite strong of recent, but the government needs to maintain the momentum and also support the ministries, departments, and agencies in implementation.

1.1 Problem Statement

There has been a surge in recent times, in the adoption of ERMS all around the world. Presently, many of the counties, both developing and developed ones, run a human-capital intensive and an onerous system of administration, they are now racing to implement ERMS in order to put an ease on their systems. ERMS has recorded tremendous success in the health sector in recent times. Many developed countries globally are using electronic health records (EHR) to alleviate the limitations of the paper records in a bid to enhance the quality of service. Paper records that are widely used in hospitals around the world have virtually given way to the EHR system. For example, in Estonia, all the local governments have effectively been integrated into the digital environment with the adaptation of ERMS (Pappel, Tsap, Pappel, & Draheim, 2019) & (Pappel, Pappel, & Saarmann, 2012). In addition, Estonian experience shows that while moving towards e-services and digital transformation, the crucial component is a collaboration between the public and private sector as well as the interoperability of the systems. Interoperability is a crucial component while building an ERMS environment (Paide, Pappel, Vainsalu, & Draheim, 2018) & (Pappel & Pappel, 2011). However, other sectors benefit significantly from the adaptation of ERMS, Haider mentioned that ERMS implementations yield different types of benefits for governments, businesses and individuals, etc. depending on the type and extent of use it is put to (Haider A, B, & B, 2015).

Over the years, Nigeria has not been quite able to record reasonable success in ERMS adaptation, and this is considering the success recorded from countries like Nigeria around the world. This failure can be attributed to a lot of factors, most of which are; some of the public servants do not want a transparent and accountable system, because this will block some

of their means of wrong-doing. That is why, as dully observed by Ogbewere, In order to have an effective Nigerian public service, there should be more focus on the importance of long-standing hard-work, fairness, accountability, and openness (Ogbewere, 2015). There are many private organizations in Nigeria that had taken the bold step and introduced this system in their workflow, some of the sectors this can be found in Nigeria, are the health sector, the financial sector, and many small and medium enterprises.

In an effort to understand why there has been much resistance towards the adaptation of ERMS, especially in the public sector, there is a demand for research to find the achievable means of implementing ERMS in this sector by a selection of a public sector agency willing to undergo such project.

1.2 Research Objectives

The main principal of this study is to explore the difficulties in the implementation of ERMS encountered by the Kaduna State Scholarship and Loans Board. This study intends to propose a roadmap for the effective implementation of ERMS in the KADSSLB. Further research aims are listed below:

- Examine the current challenges faced by the agency and students in regards to records management and the exchange of data.
- Examine the elements that will inhibit or facilitate system use
- Study how the implementation of the ERMS in the Kaduna State Scholarship Board would impact the organizational structure change.

1.3 Research questions

The primary purpose of this study was to investigate the existing condition of records management at KADSSLB, also providing a guideline on how the introduction of a paperless management system can enhance the agency ability to deliver quality service.

The overall research question seeks to investigate **How can the effective implementation of ERMS in the Kaduna State Scholarship Board enhances public service delivery?**

This main research question forms the basis for this study in the sense that ERMS has not been introduced in KADSSLB. Therefore, its effectiveness cannot be guaranteed at present. Also, the implementation of a new system requires certain factors that need to be considered, and this question will be of great benefit in examining this area. The question seeks to address the issues regarding some of the obstacles or challenges that could be encountered in the process of implementing this new system, it also, investigate how the introduction of ERMS can increase efficiency in the daily workflow. This question further seeks to understand some of the structural changes that might be needed to accommodate ERMS adoption.

In order to investigate the main research, question the following sub-questions were formed:

SQ1 - How to identify the obstacles affecting the implementation of ERMS?

This question can help in proving different understandings of the subject, for example, understanding the organization culture, the expertise level of the employees, and the required level of expertise for ERMS implementation, the availability or lack of finances, and other things. This question seeks to understand the peculiarities of the agency and what is impeding the implementation of ERMS. This question will also help us in finding recommendations to overcome the challenges in ERMS implementation.

SQ2 - How to increase efficiency through the introduction of ERMS to enhance public service delivery?

The introduction of ERMS in an organization usually comes with the expectation of an increase in the daily workflow and ease of processes. The question, therefore, delves into investigating the old system to identify where there is a call for a new system of records management. The question also brings forward answer on the specific process that should be focused on and how the introduction of ERMS will enhance the workflow.

Furthermore, the question makes an effort to grasp user satisfaction of the system so that the system will achieve its desired goals.

SQ3 - How can the implementation of ERMS influence change in the organizational structure for better public service delivery

There are usually changes in organizations with the introduction of new processes or technologies; while there are sometimes major adjustments that might beseech restructuring of the organization, other adjustments might be small that will not have a serious influence on the structure. This question seeks to understand what adjustments the agency needs to make structurally, which will help them in the effective implementation and sustenance of the paperless management system. These changes are significant because they can be the determining factor of the success in implementing ERMS in KADSSLB. When these changes are understood, the agency can make the necessary adjustments and have plans of how to deal with the challenges that might be because of the structural adjustments.

1.4 Outline of the thesis

In a bid to have some organization and easy access to information provided in the thesis. This section is going to provide a description of each chapter included in the thesis. The thesis has seven chapters in total and below are their descriptions;

Chapter one

The first chapter, as our opening chapter, provides a quick introduction to our thesis topic. It also includes the problem statement, research objective, and, finally, the outline of the project. The chapter general provides an explanation of the importance of why the subject is being examined.

Chapter Two

The second chapter goes on to review the literature. The literature review tries to cover in summary some of the most related works that are available and will help this research.

The chapter also includes some theories that will guide our research. Lastly, the chapter briefly introduces the case subject.

Chapter Three

The third chapter provides a detailed explanation of the research design and the methodology used in conducting the research. It provides details on the data collection methods, the participants of the research, and also how the results were analysed.

Chapter Four

This fourth chapter presents the result of data that were gathered. The chapter also discusses in summary, the results of the questionnaire, interviews, and, lastly, already existing literature, in order to see where there are agreements and disagreement with regards to the data gathered.

Chapter Five

Chapter five suggest a new design regarding the process of requesting for a record at the KADSSLB, after carefully going through and analysing the data that were gathered.

Chapter Six

This chapter focuses on discussing and making recommendations based on the data that were gathered. The section also put into consideration some of the already existing literature available.

Chapter Seven

This is the final chapter, and it concludes the work and gives some insight into the limitation of the study and, finally, some suggestions for future works.

2 Related Work

2.1 Introduction

Numerous researchers all over the globe have carried out various types of research that sought to figure out different approaches and difficulties surrounding electronic records management system adoption. This chapter will, therefore, table and take into account literature and theories with relation to electronic records management system implementation. The chapter also tries to define some basic terms like electronic record management in public service delivery and various other services. When pushing for electronic records management system adoption in the public sector, It is essential that the aspect to be recognized are investigated thoroughly.

Moreover, the theoretical framework is presented in the second section of this chapter. The section delves into the numerous research of authors and examines their results with regards to the practice and concepts to the current research. Finally, there are few theoretical framework results that should serve as an example to the implementation of electronic records management system in Kaduna State Scholarship and Loans Board.

2.2 Literature Review

The electronic record management system would not be considered as a novel approach to solve the traditional record-keeping system in both private and governmental agencies and organizations. The pressing issue of privacy, security, quality, and authenticity of records made It became crucial to identify a means of managing records in practical terms without much compromise. In this regard, there are quite several types of research in the implementation of the electronic management system. (Cleophas, Henry, & Patrick, 2018), (Anahí & Agustí, 2018) and (MUAADH, ZAWIYAH, FAHAD, UMI ASMA', & FARIZA, 2019) agree that there are gaps in the electronic management of an organization create loopholes for abuse of office and also breeds corruption, lack of accountability, and lack of transparency, and risk to litigation. One of the several ways to ensure quality service delivery of governmental institutions and organizations in developing countries

is to implement the electronic record management system. The challenges with the traditional system of record management, as mentioned earlier, can be primarily addressed by the adoption of ERMS. The main aim of implementing ERMS is to solve all the challenges associated with the paper-based record management system that has been around in organizations and agencies for decades (Azogu, 2018). However, ERMS has been a good foundation in Estonia to boost nearly 100% digital document exchange in Estonian public agencies and widely introduce the digital signature among the public sector (Draheim, et al., 2016)& (Pappel I. , Pappel, Tepandi, & Draheim, 2017). Thus it can be said that ERMS can be a crucial component for digital transformation.

2.2.1 Records Management

Records can be defined in different terms depending on the context of the topic. Various field has a various definition, some of these fields are; Music, Law, Computer, Sport and many others. Regardless of the difference in fields, there are some important similarities in what records are considered to be across these diverse fields. It is easy to notice that the use of records across these fields is usually related to data or something that can serve as an evidence or even in some instances considered as history. According to ISO 15489-1:2001, records can be “information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or the transaction of business.” (ISO 15489-1, 2016)

The aforementioned made it evident that institutions cannot rely on the memories of individuals but needs to have a well-functioning records management system in place to protect the integrity of their institution and have a well-coordinated administration. The ISO 15489-1:2001 defines records management as “field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records” (ISO 15489-1, 2016). For the purpose of this study, records management can be described as the reliability, security, storage, accessibility, and authenticity of the agency’s records that will support the delivery of quality service to the public (Azogu, 2018) (Pappel, Pappel, & Saarmann, 2012). The efficiency can also be measured in case specific criteria are fixed within EDRMS usage (Pappel & Pappel, 2011). In ensuring a qualitative means of managing records, the above-mentioned must be carefully observed in all agencies and

organizations that are pursuing quality management of records. In agreement with this, (Anahí & Agustí, 2018) added that records management should not be exclusively used for internal processes but also provide the basis for transparency, accountability, and it should be approached in this way throughout the records lifecycle. It is safe to say that keeping easily accessed records in an institution is crucial to the efficiency, effectiveness, and credibility of the institution, as well as the satisfaction of the citizens that interact with the institution (Azogu, 2018). This is particularly significant because of mismanagement, favouritism, and ineffectiveness in the running the affairs some organizations that an unhealthy records management can create. Therefore, establishing a strict policy and guideline in the records management of KADSLLB, and making sure that all the relevant stakeholders have smooth access to the records for delivering quality service to the public will help in enhancing service delivery.

2.2.2 Record Management in Nigerian Public Sector

The records management of an organization or institution can translate majorly into the administration of the institution. (Abdulrahman, 2015) mention that, the immeasurable roles in administration played by records is highly connected to the ability of managers and administrators to employ records on a routine basis to them help in carrying out diverse administrative duties and decisions. As governments are entrusted with providing security and other essential needs to the public, (Bakare, Abioye, & Issa, 2016) believes “that adequate management of records provides good information for the provision of welfare and infrastructure to the citizenry.” Considering these critical factors, it can be said that sound records management plays in the role of not just the running of the affairs of an organization, but also translates to the delivery of quality public service to the citizenry, which further translates to the improvement of quality of life within the society. Records are so crucial to an organization now more than before to help them have legal requirements, mostly because of the introduction of various laws and regulations that are connected to the submission of reliable and authentic records whenever the need arises (Linh Thuy, Paula, & Bardo, 2007). This also keeps the agency and organizations on their toes in the journey towards providing quality services because with the right evidence on the hand of anyone offered inadequate services, which are against the regulation in place, one can take the matter forward and hold the relevant organization accountable. In the tracking of performance and ensuring accountability, stakeholders can also go through the records of the organization to keep them on track or the organization using their

records in maintaining their integrity in any false accusation that might be labelled against them. (Bakare, Abioye, & Issa, 2016) observed that it is worrying, the rate of records misplacement and loss, most of which needful information for decision making is generally derived in most Nigerian public institutions. This makes it challenging to present concise and up-to-date records of all previous operations, thereby increasing the difficulties in having an adequate record management system in place. In addition to that, there has been a negative influence on stakeholders due to poor management of student records, as research has shown in the Nigerian educational institution. (Philip & Julie, 2013) & (CHUKWUDI, 2019). The challenges and consequences of poor records management have also affected the Nigerian health sector for a very long time, and this has over the years, resulted in much-unguided decision and avoidable medical errors. It also fuels corruption and a lack of trust between the citizens and the health institutions (Azogu, 2018) , (Cyrille, Lise, Judith, & Alvarez, 2004) & (Ambrose, 2017). The challenges of the records management are much, many of these challenges include but are not limited to;

- i. Lack of immediate accessibility
- ii. Difficulties in the updating of records
- iii. Lack of records accuracy
- iv. The space requirement for archives of records
- v. The centralization of records in one place
- vi. The workforce that is required in handling records (Abubakar, 2012)

The records management in the Nigerian public sector, without a doubt, requires focus and deliberate policy to make sure some sanity is introduced to help in overall quality delivery of services to the Nigerian public, as observed by (Bakare, Abioye, & Issa, 2016). If care is not taken, these conditions will have a huge potential of frustrating the national development programmes and policies across different levels of governments in the country.

