

Information System Design of Allianz Insurance

Lusi Herlina¹, Leo Benny²

¹Information System, Institut Teknologi Manajemen Internasional (ITMI)

²Information Engineering, Institut Teknologi Manajemen Internasional (ITMI)

ARTICLE INFO

Article history:

Received Sept 4, 2022

Revised Sep 22, 2022

Accepted Oct 9, 2022

Keywords:

Information Systems

Insurance

Customers

Reinsurance

Allianz

ABSTRACT

Insurance is an agreement between the insurance customer (the insured) and the insurance company (the insurer) regarding the transfer of risk from the customer to the insurance company. The risk transferred includes: the possibility of material losses that can be assessed with money experienced by the customer, as a result of the occurrence of an event that may / is not certain to occur. Accepting risk from the insured, insurance companies also have the same position where uncertainty about risk occurs. Thus, the insurance company can transfer the risk to another party, namely the reinsurance company. The insurance company pays a premium which will be cheaper than the premium charged to the insured. Of course, only a part of the sum insured is reinsured.

This is an open access article under the [CC BY-NC](#) license.



Corresponding Author:

Lusi Herlina

Department of Information System,

Institut Teknologi Manajemen Internasional (ITMI)

Jl. Komp. Asia Mega Mas Jl. Timah Putih No.16, Sukaramai II, Kec. Medan Area, Kota Medan, Sumatera

Utara 20224

Email: Lusiherlina28@gmail.com

1. INTRODUCTION

In essence, insurance is an agreement between the insurance customer (the insured) and the insurance company (the insurer) regarding the transfer of risk from the customer to the insurance company (Margaretha & Pakereng, 2022; Alloni, 2017; Putri et al., 2016). The risks transferred include (Kirana et al., 2018): material possibilities that can be assessed with money experienced by the customer, as a result of the occurrence of an event that may / is not certain to occur (Uncertain of Occurrence & Uncertainty of Loss), for example: The risk of burning buildings and / or property therein as a result of lightning strikes, human negligence, short circuits, Risk of car damage due to traffic accidents, loss due to theft, Died or injured as a result of an accident, illness, Floods, hurricanes, storms, earthquakes.

As the transfer of risk with insurance is motivated by uncertainty, so the uncertainty is transferred to the insurance company (Shalahuddin & Sukamto, 2018). Accepting risk from the insured, insurance companies also have the same position where uncertainty about risk occurs. Thus, the insurance company can transfer the risk to another party, namely the reinsurance company (Sujarwo et al., 2022). In this case the insurance company pays a premium which of course will be cheaper than the premium charged to the insured. Of course, only a part of the sum insured is reinsured while the rest becomes the retention (retained value) of the insurance company. In the world of insurance, there is a claim transaction where the insured party asks for his right to get a

guarantee from the insurer in accordance with the initial agreement. At the Allianz Insurance Company, the claim transaction process still has procedures that are done manually and some are systemized. The customer must come to the office to submit a claim because it needs to deliver the required documents and also for the purpose of filling out a written submission form. The author considers this to be less effective especially in terms of time and energy efficiency. Therefore, it is necessary to design an information system update that is already running so that it can support the process of submitting claims to the Allianz Asuransi Company effectively (Priambodoh, 2018). With the new information system, it is hoped that it will provide convenience in providing information and also in managing claim submission data.

As is known, systems and information cannot be separated because they are interrelated. As for some understanding of Information Systems put forward by experts such as Amelia et al. (2018), said that an information system includes a number of components (human, computer, information technology and work procedures) is something that is processed (data becomes information), something is processed (data becomes information) and intended to achieve a goal / goal. Meanwhile, Destiana (2018) stated that an information system is a combination of people (people), hardware, software, communication networks and resources that are collected, transformed and experienced a flow process in an organization. An information system is any organized combination of people, hardware, software, computer networks and data communications, and databases that collects, transforms and disseminates information in an organizational form (Mayasari et al., 2019).

