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Electronic Records Management in the Thai Public Sector in the Digital Age

Pimphot Seelakate*, Chindarat Berpan

**Corresponding Author*

Department of Library Science, Faculty of Arts,
Chulalongkorn University, Bangkok, Thailand

pimphot.s@chula.ac.th, chindarat.b@chula.ac.th
Tel: 02-218-4817

Abstract

The article presents the current condition of e-records management practice in the Thai government in the digital age. Its objective is to study the management practices of e-records and to understand the challenges in managing e-records. The data collected through a survey from ten Ministries in 2022 reveals that the Thai public sector has already established infrastructure for managing public records in paper-based and electronic environments due to enforced recordkeeping legislation. Current e-records management practices among the government comply with the universal records life cycle model. Still, gaps exist due to a lack of fundamental support that can be improved.

Keywords: e-records; public records management; e-government; Thailand

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1.0 Introduction

Effective records management helps individuals and organisations operate smoothly and achieve their goals. In the digital age, many governments are operating and providing services to citizens through e-government systems and have established systems for managing e-records e.g., Australia (Stuart, 2017), Belgium (Maroye et al, 2017), Botswana (Motlhasedi, 2022), England (Chorley, 2017), Kenya (Osebe, Maina, & Kurgat, 2018; Ambira, Kemoni, & Ngulube, 2019), Malaysia (Jamil, 2007), South Korea (Lee & Lee, 2009), South Africa (Ngoepe, 2017), Taiwan (Hu et al., 2010), and Tanzania (Kashaija, 2022). In Thailand, although there are laws related to records management, i.e., the Prime Minister's Regulation on Records Management B.E. 2526 (1983) and No.2-4, the National Archives Act B.E. 2556 (2013), and the introduction of the concept of e-government and modern information technology in the administration of government agencies, e.g., Thailand 4.0 policy (Chusri, Noimanee, & Phansin, 2019), e-records management is still not apparent. Little literature or research studies the e-records management of Thai government agencies in the digital age. Hence, this research objective is to study the e-records management practices and to understand the challenges in managing e-records in the Thai public sector. Also, the research aims to define the key components of e-records management and to propose practical solutions for improving the e-records management practice of the public sector.

2.0 Literature Review

In the Digital Age, the development of telecommunication and information technology has resulted in a large amount of data and records in electronic form. Records and archival scholars propose various theories and concepts for managing e-records. Consequently, records managers must adjust their practice to the new environment to preserve e-records. Although the purpose of keeping public records remains unchanged, the way governments manage and store records must evolve to fit the digital age. While records management techniques may undergo frequent updates, the records management practices remain the same, which include creation, capture, management, access, security, description, and disposal (Stuart, 2017). Many studies around the world have shown that the role of sound records management systems impact on the effectiveness of e-government. At the same time, the literature reveals many common issues from governments worldwide regarding e-records management. Although some countries have been providing e-government services for some time, it does not guarantee an effective e-records management system. Some South African government agencies have been using e-records systems for more than 20 years, with existing recordkeeping laws. Research found South Africa still lacks the infrastructure to transfer e-records from government agencies to archives (Ngoepe, 2017).

The study of the Ministry of Local Government and Rural Development (MLGRD) in Botswana showed there is a lack of good records management overall, which emanated from unskilled records management staff who were incapable of managing e-records. There is no proper infrastructure to manage e-records, and there is no records management policy to be used to guide good records keeping practices. Additionally, the absence of proper infrastructure and a formal records management policy further hinders effective e-recordkeeping. Based on these findings, the study recommends enhancing the skills of MLGRD records staff, particularly in e-records management, and investing in ICT infrastructure to support sound digital recordkeeping practices (Mothlasedi, 2022). Similarly, the study of Nyamira County in Kenya emphasised that effective records management was identified as crucial for supporting good governance, as it promotes fairness in resource allocation and builds public trust, leading to increased support for county government initiatives. However, the study also highlighted several challenges, including a lack of adequately trained records staff, absence of disposal and retention schedules, insufficient equipment and storage space, and a lack of clear policies and standards (Osebe, Maina, & Kurgat, 2018). Moreover, the literature revealed that the overall management of electronic records in government ministries is not sufficiently developed to effectively support e-government. While the adoption of e-government services in Kenya has increased across various ministries, the current e-records management practices remain inadequate (Ambira, Kemoni, & Ngulube, 2019). Likewise, the study of the Singida Municipal Council (SMC) in Tanzania showed that the level of preparedness for managing e-records was insufficient to support effective e-governance. This was largely due to the absence of an e-records management system at SMC, a shortage of skilled records personnel, and a lack of ICT-related policies, guidelines, and procedures. Additionally, e-readiness was hindered by a limited number of technical staff, insufficient resources and budget allocated to the e-records unit, and inadequate storage facilities needed for managing electronic records (Kashaija, 2022).