2.2.3 Electronic Record Management System

Due to the urgency in the need to develop the traditional records management system in place, the adoption of ERMS became significant to the function of organizations. This became especially important, because of the 21st-century digital era and the

advancements in the field of ICT. The advancements that came with the digital era, therefore, made it evident that it was merely the matter of when before it got to the record-keeping systems, it became necessary for most agencies and organizations to move from a paper-based record system to the ERMS. The systems were automatically outdated by the rapid development in technology, which in consequence, push for the computerization of record-keeping (Pappel, Butt, & Draheim, 2020), (Butt, 2019)& (Mihlrad, 2010). To be able to have a clearer understanding of ERMS, this paragraph will mention a few definitions and descriptions of Electronic Records Management(ERM). The U.S. National Archives and Records Administration defined ERMS as “using automated techniques to manage records regardless of format. Electronic records management is the broadest term that refers to electronically managing records on varied formats, be they electronic, paper, microform, etc.” (National Archives, 2000). This definition can be said to be one definition that fits all because ERMS can be defined a little differently, depending on the context of the topic. Another interesting definition is by Martin; he described the management of electronic files and documents as records as ERMS, it captures records of processes digitally and preserves the original digital records, therefore, getting rid of paper copies. This push for efficiency and automation of many processes in an organization (Martin, 2019). Capturing these records is very vital to the organization, as mention by The UK Public Record Office, that these records are evidence of all activities or decisions made by the organization, as it also demonstrates accountability. Organizations’ records are created on a daily basis in these organizations; such records need to be recorded, maintained, and preserved in a structured system that ensures the credibility and reliability of the record while retaining their value as retrievable records (The Public Record Office, 2001). Therefore, ERMS plays a significant role in ensuring all the above-mention, Azogu points out that, the electronic records shared usually come in digital format, this permits the data to be shared between the different parties involved across different settings (Azogu, 2018). This obviously shows the assistance that ERM provides in exchange of information within organizations and agencies. With proper implementation of ERMS, the organization or agency stand to benefit a lot. Asogwa mentioned that a well-coordinated record empowers the overall population and concerned organization to access information quickly, thereby ensuring transparency and accountability of an organization.

Asogwa also mentioned that it provides an organization with the ability to carry out its responsibilities effectively, making sure only essential records are maintained and also only authorized people having access to the information, to prevent theft or damage (Asogwa, 2013).

2.2.3.1 The Difference Between EDM and ERMS

Due to the recurring confusion with regards to comprehending the difference in functions and objective of electronic document management system (EDMS) and ERMS as many people either confuse their functions or consider the two as the same thing, necessitated the need to make clear clarification between them. In an effort to point out the difference between the two systems, the research will adopt the following definitions;

The Ohio State University Library describes EDMS and ERMS as;

Electronic Document Management System (EDMS):

Is a system that handles and structure documents from one end to the other end of an organization, regardless of the declaration of the documents as records or not. EDMS may also be a small stand-alone desktop system or as large as an enterprise wide server-based system depending on the type of EDMS, an EDMS usually may include: content creation, content capture, content editing and revision, information retrieval functionality, document repositories, and document workflow/business process management (BPM) (Ohio State Univeristy Library, 2020).

Electronic Records Management System (ERMS):

Is a system that provides an organization the ability to assign a specific life cycle to individual pieces of organizational information. They may be as small as a stand-alone desktop system or as large as an enterprise-wide server-based system as well, just like EDMS. However, unlike an EDMS documents or content cannot be revised or edited once they are declared in an ERMS, An ERMS includes the following functionality to receiving of records, use of records, management and maintenance of electronic records, and managing the disposition of record (Ohio State Univeristy Library, 2020).

The table below takes it one step further in displaying the difference in functionalities side-by-side.

Characteristics	EDMS	ERMS
Who can control	Owner /user controlled	Company controlled and completed
Version control	Document can be edited or altered, can be stored in various versions	Prevent records from being edited or tampered
Retention Control	May include retention controls	Includes rigorous retention controls, including historical logging, archive transfer, and destruction
Comprehensiveness	May contain paper or other physical documents that may be converted to digital data.	Ability to register physical files under the same classification structure as the electronic records and be able to manage these “hybrid” archives
RM structure	May include a defined document storage structure that may be under control of owner/users	Include a rigorous RM structure that is maintained by the administrator
Functional value vs evidence value	Is aimed at supporting the day-to-day exchange of data within the process of the organization.	Is aimed at securing repository for organization records that support as evidence the documentation of the organization processes.

Table 1: The difference between EDMS AND ERMS. Source: Adapted from MoReq (CECA, 2001; PP.63-64 as cited in Johanna (2006)

Considering all the aforementioned points, it is quite clear that the ERMS and EDMS are not the same and are not necessarily for the same purpose. Each of the two systems has its functionalities and the reason for deployment by the relevant organizations.

2.2.3.2 Benefits of ERMS

With the implementation of an ERMS, organizations stand to gain numerous benefits. The system will, amongst many others, play a great role in minimizing the human error factor, facilitate access to information, reduce the cost of process, and ensuring the security of data (MUAADH, ZAWIYAH, FAHAD, UMI ASMA', & FARIZA, 2019). This part will briefly explain some of the benefits that are peculiar to the implementation of ERMS.

- **Ensuring the security of data**

The security of data is also a major concern in running the affairs of an organization. With the old system, it is more difficult to monitor who has access to confidential documents and who does not. The ERMS has restrictions on access to documents, which help to prevent the risk of unauthorized access to confidential documents. The result of Johanna (2006) shows much confidence in the security of data regarding the implementation of ERMS (Johanna, 2006).

- **Improve productivity and efficiency**

Many organizations have since move to the implementation of ERMS in their organization. As the world advances, there is a need for constant change in order to keep up with new technologies and meeting demand from the citizen that interacts with the organizations. The need for more efficiency is usually found behind the main drive for the adoption of an ERMS within organizations. As Gary and David observed, the implementation of ERMS in an organization introduces quality, efficiency, and effectiveness (processes are better, easier, and quicker) in the overall work process (Gary & David, 2006). Asogwa mentioned that one of the only ways to introduce efficiency in the daily workflow of Nigerian universities is with the adoption of an ERMS, Asogwa made this observation while examining the readiness of Nigerian universities in managing electronic records (Brendan, 2012).

- **Improve workflow coordination and communication**

ERMS will help significantly in refining the management and collaboration on tasks in organizations and departments. It enables the ability to track records and even view the logging history of the records. The need for certain records can be easily channelled and requested to be delivered at the point in need easier with better coordination. In Estonia, the exchange of data and records between the local government and citizens was greatly improved with ERMS in place (Pappel, Pappel, & Saarmann, 2012). With the implementation of ERMS, e-records managers should be able to communicate and collaborate with the relevant stakeholders at a basic level in the new environment better (Brendan, 2012).

- **Operational Cost reduction**

The reduction in operational cost is arguably the major reason why organizations adopt ERMS. The usual way of managing records requires a lot of resources and manpower. It also consumes time as records keeping is done manually. Johanna mentioned that top management and records managers considered cost savings to be the main objective of introducing ERMS (Johanna, 2006). Brendan also noted that the use of ERMS is cost-effective and contribute significantly in achieving the institution's mission (Asogwa, 2013).

- **Improve decision making in the organization**

Organizations keep records for the purpose of future reference, which can serve as history or evidence depending on the need. Based on the fact that it is available to them, organizations can also rely on their records to make better decisions. Brenda stated that ERMS promotes and facilitates the ability of an organization to manage extensive information that will help in making timely and informed decisions (Brendan, 2012)& (MUAADH, ZAWIYAH, FAHAD, UMI ASMA', & FARIZA, 2019).

2.3 Theoretical Framework

This section review some of the related theories, which, in other words, are ideas or concepts that will guide the thesis. The theories that are examined and are interrelated with the scope of this study. The framework serves as a roadmap through which helps the researcher to remain on the topic with little or no bias on the conduct of the research.

- **Good Governance**

Good governance has been in the public debate for quite some time now. This is an area where the civil service, the Non-profit Organizations, and the broader public society have put a tremendous amount of energy on, to give their populace the best out of governance. It is difficult to come across a common and unanimously agreed-upon definition of good governance. Therefore, the paper will try and highlight a few definition or description of what good governance is, or should be. The topic of good governance is often used in particular reference to political governance, and in the aspect of political governance, it is usually associated with other concepts such as democracy, participation, human rights, the rule of law and transparency, predictability, and responsiveness amongst others (Marsida & Nada, 2016) & (Peter & Alan, 2013). Good governance is crucial in the deliverance of dividends of democracy, and its role should not be underestimated. This can be further proven by the statement made by the former United Nations Secretary-General Kofi Annan. In a report to the General Assembly, the Secretary-General was quoted to have said: “Good governance is perhaps the single most important factor in eradicating poverty and promoting development, the Secretary-General states, adding that support for it has become an increasingly important element in the development-related work of the United Nations” (UN, 1998). This statement demonstrates that even the United Nations can only do so much in helping nations, without the countries putting a deliberate effort in achieving transparency, accountability, participation, and others through good governance. In agreement with the aforesaid (RASAK, OGUNLADE, OYE, ADEOTI, & AKE, 2019) also stated that “Good governance is undoubtedly the most fundamental condition for political, social and economic development in any society” (RASAK, OGUNLADE, OYE, ADEOTI, & AKE, 2019). Good governance can also imply from one perspective accomplishing the goals set by the authority, while from the other perspective, making sure of compliance with the processes imposed, like; incorporation, responsibility, cooperation, and accountability (Verena, Marianna, Maïke, Sonja, & Johann, 2019) (Peter & Alan, 2013). With the aforementioned statements, it is obvious how good governance it related and important for this research. We are in an era where “It can be safely said that a modern form of government is not just about the efficiency of the system, but also about the accountability between the citizens and the government” (Butt, 2019).

Therefore, it is vital that the public understand that there is a change in perspective, and also, “good governance is not a luxury but a necessary condition for open, participatory, accountable and democratic governance (RASAK, OGUNLADE, OYE, ADEOTI, & AKE, 2019).

- **New Public Management**

The idea of Good Governance goes hand in hand with the New Public Management (NPM) idea. as their key proposition criss-crosses and complements one another, taking into given that a significant number of e-governance projects are based on the idea of New Public Management (Tsap, 2017). It is quite fascinating to see how there are several takes on the current condition of NPM and the debate that NPM is a dead-path. Even though (Dunleavy, Helen, Simon, & Jane, 2006), (Osborne, 2016), & (Levy, 2010) argued that NPM is dead or rather out of date, researchers like (Hyndman & Irvine, 2016) beg to differ and argue that there are still use of NPM around the world.

