

Design of incoming and outgoing letter applications based on microsoft access at pt pos indonesia (persero)

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ABSTRAK

Pos Indonesia merupakan Badan Usaha Milik Negara (BUMN) yang berkiprah di bidang jasa kurir, logistik, dan keuangan yang menjadikan PT Pos Indonesia (Persero). Output dari aplikasi digital Nota Dinas Elektronik (NDE) yang digunakan saat ini belum memenuhi kebutuhan pelaporan mingguan dan bulanan, aplikasi digital yang digunakan belum dikelompokkan berdasarkan kebutuhan laporan mingguan dan bulanan pada PT Pos Indonesia (Persero). Masih terdapat kerancuan nama pengirim dan penerima surat karena akun jabatan lama dan akun jabatan baru tidak langsung dikelompokkan sesuai dengan jabatannya tetapi masih menggunakan nama pemilik akun lama dan baru karena adanya perpindahan pemilik akun ke jabatan baru. Hal ini menjadikan proyek ini sebagai aplikasi lanjutan dari output tersebut untuk mengelola Laporan. Perancangan dan pembuatan sistem informasi berbasis Microsoft Access ini dimaksudkan untuk membantu Bagian Tata Usaha dalam mengelola Laporan Surat Masuk Surat Keluar. Hasil dari proyek ini adalah terciptanya sebuah tools database surat masuk dan keluar yang lebih efektif dan efisien dalam pembuatan pelaporan mingguan atau bulanan yang telah diujicobakan kepada pengguna. Dari hasil uji coba menunjukkan bahwa tool ini dinilai sangat baik dan sesuai kebutuhan dalam pembuatan pelaporan mingguan atau bulanan karena cukup dengan mengimport data surat yang ada di NDE tanpa perlu mengklasifikasikan surat satu persatu karena tool ini membuat database yang tugasnya mengklasifikasikan surat secara otomatis dan penggunaan query surat masuk dan surat keluar, query Union, dan query crosstab yang tugasnya untuk membuat laporan mingguan atau bulanan. Hasil uji coba juga menunjukkan bahwa tidak ada kendala dalam penggunaan tools tersebut.

Kata kunci: Microsoft Access, Database, NDE, Laporan Mingguan dan Bulanan

ABSTRACT

Pos Indonesia is a State-Owned Enterprise (BUMN) that takes part in courier services, logistics, and financial transactions that make PT Pos Indonesia (Persero). The output of the Electronic Service Note (NDE) digital application used today has not met the needs of weekly and monthly reporting, the digital application used has not been grouped based on the needs of weekly and monthly reports at PT Pos Indonesia (Persero). There are still ambiguous names of senders and recipients of letters because the old position account and the new position account are not directly grouped according to the position but still use the name of the old and new account owner due to the transfer of the account owner to the new position. This makes this project a follow-up application of that output to manage Reports. The design and creation of this Microsoft Access-based information system is intended to assist the Administrative Governance Section in managing Incoming Outgoing mail Reports. The result of this project is the creation of an incoming and outgoing mail database tool that is more effective and efficient in making weekly or monthly reporting that has been tested to users. From the results of the trial, it shows that this tool is considered very good and as needed in making weekly or monthly reporting because it is enough to import existing mail data in the NDE without the need to classify letters one by one because this tool created a database whose job is to classify letters automatically and the use of incoming and outgoing mail queries, Union queries, and crosstab queries whose job is to generate weekly or monthly reports. The results of the trial also showed that there were no obstacles in using these tools.

Keywords: Microsoft Access, Database, NDE, Weekly and Monthly Reporting

1. INTRODUCTION

Rusdiana, (2019) states that a letter is a tool for conveying written messages or speech. The contents of the letter can be news, announcements, statements, questions, requests, reports, agreements, decisions and others. Meanwhile, according to (Gie, 2019) a letter is a written communication addressed to one party and to another Pos Indonesia is a State-Owned Enterprise that takes part in the field of courier services, logistics, and financial transactions that make PT Pos Indonesia (Persero) well known to the public. Pos Indonesia first had the status of Jawatan since 1945 and then changed to PT Pos Indonesia (Persero) since 1995.

The Administrative Governance Section is located in the Secretarial Division under the Corporate Secretary. The section is responsible for administrative management related to the documentation of company rules, such as Decisions of the Board of Directors (BD), Circular Letters (CL), Service Regulations (SR), Cooperation Agreements (CA), Memorandum of Understanding (MoU), Minutes of Meetings of Commissioners and Directors, and also Board of Directors Outgoing and Incoming letter. In the Administrative Governance section also manages and maintains historical collections about Pos which are displayed in the Pos Indonesia Museum.