Furthermore, research on e-records management in Asia highlights that legal, political, system design, and technology factors influence e-government success. For instance, since the National Archives Act 2003, Malaysia's National Archives (NAM) has overseen e-records management and contributed to the e-SPARK project, which established government records management standards (Jamil, 2007). In South Korea, the E-jiwon system was introduced to enhance public record management and transparency, though further structural reforms are needed for effective governance (Lee & Lee, 2009). In Taiwan, a survey of over 1,600 government officials revealed that e-records systems should align with legal requirements and be user-friendly for officials (Hu, Hsu, Hu, & Chen, 2010). In sum, the literature on e-records management shows that it requires more than technology to succeed in an effective e-records management system. We also need to understand the culture of records usage in the organisation (Oliver & Foscarini, 2013). In Thailand, there is a paucity of literature on records management in the Thai public sector because records and archival professionals are quite unknown, and records management has a very low profile. The previous literature reveals that limitations of records management in the Thai public sector come from four elements, which are 1) no records management policy; 2) no authorised records management unit; 3) no recordkeeping system; and 4) no central file plan and records retention schedule (Poolsatitawat, 2020). These limitations certainly impact managing e-records among Ministries. Hence, conducting a study on e-records management of government in the digital age will develop the current e-records management system, which is crucial for supporting good governance, transparency, and human rights to information access in this country.

3.0 Methodology

Regarding research procedure, this research used a survey to collect data on the current state of e-records management by using a purposive sampling to allow the researcher to focus on information-rich records management cases, and respondents can provide valuable insights into the research questions (Pickard, 2013). The researcher selected a sample group of ten Ministries which are the Ministry of Tourism and Sports, the Ministry of Social Development and Human Security, the Ministry of Agriculture and Cooperatives, the Ministry of Natural Resources and Environment, the Ministry of Energy, the Ministry of Culture, the Ministry of Higher Education, Science, Research and Innovation, the Ministry of Education, the Ministry of Public Health, and the Ministry of Industry. Once the Chulalongkorn University Research Ethics Committee approved the research proposal (Office of Research Affairs, 2021), the questionnaires were distributed to the units under ten Ministries. Later, the permission letter, consent form, instructions, and questionnaires were delivered to ten Ministries by post and as a hyperlink by email upon request. The research is ethically conducted, as respondents are anonymous and they are fully informed about the research, and their consent to participate in the survey is obtained. Due to the limited time of three months, the research received 30 respondents from ten Ministries. The collected data were subjected to thematic analysis.

4.0 Findings

Regarding staff training experience in e-records management, Table 1 indicates that most respondents were trained in e-records management and computer technology. They also attended other related training sessions, e.g., E-Saraban program, information exchange system, Open Government, and Digital Service Act B.E. 2562 (2019) implementation. Some also visited the Ministry of Digital Economy and Society and the Ministry of Justice to learn about their e-recordkeeping system.

Table 1. Staff training experience in e-records management (N=30)

Variables	Frequency (%)
Training in e-records management	56%
Training in archives management	6.6%
Training in quality assurance	3.3%
Training in computer technology	60%
Training in other areas not mentioned above	40%

For law enforcement on e-records management in Thailand, the primary recordkeeping legislation provides a broad framework for public recordkeeping practice. Meanwhile, the secondary recordkeeping legislation specifies details on public records management (Seelakate, 2018). The respondents should acknowledge and enforce all mentioned legislation. However, the findings in Table 2 show otherwise since some legislation (e.g., National Archives Act 2013) is unknown. Consequently, the survey reveals that 90% of the respondents do not set up a committee to manage e-records as the law requires.

Table 2. Law enforcement on e-records management (N=30)

Variables	Frequency (%)
The Regulations of the Prime Minister's Office on Records Management B.E. 2526 (1983)	86.6%
RPMORM B.E. 2548 (2005)	80%
RPMORM B.E. 2560 (2017)	73.3%
RPMORM B.E. 2564 (2021)	83.3%
The Official Information Act B.E. 2540 (1997)	80%
The Electronic Transactions Act B.E. 2544 (2001)	56.6%
The Rule on Maintenance of Official Secrets B.E. 2544 (2001)	76.6%
The National Archives Act B.E. 2556 (2013)	50%
The Personal Data Protection Act B.E. 2562 (2019)	70%
Regulations issued by the Ministry	16.6%
Regulations issued by agencies outside the Ministry	13.3%

In terms of physical and electronic media in Ministries, all respondents state that they use both traditional and electronic records for their operation, as shown in Table 3. The government officials create and store both physical and electronic information, including e-records.