NPM just like good governance can be said to have no precise definition, depending on the context of the topic NPM can take different definitions, but since this paper is focusing on the public sector, the paper will use the definition and specific concept and practices as described in (POLLITT, 2017);

“NPM is a two-level phenomenon: at the higher level it is a general theory or doctrine that the public sector can be improved by the importation of business concepts, techniques, and values, while at the more mundane level it is a bundle of specific concepts and practices, including:

- i. Greater emphasis on ‘performance,’ especially through the measurement of outputs*
- ii. A preference for lean, flat, small, specialized (disaggregated) organizational forms over large, multi-functional forms*
- iii. A widespread substitution of contracts for hierarchical relations as the principal coordinating device*
- iv. A widespread injection of market-type mechanisms (MTMs) including competitive tendering, public sector league tables and performance-related pay*
- v. An emphasis on treating service users as ‘customers’ and on the application of generic quality improvement techniques such as TQM” (POLLITT, 2017).*

The points, as mentioned above, are crucial in ensuring the smooth functioning of a public institution like the KADSSLB. Also as mentioned by (Roumiana, 2010) the “NPM enforces competition (in adapted form) as a reliable tool for achieving greater efficiency in the activities of the state institutions,” and in pursuit of a push in the efficiency of records management in KADSSLB, good governance and management is vital in delivering the needed results. According to (Wadim, Vyacheslav, Artyom, & Pavel, 2020) “NPM is a powerful tool for improving the effectiveness of public administration.” As observed by Tsap (2017), so far, many institutions around the world have already adopted e-government solutions that are based on the principles of NPM and good governance through ICT (Tsap, 2017). As the name, New Public Management might imply, there is a need for some old practices to change. Therefore, KADSSLB can follow the footsteps of the earlier adopters using the principles of NPM in the introduction of the ERMS.

- **Change Management**

The implementation of ERMS in the KADSSLB will no doubt, be a novel approach to an agency that has been running manually for quite a long time. Therefore, to determine the level of readiness for change in the organization, and also the managing of change during the adoption of ERMS, the change management theory becomes vital for this research, most importantly. It is somewhat a broad knowledge that people usually resist change, even though; human beings are the most adaptive of all species; that does not mean the topic of change management can be overlooked. The adaptability of human beings still remains to be more impressive as years go by, this shows that with the right approach and methods applied, changes can be accepted and managed more easily than without the right methods being applied. There can be a lot of reasons as to why changes in organizations fail most of the time. However, it is the belief of Roger that change programmes usually fail due to poor management: poor planning, monitoring and control, absence of the right resources and know-how, and incompatible organizational strategies and practices (Gill R. , 2010). Stephen, Todd, and Kenneth observed that, even with the different models and approaches, researchers in the management literature seem to accept Lewin’s change management model, which is also known as “Changing as three steps” (CATS) as the basis upon which the change management field is built (Cummings, Bridgman, & Brown, 2015).

The Lewin's Change model will be the best model to manage the change that will happen in the organization, as many other organizations use the Lewin's CATS to manage change. The Lewin's Change Management Model is easily introduced as a three-step process. The three steps are as follows:

Unfreeze	As Lewin (1958) suggests, the idea of the unfreezing phase is the process of unlearning. The leaders in the change relevant organizations must make sure they fully equip their organization members with the necessary tools on the concept of change that is being introduced (Joel & Julia, 2016). Levasseur (2001) stressed the need for an effective communication, saying that, "although it is necessary to tell people about the proposed change for them to understand and support it, active top-down communication alone is not sufficient to ensure success," Levasseur (2001) also added that the lack of communication and the negligence to bring people that are likely to be most affected by the change along, through the change process could be a huge barrier in the implementation of change (Robert, 2001). Therefore, the first step, in essence, is summarized in (Lewin 1947, as cited in Burnes 2004) statement "the stability of human behaviour was based on a quasi-stationary equilibrium supported by a complex field of driving and restraining forces. Lewin argued that the equilibrium needs to be destabilized (unfrozen) before old behaviour can be discarded (unlearnt) and new behaviour successfully adopted" (Burnes, 2004).
Change	The next step that follows after the unfreeze or unlearning stage is the change or learning stage, and this can also be seen as challenging the status quo. Here also, the management of the organization is vital in achieving this phase.

Refreeze	After unfreezing (unlearning) and changing (learning new process(es)) it is time to freeze again. In Lewin's change management model, this is the third and last step, amongst the three steps. As Burnes notes, "Refreezing seeks to stabilise the group at a new equilibrium in order to ensure that the new behaviours are relatively safe from regression." (Burnes, 2004). The refreezing step should, however, acknowledge that to make sure any form of regression is avoided. There is a need for regular follow up, and communication as the organization may require a bit of getting used to before the new change implemented becomes or feels normal by the members of the organization.
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Table 2: Lewin Change Management Model

- **Digital Trust**

In recent times, with the rapid growth in ICT technologies, the world has seen a lot of digital solutions that are visible in almost every sector today. These technologies are now part of our daily lives. Today, we see digital solutions in commerce, healthcare, education, governance, and many more. Therefore, it is inevitable that one of the main concerns to address with the introduction of a digital solution in any organization will be the issue of trust. As stated by Natasha (2011), trust and distrust are key issues to be considered when designing a digital environment, because they are the determining factor in maintaining providers and user relationships (Natasha, 2011). These two can be even more critical in public sector organizations as they mostly deal with confidential information. The digital trust issues play a significant role for not just the customers, but also the organizations. First of all, it will be good to look at what is considered as trust. For this research, the definition of trust by Mayer and others (1995) will be adopted, where trust is defined as: "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party." (Mayer, Davis, & Schoorman, 1995). Consequently, as stated by Dmitry and Anton (2018), digital trust can then be defined as the relationship between a person and an autonomous intellectual agent that operates in a digital environment (Dmitry & Anton, 2018). It is, therefore, evidently clear that for a successful deployment of an IT solution that is likely to be accepted by the people, trust plays a significant role (Gefen, 2002).

Digital platforms are mostly introduced to ease the processes on both ends of the system. Since the provider and the user work together, and this brings about interdependence. Therefore, that interdependency on each other can help both the users and the organization in accomplishing their goals (Mayer, Davis, & Schoorman, 1995). Below is a quote from Graham Neill, Director, KPMG on the importance of digital trust for both parties.

“Digital Trust has already become critical to how you develop and maintain positive, long term relationships with your customers and other stakeholders. The acquisition and retention of customers and shareholder value is reliant on your levels of Digital Trust.”
Graham Neill, Director, KPMG

This lead Juri and Timo (2016) to believe that one of the many aspects that contribute or take the dominance of some digital platforms is the issue of digital trust amongst many others. Roy (2006) mentioned it is crucial for organizations to know that trust has to be a multifaceted approach in terms of how governmental organization seeks and retain supports from citizens in pursuing policies and actions that are in the best interest of the citizens. Therefore, where there is a lack of trust either from inexperience and uncertainty or some failures, citizens will handle their public service activities through more familiar platforms that they are more comfortable with (Roy, 2006).

- **ERMS Sustainability**

The recipe for ERMS sustainability: a survey of how organizations have implemented electronic records systems by Danelle Court (2011)

The primary goal of ERMS adoption in organizations is to increase the effectiveness and efficiency of these organizations in the managing of electronic records, as the researcher clearly pointed out. The use of ERMS, as presented by the researcher, is mostly common in organizations – it helps them in keeping evidence, making informed decisions, maintaining orderliness with regards to records. Therefore, it goes without saying that, there will be resistance in efforts to install ERMS in these organizations, which the majority of the staff are comfortable with old ways of doing things and are not ready for change. The researcher focused on identifying the reason for such resistance within an organization whose central and essential business revolves around electronic records,

identifying the strategies that can be utilized during implementation so as to make the systems sustainable. The researcher points out that, when the question “what type system do you use?” out of the 236 responses, 56.4% (133) said they used ERMS in their organization with others saying they use EDMS, EDRMS, and other forms of electronic records. The researcher processed to the main objective of the research. The following are the recipe for a sustainable implementation of ERM in an organization;

- **Records management foundation and leadership**

When it comes to the availability of an already existing records management foundation in an organization, there should be no speculation. It is essential for the organization to analyse its records management foundation before moving to the implementation of an ERMS.

- **Top level management support and involvement**

The top management support is critical in having a successful and sustainable implementation of ERMS in an organization. The top management does not only hold the key in securing funding, but they are also a key stakeholder in the development of a policy for the ERMS. Therefore, the visible support and involvement of top management is important here.

- **Solid communication channels between all the stakeholders**

Communication cannot be overemphasized as it is important to have communication even before the implementation, during the implementation, and after the implementation period. The more the communication – in the case of a system like this. The better for all parties involved for a successful adoption.

- **Policies on system usage and defining responsibility**

Policy implementation around the use of the system will play a significant role in sustaining the ERMS. It will be important to define the user of the system and the user guide for the people that will use the system. These policies will enhance the right use of the system over a long period of time.

- **Continuous education and awareness of the system**

This part is arguably the most important aspect of sustainability. Education and awareness of the system is a process that should be a never-ending process. It is a drive that should be a push by the top management and integrated into the company’s culture. The continuous education should cut across all levels of the organization.

2.4 Brief Introduction of the subject

Nigeria is a country in the western part of the African continent, with a population of over 193 million, according to the National Population Commission as of 2016 (NBS, 2018). Nigeria is home to over 250 ethnic groups. According to (Morin, 2013), Nigeria is considered to be one of the most diverse countries on the globe with people of different religions, ethnicities, and cultures coming together in unity to form one country. This was as a result of the amalgamation in 1914 by the colonial masters (MUSTAPHA, Yakaka, & Halima, 2019).

Nigeria is a federal republic with a president and 36 state governors. The government structure of Nigeria is divided into three under the 1999 constitution;

The federal government: The federal government is made up of three arms of government which are; the Executive, the Legislative, and the Judiciary. The government ministries function under the executive. The ministries are assigned ministers to steer their activities and also have departments and agencies that are attached to their portfolio, this which that the agencies function under the ministries and help them in achieving their mandates.

The state government: it also has a similar set-up as the federal government with three arms of government, namely; The executive, the Legislative, and the Judiciary. The executive also runs the affairs of ministries in the state. Each ministry is appointed a commissioner, and there can be several agencies and organizations under the ministry.

