

## DEVELOPING INFORMATION SYSTEM OF MANAGEMENT ARCHIEVING CORRESPONDING MAIL BASED ON WEBSITE

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### ABSTRACT:

*Administration is part of the institution authorized to handle documents and archiving. The archiving mail is required for management mail data. The problem is the mail archiving still using hardfile like the result of print out from Office Application such as Microsoft Word. The archiving mail is like writing the data on incoming and outgoing mail in the report's book. Because of that, The management of letters using the print out is oftentimes errors in storing mail data. Applications corresponding aims to change the way storage is hardfile letter into tangible softfile mail archives, making it easier to perform archiving these letters as a database. This application is built using waterfall method which the plot carried out gradually. The result of this application is the officer used this application more helpful for correspondences and improve the satisfaction level of its work is increasing by 12.19 % from 83.13% for manually to the digitally at 83.13%*

**Keywords :** *Mail Archiving, Management Corresponding, Information System*

### I. Introduction

A Ninstance must have important documents such as incoming mail and outgoing mail. Correspondence activities must get serious attention. Because the contents of the letter, for instance, become a means of achieving the objectives of the instance concerned. Therefore, letter management is needed [1]. The results from printed letters still use files manually in the form of a report book. However, the archiving that mails are still manual. File archiving by manual shows weaknesses. Because of that, we need a better file archiving by developing an information system based on a computer.

Information system based on the computer is needed in every organization. The information system, in this case, aims to facilitate the archiving of correspondences. This information system is minimizing human error that occurs in registration and archiving correspondence and facilitates reporting and accountability for those in need [2] [3].

### II. Study Literature

Letters are defined as one of the written communication media to convey information [2]. Based on its contents, the letter is a type of essay, because the sender of the letter expresses the intent and purpose, explains what he thinks and feels through the letter.

Based on the form of losses, a letter is written a conversation, from a person to person, from one person to the institution, from the institution to a person, or of the institution to[4]. Archiving mail storing of various documents from any instance activity [1]. Archiving system is a record of recording activities or sources of information with various forms made by institutions, organizations, and individuals in the context of carrying out activities[5].

Digital archiving is storing document into the computer. This is going to paperless. Archiving document in the computer is useful for finding the old document. This is easier than it must be looking for where is it that document. Also, paperless can save space work[6]. In the future, document archiving will continue to increase in every instance. Therefore, archiving is needed to be an organized document for increasing the productivity of the instances[7].

Research Method

This research is descriptive research that explains the process of developing Information System archiving including the development of applications for this system. The purpose of the descriptive method means to describe the conditions that occur in the present or ongoing[8].

### **III. Problem analyzing**

In this part, we are analyzing the requirement system is needed. This problem is how to archiving incoming and outgoing letter for an instance.

#### **Collecting data**

Data was collected is used in this research. This data is including explained how to process corresponding incoming and outgoing letters.

#### **System development**

This part is designing a system in the form of database design that is used in the form of tables, design system behavior, system activities and design class requirements of the system. Design of user interface and process.

## Evaluation

Evaluation is important in this part. Evaluations are conducted on the prototype that has been developed if it is needed to be changed and fixed according to requirement.

## Result

In this part is the final goal of this research which is this application can be implemented in the instance.

## System Development

### Flowchart system

A flowchart is a graphical image that shows the flow of data from the source in the object then passes through a process that transforms the other destination, which is in another object

### Flowchart user login

This flowchart is describing how to process user login. This flowchart can be shown in fig 1.

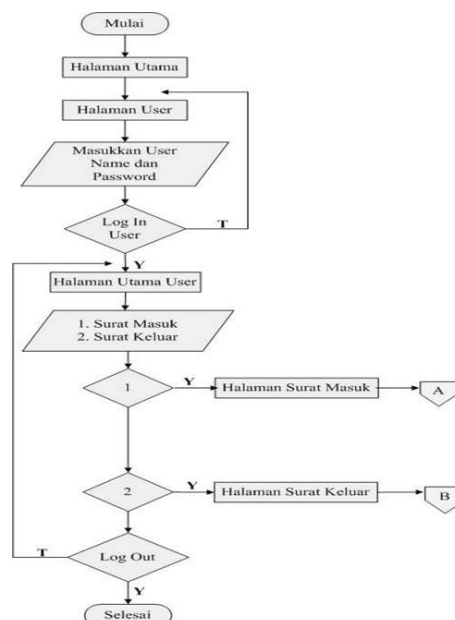


Figure. 1. Flowchart user login

### Flowchart admin login

This flowchart is describing how to process user login. This flowchart can be shown in fig 2.