Table 3. Types of information used for daily operation (N=30)

Variables	Frequency (%)
General records (public records, reports, minutes)	100%
E-records (emails, public records in PDF format, or Microsoft Word)	100%
Large-size publications (posters, maps, blueprints)	40%
Audiovisual media (audio tapes, videotapes, records, microfilm)	30%
Digital media (digital photographs, e-books, CDs)	66.6%
Data stored in repositories or databases	50%
Personal documents (personal records, notes)	33.3%

For e-records registration and capture, once the Ministries receive the records, the majority of the respondents carry out a process of registering the e-records in their system, delivering the e-records to the recipients, checking the condition of the e-records files, and storing the e-records in the assigned space, as shown in Table 4. The receiving process of the e-records is similar to paper-based records.

Table 4. Process of receiving e-records (N=30)

Variables	Frequency (%)
Register in the list once they receive e-records	90%
Check the condition of e-records files	66.6%
Deliver e-records to relevant personnel	80%
Store e-records in the repository, database, or folder	76.6%

For e-records arrangement, the respondents use the date of e-records, the subjects (the content of records), the name of the records creator(s) (person or agency), and the title of records as criteria for arranging. However, as displayed in Table 5, some Ministries do not arrange their e-records. The respondents explained that their e-records are stored in the E-Saraban system provided by the Digital Government Development Agency (DGA), thus, they do not need to arrange the e-records. They do not use functional analysis to create the file plan to keep the records.

Table 5. Arrangement of e-records (N=30)

Variables	Frequency (%)
Arranged by the creators' names	26.6%
Arranged alphabetically by the file names	16.6%
Arranged by the dates	66.6%
Arranged by the subjects	36.6%
No arrangement	16.6%

Moreover, Table 6 demonstrates that the respondents create and use various finding aids to help them retrieve and access e-records in the system. The tools they create are e-records lists, summaries of e-records files, guidelines, or search tools. Some respondents also mentioned the DGA E-Saraban system as their search tool. Moreover, 63% state that they also create metadata for their e-records.

Table 6. Process of e-records access (N=30)

Variables	Frequency (%)
Creating e-records lists	56.6%
Creating a summary of e-records	13.3%
Creating an online search tool/database	60%
Creating a guide for e-records searching	36.6%

Regarding records maintenance, Table 7 shows that the government carries out various processes to store and preserve its e-records, such as an annual e-records survey, damaged or lost e-records recovery, producing surrogates as a backup, and e-records migration. Some keep their e-records in a central database or cloud system. Nevertheless, some Ministries do not conduct any e-records preservation activities. This can be a risk for record loss and damage.

Table 7. Process of e-records storage and preservation (N=30)

Variables	Frequency (%)
Conducting an annual survey of e-records	26.6%
Restoring lost or damaged e-records	23.3%
Reproducing e-records as a backup	50%
Migrating e-records to a new repository	23.3%
Carrying out other methods for preservation	26.6%
No preservation	10%

Furthermore, it is clear that 3.3% of the respondents from Table 8 do not have any policies for e-records management. Meanwhile, most respondents establish the policy covering creating, sending, receiving, using, searching, accessing, borrowing, and reproducing e-records. However, some policies are implemented from existing recordkeeping legislation, such as the RPMORM 1983, cyber cybersecurity law. Ministries must establish records management policies.

Table 8. Establishing an e-records management policy (N=30)

Variables	Frequency (%)
There is a policy on creating e-records	46.6%
There is a policy on sending and receiving e-records	56.6%
There is a policy on using e-records	36.6%
There is a policy on searching and using search tools for e-records	36.6%
There is a policy on borrowing e-records	13.3%
There is a policy on reproducing e-records	33.3%
There are other policies related to e-records	26.6%
No policies established	3.3%

Regarding records disposal, Table 9 reveals that most respondents still retain their e-records at their offices. Some Ministries select, appraise, transfer, and destroy their e-records. However, the Ministries that do not take any action for disposal state that their e-records system is new and just implemented, thus it is too early to dispose of any e-records in the system in recent years.

