

Mail Management System in the Digitalization of Village Administration: A Case Study of Batuyang Village Office, East Lombok

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ABSTRACT

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One issue with correspondence at the Batuyang Village Office is that letters still kept in the agenda book can lead to file loss if not properly filed. It takes a long time to make letter dispositions since they have to wait for the village chief. So that creating, searching for, and disposing of letters does not take too much time, a web-based program for managing correspondence can offer better and faster filing services. To address these issues, the village office implemented a web-based correspondence administration information system. The system provides officers with up-to-date data and information, facilitating the creation of both outbound and incoming letters. Admin, village head, incoming, outgoing, and letter disposition data are all part of this correspondence information system's data management capabilities. Moreover, it will be able to print disposition successor sheets, generate reports in the form of incoming and departing letters, and more based on the data. In addition, a blackbox testing scenario was used to test the system, and the results showed that all of the available menus functioned properly.

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1. Introduction

Batuyang Village Office is one of the government agencies engaged in community services and is an agency that collects population data. Population data collection in a village is important, for information needs, to find out the number of residents in a village, the number of men and women in a village, or residents born, data on residents who died, data on residents who came and data on residents who left the village. In addition to registering residents, the village office also serves in making letters that are needed by residents to complete administration to other higher agencies. These letters include, among others, a certificate of owning a business, a marriage certificate, an unmarried certificate, a domicile certificate, a police record certificate, a traveling certificate, a lost certificate and a death certificate.

Batuyang Village Office located at East Lombok Regency. Based on Law Number 22 of 1983 concerning Village Government in 2012, Batuyang Village carried out expansion so that Batuyang Village became 10 Kekadusan Areas and had a total population of 11,085 people, including 5,339 men and 5,746 women. The daily activities of the Batuyang Village Office are to serve various community needs. One that is often a community activity is in conducting correspondence activities, both incoming and outgoing letters.

Based on the results of the author's interview with one of the employees at the Batuyang Village Office, that in correspondence activities, the Batuyang Village Office still uses manuals, such as when there is an incoming letter, employees still use a book to record the origin of the letter, the date of the

letter, the letter number, the summary of the contents of the letter and the date of receipt of the letter while in the outgoing letter the community who will make a letter is required to bring requirements such as a Family Card which will be used by employees to be recorded in the agenda book for incoming letters and outgoing letters, then the letter is made using Microsoft word, then printed and recorded in the agenda book for incoming letters and outgoing letters after that the letter is given to the community who submitted the letter (PUTRA & GUNAWAN, 2021; Tutik & Rosadi, 2022). However, employees often forget to record it in the agenda book for incoming letters and outgoing letters. This causes the letter report to be incomplete, and if one day the village head asks for proof of the letter report, it cannot be accounted for because the notebook is not written and the letter has been lost (Bakri & Alfiah, 2024; Sumesta & Satyawati, 2024). Then if the village head is out of town, then there is an incoming letter with a very important status and must be replied to immediately, such as a certificate of loss, for example, if the community wants to make a certificate of loss to be taken to the police station as a sign that the resident is true that he has lost the item, then the letter must be replied to immediately by the village head so that as soon as possible the resident can immediately report to the police station, but it is difficult to do quickly if using a manual method (Indradewi & Wibawa, 2021; Riyanti et al., 2024; Wiratama et al., 2022), the possible problems that will occur are, the problem of letters not reaching their destination. And the problem of storing outgoing letters is not well organized. One type of letter is placed in the same document file, for example, a document file for a certificate of loss, so that letters will continue to accumulate in the same file.

The purpose of this research is to implement a correspondence administration information system at the Batu Village Office, specifically making certificates, namely certificates of having a business, marriage certificates, unmarried certificates, domicile certificates, police record certificates, traveling certificates, loss certificates and death certificates. so that it can help in managing incoming and outgoing mail data and the community in the process of managing correspondence.

2. Literature Review

In the digitalization of village administration, the implementation of a Mail Management System plays a crucial role in enhancing efficiency and effectiveness. Traditional methods of managing correspondence, such as manual data entry using Microsoft Word, have been found to be time-consuming and inefficient (Basuki et al., 2022; Suarnatha et al., 2023). To address this issue, leveraging technology like Microsoft Excel with macro command features and Visual Basic for Application (VBA) programming can significantly improve administrative services by streamlining processes and reducing processing times.

Moreover, the integration of Smart Information Systems for Village Administration, like the Village Administration Smart Information System (SICAD), can revolutionize service delivery to the community (Astuti, 2023). These systems enable residents to submit correspondence conveniently without the need to physically visit village offices, thereby enhancing accessibility and efficiency in service provision.