Local Government: The local government Area (LGA) is usually referred to as the grass-root government as it is the government closest to people. The local is led by a Local government chairman and councillors that are elected to represent wards within the LGA

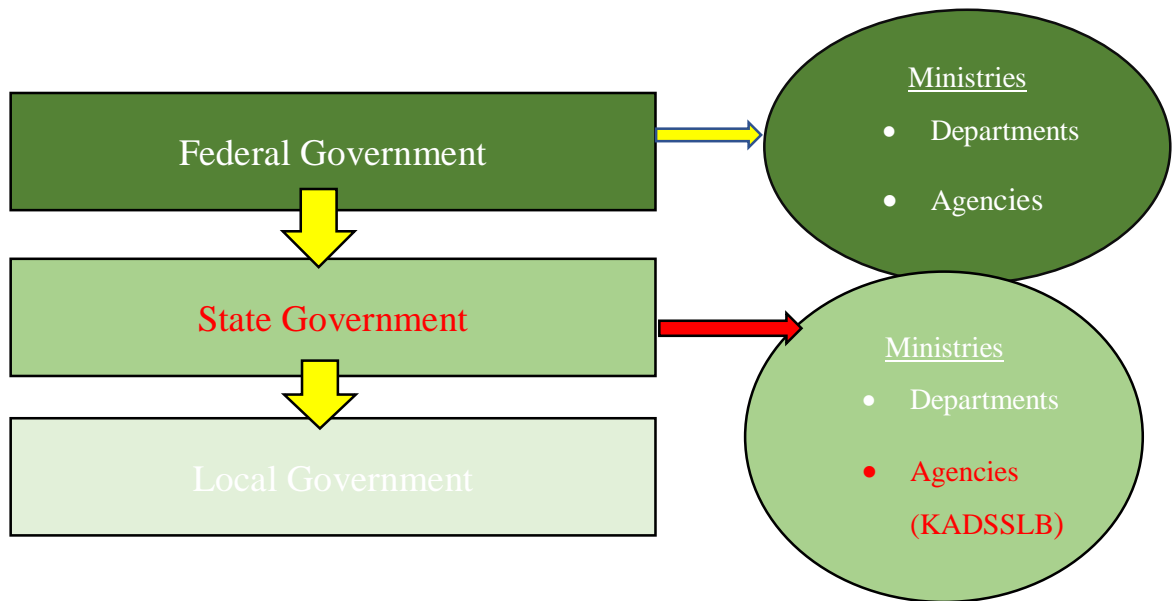


Figure 1: Breakdown of Nigerian Government Levels

Kaduna State is a state in northern Nigeria and with the 3rd most population in the country, according to the National Bureau of Statics (2019). The Ministry of Education in the state oversees the running KADSSLB. The KADLLSB is saddled with the responsibility of identifying individuals in the state that are deserving and also meet the eligibility requirements and provide them assistance in their studies. The agency also facilitates the opportunity for loans and other forms of support to the students of Kaduna State. The agency has the following departments; Academic Affairs, Administrative, Human Resources, and Records Department.

3 Research Design and Methodology

3.1 Introduction

This chapter is going to discuss in detail the description of the research methods in answering the already stated research questions. The primary aim of this research is to examine the part that ERMS can take in enhancing KADSSLB service delivery quality.

3.2 Research Settings

The research was an empirical one, and data was collected based on interviews that were conducted with the staff of the agency and the questionnaires that were sent to the students of Kaduna State in different universities and different cities, also questionnaires sent to the staff of KADSSLB.

The researcher's choice of Kaduna State students to be participants in this research is because the agency's essential existence is to cater to the students of the state. Therefore, if there is any source of information, the student will be in the best position to provide that. Also, the staff of the agency are very essential in providing information on the processes of the agency, which puts them both in a great position to give an insight into their experience and their views on the implementation of EMRS at the agency.

3.3 Research Approach

The primary objective of this research was to examine the promises and challenges of implementing the electronic record management system in the process of KADSSLB to improve the quality of service delivery.

In order to accomplish this research objective, 4 semi-structured interviews were conducted with the staff of KADSSLB – these staff were across different operational levels of the agency.

A questionnaire was also sent out to the 22 staff of the agency – It came back with 15 responses with diversity in positions and departments. Another questionnaire was also sent out to the students that had an interaction with the agency, in this case, 200 students were targeted – It came back with 152 responses.

3.3.1 Case Study Design

Considering that the research questions that were already developed, in order to provide answers to these questions appropriately, and for the research to be guided in such a manner that it will make sense. The case study research design was deemed the most appropriate research methodology to help conduct this research. To support the current and prospective research on this subject, the usage of case study research for this research was considered as the best approach.

The use of a case study is considered to be commonly used in conducting qualitative research. As stated by Yazan “case study is one of the most frequently used qualitative research methodologies.” (Yazan, 2015). According to Yin (2003), A case study is an empirical analysis that examines a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are unreasonable or illogical (Yin, 2003). For Zainal (2007), “case study method enables a researcher to examine the data within a specific context closely. In most cases, a case study method selects a small geographical area or a minimal number of individuals as the subjects of study.” (Zainal, 2007). If there is anything typical about case study definitions, is the fact that over the years, researcher have found it to be a bit difficult to have one unified definition for the case study design, this can be because of the complexity of the topic. However, the few definitions, as mentioned above, tend to help provide a more simplistic view that can be easily understood by the targeted people.

Moreover, there are different types of case study designs; they are; single and multiple case study. Nock, Michel, & Photos (2007) states that a single case study design has to do with examining phenomena of interest while using a single case or a small group clarify the matter under examination (Nock, Bethany, & V I, 2007). On the contrary, Gustafsson notes that, for multiple case study, the researcher, apply various cases to extract more data of the matter under examination (Gustafsson, 2017).

As the definitions above, Yin (2003) stated that, rather than a large sample design, the single case study focuses more on parameters, establishments, and objectives of the research. (Nock et al., 2007 as cited in Irene, 2018) believes “many researchers prefer using the single case study design in carrying out their research as they believe that this method focuses on a single subject of study, which results in a more efficient outcome of the phenomenon being studied.” Considering the aforementioned explanations, this study will be applying a single case study for this research.

In conducting research, several researchers appreciate the rewards in the use of a case study research. Flyvbjerg (2006) mentioned that “the advantage of the case study is that it can “close-in” on real-life situations and test views directly in relation to phenomena as they unfold in practice” (Flyvbjerg, 2006). As the statement suggested deploying case study research ensures the comprehension of complex study subjects, it also present detailed results on the research as opposed to the use of other research designs. In support of this, (Zainal, 2007 as cited in Azogu, 2018) mentioned that case study enables researchers to examine and explore a complex problem, the research is conducted in a natural environment, and the researcher can go beyond numerical outcomes in understanding the behavioural condition through the perspective of the actor. Research designs such as the experimental, however, are deliberately conducted outside the natural environment of the subject, and it focused on a limited number of variables (Azogu, 2018). This makes the use of case study designs research the best choice in examining a subject closely in a research.

Lastly, it is important to mentioned that case study research design is not perfect; there have been many critiques in the use of case study research design. Researchers have criticized the lack of rigour and the sloppiness of a case study research.

3.4 Data collection

This section focus on the methods which were adopted in the acquisition of data that were used in examining the subject. This research is using semi-structured interviews as the sources of the primary data and questionnaires as the secondary source of data to support the primary data. The use of different sources of data is derived from the idea of

triangulation – the use of more than one method in gathering data for research. The use of triangulation will contribute in assuring the validity of the research.

3.4.1 Interviews

(Gill, Stewart, Treasure, & Chadwick, 2008) stated that that, one of the most usual techniques in a qualitative research data collection is through interviews. One of the key points made by Gill, et al., (2008) is “interviews can be used to explore the views, experiences, beliefs, and motivations of individual participants” (Gill, Stewart, Treasure, & Chadwick, 2008), this is very important especially in conducting a case study research. Research interviews are divided into three fundamental types in case of qualitative research interviews, the figure below presents the three types of qualitative research interviews

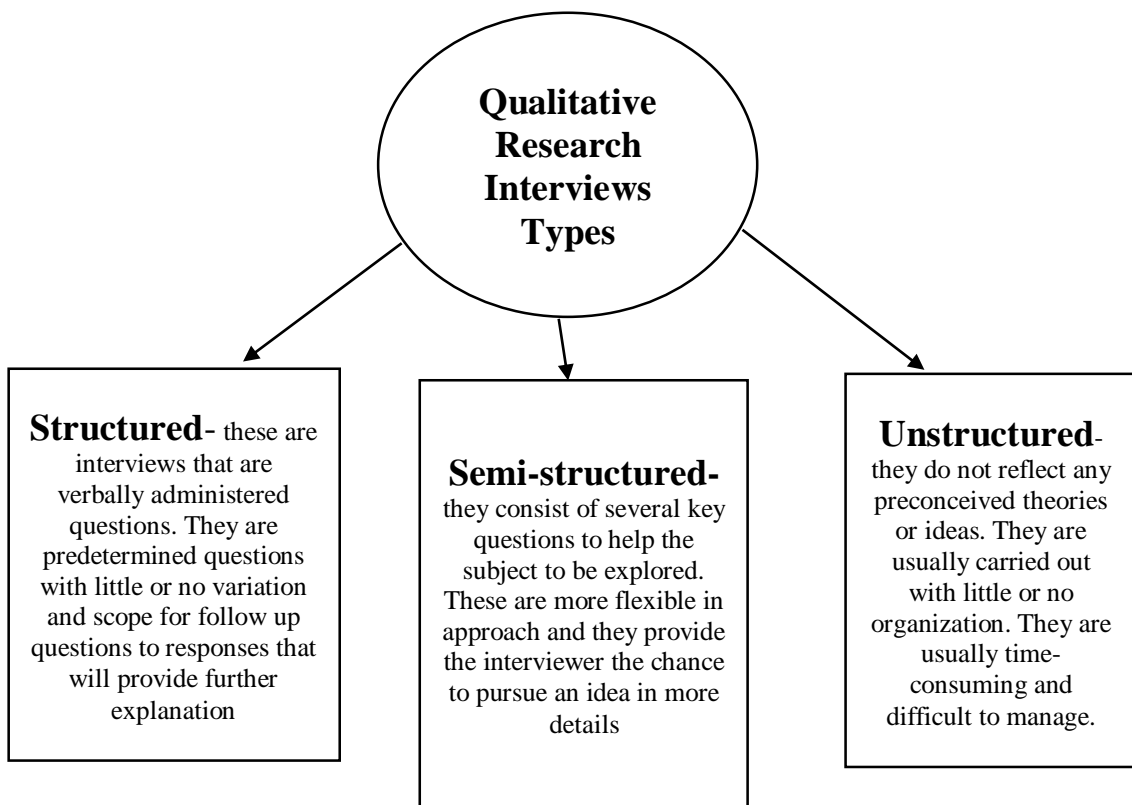


Figure 2: Types of Qualitative Research Interviews (Gill, Stewart, Treasure, & Chadwick, 2008)

With the aforementioned types of interviews in mind, this research adopted the use of semi-structured interviews approach in conducting the interviews.

In total, 4 semi-structured interviews were conducted. Each interview was based on an appointment on an agreed time between the interviewer and the respondents. The 4 interviews were conducted with; 1 the consultant working with the agency on the implementation of EDMS and the 3 others were with the staff of the agency. The interviews included staff from different operational levels in the agency. The interviews were conducted over the phone, and the conversations were recorded, after which, the next step that followed was the transcription, and then they were coded in RQDA for a simpler presentation of the data after being analysed.

3.4.2 Questionnaires

These data (input from questionnaires) were collected as secondary data. It will be valuable in backing up the literature previously stated, and interviews that were conducted. A random selection of 152 students of Kaduna state that have interacted with KADSSLB and 15 the staff of the agency were asked to fill out questionnaires. Questionnaires for each of the target groups, had some peculiar questions, in an attempt to have relatable questions that will help the research in providing an idea into the present state of the agency, which includes; service delivery, present infrastructure, and others.

3.5 Analysis Procedures

One cannot overemphasize the significance of this section of the research. This is the phase that tries to understand the case study in detail from the data that was collected (Runeson, Höst, Rainer, & Regnell, 2012). According to (Yanto & Liang, 2017), Qualitative research is one of the most usual approaches in the business and social science journals, it brings a lot of diverse tools and methods that deals with mostly “non-numerical” data and span from interpretive textual analysis, discourse analysis, and case study (Thompson, 1997, Paulus and Lester, 2016, and Yin, 2003 as cited in (Yanto & Liang, 2017)). Therefore, the use of qualitative data analysis methods is important, as this is a case study research. Furthermore, RQDA will be used in the analysing the collected data. Yanto and Liang define RQDA, “a relatively new open-source computer-assisted qualitative data analysis (CAQDAS)-based R extension, it demonstrates how the software can increase the rigor, transparency and validity of qualitative research” (Yanto & Liang, 2017).