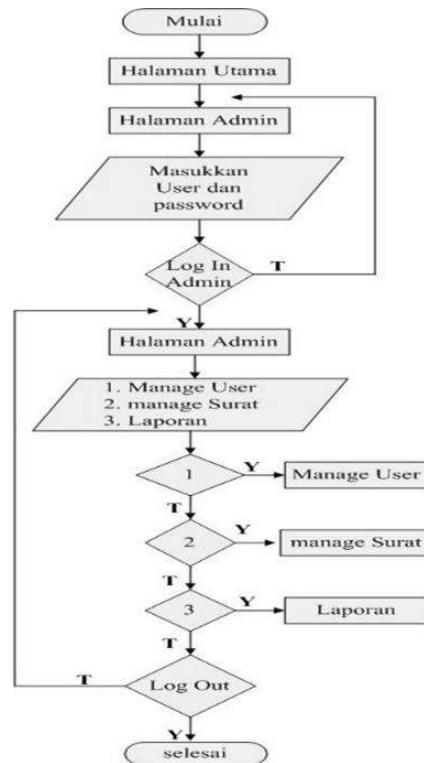


Figure. 2. Flowchart admin login

### Flowchart incoming mail

This flowchart is describing how to process incoming mail. This flowchart can be shown in fig 3.

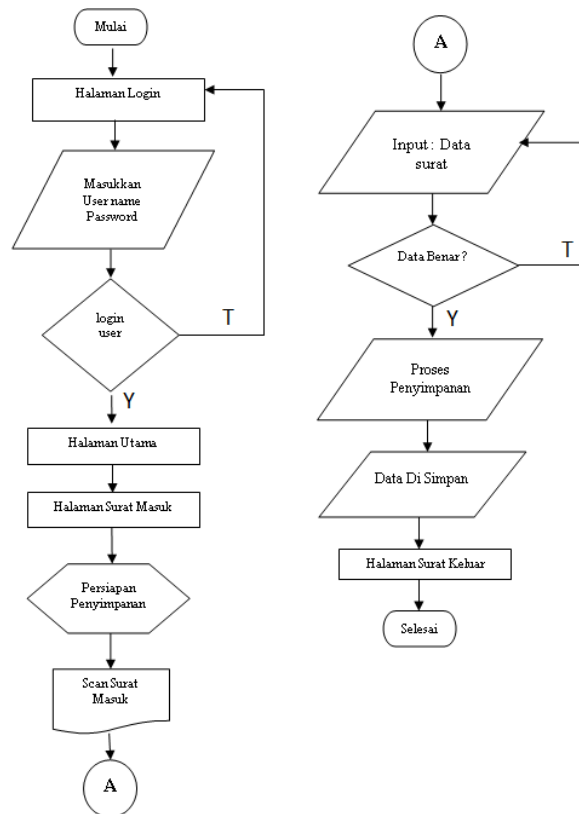


Figure. 3. Flowchart incoming mail

### Flowchart outgoing mail

This flowchart is describing how to process outgoing mail. This flowchart can be shown in fig 4.

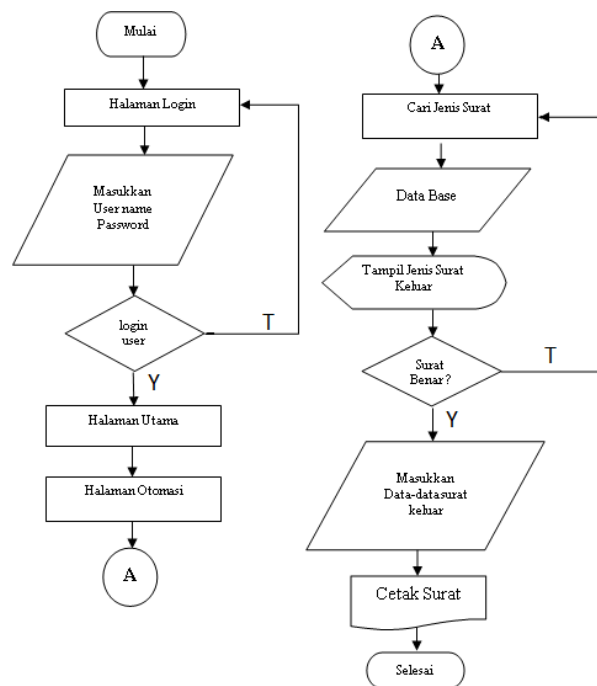


Figure. 4. Flowchart outgoing mail

### Entity Relationship Diagram (ERD)

ERD is a picture or diagram showing the information created, stored, and used in the system. This information system ERD can be shown in Fig 5