2. RESEARCH METHOD

This study uses the Waterfall System Development Life Cycle (SDLC) method. SDLC is the process of developing or modifying a software system using the models and methodologies that people used to develop previous software systems (Kramer, 2018). The SDLC Waterfall method is often also called linear sequential mode or classical life cycle. The Waterfall model provides a sequential or sequential software life flow approach starting from the analysis, design, coding, testing and support stages (Majdalawieh & Khan, 2022).

2.1. System Analysis

In building an application program where the purpose of the application is to support the user's work in using the computer to be more efficient and effective. So that what has been done conventionally becomes more modern with the existence of technology and information. So to start designing an insurance application, the author first plans a workflow based on the needs of the user who uses the application program to be created. This insurance application is made on the basis of scientific needs and to make it easier for users to search for customer data. Based on the author's observations regarding the analysis of system analysis, users who work to manage customer data and consultants often experience problems. This happens because the number of consultants is small compared to the large number of insurance customers and continues to increase so that it is difficult for users to make details of customer data. Thus the author tries to design an insurance application program.

2.2. System Design

The purpose of system design is to meet user needs regarding the description, planning and sketching or arrangement of several separate elements into a unified and functioning unit. It is at this stage that the software framework begins to be worked on with the aim of designing a new system that can solve the problems faced in this case the creation of this insurance application helps users share each customer with the consultants at the insurance company.

2.3. Algorithm of Each Program Interface

1. The main menu interface of the application program

At the beginning of the program there is a main page that will lead to the main page form, Allianz Insurance customers, Allianz Insurance consultants, about the company, and admin. Then click the desired button to go to the next form.

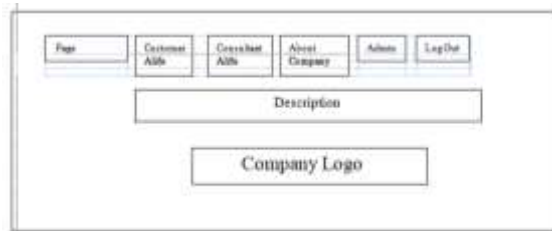


Figure 1. Main Menu Display

2. Allianz Insurance customer menu
In this menu, you can only check customers who are at Allianz Insurance. To search for the desired customer data, type the customer's name into the textbox then enter or press the search button. Then, if the customer's name is available in the database, a list of words will automatically appear in the listview dialog box. After the name has been found, the identity of the customer you are looking for will appear.
3. Allianz Insurance Consultant Menu
In this menu, you can only check the consultants at Allianz Insurance. Similar to the search for customers menu, to find the desired consultant data, type the name of the consultant into the textbox then enter or press the search button. Then, if the consultant's name is available in the database, a list of words will automatically appear in the listview dialog box. After the name has been found, the identity of the customer you are looking for will appear.
4. About Company Menu
This menu explains about the insurance application from Allianz Insurance, one of which is the benefits of this application which is useful for making it easier for admins to manage customer and consultant data.
5. Admin Menu
The admin menu is useful as a menu that only users or employees of Allianz Insurance can edit, add or delete data in this insurance application. Before entering the admin form, the user must first login. To login the user must know the ID and password from the admin. In the admin menu there is a data sub menu containing consultant, customer and policy sales forms. Then there is the identity sub menu which contains the customer identity form and the identity of the consultant. There is also a report sub menu containing monthly sales reports and consultant sales reports. As well as a hello admin menu which is contains a password change form

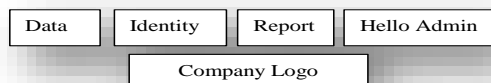


Figure 2. Menu Admin Display

2.4. Insurance Policy Application Program Database

The database of this program is called insurance, it has admin, commissioner, consultant, customer and sales tables. The admin table consists of admin field_id, name field_id, password, place of birth, date of birth, telephone number and address. The board of commissioners table consists of the field_id of the commissioner, name, place of birth, date of birth, address and email. Consultant table consists of consultant field_id, name, place of birth, date of birth, gender, address and photo. Then the customer table consists of field_id policy number, name, address, gender, heirs, picture and postal code. Sales table consisting of field_id policy number, customer name, consultant code, date of sale. The tables contained in the database of this insurance application program are as follows:

1. Consultant Table
This table serves to input identity data from consultants.

Tabel 1. Consultant Table

Field Name	Types of Data	Index Key
ID Consultant	Text	Primary Key
Name	Text	-
Place of Birth	Text	-
Date of Birth	Text	-
Gender	Text	-
Address	Text	-
Photo	Text	-

2. Admin Table

This table serves to input personal data from the admin.