In this section, digitization has also been carried out for some incoming and outgoing letters through the NDE application. The daily activities of the Administrative Governance Section are to document incoming and outgoing letters with an amount of approximately 40,000/month in addition to the museum. The Administrative Governance Section is led by a Manager and four staff, each of whom has duties in accordance with their assigned responsibilities.

So far, the Administrative Governance Division has used the NDE digital application as material for making weekly or monthly reports. However, the digital applications used today have not been grouped based on the needs of weekly and monthly reports at PT Pos Indonesia (Persero). There are still ambiguous names of senders and recipients of letters because old position accounts and new position accounts are not directly grouped according to position but still use the names of old and new account owners due to the transfer of account owners to new positions. This is considered less effective because after the Administrative Governance staff gets a report from NDE they have to reclassify the report according to company needs, while letters that can enter PT Pos Indonesia (Persero) can reach tens of

thousands. With so many letters, it certainly takes a long time to classify them.

In accordance with these problems, the Administrative Governance Section requires an advanced archive management system to facilitate making weekly and monthly reports more effective and practical, namely using an application that will be built based on Microsoft Access which allows storing large amounts of archives and is easy to use because it is general software.

2. LITERATURE REVIEW

A. Definition of Electronic Records

Putra et al. (2019) said that electronic archives are a procedure or a data collection system in the form of documents that are scanned or stored electronically as electronic documents, so that these documents can be found and reused if needed.

Electronic Archives are archives on electronic storage media, which are created, sent, stored, and / or accessed using electronic devices is another opinion regarding the definition of electronic archives according to Rustam, (2014).

Based on the understanding that has been described above, the author concludes that electronic archives are collections of information in the form of documents and then archived into several digital media, so that they can be found and reused without requiring a long time.

There are also differences between the components of electronic archiving and conventional archiving, namely:

Table 2.1 Differences between Electronic Archives and Conventional Archives

Component	Archives Electronics	Archives Conventional
Map	In the form of a virtual folder or folder for storing document files	In the form of physical folders to store archives
Archive	Letter sheets that have been transferred into file text/images	Hard-copy letter sheets
Cabinet	Virtual cabinet created with the database	In the form of cabinets or archive shelves that created physically

Source: Latif and Pratama, 2015

B. Creating an Electronic Archive

According to Sugiarto et al. (2014) electronic archives can be created using various methods:

- 1) Moving files (Scanning) is the activity of moving the contents of document letters that were previously in the form of paper media and then transferred into electronic form. Scanning tools are often called scanners.
- 2) Microsoft Access application is one of the software used to create electronic archives consisting of managing letters, images, numbers, and so on, which will produce output in digital form.
- 3) The archiving of archive types from various sources that are then managed in the archive system is the import of data. It is necessary to consider security, which indicates that the file is difficult to manipulate.

C. Definition of Letter

A letter is a means of communication to be able to convey written information by one party to another. A letter is a means of written communication to be able to convey information from one party (person, agency, or organization) to another party (person, agency, or organization). According to Dictionary of Indonesian Language (KBBI), letter means a piece of paper with writing on it or also a piece of paper as a sign or information, something that is written. So, the letter is one of the written communication tools delivered from one party to another, either on behalf of a person or on behalf of an organization or company. A letter is made and sent with the aim that the recipient of the letter understands the intention of the letter maker is the definition of a letter according to Yose Riza, (2003).

Another opinion according to Hidayat & Jumiati (2016) states that a letter is a piece of paper or more which used to hold communication in writing. Letters are still used today because letters still have advantages compared to other means of communication. The function of letters, apart from being a means of communication, also functions as black on white evidence which has power hokum, reminders, and data sources.

Based on the opinions of the experts above, it can be concluded that a letter is written information that can be used as a means of communication made under certain conditions specifically applicable to correspondence. Conveyance of intent through letters from one

party to another can be on behalf of individuals (personal) and can also be on behalf of positions or organizations.

D. Definition of Incoming Letter

After discussing the meaning of letters, letter management is inseparable from incoming letters and outgoing letters. The following is the definition of letters according to Hendriyani et al (2020), which are letters received from other agencies / companies or individuals.

Letters are documents or letters received from outside the organization Rahmah (2014). Based on the definition of incoming letters according to the experts above, it can be concluded that incoming letter is letters that comes or is received by the company from outside the company or agency.

E. Definition of Outgoing Letter

Letters sent to individuals or other company agencies are the definition of outgoing letters according to (Hendriyani et al., 2020). An outgoing letter is an official letter made by an organization or company that is sent or addressed to other parties outside the organization or company is the definition of an outgoing letter according to (Rahmah, 2014). Based on the definition of outgoing letter above, the author can conclude that outgoing letter is letter sent from the company to other parties outside the company.

