

Application Qualification and Mailing Coordination by Using Sisumaker

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Abstract

This study aims to describe the qualification of the Sisumaker as a mailing management application at the Ministry of Law and Human Rights of the Republic of Indonesia and explore how coordination is performed in mailing management within The Sisumaker application. It is qualitative research using the case study method. Therefore, research data were obtained through interviews and observations. Purposive sampling was used to select the informants. Data analysis was done through data reduction, presentation, and conclusion drawing. In this study, the author uses coordination theory as the basis for the research theory. The results show that the Sisumaker application has fulfilled several features needed in a records management application: integrated, web publishing, simple but feature-rich, and portable. Mail management has the same stages as records management: creation and storage, distribution and use, maintenance, and disposition. Coordination of mail management in the Sisumaker application is present at every stage of mail management and involves several components, namely goals, activities, actors, and interdependence. All components complement each other in every stage of records management within the application.

Keywords: Coordination; Electronic Record Management; Mail Management System; Sisumaker Application.

INTRODUCTION

Technological developments have a positive impact on helping people work in various fields, including records management. Harries states that records management systematically controls organization records throughout their life cycles to meet operational business needs, legislation, fiscal requirements, and societal expectations (Osebe et al., 2018). Good records management will help the organization's operational activities that implement them. An organization can control the quality and quantity of information it produces, maintain that information in a way that meets its needs, and efficiently dispose of that information when it is no longer needed with the help of a successful records management program (Penn et al., 2016). Records management must be supported by coordination between the individuals involved in it. Coordination is the act of working together in harmony. Specifically, Malone and Crowstone translate coordination activities as regulating interdependence between activities carried out to achieve goals with the following coordination components: goals, activities, an actor, and dependencies. (T. W. Malone & Crowston, 1990). Coordination is also needed in records management in electronic or digital environments.

Adopting the technology enables records management to be carried out more effectively, efficiently, and under archival rules. Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems states that an electronic-based government system is needed to create a clean, effective, transparent, and accountable government, as well as quality and reliable public services. According to Lomas, records management has undergone significant changes to remain relevant to organizational needs, at least in responding to the challenges of electronic records (Brooks, 2019). The Ministry of Law and Human Rights addresses the challenge by using an application system to manage its records.

The system used by the Ministry of Law and Human Rights of the Republic of Indonesia has a more specific capability to handle electronic mails. This system is called the Sistem Surat Masuk Surat Keluar” (Sisumaker). Management of application-based mails also aims to actualize the Electronic-Based Government System (Sistem Pemerintahan Berbasis Elektronik) launched by the government.

The emergence of the Sisumaker application was based on the Decree of the Minister of Law and Human Rights Number M.HH-01.TI.03.02 of 2018 concerning the Implementation of the Sistem Surat Masuk Surat Keluar (Sisumaker) within the Ministry of Law and Human Rights. The Sisumaker application was born to implement e-government and e-office within the Ministry of Law and Human Rights. A complete records management program spans many disciplines, including forms, reports, correspondence, directives, mail, files, and other disciplines. Each discipline has certain principles, methods, techniques, and technological tools that can be used to achieve results (Penn et al., 2016). Therefore, letters are records, and mail management is part of the records management.

This mail management system was initially developed to speed up the correspondence process between institutions under the Ministry of Law and Human Rights auspices. So that both incoming and outgoing mails addressed to agencies that are still under the auspices of the Ministry of Law and Human Rights do not require physical printed letters. The application of the Electronic-Based Government System in the implementation of Sisumaker does not only change the form of the letter management system, which was previously carried out conventionally into an electronic format but also coordination involving everyone involved in that system. Coordination is essential in carrying out and implementing mails management system in which there are interdependent parties.

