



Effectiveness of the Use of Mail Application Information Systems at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region

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ABSTRACT

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Effectiveness of the Use of Mail Application Information Systems at the Sulawesi Region Environmental and Forestry Law Security and Enforcement Center (SIAP GAKKUM). The purpose of the study was to determine the Effectiveness of the Use of Mail Application Information Systems at the Sulawesi Region Environmental and Forestry Law Security and Enforcement Center (SIAP GAKKUM). The data collection techniques used are observation, interviews, and documentation. The informants in this study were the Head of the Administration Sub-Admin of the SIAP GAKKUM Application, Administration Staff, and 2 employees. The data analysis techniques used are data condensation techniques, data presentation, drawing conclusions or verification. The results showed that the management of letters at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region, showed that the process of managing letters was in accordance with procedures so that it could be said to be effective. The use of cost and time is very efficient so that it can be categorized as effective, data security in the SIAP GAKKUM application can be guaranteed because access is only given to employees, application access and information can be accessed easily by employees according to the user account and account level owned. This research can be used as a reference material in the development of digital-based mail applications, there are several advantages of this application including efficient use of time, costs, data security guarantees, and flexible data access.

INTRODUCTION

The process of fast information exchange can help the administrative activities of an agency or organization, both government and private. Administrative activities are basically the process of processing data where the data is in the form of work agendas, letters, forms, documents or files that we commonly know as archives (Benson, 2011; Sundqvist & Svärd, 2016; Yoo et al., 2020). Matters related to archives such as work agendas, letters, forms, documents generated, received, managed and stored by an institution related to archival activities (Abreu et al., 2017; Casadesús de Mingo & Cerrillo-i-Martínez, 2018; Niswaty et al., 2020).

Based Presidential Instruction of the Republic of Indonesia Number 3 of 2003 concerning National Policy and Strategy for E-Government Development, that the

development of e-government is an effort to develop electronic-based governance in order to improve the quality of public services effectively and efficiently. Through these instructions, archival institutions in Indonesia have begun to apply e-government in archive management.

Salah satu tujuan utama pengelolaan arsip adalah untuk memastikan bahwa arsip sebagai bukti kegiatan transaksi dapat tersedia ketika diperlukan (Chen, 2023; Nasrullah et al., 2023; Zulfitriani et al., 2019). Oleh karena itu pengelolaan arsip merupakan suatu kegiatan yang penting untuk diperhatikan bagi sebuah organisasi terkhusus lembaga pemerintah karena di dalamnya terdapat kegiatan pengurusan surat menyurat.

Letters are written communication tools used to convey news or information from one party to another, but along with the rapid development of technology the use of letters began to switch from printed letters to unprinted letters or called electronic mail (e-mail). Electronic Mail (E-mail) is the most widely used application on the internet. This is because e-mail is the cheapest and fastest communication tool. With e-mail we can connect with anyone connected to the internet around the world at a relatively affordable cost. The function of letters is as a means of delivering messages in writing, letters play a role in achieving the goals of agencies or organizations in establishing cooperation between organizations. One form of correspondence management in government organizations is to carry out mail management activities, both incoming and outgoing letters.

To deal with the complexity of growth and development in an organization, an information and communication system is needed that can help provide information and communicate as material for determining a development policy and strategy. One of the information providers as a manifestation of e-Government is the development of the Mail Administration Information System of the Sulawesi Environmental and Forestry Law Security and Enforcement Center (SIAP GAKKUM).

SIAP GAKKUM is an application created for the management of the entire series of correspondence activities at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region. This system is implemented in the form of websites and mobile to make it easier for users to do work anywhere and anytime. With the existence of SIAP GAKKUM is expected to facilitate monitoring of the existence of a letter to then be followed up effectively and efficiently so that an integrated information and communication system can be created to improve administrative activities in the field of archives that are more orderly, organized, effective, and successful as well as determine the direction of policies on mechanisms, coordination, communication and information through technology.

The Sulawesi Environmental and Forestry Law Enforcement and Security Center is a government institution that has implemented the SIAP GAKKUM application since 2019. The presence of correspondence technology in the form of the SIAP GAKKUM application provides advantages for electronic records management compared to conventional / manual archives because it is fast, precise and complete. The use of SIAP GAKKUM can make it easier for admins and mail officers to input incoming mail, outgoing mail, and can make it easier for the head of the hall / leader to monitor mail activities.