F. Function of Letter

Hendriyani et al (2020) state that letters have several functions that must be attached. The letter functions are as follows:

- 1) Reminder Tool
Letters can be used as a reminder of the past and written documentation.
- 2) Work Implementation Guidelines
Letters can be used as a reminder of the past and written documentation.
- 3) Historical Evidence
Letters can be used as a reminder of the past and written documentation.
- 4) Documentation Tools
Letters can be used as a reminder of the past and written documentation.
- 5) Writer Ambassador
Letters can be used as a reminder of the past and written documentation.

Based on the description above, the author can conclude that the function of a letter is as a written communication tool that can be done long distance or close distance.

G. Nature of Letter

The role of letters is so important in an organization, so we need to know the nature of letters so that we can have skills in managing letters. Nuraida (2013) states that there are 4 types of letter properties and their reasons, namely:

- 1) Personal or Family Letter
A letter used for family purposes. They are generally informal, both in language and structure. However, some are formal, such as job application letters, letters of introduction, and invitation letters.
- 2) Commercial Letter
Letters made in the world of business or industrial commerce.
- 3) Service Letter
Namely a letter organized by the ministry / agency, which contains the implementation of the task with all its formalities. This letter is official and uses standard Indonesian.
- 4) Letter containing Social Issues
This letter is for social issues, such as donations for underprivileged areas or for natural disasters.

H. Letter Distribution

After knowing the knowledge about the various properties of letters, we also need to know about the distribution of letters so that when we will manage letters it can be done easily.

Rahmah (2014) states that based on the urgency of completion, letters can be divided into:

- 1) Important Letter
A letter whose content is binding and requires follow-up.
- 2) Regular Letter
A letter whose content is non-binding and requires no follow-up.
- 3) Confidential Letter
A letter that by its content or nature requires protection due to its confidentiality.

I. Electronic Incoming Letter Procedure

Hendriyani et al (2020) stated that electronic incoming letter documents occur through several stages as follows:

- 1) Creation and Receipt stage
The start of the document lifecycle begins with the creation or receipt of a document.
- 2) Distribution Stage
After completing the creation and storage stages so that the information is directed to the intended target/person/parties, it is necessary to disseminate or distribute information.

3) Use Stage

After the document is received by interested parties, it is then used for certain purposes in accordance with the purpose of its creator.

4) Maintenance Stage

At this stage the documents are filed according to a predetermined order or arrangement. File documents, especially incoming letters, are stored according to the date of entry or according to their order.

J. Electronic Outgoing Letter Procedure

Rahmah (2014) states the electronic outgoing letter procedure as follows:

1. Typing
A letter will be able to be read properly by the recipient of the letter, if the letter has been arranged in a good typed form.
2. Letter Signing
Draft letters that have been filed and approved, signed by the leader.
3. Replicate
Activities to reproduce or produce a manuscript

K. Data Flow Diagram (DFD)

Pramadia et al (2022) mention the data flow diagram (DFD) or in Indonesian is the Data Alir Diagram (DAD) is a graphical representation that describes the flow of information and information transformation applied as data flowing from inputs and outputs.

L. Entity Relationship Diagram (ERD)

According to Puspitasari (2015), Entity Relationship Diagram (ERD) is a technique used to model the data needs of an organization, usually by system analysis in the requirements analysis stage of a system development project. While ostensibly diagramming techniques or props provide the basis for the design of a relational database underlying the information system being developed. The ERD together with supporting details constitutes a data model which in turn is used as a specification for the database.

Another opinion according to Puspitasari (2015) ERD is a conceptual model that describes the relationship between storage in the DFD. ERD is used to model data structures and relationships between data. With ERD the model can be tested by ignoring the process that must be done. In addition, with ERD we will be able to answer questions about what data we need and how one data relates to other data. The author can

conclude that ERD is a diagram used in a business field that describes its ongoing activities.

M. Definition of Database

Karimah (2022) database is a collection of information that forms files that are connected in a certain way to form new information or information called a database. The role of this database is very important to use because it is the basis for providing information to its users. Information systems are the application of databases.

N. Definition of Microsoft Access

Microsoft Access is a widely used database management program. Because its facilities are able to process various type of data and display the final result in the form of an interesting report Madcoms, (2016).

Meanwhile, according to Latif et al. (2015) revealed that Microsoft Access is a relatively popular database processor because it can process various types of data and display the final results in the form of attractive reports.