According Abodei and Yanto & Liang, below are some of the advantages of using RQDA includes but are not limited to;

- i. It is a free software
- ii. Various operating systems compatibility
- iii. The cross-over ability to RQDA for textual data analysis, for existing R users
- iv. Very low bugs or technical failures
- v. Simple and intuitive interface
- vi. Does not require an external application (e.g. Excel Spreadsheet)
- vii. Easy to learn
- viii. Importing of large number files using a simple syntax (Abodei, 2018) (Yanto & Liang, 2017)

Moira and Brid (2017) described the six steps that should be followed when conducting data analysis which are;

Steps	Description
Become familiar with the data	The first step is quite self-explanatory. This step is the process reading and re-reading the transcripts. It is important to be very familiar with all the data that was collected
Generate initial codes	This step is the beginning of organizing our data in a meaningful and systematic way. The coding reduces the huge data into smaller chunks of meaningful data.
Search for themes	This step is the stage we examine the codes and some of them clearly fitted together into a theme. It can also be referred to as a pattern that captures significant or interesting data or research question.
Review themes	This step is the stage that we go over the themes and make sure they make sense. Reading the data and making sure it supports the theme.

Define themes	This stage is to identify themes and examine what the theme is saying – seeing how they interact with each other and etc.
Writing up	This is the step to make sense of the analysis. The end of the research should usually result in some kind of report, journal paper or thesis.

Table 3: The six steps for analysis and the descriptions (Moirra & Brid, 2017)

After following all the steps as mentioned above, the objective is to have a clear and logically presented result from the thematic analysis.

3.6 Validity Procedure

The validity of the research is important in proving the authenticity and reliability of the research data. Bordeianu et al., (2013) mentioned that “validity is the extent to which the instrument measures what it is intended to measure” (Bordeianu & Morosan-Danila, 2013). In addition, Yin (2003) stated that the quality and validity of any case study design can be decided by four structure tests, which can cover a lot analysis (Chaminda, Dilanthi, & Richard Peter, 2005).

Test	Construct Validity	Internal Validity	External Validity	Reliability
Description	Setting up accurate operational measures	Setting up relationships as distinguished from spurious relationships	Setting up a domain to which results can be generalised	Showing that the operations of study can be repeated with same result
Case Study Methods	Utilization of different sources of proof Establish a chain of proof	Do cognitive mapping Do explanation building	Use of replication logic in multiple case study	Use case study protocol Develop a case study database

Stage of the research	Data collection	Data analysis	Research design	Data collection
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Table 4: Validity and Reliability of Case Study Research (Yin, 2003) & (Chaminda, Dilanthi, & Richard Peter, 2005)

With the interview and the survey that was conducted, this research will be able to address any concern of the 4 stages of validity procedure.

4 Presentation of results

4.1 Introduction

This part focus on the results of the interviews and web surveys that were gathered from the staff of the KADSSLB and the students of Kaduna State. The responses from the web survey will be presented in percentages and chart analysis. Data that were gathered during the interview were analysed using RQDA to have a better picture of what is being discussed.

4.2 Interview outcome on ERMS Implementation

This part using the Moira and Brid (2017) six steps that should be followed in conducting thematic analysis (become familiar with data, generating initial codes, search for themes, reviewing themes, defining themes, and write up) were applied. Several codes were identified from in the analysis from the conducted interviews, the initial codes identified were further categorised into themes that relate more to the topic being discussed. The below themes will help in providing the answers for our research questions:

Themes/ Codes categories
Obstacles of ERMS Implementation
Readiness for ERMS implementation
Present IT Infrastructure
Benefit of ERMS
Trust, data privacy and security

Table 5: Source: (RQDA analysis from author, 2020)

The following section will present the analysis of the themes above. The theme where defined from the codes that were gathered.

4.2.1 Obstacles of ERMS implementation

Some of the most commonly perverse reason that are obstacles in the implementation of ERMS in KADSSLB are, as presented under this theme or code category. As commonly done by other developed countries and organization that adopts the use of ERMS, it is vital to have a sound knowledge of factors that are frustrating the efforts for smooth implementation of the technology. Some of the obstacles gathered from our participants are, as listed below: -

- Inadequate skill of staff
- Internet Access
- Miscommunication of the project goals
- Resistance to change

All four of our participants agreed that there is a need for the upskilling of present staff or bringing in new hires that are skilled and are computer literate. The participants also agreed that the IT skill is the most needed for the agency at the moment, and even moving into the future. One of the respondents stated that “I can tell you currently, in the agency, there are poor skills, there are actually poor skills, there is that poor... With most of them are not computer literate. So, most of them went to an analogue system of education”. One of our respondents, however, made it clear that majority of these people are skilled and experience in the running of public services, all that they are missing at the moment is computer skills as this comes with the advancements of technologies. There is a need for them to learn new skills as time changes. This is also where the resistance to change comes in, as all of the respondents agreed completely that the resistance to change is going to play a huge factor in the implementation of ERMS. On this, one of our respondents stated that “You know, people are comfortable with their old way of doing things and, you know.” And then, the respondent went on to add that “Definitely, there will be push-backs, you know, people have said things like the complexity is going to then start to affect their turnaround time, which is the exact opposite of what we're trying to achieve. People are concerned that because there is some level of upskills, upskilling that is required for this.

Also to obtain that, you know, it then means that they have to do some work, which typically people do not like to do”. One of the respondents also stress the fact that an effective and constant communication is needed at all times for the successful implementation of ERMS. There is some level of misunderstanding with regards to new processes that are technologically driven, as pointed out by the respondent. People feel threatened by these drives for new technologies and usually try to frustrate the implementation as much as they can. The respondent points out that some of these staff are genuinely concerned about their jobs, and they will definitely want to learn new skills that will help them keep their jobs, the respondent while responding to a question regarding the willingness of the staff to undergo training, stated that “Yes. They would want to, nobody that would not want to, no one. I do not think there is anybody that will tell you he does not want to, no matter what. Number one, because everybody wants to keep their job. Even if it is me, I will never want to sit down and see somebody come and take my place. So, we have to push them to a challenge; we have to push them to the wall to see that there is a need if they actually want to maintain their salary”. One of the respondents also talks about the importance of a stable internet access. Sounding so enthusiastic, the respondent in acknowledging the effort of the present top management in bringing change to the old system of running things. Also said that the main issue they face is the issue of constant quality internet access. There is a need for quality internet access at work for the staff to be able to carry out their works accordingly. Two of the respondent talked briefly on the need for a comprehensive policy if ERMS should be introduced as they are worried about what will happen to the implementation of ERMS if there is a change in government. The respondents mentioned that inconsistencies in policies has been the major problem of Nigeria for a very long time.

In conclusion, there are some obstacles that are frustrating the implementation of ERMS in KADSSLB, as all the respondents mentioned one or more similar factors that need to be addressed before having a successful ERMS implementation.

4.2.2 Readiness for ERMS Implementation

This part is essential and will provide an insight into what the agency can leverage on and what should be done for an effective ERMS adoption. While talking to respondents, the one thing that was commonly mentioned by all the four respondents was the support and leadership provided by the top management.

They also mentioned the support of the state government and the Chief Information Officer of the in anything that is technologically driven and helps in easing the processes of the organization. Also, some of the respondents mentioned that there are presently being provided with trainings that will help them in adapting to some of the new processes. However, two respondents stated with concern the readiness of the staff and their ability to adapt to a system that is quite strange to the few of the non-computer literate staff. They further suggested that young skilled people can be hired while also maintaining so of the experienced staff. As suggested, they can be paired together and made to work side by side, so that it's a win-win situation where both parties are learning something new that will help them with carrying out their tasks. According to the respondent, "That is why you see what the governor is doing these days is to bring young people into the system because a young man is very difficult to be bent. So, when you see young people coming in with agile skill and strength doing the work, it will help in a way, you understand? It will help in a way to motivate them. It will help to steer up their spirit so that they can be able to learn, you understand? Even if they know maybe they do not have longer years in service, they will be able to at least learn a little at least for their own safe. But if not, at least we can also inject more people into the system to see that there is a mixture. You can say maybe you have a senior officer having someone that is also learned in his office, you pair them, there is also this pairing, you understand? You can pair people to learn. You will see that when there is a bond of pairing people will learn these new skills, they will learn it with time."

4.2.3 Present IT Infrastructure

The level of IT infrastructure in an organization is vital in the quality and effective implementation of ERMS. This theme draws out details of IT infrastructure that are available to the agency. The overall respondents, when asked about the present process of students applying for a scholarship, stated that student applies through an online portal and all their application goes to their cloud storage. In addition to that, three of the respondents pointed out the availability of data management system to the agency and how much it helps in making their work easier, especially because the students are now able to have their essays uploaded and marked automatically without any human interference. They mentioned their satisfaction in the transparency and fairness the use of data management systems has brought to the system of awarding scholarships to students.

Another respondent also mentioned with excitement the use of ICT when it comes to the internal communications channels of the agency, adding they use different communication platforms like Microsoft Outlook, Google Gmail, and WhatsApp group for instant messaging. All the respondents, however, stated the tediousness and time-consuming process of access to records. One of the respondents mentioned that when a file comes in, and there is a need for a record, to be able to carry out the task, the process is “We send them manually, is either you call the person, or you get a messenger, we have a messenger. So you can send a messenger, or you go personally or you call the person. So, since it is all within the building ...you can always communicate most of the time manually; we communicate manually. So, when they send for the file, it's comes to me I check for what I want to do with it...” the respondent mentioned this process can take a very long time, and if not lucky, the file is with another staff, in another department. The person that needs the record usually has to do the tracing. Also, you need to sign the record register before and after using the record. The IT infrastructure in the records department of the agency is almost none existence as gathered from the data. This also supports our literature, that the old, traditional record management is time-consuming and not efficient for the digital age of today. With regards to the deployment of ERMS when a respondent was asked about the cost of data storage and other back-end needs, the respondent mentioned that “With that regard, yes, we will able to sort that out quite well. So, and the good thing, one of the major benefits that we have is that the state already has an infrastructural agreement with Microsoft, and because of that, the resources they have are really significant.” The participant went on to further elaborate on the advantages that the state has when it comes to the technological infrastructural agreement with Microsoft. The respondent mentioned that as Microsoft has an international reputation, they feel confident and safe dealing with them, and also the agreement with the state provides some level of assurance and safety.

4.2.4 Benefits of ERMS

The theme draws out the benefits of ERMS in an organization from the respondents' perspective. All the respondents with excitement mentioned that they are looking forward to their agency adopting and ERMS to ease the present process they go through to access records. One of the respondents, while talking about the important role that records play in any organization, mentioned that “it reduces the risk of losing vital information and data, it reduces that risk.

Now that we have fire outbreaks some weeks back, we see some organisations, governmental organisations that were set on fire because of one or two electrical issues that might have occurred in the organisation. Where we have electronic records management, we see, it helps us that we will be able to still access our records.” the respondent also further explains that because of the protection of evidence that comes with the implementation of ERMS, most corrupt practices tend to go away and other forms of misuse of power or position, because the records are now stored electronically, and they can be accessed even over a long period of time. Agreeing with this, another respondent also mentioned that “you're able to respond to people better, you're able to standardise your responses and you're able to hold people accountable, as opposed to just letting things happen haphazardly and, you know, people then benefit, corruption becomes an issue and all of these things off the back of that.” Another area of great benefit, as mentioned by the respondents, is the accessibility of records. One of the respondents was giving an example to how the Covid-19 Pandemic had affected work and now would have been the best time to have remote access, and the respondent stated that “Let's assume now I need information that has to do with somebody and the file is in their office and I'm at home and I need to work. Let's assume in this COVID-19 period, and maybe let's say one of the executive officers need information. He has to find a way; they should go to the office, they have to scan it to send it to him wherever he is, they have to find a way to transport it. But when we have it electronically, you see it immediately you can get the information you need” another respondent in agreement with this stated that “Seriously, it will improve our work, because this paperwork we have been working on it, and with the paperwork there are barriers, but once this one (ERMS) is fully implemented, it will ease the work, and the staff will have less stress, that is just it.”