Tabel 2. Admin Table

Field Name	Types of Data	Index Key
ID Consultant	Text	Primary Key
Name	Text	-
Place of Birth	Text	-
Date of Birth	Text	-
Gender	Text	-
Address	Text	-
Photo	Text	-

3. Commissioner Table

The commissioners table functions to fill in data from the commissioners.

Tabel 3. Commissioner Table

Field Name	Types of Data	Index Key
ID Consultant	Text	Primary Key
Name	Text	-
Place of Birth	Text	-
Date of Birth	Text	-
Gender	Text	-
Address	Text	-
Photo	Text	-

4. Customer Table

This table serves to input data from customers.

Tabel 4. Customer Table

Field Name	Types of Data	Index Key
Polis Number	Text	Primary Key
Name	Text	-
Address	Text	-
Gender	Text	-
Heir	Text	-
Photo	Text	-

5. Sales Table

The sales table serves to display policy sales data from the company.

Table 5. Sales Table

Field Name	Types of Data	Index Key
Polis Number	Text	Primary Key
Customer Name	Text	-
Consultant Code	Text	-
Consultant Name	Text	-
Sale Date	Text	-
Initial Set	Currency	-

Monthly bill	Currency	-
Month	Text	-
Year	Number	-

2.5. System Design

1. Context Diagrams

The Context Diagram (CD) on the Insurance Policy Loan Data Processing Application is as follows:

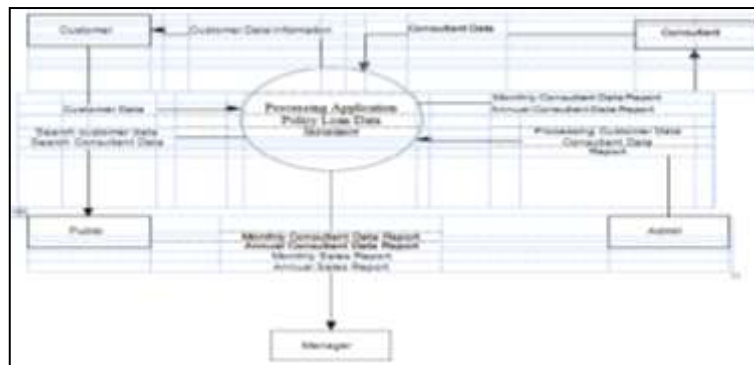


Figure 3. Diagram Context

2. Login Admin Diagram

Level 1 Admin Login diagram is a development of context diagrams.

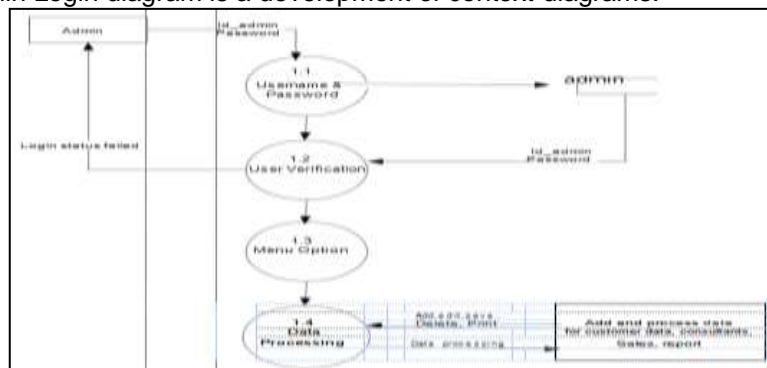


Figure 4. Login Admin Diagram

3. Admin Processing Diagram

This diagram is a level 1 diagram, which explains the data processed by the admin.