Table 9. Process of disposal for non-current e-records (N=30)

Variables	Frequency (%)
Appraising the value of e-records	23.3%
Transferring e-records to the unit responsible for recordkeeping in the Ministry	16.6%
Sending e-records for destruction	16.6%
Retaining e-records in the agency	56.6%
Carrying out other actions not mentioned above	3.3%
No action	10%

Moreover, although e-records management is still novel and the cooperation between Ministries and those responsible for information and data management in the public sector (i.e., the Ministry of Digital Economy and Society) is encouraged, findings from Table 10 show that cooperation is rare. The Ministries that cooperate choose to contact the DGA for consultation about their e-records management system as part of data management. Meanwhile, those who do not cooperate state that their e-records system is still in development.

Table 10. Cooperation for managing e-records (N=30)

Variables	Frequency (%)
Cooperate with the central and regional National Archives of Thailand	20%
Cooperate with various ministries	26.6%
Cooperate with various private-sector	0%
Cooperate with various universities or research institutes	3.3%
Cooperate with other agencies not mentioned above	43.3%
No cooperation with other agencies	43.3%

For e-records management support, Table 11 clearly shows that the respondents need support in many areas, such as training in e-records management, a need for a guideline in compliance with the laws, and a need for financial support to purchase an e-records system.

Table 11. Need for support on e-records management (N=30)

Variables	Frequency (%)
A support for establishing regulations and practices for e-records management in compliance with legal requirements	63.3%
A support for implementing e-records management standards	53.3%
A support for setting e-records management policies	46.6%
A support for keeping e-records	56.6%
A support for providing training on e-records management	66.6%
Support in other areas	10%
No support is needed	6.6%

To conclude, the findings presented in Table 1-11 provide an overview of the current practices of the Ministries on how they manage public records in a digital environment. Some gaps emerged from the deficiency of support and infrastructure to implement the current records management system. There is room for improvement and discussion to find proper solutions at the national level.

5.0 Discussion

As this research objective is to study the e-records management practices and to understand the challenges in managing e-records in the Thai public sector, firstly, regarding knowledge and competencies, findings point out some gaps in current e-records management practice, implying that their knowledge of e-records management may not be sufficient. Likewise, officials do not enforce or acknowledge all recordkeeping legislation for their operation (as shown in Table 1-2). Similarly to Osebe, Maina, & Kurgat (2018), Kashaija (2022), and Mothasedi (2022), to support the adoption of e-records management as a foundation for e-government, Ministries should equip records staff with the necessary e-records management skills.

The findings from Table 3-9 reveal that the Thai government has carried out all processes according to the records life cycle theory (Shepherd & Yeo, 2003) from creating, capturing, using, storing, and disposal. Nevertheless, some Ministries do not establish the complete records management process. Preserving and disposing of e-records are missing due to a lack of support, such as legislation compliance, standards, policies, funding, and training (as shown in Table 11). The findings are coherent with previous research, which includes Poolsatitwat (2017), Seelakate (2018), and Poolsatitwat (2020). The findings shown in Table 10 indicate that it requires a mechanism to facilitate cooperation between Ministries to reduce the gap between those who have well-established systems and those who are underdeveloped. Therefore, similar to Ambira, Kemoni, & Ngulube (2019), the research concludes that the incomplete e-records management systems can hinder the overall success of Thai e-government. Several actions need to enhance e-records management in support of e-government. All Ministries should establish systems to function a complete e-records management. Standardisation and cooperation between the Ministries of e-records management are required. Leadership of the Prime Minister's Office is a center for cooperation between Ministries for the development of policies, programs, and procedures for the unified management of e-records.

6.0 Conclusion & Recommendations

To summarise, findings reveal that the Thai public sector has already established infrastructure for managing public records in electronic environments, especially since legislation enforced effective e-records management in the public sector. The current e-records management practice complies with the universal records life cycle model. However, it is not complete due to a lack of fundamental support regarding legislation compliance, standards, policies, funding, and training. The research findings are coherent with previous research, which includes Poolsatitwat (2017), Seelakate (2018), and Poolsatitwat (2020). The literature shows that there are gaps in public records management practice. Actionable recommendations derived from this study to fill the existing gaps in e-records management are as follows. First, the government should establish standards and policies for e-records management in compliance with existing legislation. Second, increasingly invest in financial and technical support and staff training. Finally, cooperation between Ministries is required to lower the gaps resulting from the digital divide. The findings are useful to revise data and information management plans under the Open Government agenda. Hence, further research requires an in-depth qualitative study on the hindrance of implementing e-records management practices at the national level. Regarding research limitations, the sample size of 30 respondents is relatively small to represent every aspect of e-records management of the ten Ministries and may limit the generalisability of the research findings. However, the research findings can still draw a realistic conclusion about e-records management in the Thai government.