The Sisumaker application is not the only mail management system developing in Indonesia. Research related to the operational use of electronic records management systems has been discussed in research on Organizational Development Strategies through the Application of My Office Electronic Letters and records at Yogyakarta State University conducted by Setyawan (2018). The results of this study indicate that there have been changes in organizational operations with this application, especially in terms of accelerating the flow of information, monitoring mail flow, and saving paper (Setyawan, 2018). However, this research does not discuss coordination in application operations and the electronic records management systems studied was My Office. The use of Sisumaker in records management have been studied several times, including research on the Analysis of the Effectiveness of E-Arsip Applications as Information Retrieval Media at Non-TPI Pati Class II Immigration Offices by Saeroji, Andriyati, & Muhsin. The research aims to determine the effectiveness of Sisumaker as a means of archival information and the result shows that the Sisumaker application is close to ideal and effective in retrieving information or records (Saeroji et al., 2021). Another Sisumaker research is the Development of E-Government through the Incoming and Outgoing Mail System (Sisumaker) at the East Java Ministry of Law and Human Rights conducted by Rahmawati, Soenarjanto, & Puspaningtyas (2022). The research objective was to determine civil servants' performance in managing incoming and outgoing mail using the Sisumaker application and to analyze the development of incoming and outgoing mail management to realize digital-based governance. The study shows that using the Sisumaker application within the East Java Ministry of Law and Human Rights can facilitate ASN performance in managing incoming and outgoing letters (Rahmawati et al., 2022). Based on these studies, the use of the Sisumaker application has been discussed in terms of its effectiveness in providing information and Sisumaker's performance in facilitating mails management. However, there is still a lack of information regarding qualifications and coordination in operating the Sisumaker application. Therefore, this study aims to describe the Sisumaker's qualifications as an electronic filing management application and the coordination in mails management by using Sisumaker. Since Sisumaker's qualifications and coordination, including workflow and the interrelationships of people involved in mailing activities using the application described, this research helps in selecting electronic records management applications.

LITERATURE REVIEW

Coordination Theory

In general, coordination theory can be defined as a body of principles about how activities can be coordinated, that is, about how actors can work together in harmony (T. W. Malone & Crowston, 1990). Coordination theory can be applied to (a) designing human organizations, (b) designing new technologies to help people coordinate their work, and (c) designing distributed and parallel processing computer systems. However, it is not simply a matter of empirically studying human

organizations to test theoretically motivated hypotheses or using theory to design new computer systems. Malone and Crowstone identify an action taken by a group as an actor or actors who carry out interdependent activities to achieve a goal (T. Malone & Crowston, 1994).

Electronic Records

The definition of a record in ISO 15489-1 is information created, received, and maintained as evidence and information by an organization or person, according to the laws of business obligations and transactions. According to the SAA Glossary of Archival and Records Terminology, electronic records are data or information that has been captured and corrected for storage and manipulation in an automated system and which requires the use of the system to be understood by someone (Society of American Archivist, 2023). Electronic records are stored as bit representations – 1 and 0 – and are therefore dependent on application software and network hardware for the entire storage period, whether it is three days, three years, or thirty years or more (Smallwood, 2013). In managing electronic records, there are several stages of activity, namely creation and storage, distribution and use, maintenance, and depreciation (Rifauddin, 2016).

Archival Software Qualification

The use of software or software in carrying out archiving work has become commonplace. It shows that using archival software can help archivists work more effectively and efficiently. Before deciding to use the right software, several considerations need further analysis of the prospective software to suit the needs of companies, institutions, and government agencies. Lisa Spiro stated that several factors form the basis for selecting software. Based on research he has conducted with several archivists as participants, it was found that the ideal software for archivists includes integration, data export features, and web-publishing features, is simple but feature-rich, and is also portable (Habiburrahman, 2016).

METHOD

This research uses a qualitative method. It is in-depth research on a phenomenon, program, and activity at the individual, group, organizational, or institutional level to gain in-depth knowledge about an event. Usually, the selected events are actual or ongoing events, not past events (Rahardjo, 2017). This qualitative research explores the qualifications of the Sisumaker application and the implementation of coordination in managing letters at an agency, in this case, the Ministry of Law and Human Rights.

This type of research is case study research. Case Study Research can reveal a deep and detailed picture of a situation or object. The case to be studied can be a single person, family, event, or other limited groups; researchers can understand how these objects operate or work in actual natural settings (Harahap, 2020). This study uses the case study method to describe in depth the qualifications of the application and how to coordinate the management of the letters in the application. This study only describes activities in the Ministry of Law and Human Rights, and these findings do not generalize what happened in other institutions.