From the above understanding, the author can conclude that Microsoft Access is a database processing tool that is widely used because it provides an attractive appearance due to its ability to manage various data such as graphics.

Here are the features in Microsoft Access that can make it easier for workers, among others:

- 1) Form
It means a database object whose main function is to add data to a database.
- 2) Query
It is a tool for searching, replacing, analyzing data and displaying data.
- 3) Report
A report is an object used to print data for a specific type of disk layout.
- 4) Table
Is an object used to print data for a specific table layout and display type.
- 5) Macros
It is a set of commands that can be saved and executed automatically, such as printing reports and opening forms.

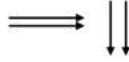
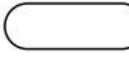
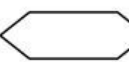
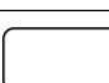
O. Design Tools

The main purpose of using flowcharts is to describe the process of solving a problem in a simple, concise, decentralized and clear manner using simple symbols. There are two examples of flowchart writing, namely system flowchart and program flowchart. A system flowchart is a flowchart that describes the computer sensor

system used in data processing, while the program flow chart is a water diagram that describes the logic derived from the problem solving procedure. The following is a flowchart description according to Marselina, (2019).

Symbols in flowcharts have different functions. The following are the functions and descriptions of the icons used to create a Microsoft Access-based electronic filing system, namely:

Table 2.2 Flowchart Symbol Description

NO	SIMBOL	KETERANGAN
1.		Simbol arus/flow, berfungsi untuk menyatakan jalannya arus suatu proses
2.		Simbol connector, berfungsi untuk menyatakan sambungan dari proses ke proses lainnya dalam halaman yang sama
3.		Simbol offline connector, berfungsi untuk menyatakan sambungan dari proses ke proses lainnya dalam halaman yang berbeda
4.		Simbol process, berfungsi untuk menyatakan suatu tindakan (proses) yang dilakukan oleh komputer.
5.		Simbol manual, berfungsi untuk menyatakan suatu tindakan (proses) yang tidak dilakukan oleh komputer
6.		Simbol decision, berfungsi untuk menunjukkan suatu kondisi tertentu yang akan menghasilkan dua kemungkinan jawaban: ya/tidak
7.		Simbol terminal point, berfungsi untuk menyatakan permulaan atau akhir suatu program
8.		Simbol predefined process, berfungsi untuk menyatakan persiapan yang harus dilakukan sebelum memasuki sistem
9.		Simbol keying operation, berfungsi untuk menyatakan segala jenis operasi yang diproses dengan menggunakan suatu mesin yang mempunyai keyboard

Source: Sulindawati and Fathoni, 2010

3. RESULTS AND DISCUSSION

A. Project Specifications

This Microsoft Access-based information system is designed to assist administrators in the management of outgoing email reports. This project requires well-structured planning so that the application can be submitted without problems.

B. Design Results

1) Design of Data Flow Diagram (DFD)

Data Flow Diagram or abbreviated as DFD according to Purwanto (2015) is a diagram using symbol notation to describe the flow of system

data. The following is a DFD of the incoming and outgoing letter database tools:

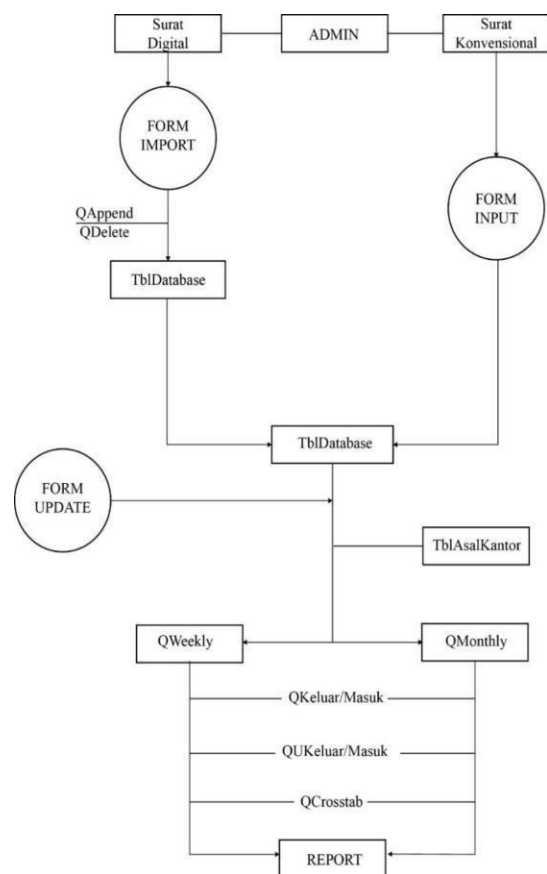


Figure 3.1 DFD

2) Entity Relationship Diagram Design (ERD)

ERD or Entity Relationship Diagram is a major data modeling tool and is also helpful organize data in projects within units and determine relationships between units. Fadilah, (2020).