The adoption of Village Administrative Information Systems has been shown to enhance the management of letters by residents and improve overall village administration control by officials (Kusuma, 2023; I. M. Yudhiantara et al., 2019). By digitizing administrative processes, villages can achieve better governance, transparency, and community engagement, leading to more effective service delivery (I. Yudhiantara et al., 2019).

Furthermore, the development of Smart Villages, such as the Smart Village Ogan Ilir (SVOI), involves building digital networks that encompass various services like digital correspondence, marketplaces for local businesses, digital security systems, and integrated transportation platforms (Mayasari et al., 2023; Wahyudi et al., 2024). These initiatives aim to create synergy between Micro, Small, and Medium Enterprises (MSMEs) and village governments, fostering economic growth and development.

In conclusion, the digitalization of village administration through innovative Mail Management Systems and Smart Information Systems is essential for improving governance, service delivery, and

community engagement in villages. By embracing digital technologies and information systems, villages can enhance efficiency, transparency, and overall development, ultimately leading to more effective and responsive administration.

Letter Classification Based on Form and Nature

Letters can be classified based on their form and nature. Based on its form, there are several types of letters. First, a memo letter (memorandum) is a short written communication tool from superiors to subordinates or between officials at the same level. Memorandum are unofficial and usually contain requests, notifications, instructions, and the like. The parts of the memorandum include the head of the memorandum which consists of the name of the agency, memo instructions, number, date, memo subject, and memo purpose (Yunita et al., 2023). The content of the memorandum is usually short, no more than 10 lines, and is unofficial even though the content is official. The foot of the memorandum includes the memo giver's signature and surname. Second, a closed letter is a letter that uses a cover or envelope. Its functions include ensuring that the contents of the letter are not known by unauthorized people, usually a long letter, and for the sake of politeness and neatness. Third, an open letter is a letter that is general in nature and can be read by anyone, such as a reader's letter in a newspaper. A closed letter is a letter sent to a specific party and its contents should not be known by other unauthorized persons. Based on their nature, letters can be classified into several types. A personal letter is a letter that contains personal matters and is used for purposes between individuals. Although it is very personal, the writing must pay attention to good letter preparation techniques and the use of correct language to create a good impression on the recipient. The difference between personal letters and business letters lies in several aspects, such as personal letters do not have letterheads that include the name of the institution and address, while official letters usually include letterheads (Hendrawan & Maulana, 2022). Personal letters do not have letter numbers, while business letters do. There are no standardized writing requirements in personal letters, while there are specific requirements in official letters. In a personal letter, the first person pronoun used is "I" and is usually longer than a business letter. Social letters are letters made by organizations that are social in nature. These organizations usually do not aim for material gain. Commercial letters are letters that contain business-related or commercial matters, usually created by trading companies. Semi-official letters or personal business letters are letters that are semi-official in nature and are usually made by a person to be sent to certain agencies or companies, for example, job application letters and permission letters (Janureksa et al., 2022). Private official letters are official letters made by officials in private companies or institutions that contain official matters, usually for internal or inter-company or other institutions, for example, employment contract letters. Government official letters are official letters made by government officials whose contents are related to government administration, for example Ministerial and Governor Decrees.

3. Research Methods

Waterfall Model

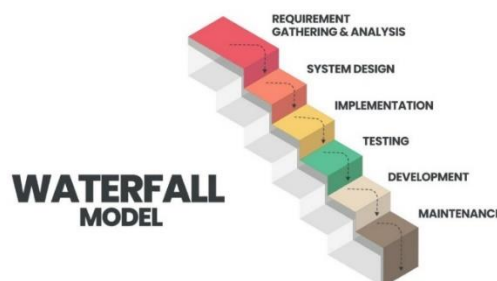


Fig.1 Waterfall Method

The waterfall model is a software design system that is used in sequence (Piantari et al., 2024; Widjaja et al., 2024). The advantage of using the waterfall method is that this method allows for departmentalization and control of the phase model development process one by one, thereby minimizing errors that might occur (Fanani et al., 2024; Kraugusteeliana & Violin, 2024). Development from concept, namely through design, implementation, and ends in operation and maintenance. The disadvantage of using the waterfall method is that it does not allow for many revisions if something goes wrong in the process. Because once the application is in the testing stage, it is difficult to go back and change something that was not well documented in the previous concept stage.

Design of Context Diagram

Context diagram that describes the flow of the Correspondence Information System at the Batuyang Village Office, so that it can make it easier to know the system user entities, data flow and processes from users to the system.

