



# Implementation of a Correspondence Inventory System at the Communication and Informatics Office In Takengon Central Aceh

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## ABSTRACT

The current mail administration system at Diskominfo still on manual processes, which are prone to errors, time-consuming, and difficult to access. Therefore, this study proposes the implementation of a system based on google Workspace, which includes the use of Google Forms for collecting incoming and outgoing mail data, Google sheets for storing and managing data, and Google sites for displaying reports in a transparent and structured manner. The aim of this proposed system is to enhance the efficiency of mail administration processes, reduce the risk of errors, and facilitate information access for relevant parties. The method used in this study is system design using a cloud-based modal, where data can be accessed anything and anywhere with an internet connection. Yhe implementation and increase work productivity. The results show that the new system is more efficient, easier to operate, and more secure in terms of data storage and distribution.

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## 1. INTRODUCTION

Correspondence management is a crucial administrative activity in various organizations, including government institutions, private companies, and educational institutions[1]. This activity includes the management of incoming and outgoing mail, recording, storing, and distributing information to relevant parties[2]. Generally, manual or paper-based correspondence management processes can lead to various problems, such as recording errors, lost documents, delayed delivery, and difficulties in document tracking[3].

In recent years, various software solutions have been developed to support correspondence management, ranging from desktop applications to web-based applications[4]. As an alternative to desktop-based solutions, cloud technology offers various advantages that can be integrated into a correspondence management system[5]. Google Workspace, which includes Google Forms, Sheets, and Sites, provides a platform that can be accessed online from various devices and locations[6].

This cloud-based system enables real-time collaboration between users, centralized and secure data storage, and ease of customization and further development[7]. Furthermore, using Google Workspace can reduce infrastructure and system maintenance costs compared to traditional desktop software[8]. Implementing a Google Workspace-based mail management system is expected to provide a more adaptive solution to the needs of modern organizations and support the ongoing digital transformation across various sectors[9]. With a more flexible and easily accessible system, it is hoped that the mail management process will become faster, more accurate, and more coordinated. Furthermore, this study also aims to provide recommendations for

organizations seeking to adopt cloud technology to improve the efficiency and effectiveness of their administrative processes[10]. Based on observations made at the Communication and Informatics Office of Takengon City, Central Aceh, a system was needed to assist in managing correspondence[11]. In this regard, the author conducted a study entitled: "Implementation of a Letter Inventory System Service at the Communication and Informatics Office of Takengon, Central Aceh[12]."

This research aims to gain a deeper understanding of the advantages and disadvantages of the two approaches being compared, and to contribute to the development of a more innovative and responsive management information system to changes in technology and organizational needs[13]. Therefore, the author, currently interning at the Communication and Informatics Office, was tasked with developing and implementing the system[14]. This task is not only relevant to the current needs of the Communication and Informatics Office but also aligns with global trends in increasing efficiency and effectiveness through the use of information technology[15].

**2. METHOD**

This re This research applies a system analysis and design method to develop a digital correspondence management system at the Department of Communication and Informatics (Diskominfo) of Central Aceh. The study was conducted chronologically, starting from problem identification, data collection, system analysis, system design, and system testing.

Data were collected through observation, interviews, documentation analysis, and questionnaires involving staff responsible for correspondence management. The feasibility of the proposed system was analyzed using the TELOS method, covering technical, economic, legal, operational, and scheduling aspects.

The proposed system utilizes Google Workspace, including Google Forms for data input, Google Sheets for data processing and storage, and Google Sites for system monitoring and reporting. The system supports structured management of incoming and outgoing letters, improves data accessibility, and reduces processing time.

System testing was conducted using functional testing to ensure that all features, such as data input, searching, reporting, and access control, operate according to user requirements.

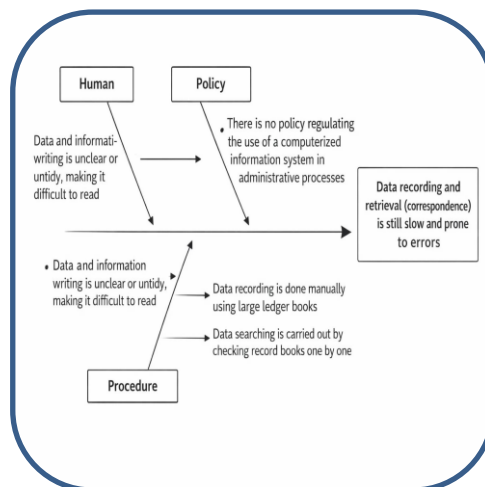


Figure 1. Illustration the Proposed Correspondence Management System

Table 1. Correspondence Database Structure

No	Field Name	Description
1	Timestamp	Time when the data is recorded
2	Letter Number	12.4
3	Letter Type	15.3
4	Letter Date	
5	Subject	
6	Destination	
7	Letter Update	
8	Attachment	

### 3. RESULTS AND DISCUSSION

Here are the displays on this website:

#### 3.1. Google Drive

Google Drive will include structured folders for storing incoming and outgoing document, letter templates, and important files. Users can easily access, upload, and share document through google Drive, enabling more efficient collaboration and organized document managemet.