The following is the ERD from the mail database tool in and out:

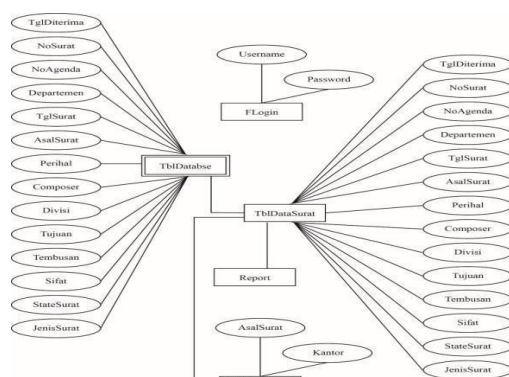


Figure 3.2 ERD

C. Database Design

Database design is an effort to create an information system that can be accessed by software or applications available on computers. This design aims to provide user information needs for the program being created.

In making this database using Microsoft Access, the Microsoft Access application is one of the media for storing and processing data for certain needs. The resulting database design can be seen as follows:

1) Draft Letter Data Table

In making this database using Microsoft Access, the Microsoft Access application is one of the media for storing and processing data for certain needs. The resulting database design can be seen as follows:

Table 3. 1 Letter data table design

Field Name	Data Type
LetterID	AutoNumber
Date Received	Date/Time
Letter Number	Short Text
Agenda Number	Short Text
Department	Long Text
Letter Date	Date/Time
Origin of Letter	Long Text
Letter Subject	Long Text
Composer	Short Text
Division	Long Text
Purpose of Letter	Short Text
Copy	Short Text
Nature of Letter	Short Text
State Letter	Short Text

2) Database Table Design

The Database table contains data from the import of outgoing and incoming letter data and becomes the source data to complete the Letter Data. The Database table design is as follows:

Table 3. 2 Database table design

Field Name	Data Type
LetterID	AutoNumber
Date Received	Date/Time
Letter Number	Short Text
Agenda Number	Short Text
Department	Short Text
Letter Date	Date/Time
Origin of Letter	Short Text
Letter Subject	Short Text
Composer	Short Text
Division	Short Text
Purpose of Letter	Short Text
Copy	Long Text
Nature of Letter	Short Text
State Letter	Short Text
Letter Type	Short Text

3) Office Origin Table Design

This table becomes a Look Up for determining Office/Regional Origin. The design of the Office/Regional Origin table is as follows:

Table 3. 3 Office origin table design

Field Name	Data Type
ID	Autonumber

Origin of Letter	Short Text
Office/Regional	Short Text

4) Login Table Design

This table becomes a Look Up username and password to open the next form. The design of the Login table is as follows:

Table 3. 4 Login table design

Field Name	Data Type
ID	Autonumber
Username	Short Text
Password	Short Text

D. Final Project Results

1) Login Form Display

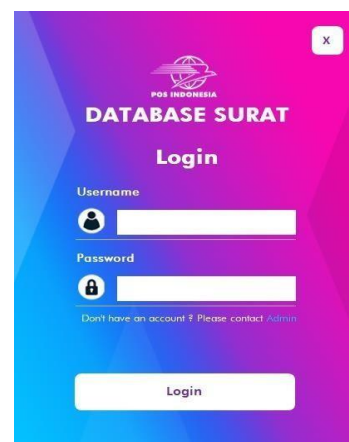


Figure 3. 3 Display of the login page

The login form is used as protection security so that the application cannot be accessed by others. To enter the application, users can enter the appropriate username and password after that click the login button.

2) Main Form Display (Main Menu)

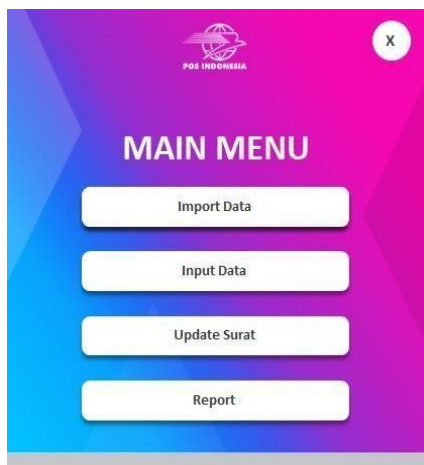


Figure 3. 4 Main page view

After completing the login process, the main page will appear or main menu. There are 4 buttons that have different functions as follows:

- a. Import Data, used to import existing data in NDE.
- b. Data Input, used to input conventional letters.
- c. Update Letter, used to display incoming or outgoing letter data.
- d. Report, used to display weekly or monthly reports.

