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Investigating the Public Service Readiness of Electronic Records Application among Malaysian Public Sectors

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Abstract

This paper is formulated to present the result of an investigation of the electronic record readiness among Malaysian public sectors. The issues of readiness are critically highlighted by the scholars. Part of the issues highlighted are on the aspect of changes in technology and awareness. As to ensure the entire issues of electronic records readiness are completely addressed, the details aspect of readiness required further investigation. This is where the data collection activities applied by conducting an interview session with ten (10) respondents, where five (5) of them are the records manager and the other five (5) are the Information Technology (IT) staff. Based on the results of the interview, it shows that electronic records readiness is facing six (6) issues, namely the lack of e-record management policies, standards, and guidelines; limited skills in e-record management; inadequate ICT infrastructures and tools; low internet connectivity; lack of human resource capacity; and low public awareness. Through this justification, it has shown that public agencies are still not ready to fully implement the electronic records management concept in their entire business transaction activities.

Keywords: Electronic Records, Readiness, Electronic Records Management System, Malaysian Public Sector.

Introduction

In Malaysia, records management gained more attention throughout the public sector, particularly with the installation of Electronic Government (EG) in 1996. The new National Archives Act, which was passed in 2003, increased this recognition even more. This new law stipulated that the National Archives of Malaysia (NAM), which had previously been under the control of the Malaysian Administrative Modernisation and Management Planning Unit,

oversee records management (MAMPU). Results of studies conducted a few years ago revealed the importance of keeping a thorough record of life cycle management for electronic devices, from their development to disposal. Additionally, the need to address technological obsolescence has become a major issue. In the digital age, information loss is more likely than in the paper one.

The fundamental driving force behind public sector records management changes is the deployment of EG. According to Sahari et al (2012), the introduction of e-government is meant to improve the efficiency, standard, and breadth of governmental services. This is backed by Siddiquee's (2008) assertion that e-government refers to the application of innovation in government departments and programmes to enhance the delivery and accessibility of public services. The idea of a paperless office is a key concern for NAM as the keeper of public data and files. Frameworks for EG Flagship Applications have rapidly advanced. High-level committees have been established to direct and supervise the creation and expansion of software applications, such as the Government IT and Internet Committee (GITIC) and the EG Committees. The brand-new NAM Act served as a useful legislative tool throughout discussions and sessions.

The rapid relevance of the electronic records management system (ERMS) had the consequence of making NAM prominent. The NAM must be creative, ingenious, and constructive in order to obtain the best answer for everyone and choose the best method of producing the product. Expressing, coordinating, and promoting traditional records that contain ERMS components appears to be crucial. If ERMS is neglected, EG can eventually cause more harm than good from an archive perspective. Both corrective and preventive measures must be in place. Additionally, ERMS utilisation is a beneficial resource for all public sector organisations. The developing world has tried and deployed the majority of the strategy to manage its information with the use of cutting-edge information and Communication Technology systems (ICT).

The early stages of ICT development show very minor advancements in the technological flow. According to Sahari et al (2012), the government has carried out various ICT infrastructure projects. After some time, technology is becoming more widespread and must be utilised by all businesses worldwide. The system undergoes a lot of changes, especially when establishing and completing transactions. As a result, the majority of first-world countries take advantage of this chance to strengthen their position of authority over the administration and control of the company's records.

The creation or advancement of ICT for Malaysia becomes the government's primary focus point to keep coming up with the norm and strategy for participating in a lot of e-government completion behaviors. Each government agency should assume that this problem would adhere to the ISO 15489 standard. In other words, each Malaysian government department's operations should be able to communicate electronically with various organizations. Kolachalam (2002) stated that public service should be modelled on principles such as courtesy, timeliness, clarity, and accuracy of details, all with a remarkable amount of professionalism, to build a government that works better and costs less. In normal operations, this will invigorate or boost the business activity without creating any problems at the end of

that period. That's because the world's first country is already studying and using some of the solutions or applications.

Problem Statement

The implementation of e-government brought about changes inside the organisation in terms of managing their records. Many organisations implement a business system for electronic records management. This issue turns into the essential focal point of all organisations in having one arrangement of the ERMS that can deal with their records appropriately through their whole business condition. However, a few things should be done to ensure the implementation of the system meets the e-government objective. Morshidi & Hamid (2010) stated that the launch of e-government marks the beginning of a journey to reinvent the government by changing the way it works, revamping and enhancing the provision of its services. According to Ahmad & Cunningham (2007), to ensure the effectiveness of e-government implementation, governments can promote their deals, increase citizens' understanding of the benefits, and increase the acceptance of online services.