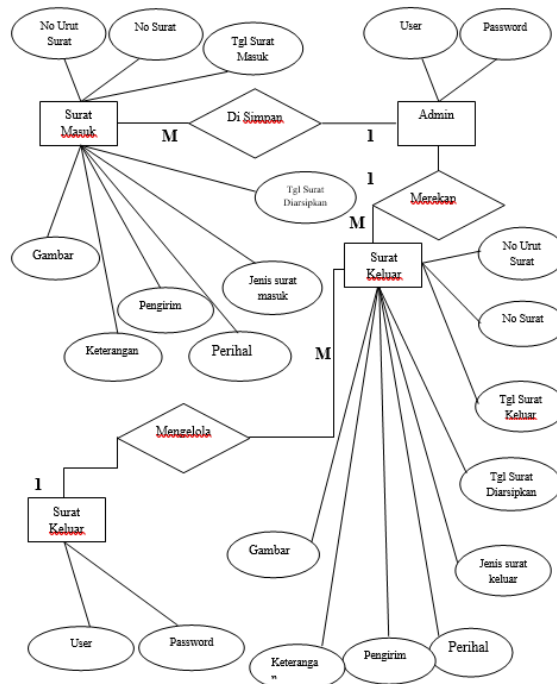


Figure. 5. ERD Archiving mail Information System

### Data Flow Diagram (DFD)

This DFD image starts from the user receiving or making an outgoing letter and the letter will be processed by a system that will be used by the admin. Admin can edit or update, delete, and select, after that the user will get the report letter. This DFD can be shown in fig 6.

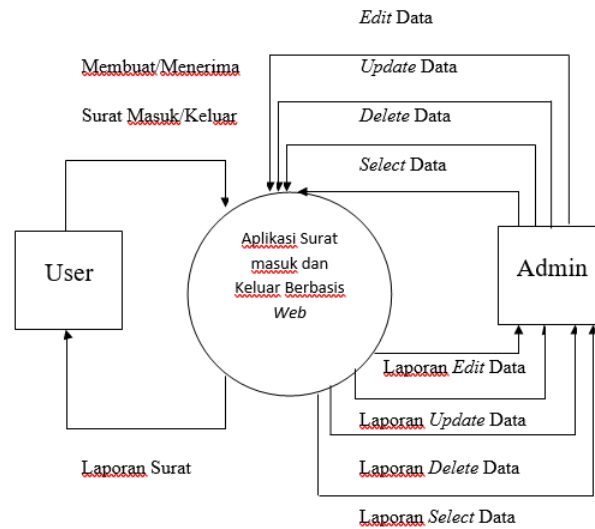


Figure. 6. DFD level 0 Archiving mail Information System

#### IV. Results and Discussions

##### Results

The correspondence management system includes the ability to access filing, archiving, reporting, and tracking incoming and outgoing mail more effectively. Including in terms of time management, security, and structured and facilitate the administration of correspondence at the Education Office of the City of Blitar.

##### Menu structure

The structure menu system in fig. 8 is divided by user login as user and admin. The user only manages to archive mail, editing incoming mail. Such as where is the incoming mail come from and who sent incoming mail. The user also can create or list outgoing mail. Admin can manage user, such as add, delete, or edit user data. Admin also can manage incoming and outgoing mail from the user. Admin can create report book from the user. Report book can be published every month or year.

##### User Login page

The login page can be shown in fig 7. This page contains a username and password for the user.