3) View Form Input Database Conventional Letter

Figure 3. 5 Conventional Letter Database Input Form Display

The Letter Data Input form is used to input manual letters for conventional letters.

4) Digital Database Import Form Display



Figure 3. 6 Digital Database Import Form Display

Import Database is used to import outgoing and incoming letters in NDE, simply by clicking each outgoing and incoming button, after that click refresh then the letter in NDE has been imported into the database.

5) Option Report Form Display

Figure 3. 7 Option Report Form Display

Open Report option serves to display weekly or monthly reports, there are 3 buttons that have different functions, including:

- a. Preview, used to display weekly or monthly reports.
- b. Print, used when you want to print the report.
- c. Export, used to export the report if you want it in Pdf or Ms. Excel.

6) Display of Document Update Form

UPDATE DOCUMENT

Search: Clear

Tanggal Diterima	Nomor Surat	Nomor Agenda	Asal Surat
01/03/2023	C.Pos.27486/SU 200/59400/2023		Executive Manager KC Jepar
01/03/2023	C.Pos.27556/KL 500/OP 0101/2023		VP Operasi Kurir dan Logisti
01/03/2023	C.Pos.28201/KU 500/KCU83101/		Pj. EGM KC Mataram
01/03/2023	C.Pos.27796/KU 500/10004/2023		Executive Vice President Re
01/03/2023	C.Pos.30361/KU 500/KCU28101/		EGM KC Pekanbaru
01/03/2023	C.Pos.27667/KU 500/KCU85101/		Pj. EGM KC Kupang
01/03/2023	C.Pos.29893/KU 1100/KU 0202/2		Pj. VP Pengelolaan dan Opti
01/03/2023	C.Pos.27485/KL 600/40004/2023		Deputi OVP Regional III Ban
01/03/2023	C.Pos.27484/KL 600/90400/2023		OGM SPP DENPASAR
01/03/2023	C.Pos.28525/SU 500/KCU85101/		Pj. EGM KC Kupang
01/03/2023	C.Pos.28052/KU 000/LK 0201/2023		Ketua Tim Pelaksana BPS
01/03/2023	C.Pos.28012/SU 200/40004/2023		SM Human Capital Regional
01/03/2023	C.Pos.27978/SU 200/40004/2023		SM Human Capital Regional
01/03/2023	C.Pos.27780/KU 100/REG-10/202		EVP Regional VI Makassar
01/03/2023	C.Pos.28145/KU 320/KCU0101/2023		Pj. VP Treasury and Tax
01/03/2023	C.Pos.27590/KU 500/KCU65101/		EGM KC Malang
01/03/2023	C.Pos.30109/SU 200/HCO202/2023		Pj. VP Human Capital Devel
01/03/2023	C.Pos.29315/KU 300/P01/2023		Direktur Keuangan dan Man
01/03/2023	C.Pos.28178/KU 500/60004/2023		EVP Regional V Surabaya
01/03/2023	C.Pos.27993/KU 100/LK 0201/2023		Pj. VP Korporat dan Komuni
01/03/2023	C.Pos.27570/KU 600/55700/2023		Executive Manager KC Banti
01/03/2023	C.Pos.27571/KU 1100/97700/2023		Executive Manager Kantor C
01/03/2023	C.Pos.27789/SU 500/10004/2023		Executive Vice President Re

Records: 1 of 59736 | Filter: No Filter | Search

Figure 3. 8 Display of Update Form Document

The Document Update form is used to display outgoing and incoming letter data. In addition, to see the status of the letter, whether the letter has been received or not.

Figures 3.7 and 3.8 are the results of weekly and monthly reporting.

7) Weekly Report View

REPORT WEEKLY

29 May 2023

Minggu Ke	Kantor/Regional	Surat Masuk	Surat Keluar	Jumlah
9	Reg 5 Surabaya	322	121	443
	Dekam	27	10	37
	SPP	18	13	31
	Reg 6 Makassar	242	143	385
	Reg 4 Semarang	422	139	561
	Reg 3 Bandung	180	87	267
	Reg 2 Jakarta	262	130	392
	Reg 1 Medan	282	256	538
	Poslog	2	2	4
	Poslin	12	3	15
	Kantor Pusat	1.529	452	1.981
	IPC Jakarta	45	23	68
	DTU	6	4	10
	Eksternal	217	94	311
	Pospro	2	2	4
	SPI	21	9	30
10	VPBPI	3	3	6
	Reg 2 Jakarta	373	193	566
	Reg 3 Bandung	388	164	552
	Reg 4 Semarang	868	215	1.083
	Reg 5 Surabaya	479	282	761
	Reg 6 Makassar	833	414	1.247
	SPP	69	42	111
	Reg 1 Medan	724	382	1.106
	IPC Jakarta	36	17	53
	SPI	46	17	63
	Diapemipa	10	5	15
	Poslog	4	2	6
	Kantor Pusat	3.097	803	3.900