Research data was obtained through interviews and observation. Observations or observations are made of the features and processes of correspondence carried out in Sisumaker. Interviews were conducted with six informants who were selected using a purposive sampling technique with the following criteria: the informant was an employee of the General Affairs Bureau; liaises directly with records management; has experience of more than three years in records management and has knowledge and skills in managing records in the institution. Data analysis was done according to Miles and Huberman's model: data reduction, data presentation, and conclusion (Harahap, 2020).

RESULT AND DISCUSSION

Sisumaker is a letter management activity application adopted by the Ministry of Law and Human Rights. This application was previously implemented within the South Tangerang City Government and was adopted by the Ministry of Law and Human Rights in 2018. The Sisumaker application also

aims to realize Presidential Regulation (Perpres) Number 95 of 2018. It states that an electronic-based government system is needed. Electronic-based government system services in terms of electronic-based government administration include services supporting activities in several fields, including archiving. Therefore, Sisumaker's qualifications as a mail management application are analyzed using filing system-based qualifications.

Sisumaker Application Qualification

In A Report for the Council on Library and Information Resources on Archival Management Software by Lisa Spiro (2009), several factors form the basis for selecting software. Based on the information provided by several archivists as participants, it is known that the ideal software for archivists is integrated, has a data export feature, has web-publishing features, is simple but feature-rich, and is portable (Habiburrahman, 2016). The following is an analysis of the considerations for selecting the Sisumaker application based on the ideal feature qualifications in the study.

Integrated

Sisumaker as an integrated application is one of the reasons why this application was chosen. Applications integrated with the database system will make accessing all correspondence data easier for every user. Sisumaker is an application that can be integrated with computer devices connected to the internet. According to Habiburrahman, archivists need software that can be integrated with online databases to make it easy to search records by simply entering one keyword (Habiburrahman, 2016).

Archival software is included in the information system. This information system will be useful if an information system has been integrated (Integrated Information System/IIS). The Sisumaker application has been integrated so that users can access all correspondence data stored in their respective accounts. According to informants, using an integrated system can also reduce costs. This method can reduce the use of printed materials and reduce shipping costs.

Has a data export feature

If it is operated at the Ministry of Law and Human Rights, the Sisumaker application does not yet have a data export feature. However, Sisumaker can receive files from applications previously used by the Ministry of Law and Human Rights (import). The data export feature will help transfer data to a new system when the software is outdated or needs upgrading. When large amounts of data are transferred, archivists no longer need to input data when upgrading (Habiburrahman, 2016). Data export transfers data from the existing database to the new one. Meanwhile, data import is the process of receiving data from other databases (Setiyadi et al., 2020).

Receiving files from previous applications was carried out after implementing Sisumaker as a replacement for the previous mail management application. Few files have been received because the Ministry of Law and Human Rights has not conducted massive digital correspondence. In addition, at that time, printed letters were more widely used. The Sisumaker application is not yet equipped with a data export feature.

Has a web-publishing feature

The Sisumaker application has a web-publishing feature. Web publishing is a feature that facilitates the delivery of information, knowledge, and documents to all users. This feature is intended so that records in the online database can be widely accessed by everyone who accesses the application. According to Habiburrahman, this feature is intended so that the records collection contained in the online database of records management software can be widely accessed by everyone who accesses the application (Habiburrahman, 2016).

However, the web-publishing feature in the Sisumaker app is open for internal use only. It means that this feature applies to correspondence activities carried out within the Ministry of Law and Human Rights which can only be seen by certain people and not for public consumption. There are settings on access rights. For example, officials with a higher position can see letters written by their subordinates, while officials below them cannot see letters from officials above them. The person responsible for managing integrated records in a networked environment must ensure regulatory

compliance for records management to be implemented successfully (Ajibade & Mutula, 2019, p. 180).

Simple but feature rich

According to the informant, the Sisumaker application has advantages in this field. The Sisumaker application is more friendly, easy to understand, and not difficult to use, so they can easily understand the use of the Sisumaker application. An equally important factor is that its features also make it an application that enhances previous applications used by the Ministry of Law and Human Rights. Its simple but feature-rich appearance gives a user-friendly impression, provides convenience, and accommodates archiving activities properly (Habiburrahman, 2016).