4.2.5 Trust, data privacy and security

This theme tries to understand the perception of the staff within the agency of the issues of trust, data privacy, and security with regards to the implementation of ERMS in the agency. The four respondents all made it clear that it is arguably the most crucial part that needs to be addressed because these are ongoing issues, and they will never go away. Some of our respondents with basic knowledge of security just had a very short response, stating that they trust the systems, and they are sure that records are going to be much safer than the present state of the records.

One of our respondents with expertise in the security and data privacy space provided three reasons that security and data breach shouldn't be an issue. The respondent stated that firstly, "So, we have layered securities in Kaduna state. In the first instance, we ensure that all data are stored on the government servers. So, we do not have any of their data being held or being stored anywhere other than on the KDSG servers, which essentially is government policy going forward". Secondly, "So, even if someone was to, for example, give their credentials access to someone else, a third-party, we could easily track that because all government-issued machines have some audits on their IP address and usability of those IPs within the government network. So, if you are starting to have access from outside of that, those are immediately flagged in the access routes. We can immediately start to proactively even without issues coming up; we can proactively start to say, you know, we are noticing some kind of thing from this particular user on the system". Thirdly, "And then critical also is the idea of data backup. So, in case of data loss or anything to that effect, we're able to replicate that data". Lastly, "So, for instance, if I have or if a particular staff has no business seeing files in a particular folder, those permissions can be managed directly from the back-end, so that they only have access to seeing documents that are relevant to their job functions." The respondent talked about most of the areas of concerns with believes that the agency, with the support of the government, will be able to handle the issue of security and data privacy without much hassle. The respondent made it very clear that the issues of security are an ongoing thing, stressing the fact that, as the system operates and the world moves, there is a constant demand to upgrade security settings and find better ways according to world best practices to be able to, if not protect the system from vulnerabilities, then at least mitigating these risks as soon as they happen.

4.3 Web Survey Outcome

The response from the questionnaire will be divided into two categories, the reason being that there were two different questionnaires that were sent out for two target groups. As stated earlier, in order to have more reliable and validated data, the questionnaires were sent out to both students that interacts with the agency and the staff of the agency. The result will look at where they are agreements and disagreements and also where the data gathered supports the interviews that were conducted. The result shows that staff from different departments and hierarchy within the agency participated.

It also shows students from different institutions both within and outside the state, from different stages of their studies, participated in the research.

The question asked about the present state of records management;

Staff: the result shows that 73.3% (11 respondents) said “YES” there is a need for improvement from the present record management system, 26.7% (4 respondents) said “MAYBE.”

Student: the result shows that 75.7% (115 respondents) agree that the present of records management can be improved, 22.4% (34 respondents) are not sure if it can be improved, and 2% (3 respondents) disagrees with the question.

The that asked about any experience or case of loss of records with the KADSSLB

Students: 52.6% (80 respondents) said they had never had such case, while 47.4% (72) stated that they have a case of loss of records within the agency.

The question that asked about some of the challenges that are stopping the implementation of ERMS in KADSSLB had the following responses

Staff: the result shows that 66.7% (10 respondents) of the respondents in a multiple-choice question, selected the lack of IT expertise and the lack of IT infrastructure to be the main obstacles. 40% (6 respondents) saw the lack of political will as the main obstacle, while only 6.7% (1 response) saw the issue of inadequate funding as a concern

However, from the perspective of the student when asked about challenges facing the agency

Students: the results show that 51.3% (78 respondents) said the issues of corruption, 25% (38 respondents) mentioned the lack of ICT Infrastructure, 17.8% (27 respondents) mentioned the problem of unskilled staff, 17.1% (26 respondents) said nepotism, 9.9% (15 respondents) mentioned the issues of bureaucracy, and other reasons were mentioned as well.

The question on resistance to change with regards to the implementation of ERMS had the following responses from the staff;

Staff: the result shows that 60% (9 respondents) agrees that there will be resistance to change with the introduction of ERMS, 20% (3 respondents) disagree and say there will not be resistance from the staff and 20% (3 respondents) are not sure of if there will be any resistance or not.

The question that deals with the issue of trust and data privacy had the following responses from the participants.

Staff: the result shows that the majority of the respondents showed trust towards the system, with 66.7% (10 respondents) saying they trust the system with both the security of records and also data privacy, while 13.3% (2 respondents) showed they only trust it with the security of records and 20% (3 respondents) showed that they do not trust it with both.

Student: the result shows that overwhelming majority trust the security and data privacy of the system with 44.1% (67 respondents) saying they trust it with the security of records, 34.9% (53 respondents) showing they trust it with both records security and data privacy, 13.2% (20 respondents) trusting it with the issues of data privacy and only 7.9% (12 respondents) showing they do not trust it with both

The question that looked at the issues of digital preservation had the following responses from the participants

Staff: the result shows that 73.3% (11 respondents) agree and trust that the system will be able to preserve documents, while 26.7% (4 respondents) showed that they are not sure about digital preservation of documents.

Students: the result shows that 68.4% (104 respondents) agrees that the system will preserve document for many years, 26.3% (40 respondents) indicated that they are not sure about that and 5.3% (8 respondents) do not believe that the system would preserve document for many years.

4.4 Discussion and Summary of Findings

The part provides a detailed explanation of how our research outcome, with support from already existing literature on the area of ERMS implementation, answers our research questions.

The aim of the first research question was to examine and understand the challenges and obstacles of ERMS implementation and the best way to overcome these obstacles for effective implementation. As reviewed in our literature, there has been recorded success with the implementation of ERMS in many organizations. These organizations have recorded successes from easing of their workflow to increase in turnaround time and transparency.

However, there were diverse challenges according to the different settings for ERMS implementation. The implementation of ERMS especially in the health and public sector, has encountered several challenges; this can be seen from earlier literature that were reviewed. It is evident from the interview that were conducted and the online surveys that KADLLSB is not without its own challenges. Below are the answers provided by the data that was gathered:

- The main obstacle is the issue of staff skills, especially which regards to computers and other technological literacy.
- The issues of miscommunication within the agency can be largely blamed for the course of concern by the staff (especially non-computer literate) towards any push for a technological solution.
- Lack of IT infrastructure was an issue that was pointed out by both students and staff of the agency. It is going to be needed for the successful take-off of the system; these infrastructures include but are not limited to; computers, quality internet access, and power, amongst others.
- The perspective of the majority of students on the issue of corruption to be the main challenge faced by the agency is worthy of note.

The second question of our research aimed to understand how the adaptation of ERMS can help in increasing the efficiency in the workflow of the staff of the agency. There are enough studies on the issue of increase in efficiency with ERMS; most organizations only adopt the use of ERMS because of the need to increase their efficiency. Our theory on Good Governance stated the need for efficiency in order to have an effective government.

The results that were gathered from our interviews and online surveys shows that the staff and the students that interact with the agency also believe in the ability of ERMS to increase efficiency at KADSSLB. The findings are as stated below;

- Majority of the students and staff agency believe that the current records management needs improvements.
- Majority of the staff believes that the ERMS is going to improve efficiency in the system.
- Respondents mentioned that ERMS would make them not worry anymore about waiting on other people to finish their tasks before they can work on theirs.
- Respondents also stated that the ERMS system is going to give them access to records in seconds as opposed to the present system, where it can take them anything from 5 minutes to 15 minutes.

The third research question, which is the final question, aims to investigate some of the structural adjustments that might be needed in order to have a successful implementation of the ERMS system. The existing literature shows that, with the introduction of such technologies in organizations, there are usually some adjustments that might affect the structure of the organization for them to be able to achieve their goal with ERMS. This is also in-line with our change management theory, as it stated the reason for change and how best to introduce it. Our findings from the interviews and surveys shows that;

- Both the top management and the staff are ready to accommodate the necessary changes needed for the adoption of ERMS.
- In order to keep a sustainable system that will outlive those that introducers, there is a need for more technical staff.
- The record management staff, and also messengers of the agency might require little adjustments in their role or their job functions.

5 Designing the Good Service for ERMS

Considering the previous chapters and the data gathered from all the research that was conducted. This chapter is going to suggest a new design for requesting records from the records department at KADSSLB using ERMS. In order to have a good service design, the design approach is going to use the five main principles of good service design. The below listed and explained principles are adapted from (Butt, 2019)

Designing a Customer-Centric Service

This process is essential, as the name suggests. The idea is to make sure that the service that is designed is catering to the need of the users. The design takes into account the user interacts with the service, including their emotional reactions towards the service. The common technique used in collecting the data that are essential for such designs includes but are not limited to, web surveys, interviews, observation. Therefore, the data gathered through our research can help in designing a service with the user at the centre of it.

Co-creation

This process, as the name implies, is making sure that in designing a good service, there are ranges of ideas and expertise so that the service will not leave any critical stakeholder out. The need for co-creation is not just for the design of a good service but also through the development process. The much-needed feedbacks, opinions, and experiences can further provide the feeling of everyone being carried along and building a service that is approved by all stakeholders.

Service Sequencing

The service sequencing tries to achieve consistency and assuring the quality of the service. Since the user is at the centre of our design, this usually requires the delivery experience as part of the service. It is important to make sure that there is an interrelation within the services. Therefore, the services should be treated in sequence of the actions.

Communicating the Service Visually

It is vital always to consider the audience in any design because that will give one the best idea of what should be the outcome of the design. In this case, to make sure that everyone is on-board and being carried along is important to put the design into something that is tangible and the stakeholder can visualize. This can be done in many ways, some people use the paper prototype, while other user pictures or sketches. One can use any form of approach so long as it visually communicates the idea of the service design outcome.

Designing a Holistic Service

This part of the design pays more detailed attention to the user journey through the use of the service, with each interaction being considered. This process can be done through the use of user personas to understand the experiences, and that in return, will give a clearer picture that will help design services; that is holistic in approach with making sure of the safety of users, the service functionality, and last but not the least the reliability of the service.

5.1 AS-IS Model

The AS-IS model of accessing records at the KADSLLB is quite cumbersome and time-consuming. The design of the AS-IS model gives a more visual presentation of the current process.

The present process of accessing a record file at the KADSLLB is entirely manual. At the moment, when a memoir comes-in from the ministry of education (for example, concerning some students record) and for the task to be carried out by the employee, there needs to refer to a particular record. The employee, first of all, has to either go in-person to the record department to make a request for the record that is needed – as it is all within the same building, or send a messenger to the records department on the employee's behalf. The record manager will then use the reference to record provided by the employee to check for the availability of the record in the record room. If the record that was requested is not available, the record manager comes back and informs the employee. However, if the record that was requested is available, the records manager provides the record, and the employee is then requested to sign the “outing file” register. This helps the record department to keep track of records movement within the agency.

After using the record, the employee is required to take it back to the record room. At this point, the employee signs the “return file” register, and that is the end of the process. The present process is tedious and takes much time. This can delay cases that need to be addressed urgently. Processing the cases that rely on the availability of the relevant records will face some delays because of the present process. The process also comes with the risk of loss or damage of records; because the records travel from one hand to another. The process does not guarantee the safe travel of confidential documents to only people that has access to the documents.