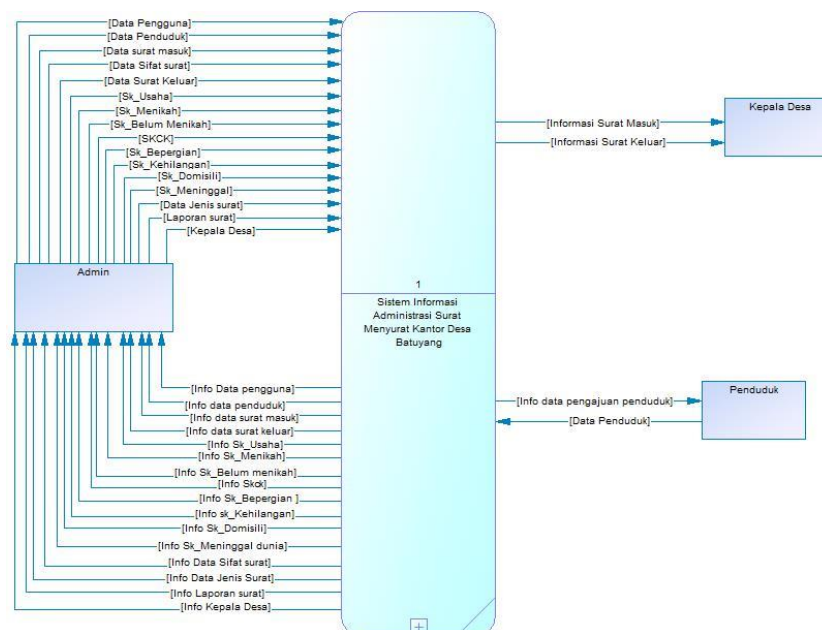


Fig.2 Design of Context Diagram

Based on the design above, it can be explained that there are 2 system user entities, namely the Village Head, System Administrator and residents. Each entity can perform data flow and process to the system, such as residents can view resident data info, as well as the village head checking information and downloading reports. For administrator access rights can perform data management processes related to correspondence administration.

4. Results and Discussions

Interface Implementation

Interface implementation is a stage that is carried out to implement the results of the interface design into the system that is built using the software and hardware that has been described previously.

Interface implementation describes the components of the interface as well as the processes and functions that exist. The following are some of the processes in the implementation of the correspondence administration information system interface at the Batuyang village office.

Login Page Interface

The picture below is the login page for the correspondence information system at the Batuyang village office.

Fig.3 Login

Village Head Main Interface Page

The following image is the main page of the village head.



Fig.4 Village Head Home Page

Village Head Incoming Letter Interface Page

The following image is the village head's incoming letter page.

No	No Surat	Tgl. Surat	Tgl. Terima	Asal	Status Disposisi
1	Surat 01	16-10-2019	16-10-2019	Kantor Camat Pringabaya	Penting
2	02	17-10-2019	17-10-2019	Dinas Caga	Dinas

Fig.5 Village Head Incoming Letter Page.

Incoming Letter Disposition Detail Page

The following image is the letter disposition details page.

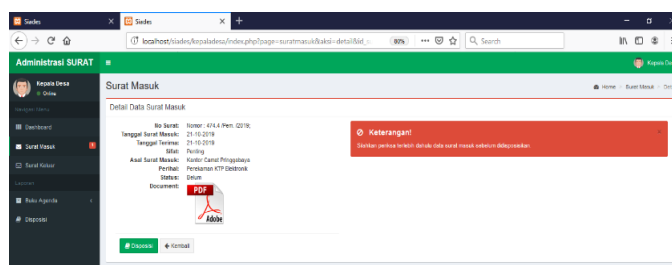


Fig.6 Detail page of incoming letter disposition.

Incoming Mail Disposition Page

The following image is the incoming letter disposition page.

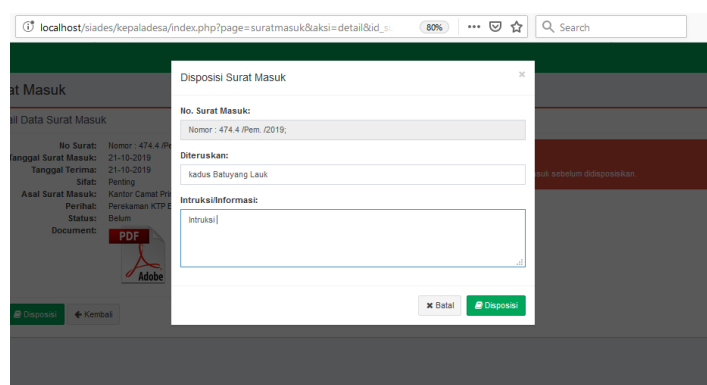


Fig.7 Incoming Letter Disposition Page

Incoming Letter Disposition Detail Page

The following image is the letter disposition details page.