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Paper Contribution to Related Field of Study

The research findings will contribute to the growing body of knowledge on records and archives management in the Ministries, the public sector, and educators within this field. The study seeks to provide both theoretical and practical insights into the ways the government can improve its e-records management to enhance and sustain good governance, transparency, and accountability in the country in the Digital Age.

References

- Ambira, C. M., Kemoni, H. N., & Ngulube, P. (2019). A framework for electronic records management in support of e-government in Kenya. *Records Management Journal*, 29(3), 305–319. <https://doi.org/DOI 10.1108/RMJ-03-2018-0006>
- Chorley, K. M. (2017). The challenges presented to records management by open government data in the public sector in England: A case study. *Records Management Journal*, 27(2), 149–158. <https://doi.org/DOI 10.1108/RMJ-09-2016-0034>
- Chusri, P., Noimanee, J., & Phansin, K. (2019). *AI for Government Administration and Services*. S. Phijit Printing.
- Hu, P. J.-H., Hsu, F.-M., Hu, H., & Chen, H. (2010). Agency Satisfaction with Electronic Record Management Systems: A Large-Scale Survey. *Journal of the American Society for Information Science and Technology*, 61(12), 2559–2574. <https://doi.org/DOI: 10.1002/asi.21429>
- Jamil, S. (2007). Records Management in Government: The Malaysian Experience. *Comma*, 3/4, 79–84.
- Kashajja, L. S. (2022). E-records management readiness for implementation of e-government in local authorities of Singida Municipal Council. *Journal of the South African Society of Archivists*, 55, 41–55.
- Lee, K. R., & Lee, K.-S. (2009). The Korean government's electronic record management reform: The promise and perils of digital democratisation. *Government Information Quarterly*, 26, 525–535. <https://doi.org/doi: 10.1016/j.giq.2009.03.007>
- Maroye, L., van Hooland, S., Celorrio, F. A., Soye, S., Losdyck, B., Vanreck, O., & Terwangne, C. de. (2017). Managing electronic records across organizational boundaries: The experience of the Belgian federal government in automating investigation processes. *Records Management Journal*, 27(1), 69–83. <https://doi.org/https://doi.org/10.1108/RMJ-11-2015-0037>
- Motlhasedi, N. (2022). Records management for open government at Ministry of Local Government and Rural Development Botswana. *Journal of the South African Society of Archivists*, 55, 157–169.
- Ngoepe, M. (2017). Archival orthodoxy of post-custodial realities for digital records in South Africa. *Archives and Manuscripts*, 45(1), 31–44. <https://doi.org/10.1080/01576895.2016.1277361>
- Office of Research Affairs. (2021). *The Research Ethics Review Committee for research involving human subjects: The second allied academic group in social sciences, humanities and fine and applied arts*. <https://www.research.chula.ac.th/en/research-standards/irb-2-en>
- Oliver, G., & Foscarini, F. (2013). Effective records management: Working collaboratively within organisations. *Comma*, 2, 35–42. <https://doi.org/10.3828/comma.2013.2.4>
- Pickard, A. J. (2013). *Research methods in information* (Second edition). Facet Publishing. <https://doi.org/10.29085/9781783300235>
- Poolsatitwat, W. (2017). *Identification of the factors shaping archival education in Thailand and an investigation into the effectiveness of that education in preparing graduates for the archival workplace*. [Doctoral dissertation, University of Liverpool].
- Poolsatitwat, W. (2020). Perspectives on the Concepts of 'Records' and 'Archives' in Thailand and the Current Roles of National Archives of Thailand (NAT). *Humanities, Arts and Social Sciences Studies*, 20(3), 649–675.
- Seelakate, P. (2018). *Standards and Standardisation for Archival Practices in Thailand*. [Doctoral dissertation, University College London].
- Shepherd, E., & Yeo, G. (2003). *Managing Records: A Handbook of Principles and Practice*. Facet Publishing.
- Stuart, K. (2017). Methods, methodology and madness: Digital records management in the Australian government. *Records Management Journal*, 27(2), 223–232. <https://doi.org/https://doi.org/10.1108/RMJ-05-2017-0012>