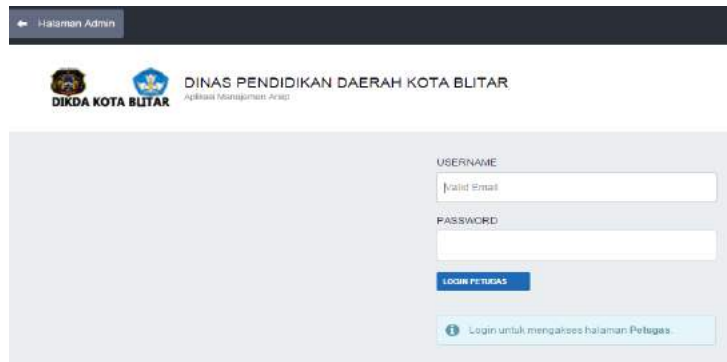


Figure. 7. User Login Page

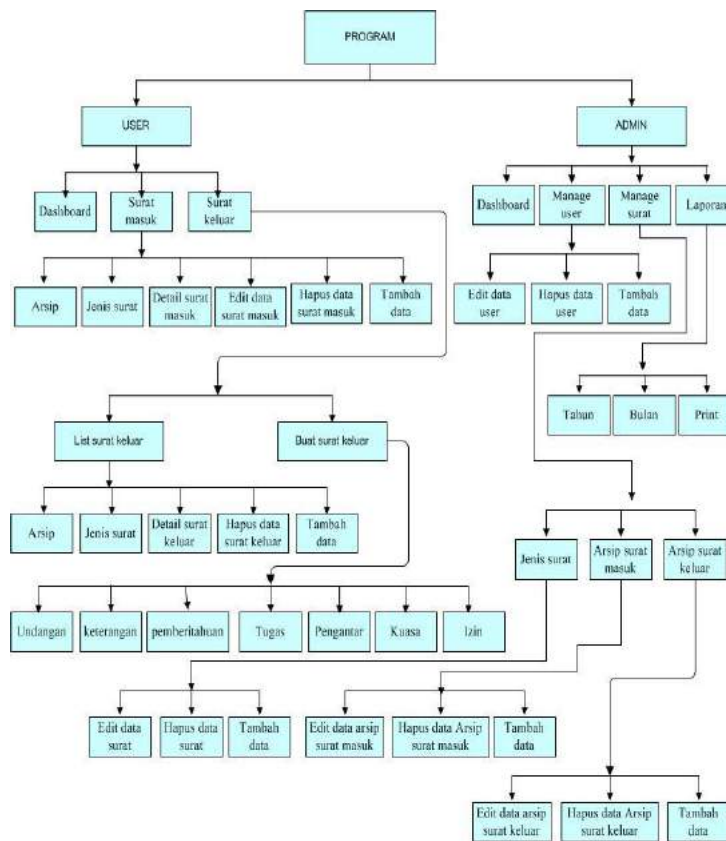


Figure. 8. Menu structure archiving mail Information System

### Incoming mail dashboard for user

This page in fig. 9 contains a detail of the incoming mail is containing a number of letters, subject, reserved, and date.

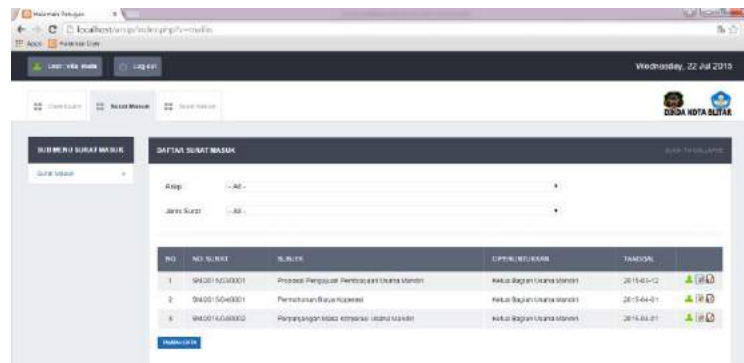


Figure. 9. Incoming mail dashboard for user

### Detail incoming mail page

Fig 10 explain about detail kind of incoming mail. This is containing incoming mail date, archiving mail date, type of letters such as invitation or meeting letter, number of letters, destination letter, sender, and subject.