Interfaces

Easy-to-use hardware or software is called user-friendly. Using and learning it is not challenging. It is not very complicated but relatively simple and provides easy access to frequently used features or actions (Betz et al., 2019). A pleasant experience highlighting the convenience side is a plus for applications that manage mails, such as the Sisumaker application. It's simple but feature-rich appearance gives a user-friendly impression, provides convenience, and accommodates archiving activities properly. Providing a good experience through a simple and feature-rich interface when accessing the Sisumaker application will be very helpful in facilitating the use of the Sisumaker application, whose users also differ in terms of age and knowledge of information technology. Of course, this is also worth considering. Based on research conducted on information management systems, one of the main features, according to information professionals, is the user-friendly interface (Khan & Ayesha, 2022).

Features that have also been adapted to the needs of agencies make the Sisumaker application able to meet all the needs of correspondence activities carried out by the Ministry of Law and Human Rights. Some features include mail, e-meeting for conducting online meetings, e-document, my cloud, which is used for storage, and an information index. This information index contains the number of incoming and outgoing letters that can be viewed per year. So, each user has their history to view their correspondence activity.

Portable

As a mail management application used by the Ministry of Law and Human Rights, Sisumaker can accommodate user mobility because it is quite portable and can be accessed on all computers and laptops if they are connected to an internet connection. Portable applications are software that runs on a computer's native operating system without being physically installed on the original system (Walker, 2017). The Sisumaker application is also a prima donna in correspondence activities, especially letter distribution because it can be accessed anywhere and anytime. Archivists also want the application to be accessible on various platforms, such as access to laptops and smartphone devices (Habiburrahman, 2016).

Although portable, Sisumaker has drawbacks when accessed via a smartphone. Because there are features that are not fully readable, the use of Sisumaker via smartphones is limited. However, this application still helps manage letters as records because they can still be accessed anywhere and anytime, so archiving activities are not limited by space and time. Applications accessed on various technology platforms are a reliable advantage in the information age.

Coordination in Letter Management Activities in the Sisumaker Application

Besides having powerful features that make it easier for users to manage letters, Sisumaker needs to facilitate the coordination of people involved in managing letters as institutional records. Coordination is necessary because correspondence and management activities involve more than one person. Coordination has four components: goals, tasks, actors, and interdependence (T. W. Malone & Crowston, 1990). According to Malone, coordination is additional information processing carried out when many connected actors pursue goals that would not be carried out by one actor pursuing the same goal. So, there can be defined as additional information processing done when much of that information is related to an actor pursuing a goal that would not be carried out by one actor pursuing

the same goal. Coordination theory is a set of principles about how activities can be coordinated. In this case, the implementation of coordination is how actors can work together in harmony in the process of managing letters carried out by the Ministry of Law and Human Rights.

Record management effectively, efficiently, and systematically controls records, including creation, use, maintenance, and disposition (Aulianto, 2022). Even though mail management activities in the Sisumaker application have been carried out digitally, correspondence activities still rely on good coordination to run the Sisumaker mail application system because mail management activities also consist of several stages. Without proper coordination from the staff involved, it is impossible for the Sisumaker application, which is already running systemically, to be adequately implemented. In managing letters, it is necessary to have harmonious coordination so that activities can be more effective and efficient. To learn more about coordination in the mail management process on the Sisumaker application, the author will describe the stages of the letter management process on the Sisumaker application in terms of the record life cycle, namely creation, use, maintenance, and disposition.

Creation and Storage

The creation process is the process of sending letters in the Sisumaker application. The Sisumaker application does not have a complicated series of letter creation because the complete format for making letters has been well explained through the Regulation of the Minister of Law and Human Rights Number 15 of 2016 concerning the Administration of Official Documents. Letters created in the Sisumaker application are directly stored in the application database system. Electronic records created from scratch using computer technology can be directly integrated into an electronic records management system (Rifauddin, 2016). Through the Sisumaker application, creating and storing letters is a series of correspondence processes that become one.