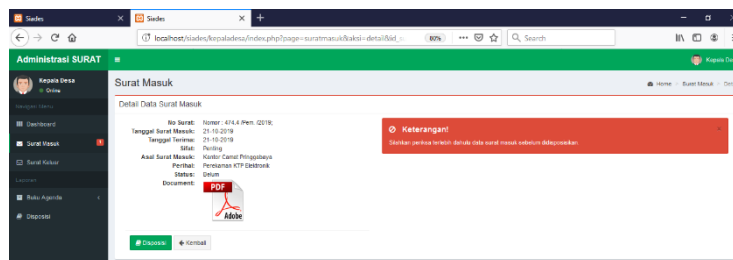


Fig.8 Incoming Letter Disposition Detail Page

Letter Disposition Forwarding Sheet

The following image is the letter disposition successor sheet.

LEMBAR PENERUS DISPOSISI

Index / Kode :	Tanggal Penyelesaian
Perihal :	Perekaman KTP elektronik
Tanggal / No :	Nomor : 474.4 /Pem. /2019;
ASAL :	Kantor Camat Pringgabaya
Tgl. Penerimaan :	2019-10-21
Intruksi / Informasi :	Diteruskan kepada :
intruksi	kadus Batuyang Lauk

1. Kepada bawahan "intruksi" dan atau "informasi"
2. Kepada atasan "informasi" dan atau "intruksi"


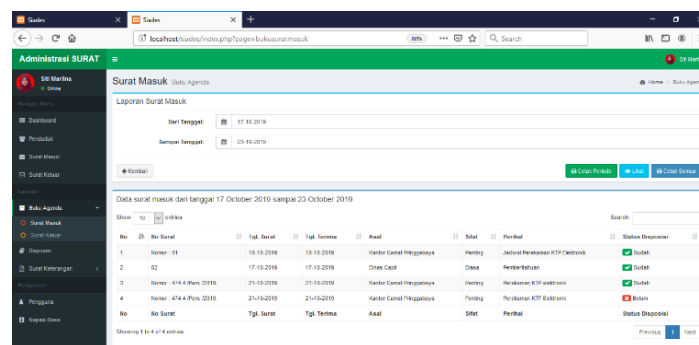
Batuyang, 23 October 2019

Drs. SYARAFUDDIN

Fig. 9 Letter Disposition Forwarding Sheet

Incoming Mail Report Page

The following image is the incoming mail report page.



No	No Surat	Tgl. Surat	Tgl. Terima	Asal	Salat	Perihal	Status Disposisi
1	Nomor : 81	16-10-2019	16-10-2019	Kantor Camat Pringgabaya	Pending	Jadwalkan Perekaman KTP Elektronik	Selesai
2	82	17-10-2019	17-10-2019	Ormas Capi	Data	Pembayaran	Selesai
3	Nomor : 474.4 /Pem. /2019	21-10-2019	21-10-2019	Kantor Camat Pringgabaya	Pending	Perekaman KTP Elektronik	Selesai
4	Nomor : 474.4 /Pem. /2019	21-10-2019	21-10-2019	Kantor Camat Pringgabaya	Pending	Perekaman KTP Elektronik	Belum

Fig. 10 Incoming Mail Report Page.

Outgoing Letter Report Page

The following image is the Outgoing Letter report page.

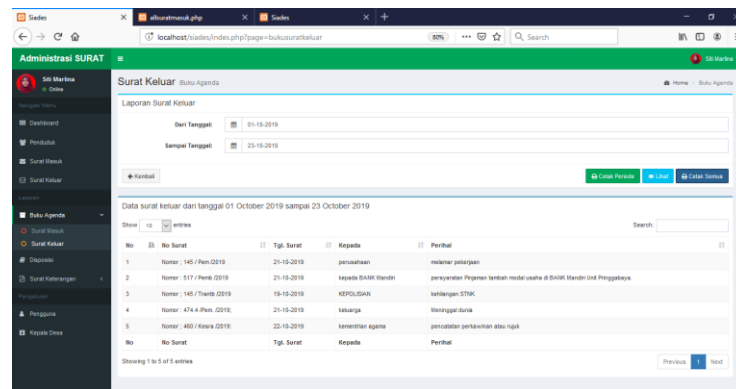


Fig. 11 Outgoing Letter Report Page

5. Conclusion

The conclusion of the research in the correspondence administration system at the Batuyang village office is that this Information System begins by collecting data obtained from the village office, these data will be used as a reference in designing, event list, context diagram, data flow diagram, conceptual data model, physical data model and interface design. In this correspondence information system, the system is able to process letter data, such as managing incoming letter data, managing outgoing letter data, printing incoming letter reports and being able to disposition letters. The reports generated from this information system are in the form of the number of incoming letters, the number of outgoing letters, the number of dispositions and the number of users. The results of testing this information system using the blackbox testing method as a whole can run in accordance with the design.

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