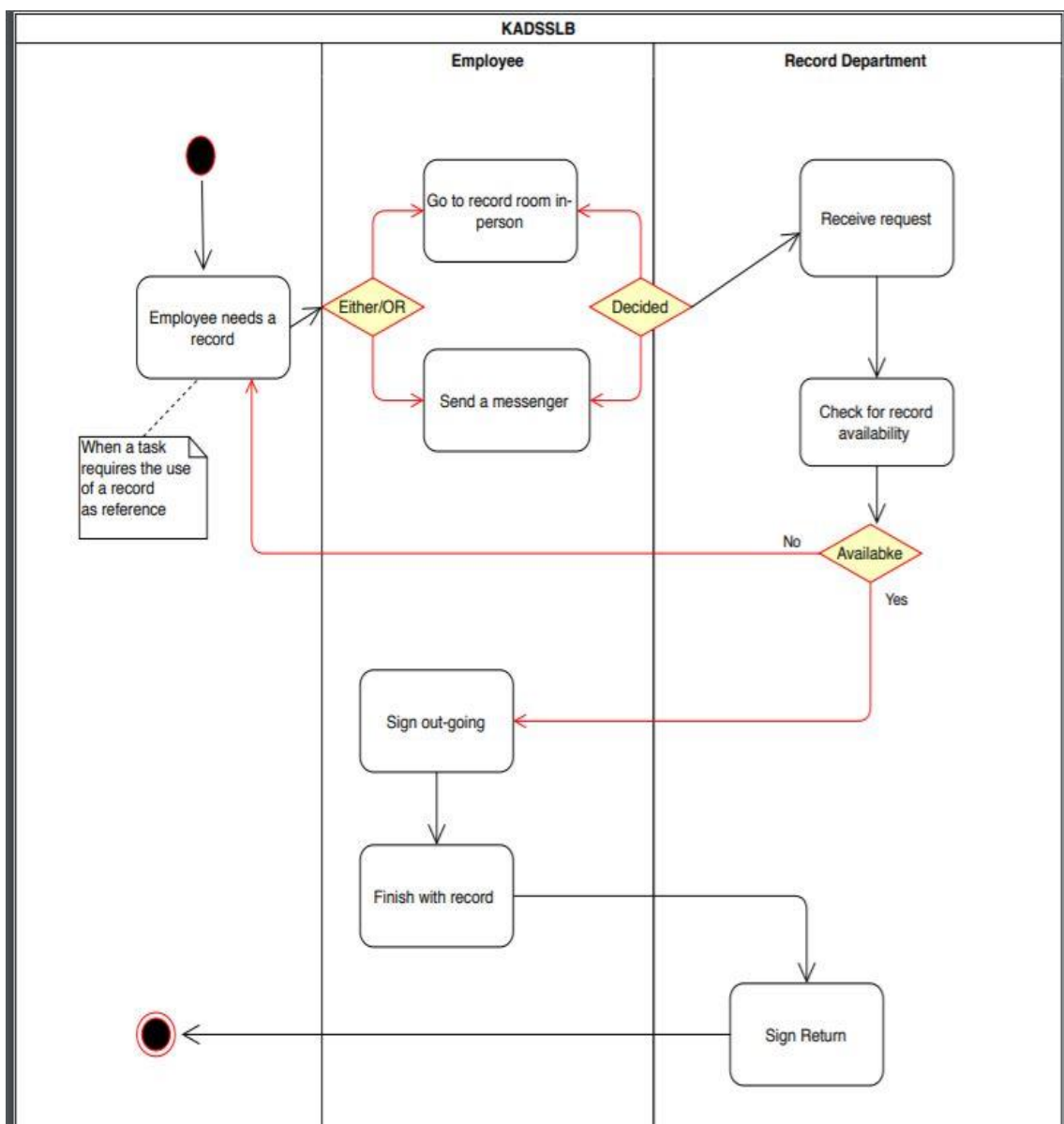


Figure 3: AS-IS Model for Employee record request at KADSSLB

5.2 TO-BE Model

The TO-BE model visualizes how the implementation of ERMS in KADSSLB will ease the process of accessing records.

The TO-BE model proposes that, if an employee should receive a memoir from the Ministry of Education, that will require the use of record as reference. The employee will go to the ERMS system and first of all, submit a request to the system, the system will receive the request and move on to the next stages, where it checks whether there is a need for authentication or not if there no need for authentication, the system automatically grants the employee access to the requested record and that will be the end of the process however if there is need for authentication. The system sends a request for authentication to the employee, and the employee will then provide the authentication that is needed. If the authentication is right, then access will be granted, and the employee will have access to the record that was requested, and if the authentication provided by the employee is wrong, the request will be rejected, and the process will go back to the start.

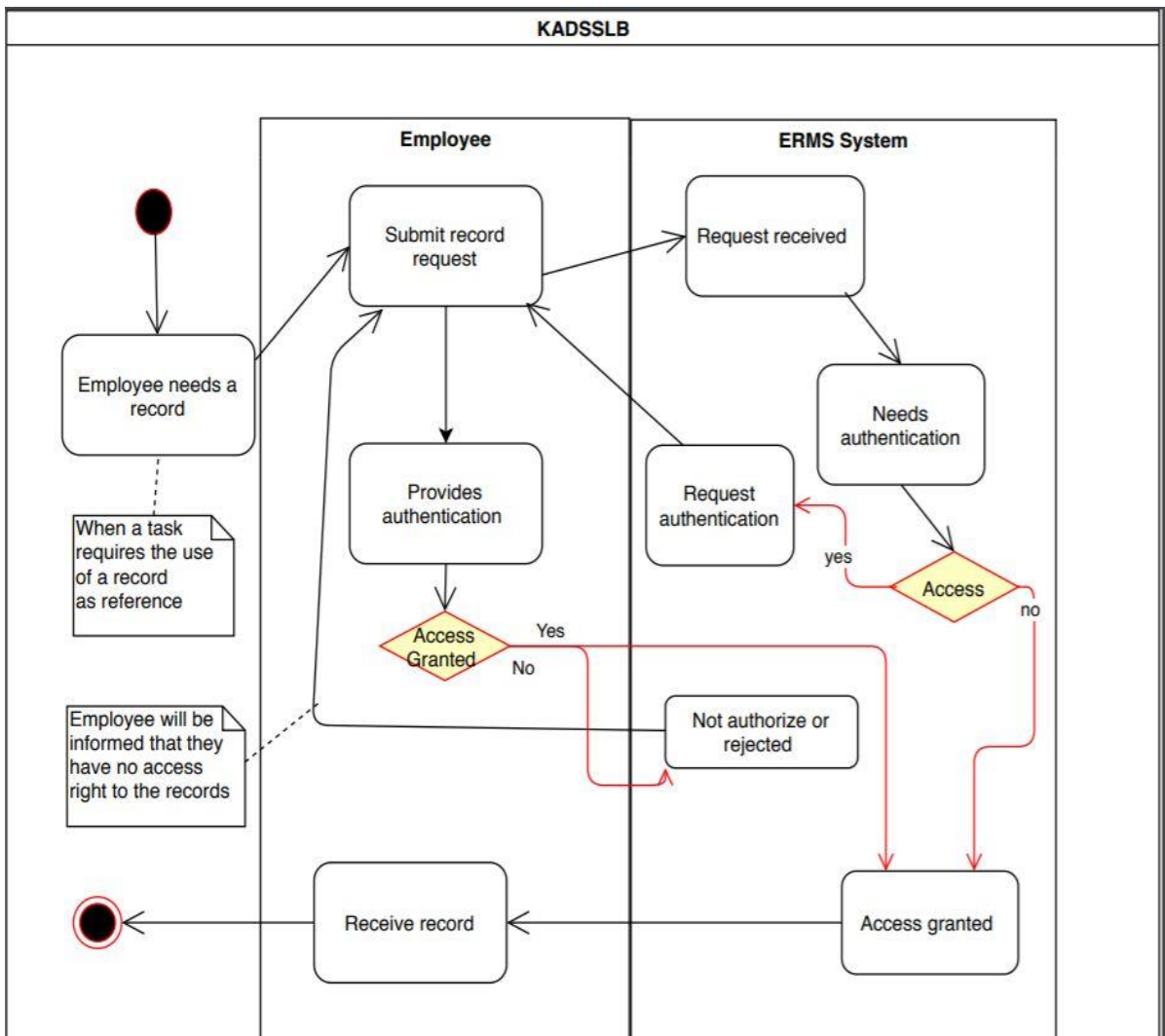


Figure 4: TO-BE Model for Employee record request at KADSSLB

6 Discussion and Recommendations

This chapter is going to consider the presentation of analysis and results from the previous chapter, which includes the interviews and web surveys and also existing literature on the Implementation of ERMS to ease the processes at KADSLLB. The recommendations are as follow;

Electronic Records and its Sustainability Policy

As supported by our literature and the findings from the interview and web survey analysis, for ERMS to work and be sustainable in the long-run. One of the first steps to take in the introduction of ERMS in an organization is for the organization to have a clearly defined use and guidelines for records management. With many organizations adopting ERMS over the years, it is vital to note that it is not just enough to introduce the use of ERMS, it is equally as vital to have a robust sustenance plan of the system. This is especially important in the Nigerian case because there have been numerous systems that were introduced before and are nowhere to be found today because of the poor sustainability culture of the country. It would be essential for policy development to cover the following:

- A clear roadmap for ERMS implementation
- Guidelines on the use of the system
- Defining the process or processes that should be addressed by the system
- Provision of the legal basis that is needed for the implementation and sustainability of the system

Rigorous Hiring Process

The role HR plays in an organization is crucial. In order to have the right people that will address the needs of the agency, hiring system must become more rigorous, in that way, the emphasis is on people skillset and competencies, thereby addressing the issues of the poorly skilled staff. Some of the most important steps the HR department can

take in not just making sure they hire the right people, but also ensuring that the people working there are motivated are;

- Paying attention to individuals needs and aspirations
- Making sure the vetting process is done accurately
- A clear stance on the vision and mission of the agency
- Ensuring that people hired fits with the agency and its culture.

Provision of Continuous Training

The continuous training of the staff plays a key role in ensuring the sustainability of ERMS. The training provision also provides some level of assurance to the employees that the introduction of new processes will not be a treat to their jobs. It important for the organization to put more emphasis on providing the people that will be at the centre of managing or using ERMS with the training that they need. A periodic discussion or survey can be carried out to understand the level of employee competencies with regard to the process. That will help visualize the people that need more training to help them carry out their required tasks on time.

Communication Policy

From the interviews carried out, the respondents were concerned when they talked about the issue of communication. It is considered as one of the barricades that have to be addressed or overcome for ERMS implementation. For the agency and the staff to embrace this technology, there is need for the agency to provide constant communication channels. It is important for the agency also to understand that communication might not always translate to understanding. Therefore, the right way to communicate the objectives and goals of the project should be identified and applied.

Additionally, there is a need for secured channels to be made available for employees to voice out there concerns and objections anonymously. This ensures that there is no intimidation when it comes to communicating, it also gives the employee a sense of safety, with no fear that what they said might cost them their jobs.

Measures should be put in place by the agency to maintain frequent communication; these can be through periodic table-top discussion, programs that will provide more insights into the individual perspective of where the organization is at the moment? Where should it be? Moreover, how will it get there? This and many other more forms, beneficial communication should be adopted by the agency.

Providing the Necessary IT Infrastructure

Providing the necessary infrastructure by KADSLLB, for a successful implementation of ERMS is vital. This is also important in sustaining ERMS after implementation, providing the necessary infrastructure is one of the major that will guarantee that ERMS implementation is beneficial to the agency. Without the right infrastructure in place, the employee might see this as another way of handling records but without necessarily adding value to them.

Moreover, the provision of quality internet, a comfortable environment for work, and computers should be made available to the staff in the agency. There were concerns related to these issues from the data that were gathered during the interviews. The agency should put in place ways that should guarantee the adequate infrastructure needed for their staff to carry out their tasks successfully are put in place.

Addressing Digital Trust Issues and Security Concerns

Security concerns are always relevant and a thing of concern. The data gathered by our interviews and surveys show that the majority of our participants trust the security of the ERMS. In addressing these concerns, the agency needs to understand that the issue of trust needs critical attention and also requires transparency, as supported by our literature. The agency should issue licensed computers and other necessary devices to the staff to control the accessibility and easy traceability of records, and there is also a need to ensure that local security laws and regulations are being strictly adhered. The agency should make provision for a rapid response team in the event of an attack on its systems. These will give all parties concerned confidence and reassurance with regards to security.