In addition, the use of ERMS has not been sufficiently updated in light of prior studies, which creates a number of issues with regard to processing and maintaining all documents in businesses. One of their shortcomings is that they lack a real framework that complies with both the definition and approach of record management and the ISO functional criteria. According to Hunter (2020), the processes for production, maintenance, delivery, administration, creating multimedia repositories, enterprise content management, and collaboration are the functional specifications. The biggest obstacle to the institution's ERMS solution's implementation is a lack of record-keeping skills. This will be the most challenging aspect of fixing the establishment's ERMS response. An appreciation of record management and better practice would result from knowledge of it.

Most of the users or employees running the system in this company do not care about maintaining records. They won't be interested in managing their record in this way. Another restriction is the infrastructure used to promote the ERMS setup. The entire system will be impacted if the facilities do not meet requirements to the best of their ability. The hardware specification further hinders this investigation by making it difficult to achieve the accurate ERMS results. In other words, a sizable chunk of the hardware should be more extraordinary in its devotion and be able to function in terms of utility and gadget efficiency.

Research Objective

The research objective is a statement that is pertinent to the claim of the problem and a list of the tasks that need to be completed during the analysis. According to Bakar et al. (2018), the study target is crucial if researchers are to produce an impactful result. As for this study, the main objective is to assess the Malaysian Public Service's readiness for electronic records. To ensure the objective is properly addressed, the next section is formulated to present the findings from the literature.

Literature Review

Review on the Previous Research

A few variables were used, gathered, and evaluated to find potential literature, reading, and reference materials as well as to extract the data required to back up each claim and identify the issues with the research.

E-records Readiness

E-records are written documents, files, or data that document processes, transactions, and activities that have been done in internet-based e-government and transaction contexts. However, there are other issues connected to the handling of electronic records. With the use of the e-records planning technique, businesses might create policies and plans that would improve the use of information inside their operations. According to Aliza and Adnan (2011), Malaysian nature lacks a professional platform for record professionals. The most glaring commonality is that the organisations' records are not managed by record experts as required by the cases examined.

There aren't enough professionals in the organisation with proven track records. Even though many of the other employees manage records and electronic records, they lack information management training while having degrees in computer science and engineering. According to the researcher's observations, these employees had some reservations about their ability to streamline the concept of information management, which made it difficult for them to act as consultants and regulators in implementing the organization's records management standards.

According to Kabukye et al (2020), the success of organisational general changes and the acceptance of electronic records is impacted by the readiness for change, a well-known problem. It can be challenging to compute because the framework has several levels and facets. Preparation covered by the transition process, such as the actions taken during the transition's implementation, the transition's substance, such as the specific measures implemented, the process's structure and goal, and the organisational context, including the circumstances and environment in which staff members work in complex ways.

The necessity for access to the data held in electronic records in developing nations has been highlighted by the growing trend of using computers to improve administration. These countries share many social, political, and economic parallels as well as challenges with ERMS. According to Mukred et al (2016), many of these nations still lack the procedures that could aid in completely incorporating ERMS, showing a lack of preparation for the introduction of such a scheme. Since everyday electronic records are generated and effective and efficient management systems are needed, it is crucial to assess the readiness and capacity to apply ERMS. Due to the constant creation of electronic records and the need for effective and efficient management systems, it is crucial to assess the readiness and capacity to apply ERMS.

The lack of pre-implementation activities, such as organisational planning and the provision of resources, which can help ensure system implementation success, is one of the key causes of the poor acceptance of the ERMS, in addition to the issues that arise after application. Biruk et al (2014) state that the first step is to address the prerequisite issues, such as operational,

infrastructural, technical, and professional preparation for work experience in a new electronic record system for developing nations. However, how well the integrated electronic record system performs may depend on the expert's understanding and perspective.

Li et al (2010) added that there are several obstacles that must be overcome before the ERMS is implemented, including the high cost of the current IT infrastructure, a lack of personnel with the necessary technical skills and experience, and a shortage of information processing capabilities. In other words, the evaluation of innovation readiness is a prerequisite for using and providing services through the ERMS. This is because, from an operational standpoint, adequate training and preparation allow system customization and guarantee minimal process disruptions before and after implementation.

Methodology

One of the logical approaches to solving the issue in the ongoing research is described as the technique of analysis (Oleskeviciene & Sliogeriene, 2020). Ragab & Arisha's (2017) argument that all types of analysis are primarily based on a few fundamental beliefs about what constitutes objective science supports this. As a result, it is crucial to employ reasonable techniques when completing research goals to guarantee the validity of the results. Understanding a study's methodology entails understanding how it is carried out. Researchers have carried out the study process by describing, clarifying, and making predictions about what is known as the study methodology.