Figure. 10. Detail Incoming mail

### Add archiving incoming mail

Fig 11 explain that contains archive date, destination letter, sender, subject, and note

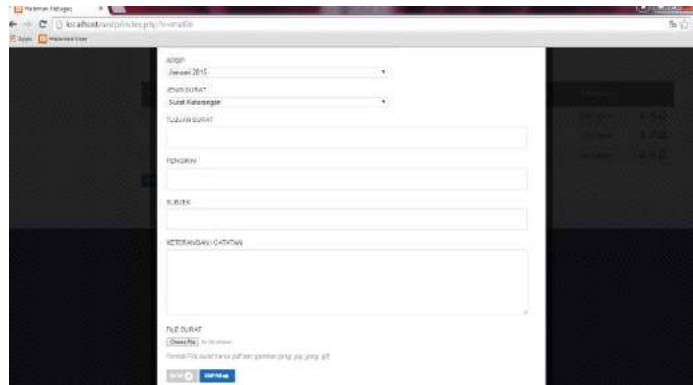


Figure. 11. Archiving Incoming mail

### List Outgoing mail dashboard for user

Fig 12 explain that contains a list of all outgoing mail

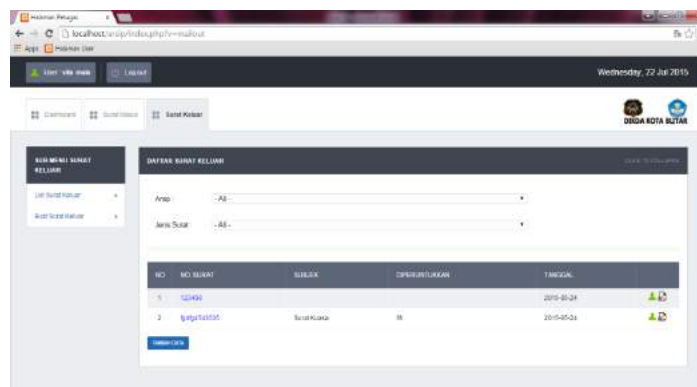


Figure. 12. List outgoing mail

### List Creating outgoing mail

Fig 13 explain that kind of outgoing mail. This page contains invitation mail, testimonial mail, notification mail, cover mail, procurement mail, and permission mail

[Type text]

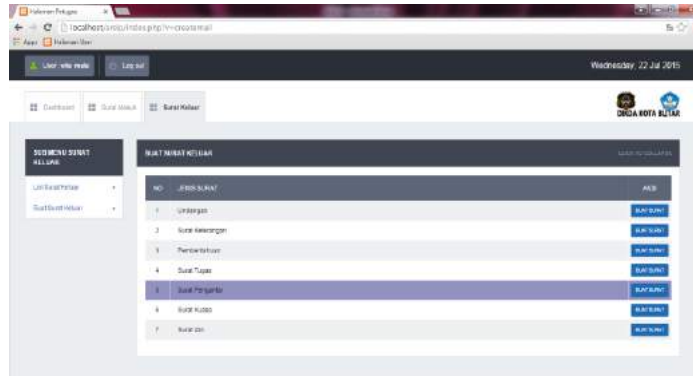


Figure. 13. List creating outgoing mail

### Creating outgoing mail

Fig 14 explains that after choose kind of outgoing mail. For example is invitation mail, that contains archive date, mail number, mail date, trait mail, attachment, subject matter, to the honorable, content of the mail.

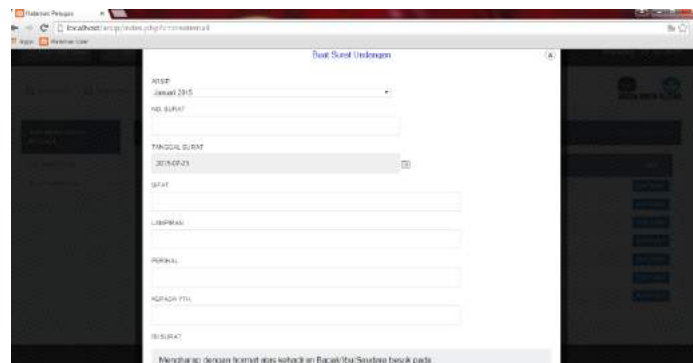


Figure. 14. Detail of invitation mail

### Managing incoming mail for admin

This page admin can manage incoming mail such as delete, edit or add mail. It is can be shown in fig 15

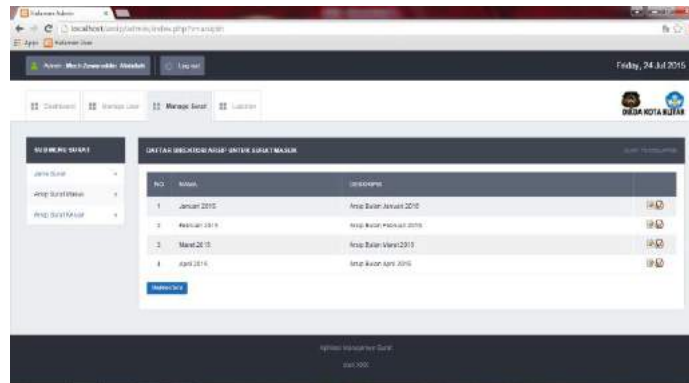


Figure. 15. List of incoming mail for Admin

### Managing outgoing mail for admin

This page admin can manage outgoing mail such as delete, edit or add mail. It is can be shown in fig 16