METHODS

This research uses qualitative research methods with a qualitative descriptive approach. Qualitative research methods are research methods based on the philosophy of positivism, used to examine the conditions of natural objects, (as opposed to experiments) where researchers are the key instruments, data sampling is triangulated

(combined) data analysis is inductive / qualitative, and qualitative research results emphasize meaning rather than generalization. Therefore, the purpose of this study is to determine the effectiveness of the use of mail application information systems at the Sulawesi Region Environmental and Forestry Law Security and Enforcement Center (SIAP GAKKUM) using indicators of the effectiveness of the digital mail system (e-mail) namely (1) accountable, (2) objectives, (3) data security, (4) fair/non-discriminatory, (5) transparent.

The data collection techniques used were observation, interviews and documentation with five informants at the research site. Checking the validity of the data used, namely source triangulation techniques and triangulation techniques. The data analysis techniques used in this study are data condensation, data presentation, drawing conclusions or verification

RESULT AND DISCUSSION

Result

Processing and presenting data obtained during research using observation, interview, and documentation techniques presented in descriptive form regarding factors forming the effectiveness of the digital mail system (e-mail) which is divided into 5, namely: accountable, targeted, data security, fair or non-discriminatory, and transparent. The description of the results of data analysis obtained during the research process is as follows:

Accountable

Mail management is an important thing that must be done, especially in digital-based mail management must be in accordance with procedures in mail management so that the mail process in an organization can run well. Regarding accountability in the SIAP GAKKUM mail system at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region, the Sub-Division of Administration said that the SIAP GAKKUM application can be accessed using a web browser and via mobile making it easier for admin users. Incoming letters that have been processed by Administration staff, then paraphrased by the Head of TU before disposition of the Head of Hall, letters that have been dispositioned are then scanned and input into the SIAP GAKKUM Application, then the scan results are forwarded according to the instructions of the Head of Hall. Archives in digital form will be easier to search for letters.

Furthermore, the admin of the SIAP GAKKUM application explained that mail management starts from scanning letters, being sent to the Head of the Hall for disposition, letters that have been dispositioned will be input in the SIAP GAKKUM application using the admin user, to facilitate the search for letters that have been inputted, using the search menu found in the SIAP GAKKUM application by entering keywords such as letter numbers, subject, and more. In line with this, the Administration Staff explained that the management of letters in the SIAP GAKKUM application is almost the same as manual mail management, except that letters made or received and have been dispositioned will be directly input in the SIAP GAKKUM application and addressed to those concerned so that letters can be delivered quickly.

Based on the results of the interview, the researcher concluded that the mail management procedure using the SIAP GAKKUM application was in accordance with the SOP in mail management. Based on observations, it was found that the process of managing letters at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region was divided into 2, namely the management of

incoming and outgoing mail. Management of incoming letters at the Sulawesi Environmental and Forestry Law Security and Enforcement Center, namely receipt of letters, incoming letters at the Sulawesi Environmental and Forestry Law Enforcement and Security Center will be received by the reception and then forwarded to the mail administration department. Mail sorting, letters that have been received by the administrative department will be sorted according to their purpose. Disposition, letters that have been sorted are then positioned by the head of the hall for later follow-up. Recording and storage, letters that have been dispositioned are then inputted in the SIAP GAKKUM application.

To be able to record and save letters in the SIAP GAKKUM application, you can open the www.siap-gakkumsulawesi.com page, here's how it looks:



Figure 1: Website Display SIAP GAKKUM

Then after clicking on the website page, a login display will appear in SIAP GAKKUM, to log in enter the *username* and *password*. Here's what the SIAP GAKKUM application login looks like:

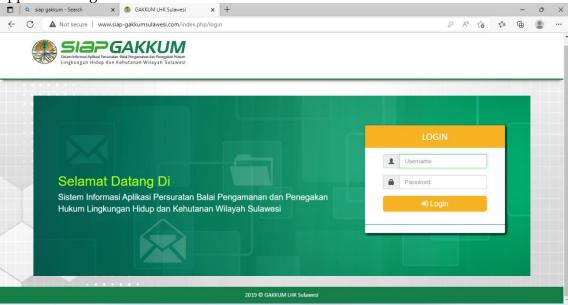


Figure 2: GAKKUM READY Application Login Display

After successfully logging in, the system will display various menus such as homepage, profile, search mail, input, and assignment. Here's what it looks like after logging in to the SIAP GAKKUM application:

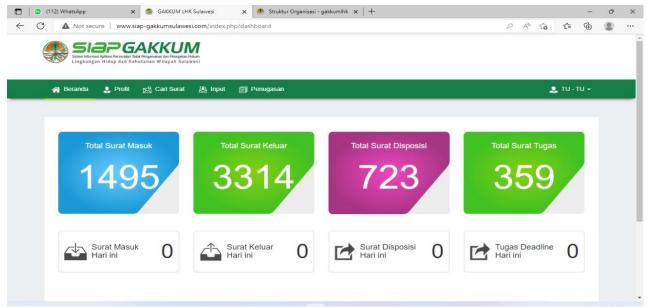


Figure 3: Display after login application SIAP GAKKUM

Then to input incoming mail, select the input menu in the SIAP GAKKUM application, here's how it looks:

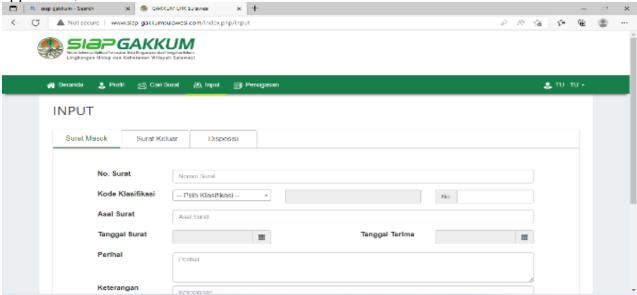


Figure 4: Incoming Mail Input Display

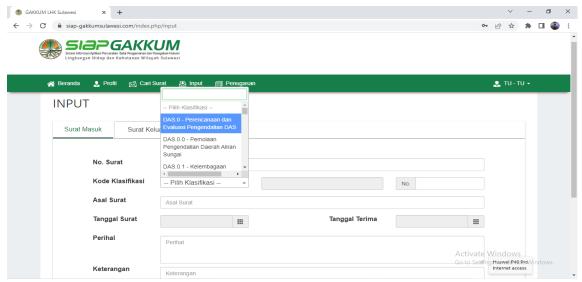


Figure 5: Incoming Mail Management View

Management of outgoing letters at the Sulawesi Environmental and Forestry Law Enforcement and Security Center, namely 1) Letter Drafting, The draft letter is made based on the follow-up of the letter that has been entered or based on the decision of the head of the hall; 2) Tiered approval, after the draft letter is completed, it will be submitted to the Head of TU and forwarded again to the Head of the Hall for approval; 3) Delivery and storage of letters, after the letter is in the ACC by the Head of TU or the Head of the Mail Center, it will be inputted in the SIAP GAKKUM application for delivery as well as storage of letters. The following is how inputting outgoing mail in the SIAP GAKKUM application:

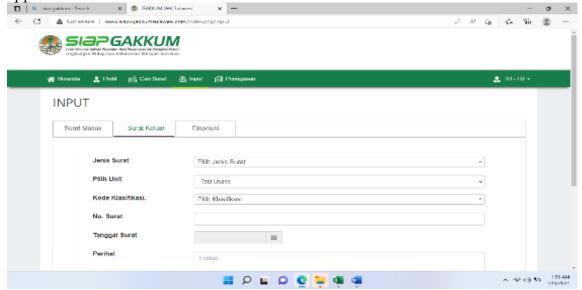


Figure 6: Outgoing Mail Input Display

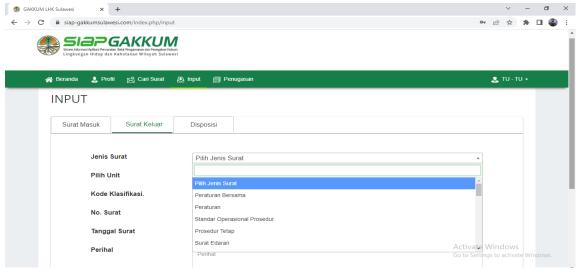


Figure 7: Outgoing Mail Management View

Mail management is something that must be considered, considering that letters contain important information. Therefore, mail must be managed so that activities in an organization can run smoothly. Based on the results of the study, the process of managing letters at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region is divided into 2, namely the management of incoming and outgoing mail.

Based on the findings in the study that the management of letters at the Sulawesi Regional Environmental and Forestry Law Enforcement and Security Center is in line with the theory put forward by those put forward by Azizah and Kuswantoro (2021) "About the flow of incoming mail management, namely: 1). Mail receipt, 2). Mail sorting, 3). Attachment with Disposition Sheet, 4). Mail Recording. and Outgoing mail management i.e. 1). Conditioning, 2). Tiered examination 3). Storage, and 4). Distribution". Based on this, it can be seen that at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region, there are 2 flow of mail management, namely outgoing letters, including 1) Receipt of letters; 2) Mail sorting; 3) Disposition; 4) Recording and storage of mail and management of outgoing mail which includes: a) Drafting of letters; b) Tiered approval; c) Delivery and storage of mail. Based on this, the letter management process at the Sulawesi Environmental and Forestry Law Enforcement and Security Center is in accordance with procedures and it can be concluded that the letter management procedures can be said to be effective.