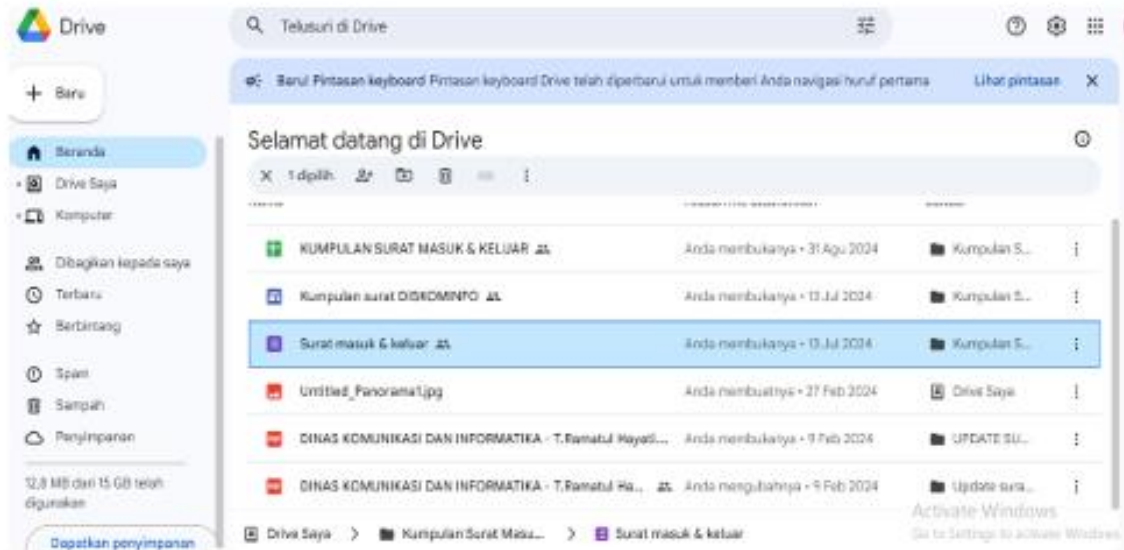


Figure 2. Google Drive

#### 3.2. Google forms

When users want want to access the correspondence system at the Communications and Informatics Office, they are asked to fill out a Google Form, which serves as the system's gateway. This main nemu form consists of two sections: incoming and outgoing correspondence.

Figure 3. Google forms main menu display

### SURAT MASUK

**NO SURAT \***

Jawaban Anda

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**TANGGAL SURAT \***

Tanggal

hh/bb/tttt

**PERIHAL \***

Jawaban Anda

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**TUJUAN \***

Jawaban Anda

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**Update surat \***

Upload 1 file yang didukung: PDF, document, drawing, atau image. Maks 10 MB.

Jangan pernah mengirimkan sandi melalui Google Formulir.

Konten ini tidak dibuat atau didukung oleh Google. [Laporkan Penyalahgunaan](#) - [Persyaratan Layanan](#) - [Kebijakan Privasi](#)

Figure 4. Display of Incoming mail form

Figure 5. Outgoing mail form display

### 3.2.1. Google Sheets

The entered data will be automatically saved in Google Sheets. Google Sheets server as a centralized Database that records all incoming and outgoing mail informacion, including details such as the letter number, date, subject, origin, destination, and related attachments.

	A	B	C	D	E	F	G
1	Timestamp	Nama surat	NO SURAT	TANGGAL SURAT	PERIHAL	TUJUAN	Update surat
2	13/07/2024 10:34:53	SURAT MASUK	1105/111	13/02/2023	surat dinas	dikeminfo	<a href="https://drive.google.com/open?id=1AvrDANh490K5N1Krm0k4">https://drive.google.com/open?id=1AvrDANh490K5N1Krm0k4</a>
3	10/09/2024 18:36:03	SURAT MASUK	1109	18/09/2023	Undangan	Dikeminfo	<a href="https://drive.google.com/open?id=1PCart0H0URFEy0E67X0H4">https://drive.google.com/open?id=1PCart0H0URFEy0E67X0H4</a>
4	10/09/2024 18:36:34	SURAT KELUAR					

Figure 6. Google sheets view of Incoming and Outgoing mail

	NO SURAT	TANGGAL SURAT	PERHAL	ASAL SURAT	UPDATE SURAT
3		08/11	16/09/2024	Undangan	Dinas Pendidikan
4					<a href="https://drive.google.com/open?id=13AKG0P8A7V63g352EYdH5a5a9g82">https://drive.google.com/open?id=13AKG0P8A7V63g352EYdH5a5a9g82</a>

Figure 7. Google Sheets View of Incoming and outgoing mail

3.2.2. Google Sites.

Google situs will display a page containing the main dashboard, with various navigation menus such as a list of incoming mail, a lish of Outgoing mail, mail status, and monthly reports. There are also search and filter features to make it easier for users to find specific mail.



Figure 8. Google sites Usaga Appearance for mailing systems

4. CONCLUSION

The implementation of a Google-based correspondence administration system at the Communication and information Technology office ( Discominfo ) offers several manual system. This new system enables faster and more accurate data collection through google Forms, efficient data management and analysis using Google sheets, and easier and more transparent information dissemination throught google Sites.

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