This storage activity aims to store and maintain letters made in correspondence activities in the Sisumaker application. Storage activities have been carried out digitally since 2018. Since that year, the Sisumaker application has been implemented as a mail management system at the Ministry of Law and Human Rights. Since implementing the Sisumaker application, most of the correspondence activities have been carried out digitally.

In making and storing letters in the Sisumaker application, there are several coordination components: the purpose of the activity and the creation and storage of letters. The tasks in this stage include: making letters according to the format specified in the Regulation of the Minister of Law and Human Rights Number 15 of 2016 concerning Official Document Arrangements, uploading letters into the Sisumaker application if the letter is made outside the Sisumaker application system, directly filling out the letter form/draft letters available on the Sisumaker application, receive letters from other agencies, receive letters from units within the Ministry of Law and Human Rights, scan incoming/outgoing letters if they are in hard copy, register incoming letters and upload them at Sisumaker, letters saved automatically if it has been registered, and the activity of digitizing letters/records that are still in physical form. The actors involved in this stage include officials who wish to send letters, Heads of Subdivisions, Heads of Sections, Heads of Bureaus in related units, and the administration section of the unit to which the letter is intended. Interdependence in this activity is a series of activities that must be completed to carry out other activities, such as making and receiving letters, namely activities that must be completed before registration of letters; Registration must be completed before the mail is stored in the system. This type of interdependence is a prerequisite; that is, the output of one activity is required by the next activity (T. W. Malone & Crowston, 1990).

Distribution and Use of Letters

The following necessary process in the Sisumaker application is mail distribution. With this process, we can see the effectiveness of using the Sisumaker application, which can save budget significantly. This letter-distribution process continues the letter-making process discussed in the previous section. With the Sisumaker application, the distribution of incoming and outgoing letters becomes effective and efficient. Especially for those who use the Sisumaker application in remote areas, it is cost-effective and fast in sending letters.

The use of letters is a continuation of the distribution of letters. The use of letters in the Sisumaker application has been categorized according to access rights and functions. Distribution and use of electronic records are very beneficial to the organization's needs, capabilities, and goals. Electronic records have the same value as the original printed records and are certified in official correspondence. The printed records are kept for administrative evidence, while the electronic records are used not only as active institutional records but also as inactive records (Rifauddin, 2016).

In the process of distributing and using letters, the aim is that the distribution of letters can be carried out safely and received by the intended person so that the letters can be used properly. Distribution and use of letters include incoming letters, outgoing letters, and reports. According to the Sisumaker manual, the distribution of incoming mail begins with filling out a letter distribution form in which there are columns for letter purposes; pressing the start button; validating the password by filling in the password in the textbox that appears; pressing the initial button to send, and the system will display a notification that the letter was successfully sent. The distribution of outgoing mail is not much different from that of outgoing mail. The difference is that the letter distribution form has a column for choosing the official who signed the letter. Fill in the letter's destination and choose the official who provided the initials. Once the form is filled out, press the start button. Validate the password by filling in the textbox that appears, pressing the initial button to send, and the system will display a notification that the letter was successfully sent.

Actors or parties involved in distributing and using the Sisumaker application include officials who wish to send letters and structural officials as observers and registrars. Coordination activities at the distribution and use stages have prerequisite interdependencies. The distribution of letters in the correct order and the correct fields are indicated by a notification display that the letter has been successfully sent and seen from the sequence of activities such as filling out the form, pressing the start button, then filling in the password.

Maintenance

The Ministry of Law and Human Rights maintenance process related to electronic records and the Sisumaker application is done chiefly on server maintenance because server disruption is the main obstacle most often encountered. Server interruption is an obstacle that is also experienced in the use of other records management applications. Previous studies' findings explain that one crucial component is a robust internet server when applying. Servers that frequently crash and down cause problems for registrars (Putri et al., 2022). Using the Sisumaker application, the Ministry of Law and Human Rights has overcome this problem by setting up three servers to back up in case of a server-down problem. Backup servers are spread across Jakarta, Surabaya, and the Riau Archipelago. Electronic records are a new type of records that are very different from physical ones because they require different maintenance than physical ones. Maintenance of electronic records can be in the form of securing the electronic records themselves, maintaining storage media, management systems, and record management tools (Rifauddin, 2016). The Ministry of Law and Human Rights has maintained its management system and tools using backup servers.