With digital trust, this is a multifaceted issue; however, because the organization is providing the digital platform, it also plays an important role in bridging the gap that is created by digital trust concerns. As supported by already existing literatures, the organization should ensure transparency in the use of the platform that is introduced, it equally important to ensure that the platform lives up to its expectation, there is need to have a reliable platform that will rarely fail people, the ensure that the platform is not being abused and that there are rules and regulation guiding the use of the platform. Ensuring all the aforementioned will go a long way in cementing the trust between the people using the system and the ability of the system.

7 Conclusion

This section provides a solution based on our findings and general discussion to answer our research questions. The main objective of this study was to answer the question of the implementation of ERM and the role it plays in enhancing public service delivery. It can be concluded that ERMS will play a significant role in enhancing the service delivery of KADSSLB. As the results show, the system, if properly implemented, will cut down the time it takes to process a document or access a record. However, to have a successful implementation, there must be a deliberate policy or push towards the upskilling of the employees and making them ready for the use of such systems. It is vital to keep in mind that the adjustments that might be required because of the implementation of ERMS must effectively be handled by the top management.

The first research question centred around the obstacles that are currently hindering the adaptation of ERMS and possible way of overcoming these obstacles. With regard to the results gathered from our analysis, it is apparent that the main obstacles that need to be addressed are the issues of staff IT skills. KADSSLB needs to make sure that they are measures put in place to address these issue for effective implementation, as the majority of the respondent shows that they will support the system because it will ease their work and also indicted interest in seeing the system being adopted by the Agency.

The second research question focus on the efficiency that might be introduced because of ERMS, it shows that ERMS will bring a tremendous amount of ease to the process of accessing records and other day-to-day activities that have to deal with records. When implemented, the ERMS will reduce the time it takes to access records from 5-15 minutes to at least 1 minute. This definitely increases the efficiency of the workflow.

The third and the final question concentrated on understanding some of the changes that might be needed in the organizational structure, and from the result is shows that there is going to be needed for some adjustments, especially in the records department and also concerning some roles functions within the agency. Respondents, however, showed their support and pointed out that the present management and people at the agency are ready to make any necessary adjustments that will help them have a successful implementation of ERMS.

7.1 Limitation of the Study

The single case study research design that was adopted for conducting this research has been under heavy debate for a very long time in the researcher community, as many have a total disregard for it, referring to it as nothing more than a story-telling and other making the argument that it is the most relevant research method (Krusenvik, 2015). The most shared concern within the researcher regarding the use of a single case study research design is the limited generalizability and lack of rigor (Krusenvik (2015), Yin (2009), and Flyvbjerg (2006).

Because of limitations due to the unavailability of much research conducted in the ERMS implementation domain and ERMS in Nigeria, the author only had access to a limited number of available literature and data for the conduct of this research. There has also been a lack of willingness to answer the web survey that were conducted. The inability of the author to be in the location of the study also contributes to the limitation on other sources of data that could be used in analysing this study. Another limitation that is essential to note is the hesitation showed by the majority of the participants to say anything that might be considered not a “negative” remark or comment about the subject.

This study can only provide a theoretical position, and it will not be possible to generalize the results of this research to other agencies or organizations within the state because of the limitation questions.

7.2 Future Work

In the process of conducting this research, there have been a few areas that have been identified, based on the findings of this research, that will benefit hugely from future research. They are as proposed below;

Firstly, there should a study to investigate the presence or absence of a different legislative or regulatory framework that are needed to ensure and protect the deployment of such technologies and also suggestion on world best legislative and regulatory framework practices, especially with regards to public sectors.

Secondly, this study tries to concentrate on the implementation of ERMS to ease the workflow of the subject. It will be very enlightening to see research conducted either on an already existing ERMS in Nigeria or if it should be implemented by the agency, the yielded results on their productivity and efficiency.

Lastly, for the assurance with regards to reliability methods that were applied in conducting this study could be further evaluated by re-examining the subject by different research while applying both qualitative and quantitative analysis, in order to have diversified results so that they can be compared to each other.

Conclusively, the future works could also examine the impact of the legal framework on the proposed solution and also the benefits of the system from the people that are making use of it in their workflow.

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Appendix 1 Interview Questions

Interview Questions (Staff)

1. Could you please describe the present process of applying for a scholarship or loan?
2. Is there any need for a student's application history/record prior to processing application?
3. When an application comes in, how is it stored? Electronically or on paper? Do you have a hybrid system?
4. Kindly describe how the student data is managed currently in different phases of the workflow.
5. If a student contacts for second application, how do you retrieve his data that was stored previously?
6. How communication, intra and inter organization takes place w.r.t student information and application?

Do you use any secure portal to share confidential information?

7. How will the implementation of electronic records management system improve efficiency in the agency?
8. Can you please describe how KADSSLB archive any information that you do not require any more?
9. What is your take on the readiness of the organization to through some structural change in order to have a successful implementation of ERMS?
 - a. Do you think there will be any resistance to change?
10. What are the obstacles that will hinder the implementation of ERMS? Infrastructural as well as employee behavioural.
11. What is the skill level of employees? Can everyone use computers or just the clerical staff?

Interview Questions (Consultant)

1. How would you move the information on paper to electronic?
2. What is your take on the issue of security and data privacy in relation to ERMS implementation?
3. What are the infrastructural requirements and what is the readiness of the agency in the requirements?

Appendix 2 - Survey

QUESTIONNAIRE FOR STAFF OF KADSSLB

Dear participants,

I am a MSc Student of e-Governance Technologies and Services at Tallinn University of Technology. The purpose of this survey is to understand what the staff think about the service delivery of Kaunda State Scholarship and Loans Boards, and also to see the acceptance level of adaptation of Electronic Records Management System (ERMS) in the processes of the agency.

Your response are completely anonymous and confidential, IT CAN NOT BE TRACED BACK TO YOU!. This will take less than 10 mins. Thank you!

1) Your Department

2) Can you please mention your position/role?

3) Are you a believer in the use of ICT in your day to day activities?

- i) Yes
- ii) No
- iii) Not sure

4) Do you think the present state of records management in KADSSLB can be improved?

- i) Yes
- ii) No
- iii) Maybe

5) Do you think there are challenges in student data exchange between KADSSLB and the partner universities?

- i) Yes
- ii) No
- iii) Not sure

6) Do you know about Electronic Records Management System (ERMS)? (*Electronic records management (ERM) is the management of electronic files and documents as records, ERM captures records digitally, and preserves the original digital records, not paper copies*)

- i) Yes
- ii) No
- iii) I have some idea about it

7) What do you think is stopping the implementation of ERMS in KADSSLB?

- i) Lack of political will
- ii) Lack of IT infrastructure
- iii) Lack of IT expertise

- iv) Inadequate finance
- v) Bureaucracy

8) Would you support the implementation of ERMS in KADSSLB?

- i) Yes
- ii) No
- iii) Not sure

9) Do you think the staff of KADSSLB will resist the Implementation of ERMS?

- i) No, they will support it
- ii) Yes, they will resist it
- iii) I'm not sure

10) How do you search for records and share document at the moment?

- i) E-mail
- ii) On google drive
- iii) In records room
- iv) On paper
- v) Other

11) How would you describe the present process of accessing records and documents?

- i) Long (Takes time to trace the record or document)
- ii) Easy (can immediately access all records and documents)

12) Do you think ERMS will increase the efficiency of KADSSLB?

- i) Yes
- ii) No
- iii) Maybe

13) How would you describe your knowledge of ICT?

- i) Beginner
- ii) Intermediate
- iii) Advanced
- iv) Do not use ICT at all

14) Does KADSSLB provides training when new processes are introduced?

- i) Yes, training to the staff is provided
- ii) No, there is no training provided
- iii) KADSSLB hire new skilled staff for the process.

15) Do you believe in making processes more transparent and accountable through the use of ICT?

- i) Yes
- ii) No
- iii) Not sure

16) Do you trust the security of your records and data privacy with the adaptation of ERMS?

- i. Trust it with security of my records
- ii. Trust it with my data privacy
- iii. Don't trust it with both

17) Do you trust the system ERMS and do you think is safe?

- i) Yes
- ii) No
- iii) Not sure

18) Do you trust the ERMS with digital preservation (document will remain thereafter, for example 100 years)?

- i) Yes
- ii) No
- iii) Not sure

Please add any comment or suggestion about the implementation of ERMS in KADSSLB

QUESTIONNAIRE FOR STUDENTS OF KADUNA STATE

Dear participants,

I am a MSc Student of e-Governance Technologies and Services at Tallinn University of Technology. The purpose of this survey is to understand what the student of Kaunda State think about the service delivery of Kaunda State Scholarship and Loans Boards, and also to see the acceptance level of adaptation of Electronic Records Management System (ERMS) in the processes of the agency.

Your response are completely anonymous and confidential, IT CAN NOT BE TRACED BACK TO YOU! This will take less than 10 mins. Thank you!

1) Are you under a scholarship with KADSSLB?

- i) Yes
- ii) No

If Yes, what kind of Scholarship is it?

- Local scholarship ()
- Foreign scholarship ()
- Law school ()
- French Immersion Course ()
- Bursary ()
- None

2) Have you applied for a loan before?

- i) Yes
- ii) No

If Yes, please select which type of Educational Loan Application;

- Undergraduate ()
- Postgraduate ()

3) How would you describe your experience during the application?

- i) Very Good
- ii) Good
- iii) Bad
- iv) Very Bad

4) How do you submit files requested by KADSSLB?

- i) Online
- ii) Physical or in-person submission
- iii) By post
- iv) Other

5) Do you need to update your record every time you apply?

- i) Yes
- ii) No
- iii) Sometimes

6) Have you ever had a case of lost records with the KADSSLB?

- i) Yes
- ii) No

7) Do you think KADSSLB records management can be improved?

- i) Yes
- ii) No

8) Do you think the document and records exchange between KADSSLB and your university needs improvement?

- i) Yes
- ii) No
- iii) Maybe

9) Do you experience queues or delay when you go to update your records at KADSSLB?

- i) Yes
- ii) No
- iii) Sometimes
- iv) No, I do it online

10) Do you know about Electronic Records Management System?

- i) Yes
- ii) No
- iii) I have some idea about ERMS

11) Do you think KADSSLB will be more efficient with the implementation of electronic records management?

- i) Yes
- ii) No
- iii) Not sure

12) Do you trust the security of you records and data privacy with the adaptation of ERMS?

- i) Trust it with security of my records
- ii) Trust it with my data privacy
- iii) Don't trust it with both

13) Do you trust the system ERMS and do you think is safe?

- i) Yes
- ii) No
- iii) Not sure

14) Do you think the ERMS will preserve your data and keep it for many years?

- i) Yes
- ii) No
- iii) Not sure

15) What do you think are the present challenges facing KADSSLB?

- i) Unskilled Staff ()
- ii) Corruption ()
- iii) Nepotism ()
- iv) No ICT infrastructure ()
- v) Bureaucracy ()

16) Would you use an online platform to submit and update all your records, if KADSSLB was to offer that?

- i) Yes, I prefer doing it remotely
- ii) No, I prefer to go to the office
- iii) Maybe

17) Please feel free to add any comment or suggestion about ERMS implementation in KADSSLB

Appendix 3- Link to the Interviews and Surveys

Click the link provided below for Interviews:

<https://drive.google.com/drive/folders/1--RkEDGS3GILS7yYX87aWjmLfPPV1Ru2>

Research Survey for Student of Kaduna State:

https://docs.google.com/forms/d/1PqmCTwylUshbAIFrXOHcM_BM8knK0DUyKfl072fHklk/viewanalytics

Research Survey for Staff of Kaduna State Scholarship and Loans Board:

https://docs.google.com/forms/d/15Q7E1bZBt_bCxnpEBtrLEao6DYHKQgoUt1s1nYk-YaQ/viewanalytics

Appendix 4 - Thematic map of all categories and codes