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Figure 3.9 Weekly Report Display

8) Monthly Report Display

REPORT MONTHLY

29 May 2023

Bulan	Kantor/Regional	Surat Masuk	Surat Keluar	Jumlah
Feb	Kantor Pusat	1	4	4
Mar	Pospro	108	50	158
	Diapemipa	29	10	39
	DDK	9	4	13
	Dekom	65	33	98
	DTU	49	14	63
	Eksternal	2.351	947	3.298
	IPC Jakarta	231	92	323
	Kantor Pusat	18.483	3.830	22.313
	Konseptur	3	3	6
	Pemeriksaan 1	2	2	4
	Poslog	19	7	26
	YPBPI	3	3	6
	Reg 1 Medan	4.295	1.544	5.839
	Reg 2 Jakarta	2.652	815	3.467
	Reg 3 Bandung	2.258	850	3.108
	Reg 4 Semarang	3.985	943	4.928
	Reg 5 Surabaya	3.164	1.386	4.550
	Reg 6 Makassar	3.790	1.614	5.404
	Senior Account Manager 3	1	1	2
	SPI	183	63	246
	SPP	272	129	401
	Poslin	61	16	77
	TOTAL			54.379

Figure 3.10 Monthly Report Display

E. Project Trial Results

The creation of this outgoing letter electronic archiving project has the aim of helping PT Pos Indonesia (Persero) so that it does not need to work twice in making weekly or monthly reports that must be reported. Before being used by the company, Microsoft Access-based electronic archives will be tested first by one of the Administrative Governance staff whose job is to take care of letters at PT Pos Indonesia (Persero). In this trial, there are several points to test such as login, importing letter data from NDE to Microsoft Access, inputting letter databases, option report features, and searching documents, whether this project is a way out of the problems experienced by PT Pos Indonesia (Persero). The following is a form for electronic archiving trials.

Table 3. 5 Project test results (manual testing)

No.	Pertanyaan	Terkendala		Catatan
		✓	x	
1.	Login	✓		-
2.	Import Data Surat	✓		-
3.	Input Database surat	✓		-
4.	Update Surat	✓		-
5.	Update Status Surat	✓		-
6.	Fitur option report (Preview, Print dan Export)	✓		-

After being tested by the Administrative Governance, electronic archiving using Microsoft

Access received a positive response, one of which needs to be improved is in terms of appearance and data import speed. The following are the results obtained before and after using Ms.

Table 3.6 Comparison of Manual Inputting with Using a Database

Description	Before	After
Database	Digital output data processing using Ms. Excel manually (copy and paste)	Simply import data from the digital output of all data will merge
Data Processing	The time used was quite long because even though I had used the look up formula.	Can be immediately displayed according to the needs of the report with just one click.
Reporting Database	Using Ms. Excel and need to process through pivot tables	Using tools to quickly display weekly and monthly reports
Ouput Data Report	Ms. Excel format only.	Can be displayed as needed (Pdf or Ms. Excel) Preview only, Print or export to Ms. Excel.

After carrying out trials and getting results from the evaluation of Ms. based tools. Access that has been designed, the Administrative Governance section stated that it would consider the use of these tools. This is because local policies are needed regarding its use in accordance with the development of reporting needs, but this database design is considered well enough as a basis for developing a web-based database.

In the trial process, 10 dummy NDE data were taken every month for the last 10 months (June 2022 to April 2023). To find out in terms of time whether it is faster or not, here is the difference in

Access-based tools on weekly and monthly reporting for digital and conventional incoming letter data:

time for processing the Weekly Monthly Report manually and using Ms. Access that has been created:

Table 3.7 Input Time Comparison Table Manual and using Ms. Access Database

Month	Processing Time Weekly Monthly Report (Manual)	Processing Time Weekly Monthly Report (Access)
1	10 Minutes	3 Minutes
2	10 Minutes	3 Minutes
3	9 Minutes	3 Minutes
4	9 Minutes	2 Minutes
5	10 Minutes	3 Minutes
6	9 Minutes	3 Minutes
7	11 Minutes	4 Minutes
8	9 Minutes	2 Minutes
9	10 Minutes	3 Minutes
10	9 Minutes	2 Minutes

It can be seen in the table above that using the Incoming and Outgoing Letter Database tools for Weekly and Monthly Reporting is also more efficient in terms of time than using NDE (manual).