Target

A goal is the purpose for which a system is created. The intended goal is the efficient use of cost and time so that the goal or purpose of a letter can be quickly delivered. Related to the Target in the SIAP GAKKUM mail system at the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region. The Sub Division of Administration explained that the use of the SIAP GAKKUM application does not require costs, cost efficiency can be said to be efficient because it does not require space in mail storage, the use of time in using the SITargetAP GAKKUM application can be said to be efficient, for example in searching for letters employees only need to type keywords such as letter numbers, letter subjects and others. In addition, the staff of Section Region I of the supervisory division also explained that the use of the SIAP GAKKUM application does not require additional costs, time efficiency, in searching and delivering the letter faster, for example, when there is a letter of assignment it is directly

entered in the user account in the SIAP GAKKUM application so that it can be delivered immediately.

Based on the results of the interview, it can be concluded that the use of the SIAP GAKKUM application does not require costs in using the SIAP GAKKUM application so that it is more effective and saves costs and space in storage, the use of time can also be said to be effective because the process of delivering and searching mail archives is fairly fast so that it can save time. Based on observations, it was found that the development of the SIAP GAKKUM application is a collaboration between the Directorate General of Environmental and Forestry Law Enforcement and the Environmental and Forestry Law Enforcement Center of Sulawesi Region so that it does not require additional costs and can be said to be effective in the use of costs and time, this is evidenced by the fast process of correspondence at the Environmental and Forestry Law Enforcement and Security Center Sulawesi Region.

The use of time and cost is very crucial in the organization, time and cost efficiency is needed for the smooth running of organizational activities (Arhas et al., 2022; Tunggul, 2021). From the results of data analysis, it can be seen that the SIAP GAKKUM application is the result of collaboration between the Directorate General of Environmental and Forestry Law Enforcement and the Center for Security and Enforcement of Environmental and Forestry Law in Sulawesi Region so that it does not require development costs, so it is more effective and saves costs and space in storage, the use of time can also be said to be effective because the process of submitting and searching mail archives is fairly fast so as to save time in managing letters at the Sulawesi Region Environmental and Forestry Law Enforcement and Security Center. This is relevant to the principles in the preparation of official texts on Regulation of the Minister of Environment and Forestry Number 10 of 2023 concerning Service Manuscript Guidelines. Based on this, official manuscripts must be completed quickly, on time, and on target in editorials, procedures and distribution. The implementation of official manuscripts also needs to be carried out effectively and efficiently in writing, using space or official manuscript sheets. Based on this, it can be concluded that the target of resource use, especially regarding cost and time, can be said to be effective.

Data Security

An agency must be able to maintain the security of data or information contained in the organization, moreover the use of technology for organizational purposes needs to ensure data to remain safe, this applies to digital-based mail management to avoid misuse of information and falsification of documents. Related to data security in the use of the SIAP GAKKUM application, the Sub Division of Administration said that data security in this application can be said to be guaranteed because not everyone can access this application, during the use of the SIAP GAKKUM application, the mail input process can only be carried out by employees with admin user level so as to ensure data security and minimize document forgery in the SIAP GAKKUM application. The admin of the SIAP GAKKUM application said that the SIAP GAKKUM application has guaranteed data security, this is evidenced by limited access in the SIAP GAKKUM application, application access is only given to employees who have a user account. The process of inputting letters into the SIAP GAKKUM application is only carried out by admin users so as to minimize the occurrence of document forgery.in addition, personnel staff said that the data in the SIAP GAKKUM application is guaranteed because only people or employees of Balai Gakkum KLHK Sulawesi region can access the data in the application.

Based on the results of the interview, the researcher concluded that access to information contained in the SIAP GAKKUM application can only be opened by employees who already have an account user so that the data in the application cannot

be accessed by outside parties, document forgery can also be avoided because only admin users can input letters in the SIAP GAKKUM application.

Data security is important in a system, this is necessary for the sake of ensuring the confidentiality of information contained in a system. Security is the most important part of the information system because information is only handed over to certain groups (Butavicius et al., 2020; Ifinedo, 2012). So, it is important to prevent it from being misused by groups that do not have rights in interests

Based on the results of data analysis conducted by researchers, that access to information contained in the SIAP GAKKUM application can only be opened by employees who already have an account user so that the data in the application cannot be accessed by outside parties, document forgery can also be avoided because only admin users can input letters in the SIAP GAKKUM application. This is relevant to the theories of Stalling and Bauer in Sari et al (2020, p. 14), about the main objectives of computer security, namely 1) Confidentiality; 2) integrity; and 3) Availability. Based on the theory that an organization must guarantee personal or confidential information, and the integrity of the system must be maintained so that it is free from system manipulation. Thus, it can be concluded that the guarantee of data security in the use of SIAP GAKKUM is very good, because it can guarantee the confidentiality of a data.