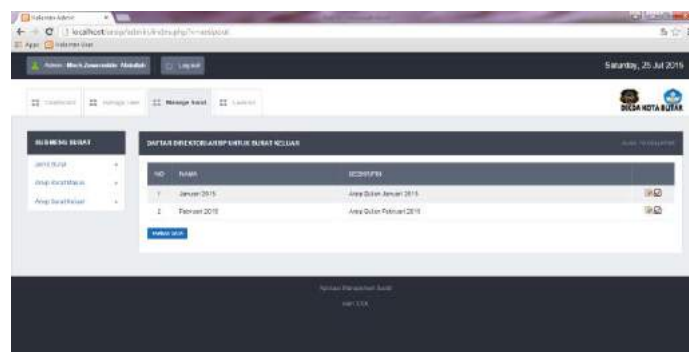


Figure. 16. List of outgoing mail for Admin

## V. Discussion

This research was tested by users who worked at those places by 8 peoples. The age of users between 25-45 years old. The data tested is how the differences in satisfaction level between document archiving in a manual and digital system. Category of tested is archiving mail, creating mail, searching mail, and reporting mail. For the testing of the category is using by the questionnaires how many percentages for every respondent between manual and digital system. The result data can be shown in Table 1 as manual archiving mail and Table 2 as digital archiving mail.

TABLE I. SATISFACTION PERCENTAGE OF MANUAL ARCHIVING MAIL

RESPONDENT	ARCHIVING MAIL (%)	CREATING MAIL (%)	SEARCHING MAIL (%)	REPORTING MAIL (%)	AVERAGES (%)
1	70	75	70	75	72.50
2	75	70	70	70	71.25
3	70	65	70	70	68.75
4	65	70	70	75	70
5	60	60	70	70	65
6	80	70	70	75	73.75
7	75	75	75	75	75
8	70	75	70	70	71.25
AVERAGE	70.63	70	70.63	72.50	70.94

TABLE II. SATISFACTION PERCENTAGE OF DIGITAL ARCHIVING MAIL

RESPONDENT	ARCHIVING MAIL (%)	CREATING MAIL (%)	SEARCHING MAIL (%)	REPORTING MAIL (%)	AVERAGES (%)
1	80	80	80	80	80
2	85	80	90	80	83.75
3	70	85	70	80	76.25
4	85	95	85	85	87.50
5	80	90	90	85	86.25
6	80	85	85	80	82.50
7	85	95	80	90	87.50
8	80	85	80	80	81.25

RESPONDENT	ARCHIVING MAIL (%)	CREATING MAIL (%)	SEARCHING MAIL (%)	REPORTING MAIL (%)	AVERAGES (%)
AVERAGE	80.63	86.88	82.50	82.50	83.13

TABLE III. AVERAGES SATISFACTION PERCENTAGE OF ARCHIVING MAIL

	Manual System (%)	Digital System (%)	Differences (%)
Archiving mail	70.63	80.63	10
Creating mail	70	86.88	16.88
Searching mail	70.63	82.50	11.87
Reporting mail	72.50	82.50	10
Average	70.94	83.13	12.19

Based on table 3 can be concluded that the averages of satisfaction level every user is increasing about 12.19% from the manual system are 70.94% to a digital system is 83.13%. Archiving mail is increasing by about 10%, creating mail is 16.88%, searching mail is 11.87%, and reporting mail is 10%.

## VI. Conclusion

The conclusions of this research are the satisfaction level of the digitalizing system from manual system about Archiving mail is increasing by about 12.19%. Of course, the increasing satisfaction level from user it can increase productivity for documenting and archiving data. Also, it can save many spaces in the working space.

### Suggestion

Although the satisfaction level is increasing, this research still has a weakness. This weakness can be mentioned that there is still a lack of data security, a search feature that is easier for example by providing input

a keyword to display letters that have been selected based on keywords, adding a document print feature automatically.

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