F. Previous Projects

According to Azizah (2017), literature is documents, while a review is an activity of the writer in reviewing and re-examining something that has been done previously, so it can be concluded that a literature review is an action to review or re-examine a literature. Literature review contains responses, summaries, and author's thoughts quoted by the author from literature sources (can be journals, books, articles and the internet).

In this literature review method, the author collects, summarizes and learns from several references related to the project to be made and as reference material by the author in completing this project. The following are studies that have been

conducted and have a correlation that is in line with the making of the project that will be discussed in this report, among others.

- 1) Research conducted by F. Latif & Pratama (2015) entitled "Design of Electronic Records Management Information System (E-Archive) Based on Microsoft Access at Pt. Hi-Test". This research reviews designing an electronic archive information system that can facilitate the search for archival information that is safe, fast, accurate, and more time efficient. The design of this information system is focused on dynamic archives, namely account payment vouchers. Information integration on Microsoft access-based e-archives. This type of research uses an exploratory method, the methods used include data analysis, design, application design, testing and implementation. The results of this study are the design of an application program, and the application that has been designed can be used as an alternative to solving problems at PT. Hi-Test, the use of an access-based design system is expected to help the administration to be able to manage archives effectively and efficiently by using electronic media in managing archives, the benefits of speed, convenience and accuracy of invoices will be obtained.
- 2) Research conducted by Afifah et al (2022) entitled "Design of a Health Center Letter Archive Storage System with Microsoft Access". This study reviews designing a letter archive storage system at the health center that can facilitate archive searches and minimize archive loss. The research method is action analysis, data is collected through interviews with the head of the Health Center Administration Unit and direct observation of existing archives. The data collected is analyzed using action analysis which aims to develop new skills or approaches to solving existing problems. The results of this study are the design of an application for storing incoming and outgoing letter archives, the application that has been designed is expected to be a way out for the problems experienced by the Puskesmas, namely the computerized archive storage system is increasing because with the current manual storage system the administration is difficult to find archives quickly sometimes there are

lost archives. Therefore, a computerized storage system is designed using Microsoft Access. This application is needed in the process of processing incoming and outgoing letter archives to reduce errors that occur in the manual process.

- 3) Research conducted by Tri Amalia & Farida Panduwina (2022) entitled "Electronic Records Management Information System (E-Archive) Based on Microsoft Access on the Effectiveness of Archive Rediscovery at SMKN 4 Surabaya". This study reviews developing a Microsoft Access-based electronic archive system application at SMKN 4 Surabaya to help improve the effectiveness and efficiency of archive retrieval. The research method used is using the Research & Development (R&D) method, The development model used for this research process is the ADDIE model, by implementing 5 stages: namely (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluate. The use of the ADDIE development model was chosen because it is considered effective compared to other methods for realizing research objectives. The results of this research are archive-based applications Microsoft Access is said to meet the feasibility test criteria adapted from several experts after going through a survey data collection process in the form of validation sheet distributed to all Media Experts, Design Experts and Practitioner Experts obtained an average percentage result of 92.8% with the criteria "Very Eligible" to be applied to the Administration of SMKN 4 Surabaya. Strengthened by the accuracy number value to measure the effectiveness of the archive retrieval process at SMKN 4 Surabaya Administration of 1, with the criteria being quite effective.

Based on the three previous studies described above, it can be concluded that the Microsoft Access-based filing system is considered relative and easier to learn and use. Afifah et al (2022) say that Microsoft access is a database application program aimed at home and small to medium-sized companies. By using Microsoft Access in managing incoming and outgoing letter archives, it can prevent duplication of letter numbers, the subject of the archive can be read clearly, quickly find archives and can minimize the loss of archives.

4. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Based on the results of the project that has been designed, namely the creation of Microsoft Access- based database tools at PT Pos Indonesia (Persero), can be concluded as follows:

- 1) Database-based applications in archiving incoming letters and outgoing letters in the Administrative Governance Section at PT Pos Indonesia can facilitate the Administrative Governance Section in making weekly and monthly reports.
- 2) The use of the application that has been designed makes the weekly and monthly reporting process more efficient in terms of time.

B. Advice

This Ms. Access-based tool cannot be accessed from all devices (only computers that have the application). Therefore, the author suggests developing this application based on the website, so that when other users will access the tools and they do not have the Ms. Access application on their laptop or computer, then they can just download the tools.

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