In this study, the analysis method is a qualitative approach. Studies in the social sciences typically involve qualitative interviewing, which is a fundamental tool in qualitative research (Nathan et al., 2019). To make the opinions, drives, and motivations of the specialists regarding the pertinent subject clearer, qualitative analysis is used. Studies that employ a qualitative methodology frequently have a small sample size. Interviews, chats in groups, and last-minute observations are a few examples of qualitative research methods.

Sampling

Sampling is a technique for selecting groups or individuals from a target population so that, after examining the sample, the findings can be accurately extrapolated to the community from which they were drawn. The fundamental inspection techniques include both probability sampling and non-probability sampling. In order to guarantee the level of confidence and generalizability required for findings, Berndt (2020) claims that the sampling strategy enables the researcher to choose a random group and specifies how large that sample must be included in the sampling. The sampling technique should be as effective as feasible, with minimal bias and error guaranteed and higher maximum representation, according to (Tyrer & Heyman, 2016).

Non-probability sampling, or deliberate sampling, is utilised in this study. It was picked for this investigation to appease a sample of respondents. Common types of phases that involve sampling are systematic sampling, stratified sampling, and cluster sampling. Non-probability sampling techniques employ a method where the sample is selected based on the researcher's own judgement as opposed to random selection (Elfil & Negida, 2019). Non-probability sampling techniques include quota sampling, survey design, snowball sampling,

and self-selection sampling. Intentionally, the choice of respondents is based on their standing, commitments, and knowledge of the relevant study.

Table 3.1
Sampling Frame and Study Population

Sampling	Sample	Total
Ministry of Human Resources (MOHR)	Records Manager	1
	IT Staff	1
Ministry of Tourism, Art, and Culture (MOTAC)	Records Manager	1
	IT Staff	1
Kuala Lumpur City Hall (DBKL)	Records Manager	1
	IT Staff	1
Department of Irrigation and Drainage (DID)	Records Manager	1
	IT Staff	1
National Archives of Malaysia (NAM)	Records Manager	1
	IT Staff	1
TOTAL		10

Data Collection

All empirical studies must start with data collection before moving on to data analysis, producing results, and drawing conclusions and implications for data analysis (Aguinis et al., 2019). Data collection is crucial to the success of any research project. The data for this study was gathered using formal interviews and personal observations. It is to be emphasised that the foundation for an inquiry will be established as a research instrument. De Andrade et al. (2018) claim that it is used as a tool for data collection and analysis to enhance other methods of acquiring and analysing data to make the research object easier to grasp. After conducting an interview, the investigator will translate the entire initial interview, assess the import phase, and then use the software to conduct the data analysis.

Instrument

Interviews were the most common method of acquiring data for this investigation. A qualitative research tool is an interview, which gathers data through conversation or an inquiry-response session. Interviews can be planned with many predetermined questions and particularly standardised recording techniques, or they can be unplanned, allowing for flexible handling (Kothari, 2019). In the course of the interview, the researcher would have to alternate between being present at the event being studied and the subject-subject connection, according to (Englander, 2016). In this study, structured interviews are utilised to gather information on topics such as the implementation of e-government, the legal framework governing e-records management and present practices.

Interview sessions included participation from the record managers and IT employees from MOTAC, MOHR, DBKL, DID, and NAM. According to Malterud et al (2016), knowledge power is linked to the results of an interview and requires positive and direct interaction between researchers and participants. The participant is informed of the goal of the interview and their privacy, as stated by (Lin et al., 2018). The semi-structured interview is then conducted using

the model inquiries. The interview comes after the survey since it is inevitably closer to the truth and, to some extent, can reveal private information that a respondent may not wish to provide in a questionnaire.