Fair/Non-Discriminative

Open access to a mail system is important so that all employees can access applications for the smooth running of organizational activities, especially in managing correspondence. In this regard, Administration staff said "to access the SIAP GAKKUM application, it can be through the web portal or via a mobile application that can be downloaded through Playstore. Furthermore, the staffing staff said that SIAP GAKKUM can be accessed through the web portal or via Android by entering the user account owned. In the sense that everyone can see and open the website portal from the SIAP GAKKUM application but to log into the application a username and password are required, and those who have a user account are only employees of the Sulawesi Environmental and Forestry Law Enforcement and Security Center.

Based on the results of the interview, it can be concluded that all employees can access the SIAP GAKKUM application through the website or via Android by entering the user account that has been previously owned. Based on observations, it was found that everyone can see and open the website portal from the SIAP GAKKUM application, but to log into the application a username and password are required so that only employees of the Sulawesi Environmental and Forestry Law Enforcement and Security Center have access to log into the SIAP GAKKUM application.

Ease of access is important, especially in accessing an application to support activities in an organization. Based on the results of data analysis that has been carried out by researchers, that all employees can access the SIAP GAKKUM application through the web page or via Android by entering a user account that has been previously owned. Availability means ensuring that the system works promptly and services are not denied to authorized users and ensuring timely and reliable access and use of information. Loss of availability is the disruption of access or use of information or information system.

Transparent

Open access to information is fundamental so that the process of activities in an organization runs smoothly, so that the information obtained can be immediately conveyed for the smooth running of organizational activities. Transparent information will facilitate the processes in the organization. In this regard, the Head of the Sub-Division of Administration said that the information contained in the SIAP GAKKUM

application can be accessed on each user account owned by employees, in addition to the data that can be accessed in the SIAP GAKKUM application adjusted to the level of account users owned by employees. Added by the SIAP GAKKUM admin that data access permissions are only owned by employees who have account users, the data accessed is also limited depending on the lever user of each employee. The data inputted in the SIAP GAKKUM application is divided into 2 types, namely open data and confidential data, this confidential data can only be accessed by certain users. In line with the Personnel Staff who explained that to access the data contained in the SIAP GAKKUM application, employees must first log in, to search for letters there is a menu to search for them, data that can be searched or accessed depending on the user account owned by the employee, besides that confidential data is only open to account users who have the right to open it.

Based on the results of the interview above, it can be concluded that access to information data in the SIAP GAKKUM application can only be accessed by employees who have user accounts, besides that there are some data in the SIAP GAKKUM application can only be accessed by certain users Based on observations, it can be seen that some employees find it difficult to access data in the SIAP GAKKUM application, this is due to network disruptions but this does not happen every time.

Correspondence is a vital thing in the organization. Therefore, the openness of the mail information system is what is needed so that organizational activities can run well. Based on the results of data analysis that data access in the SIAP GAKKUM application can only be accessed by employees who have user accounts, besides that there is also data that can only be accessed by users of course. Network constraints are also the cause of the length of time information can be accessed. It is relevant to Law of the Republic of Indonesia Number 14 of 2008 concerning Public Information Openness that 1) Any Public Information is open and accessible to every user of public information; 2) Exempt public information is strict and limited 3) Any public information must be able to be obtained by every public information applicant quickly and in a timely, low-cost, and simple way; 4) Exempt public information is confidential in accordance with the Act, compliance and public interest is based on an examination of the consequences that arise when a public information can protect a greater interest than disclosing it or vice versa.

CONCLUSION

Based on the results of research and discussion on the effectiveness of using the mail application information system at the Sulawesi Regional Environmental and Forestry Law Security and Enforcement Center (SIAP GAKKUM), it can be concluded that mail management using the SIAP GAKKUM application has been effective starting from the flow of incoming and outgoing mail can be managed properly, the use of costs and time can be said to be efficient, The security of data in the SIAP GAKKUM application can be guaranteed, because only employees who have a user account can login, access to the application and access to information in the SIAP GAKKUM application can also be obtained by all employees according to their account level, so that the mailing process can run well, even though there are some network disruptions that usually hamper mail management.

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