This stage is intended so that letters as organizational records can be appropriately stored in the Sisumaker application and accessed when needed. Mail maintenance activities include one activity: performing server backup activities to prevent access interruption. The only parties involved in maintaining the Sisumaker application are the Pusdatin Ministry of Law and Human Rights staff, who act as server managers. Coordination activities in the maintenance phase have an essential role because each phase of mail management depends on this server maintenance activity. Maintenance activities have simultaneity-interdependency. Simultaneity-interdependency means time at which more than one activity must occur (T. W. Malone & Crowston, 1990).

Disposition

Disposition activities carried out by the Ministry of Law and Human Rights refer to the Regulation of the Minister of Law and Human Rights Number 54 of 2016 concerning Records Retention Schedules and procedures for destroying records within the Ministry of Law and Human Rights. Letters are part of records, so their management refers to regulations related to records management. Records storage

consists of active records storage and inactive records storage. Information about the record retention schedule indicates that the record will be reassessed, permanent, or destroyed. The processing unit can complete the destruction of records after obtaining approval from the records center unit through the echelon II and I units. Records destruction in echelon I and II units must obtain approval from the Records Center unit.

Determining the records to be destroyed is carried out after receiving written consideration from the evaluation committee and written approval from the Head of the National Archives. The extermination process is adjusted to the format of the letter. If the letter is in electronic or digital form, the destruction process will also be adapted to that format. This stage determines whether electronic records are stored or destroyed. When electronic records end their retention period, they can be deleted. When deleting confidential records, use special data deletion programs that make the data unrecoverable. The determination of considerations for destructing or keeping the letters as inactive records must be based on the Records Retention Schedule agreed upon by each agency (Puspasari & Rohmawati, 2020).

The central processing and recording unit are the actor or party responsible for managing letters. The coordination component in destroying letters includes disposition activities for the disposition of letters according to the Regulation of the Minister of Law and Human Rights Number 54 of 2016 concerning records retention schedules. The activity at this stage is to save or destroy the letters stored in the application. There is a prerequisite interdependence at this stage because approval for records destruction must be granted before records destruction.

CONCLUSION

The Sisumaker application was chosen based on the features it has. These features are essential in managing mail as a record organization. The Sisumaker application meets the needs of agencies and is also very good at accommodating correspondence management activities within the Ministry of Law and Human Rights. However, the data import feature must be equipped so that the Sisumaker application can facilitate data transfer if there are changes to the application. Coordination in managing letters in the Sisumaker application is implemented at each stage of records management. It can be seen from the objectives achieved, the activities carried out properly, the existence of parties or actors carrying out their work at each stage, and complementary interdependencies. Therefore, Malone's statement that additional information processing is carried out when many actors are connected to pursue goals that will not be carried out by one actor pursuing the same goal can be seen from the activity of managing mail through the Sisumaker application.

REFERENCES

- Ajibade, P., & Mutula, S. M. (2019). Integrated Records Management: Using Software Design Approach to Support Business Process Management and Compliance in the Networked Environment. *New Review of Information Networking*, 24(2), 178–192. <https://doi.org/10.1080/13614576.2019.1618197>
- Aulianto, D. R. (2022). Evaluasi Pengelolaan Arsip Dinamis pada Unit Pengolah di Sekretariat Utama Lembaga Ilmu Pengetahuan Indonesia. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan*, 8(1), 25–36. <https://doi.org/doi: 10.14710/lenpust.v8i1.44715>
- Betz, J., Jaskolska, E., Foltynski, M., & Debicki, T. (2019). The Impact of Communication Platforma and Information Exchange Technologies on the Integration of Intermodal Supply Chain. In A. Kolinski, P. Golinska-Dawson, & D. Dujak (Eds.), *Integration of Information Flow for Greening Supply Chain Management* (pp. 131–142). Springer.
- Brooks, J. (2019). Perspectives on the Relationship between Records Management and Information Governance. *Records Management Journal*, 29(1–2), 5–17. <https://doi.org/10.1108/RMJ-09-2018-0032>