Data Analysis and Findings

The following is the result of the interview carried out:

Theme: E-records Readiness in the Malaysia Public Service

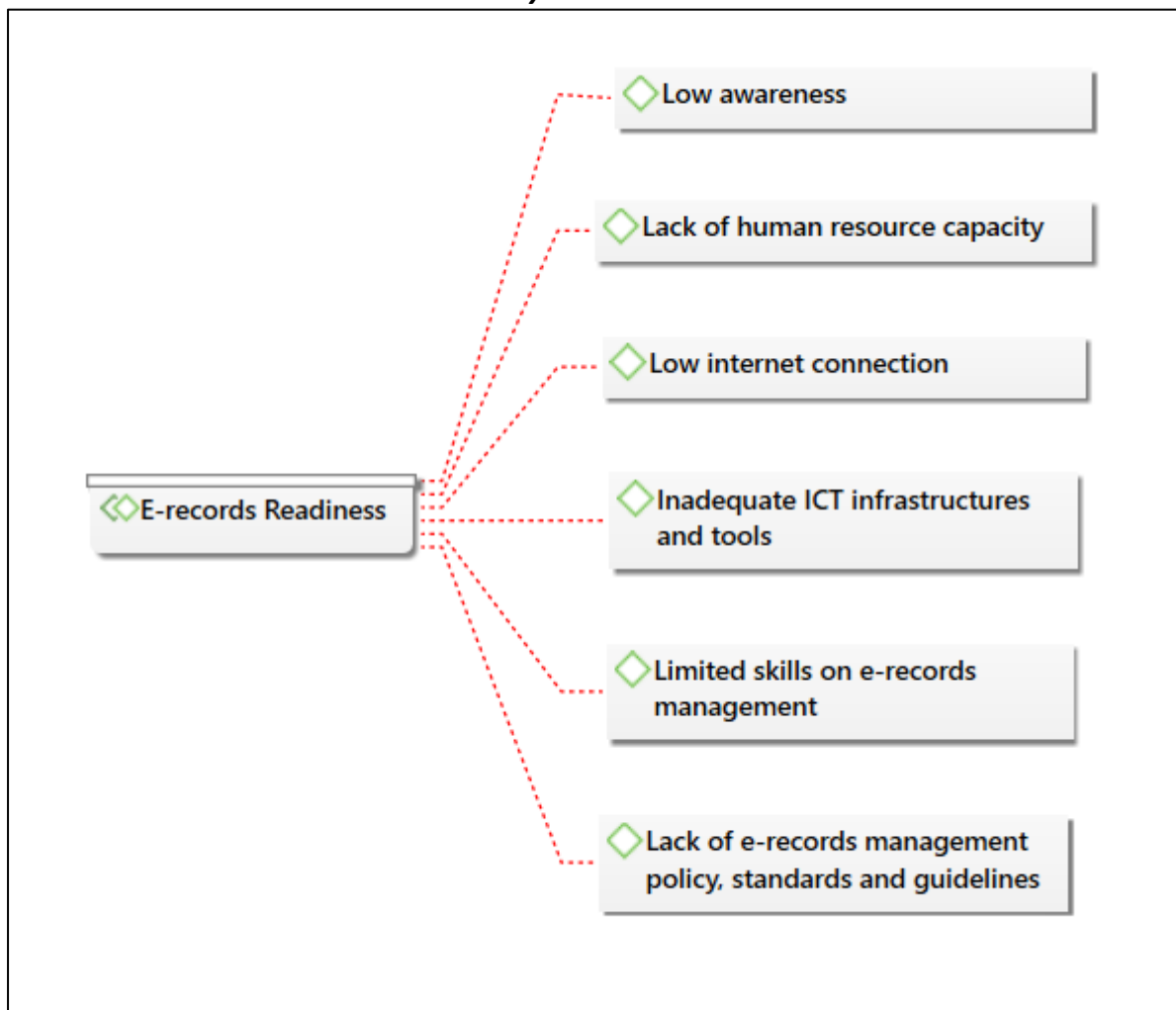


Figure 1 E-records Readiness in the Malaysia Public Service

The interviewees were questioned about Malaysia's readiness for electronic recordkeeping. The interviewees from MOHR, MOTAC, and DBKL claimed that e-government is all about providing an online platform for the speedy and efficient delivery of government services and that it is designed to improve and streamline the delivery of services to the public. The DID respondent asserted that because the e-government approach does not typically require the e-records to effectively enforce e-government, it has not yet had a significant impact on the e-records. The interviewees also identified several issues, such as the lack of e-record management rules, regulations, standards, and guidelines; inadequate ICT tools; low internet connectivity; infrastructure; a lack of public employee e-record skills; a lack of human resource capacity; and low public awareness.

According to the study's findings, only MOHR, MOTAC, and NAM were engaged in the management of electronic records. This organisation uses a mixed record-keeping system. The hybrid model entails using both paper-based and computerised methods to manage all transactions and registrations. To continue working if the e-record system is unavailable due to technological problems, physical files are kept as backup copies. This object demonstrated that this organisation engages in coordinated activities between paper-based and electronic systems. It is further disclosed that this department had adopted a Digital Document Management System (DDMS) 2.0, enabling them to handle their electronic data. The goal of DDMS 2.0 is to address all stages of a record's life cycle, including creation, capture, preservation, and use.