- Habiburrahman. (2016). Penggunaan Perangkat Lunak Dalam Pengelolaan Arsip Konvensional Dan Elektronik. *Jurnal Ilmu Perpustakaan Dan Informasi (JIPI)*, 1(2), 226–240. <https://doi.org/http://dx.doi.org/10.30829/jipi.v1i2.559>
- Harahap, N. (2020). *Penelitian Kualitatif*. Wal ashri Publishing.
- Khan, S. A., & Ayesha, G. (2022). Key features of Information Management Systems (IMSs) for Automation in University Libraries: a View Point of Information Professionals in Pakistan. *Library Hi Tech*, 40(6), 1606–1626. <https://doi.org/https://doi.org/10.1108/LHT-04-2020-0087>
- Malone, T., & Crowston, K. (1994). The Interdisciplinary Study of Coordination. *ACM Computing Surveys*, 26(1), 87–119.
- Malone, T. W., & Crowston, K. (1990). What is Coordination Theory and How Can It Help Design Cooperative Work Systems. *Proceedings of the Conference on Computer Supported Cooperative Work*.
- Penn, I. A., Pennix, G. B., & Coulson, J. (2016). *Records Management Handbook*. Routledge.
- Puspasari, D., & Rohmawati, L. (2020). Pengelolaan Arsip Berbasis Aplikasi Surat di Dinas Perpustakaan dan Kearsipan Provinsi Jawa Timur. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 8(2), 180–193.
- Putri, N., Indrawati, C. D. S., & Subarno, A. (2022). Penerapan Aplikasi Pemberkasan Arsip Dinamis dan Statis di Kantor Pelayanan Pajak Pratama Karanganyar. *JIKAP: Jurnal Informasi Dan Komunikasi Administrasi Perkantoran*, 6(2), 88–99.
- Rahardjo, M. (2017). *Studi Kasus Dalam Penelitian Kualitatif: Konsep dan Prosedurnya*. UIN Maulana Malik Ibrahim Malang.
- Rahmawati, N. T., Soenarjanto, B., & Puspaningtyas, A. (2022). Pengembangan E-Government melalui Sistem Surat Masuk dan Surat Keluar (Sisumaker) di Kementerian Hukum dan Hak Asasi Manusia Jawa Timur. *PRAJA Observer: Jurnal Penelitian Administrasi Publik*, 2(4), 1–6.
- Rifauddin, M. (2016). Pengelolaan Arsip Elektronik Berbasis Teknologi. *Khazanah Al-Hikmah : Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 4(2), 168–178. <https://doi.org/10.24252/kah.v4i27>
- Saeroji, A., Andriyati, R., & Muhsin, M. (2021). Analisis Efektifitas Aplikasi E-Arsip sebagai Media Temu Kembali Informasi. *Efisiensi: Kajian Ilmu Administrasi*, 18(1), 1–14. <https://doi.org/https://doi.org/10.21831/efisiensi.v17i1.34895>
- Setiyadi, D., Henderi, H., & Arifin, R. W. (2020). Implementasi Import dan Export Database dengan Menggunakan SQL Server 2008. *Informatics for Educators and Professional: Journal of Informatics*, 5(1), 1–10. <https://doi.org/https://doi.org/10.51211/itbi.v5i1.1413>
- Setyawan, H. (2018). Strategi Organizational Development Melalui Aplikasi Persuratan dan Kearsipan Elektronik My Office di Universitas Negeri Yogyakarta. *Diplomatika: Jurnal Kearsipan Terapan*, 2(1), 34–43. <https://doi.org/10.22146/diplomatika.39527>
- Smallwood, R. F. (2013). *Managing Electronic Records: Methods, Best Practices, and Technologies*. Wiley.
- Society of American Archivist. (2023). *Electronic Record*. Dictionary of Archives Terminology. <https://dictionary.archivists.org/entry/electronic-record.html>
- Walker, M. (2017). Computer-Based Delivery of Cognitive Assessment and Questionnaires. In P. Lietz, J. C. Cresswell, K. F. Rust, & R. J. Adams (Eds.), *Implementation on Large-Scale Education Assessment* (pp. 231–252). John Wiley and Sons.