However, despite the DDMS's accessibility, all critical papers were handled by hand. Additionally, most of the public sector still relies on physical encounters and manual recordkeeping in order to provide services and decisions to the general public. Such regulations make it difficult to establish e-government in the public sector. Studies have indicated that, as all services are currently provided electronically, the status of electronic records favours the adoption of e-government. However, there is no national e-records management strategy. Similarly, no office policy is declared to be a systematic manual for managing electronic records.

Despite having Electronic Record Management Systems (EDMS) in place, many government institutions still operate in silos, according to interviewees from DID and DBKL. However, the department still relies on physical records for daily operations. The department manually processed the records as well. Incoming and outgoing mail are handled independently by each register unit. In terms of managing the specific management practices for records management, there were no trained employees with any expertise or experience. Because of this, DID and DBKL's e-record management efforts are at very low levels of activity. However, the study's findings revealed that DID and DBKL only offered personnel theoretical record management training and did not instruct them on how to manage electronic documents.

The NAM is in charge of training government organisations about e-records best practices. The study's findings indicated that the use of e-government requires the availability of e-records, infrastructure laws and regulations, and ICT facilities. The study's findings revealed that NAM and MAMPU collaborated to create the DDMS system, which is now being used by all ministries and other agencies. If the system is determined to conform to standards and requirements, it must be implemented in all public sector offices. The Archival Management System is a customised framework that NAM has designed to encourage the preservation of electronic data (AMS). The AMS's responsibility is to focus on the digital storage and preservation of electronic documents.

The study also identifies a number of difficulties, such as a lack of human resource capacity, a lack of e-records management policies, standards, and guidelines, limited e-records management skills for users and information managers, a poor internet connection, insufficient ICT tools and infrastructure; and low public awareness of the importance of e-records as an e-government initiative.

The respondent also offers suggestions to help with effective e-records management and use in the public sector. The study's findings recommended the creation of uniform policies

and laws regarding the management of electronic records, as well as the development of producers', consumers', and custodians' capacities, successful and interoperable ERMS implementation in the public sector, improved ICT infrastructure, and adequate funding. As to assist the development of e-government, it is also suggested that the effectiveness of electricity and internet access for successful e-record administration must be thoroughly considered.

Conclusion

In conclusion, the research findings were used to address the study's goal and problem statement. The primary task and element that must be addressed by employing the information from the findings and data analysis is the research question. In this study, the accomplishment of the research objective is a prospective activity that needs to be addressed. To accomplish the purpose of the study, the framework and research methodology serve as tools.

Additionally, this research makes a substantial contribution to our understanding of the topic of electronic records application readiness. The development of the research framework began by highlighting the readiness difficulties. Numerous theoretical ideas and applications are investigated within this framework. A specific framework for preparedness has been developed by examining the theoretical ideas and applications that are well-established. These research's early findings could be used by other researchers to propose their own research framework that deals with the issues of electronic records application readiness. In terms of contextual contribution, the final study framework, which includes six (6) readiness-related topics, could serve as a guide for other studies in terms of contrasting, confirming, and evaluating the research findings. Thus, it is anticipated that the six issues discussed in the final research framework will serve as a guide for society as it conducts additional research in related fields across a range of businesses, industries, environments, and target audiences.

Recommendation

E-records Readiness in the Malaysia Public Service

The study's findings showed that at least Malaysia's public office has embraced ICT as a tool for creating a sizable number of electronic records for its business operations. The findings of the study demonstrated that the types of e-records in the public sector comprised text documents, emails, databases, website records, image files, audio recordings, and video. However, at the ministry level, the government only manages ERMS and a small number of departments. The introduction of ERMS has not yet been made to all departments and agencies in Malaysia. As a result, the substantial e-records generated by departmental and agency transactions are not handled correctly.

Most of the public sector still relies on handwritten recordkeeping and face-to-face encounters to provide the public with decisions and resources. Additionally, not all agencies have qualified staff that have been trained to manage certain management activities in public sector records management. Such regulations make it difficult to establish e-government in the public sector. Studies have indicated that, as all services are currently provided electronically, the current status of electronic records favours the adoption of e-government.

The results also demonstrated that the public service faces a number of issues related to e-readiness, such as a lack of e-record management rules, regulations, standards, and guidelines, inadequate ICT resources and infrastructure; limited access to the internet, a lack of human resource capacity, and a lack of public awareness of public employees' e-record management skills.

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