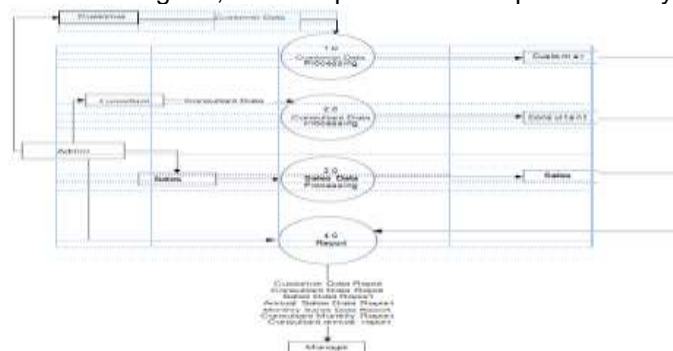


Figure 5. Admin Processing Diagram

3. RESULTS AND DISCUSSIONS

This insurance application program has several pages. Each page is linked to each other which points to each different form. The following are some of the forms contained in the insurance policy application.

3.1. Splash Screen Page and Login Page

The Splash Screen page displays the company name and company address and contact number of the Allianz insurance company in Figure 6 below.



Figure 6. Splash Screen Page

The page for entering the Username and Password to determine who has the right to use this application in Figure 7.



Figure 7. Login Page

3.2. Main Menu Page and Insured Data Page

The main form is the main page of this insurance policy application program, in this form there are menus that function to connect one form to another. The menus contained in this main menu form are Master, Policy, Claim, Premium, Reports, Administrator, and Help in Figure 8.



Figure 8. Insurance Application Homepage

In the Insured Data form (figure 9) the user can input and search for the identity of a customer who has registered with the Allianz insurance company. This form is equipped with a data search command. The data in the Insured Personal Data form includes policy number, customer name, date of birth, status, religion, address, city, postal code, landline number and mobile phone number. This data can be accessed if you know the policy number of the customer.

Figure 9. Insured Personal Data Page

Furthermore, on the Insured Data page there is an Insured Occupation Data tab page which contains detailed information about the customer's work.

Figure 10. Insured Occupation Data Page

3.3. Search Insured Data Page and Insurance Policy Account Page

The Search Insured Data page is a page used to search Allianz . insurance customer data (Figure 11).

Figure 11. Search Insured Data Page

This page (Figure 12) contains detailed customer information complete with the type of insurance product purchased complete with insurance policy information including the amount of insurance premium, method of payment of insurance premium and payment period.



Figure 12. Insurance Policy Account Page

Search Policy Account Data page and Insurance Claim Data page

This page (figure 13) is used to search for policy account data based on search keys, namely: Policy No, Policy Holder No, Insured No, Product Code and Agent Code.

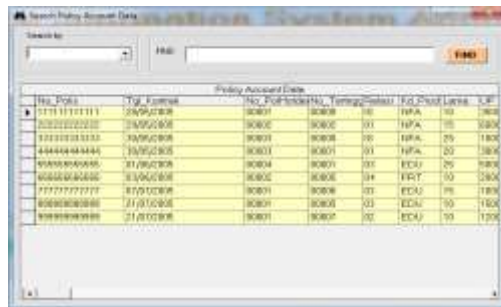


Figure 13. Search Policy Account Data Page

This page (picture 14) contains data on insurance claims for Allianz Insurance customers.



Figure 14. Insurance Claim.

3.4. Search Insurance Claim Data page and Regular Premium Payment page

This page is used to search for insurance claim data by customers based on search keys, namely: Claim No, Claim Type, Policy No and Polkes No.

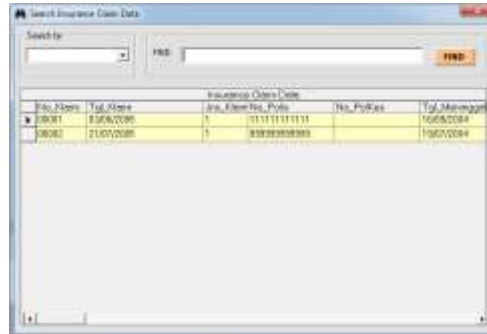


Figure 15. Search Insurance Claim Data page.

This page (Figure 16) records policy premium payment data by insurance customers.



Figure 16. Regular Premium Payment page.

3.5. Search Premium Payment Data Page and Report Page

This page (Figure 17) is used to find data on premium payments by insurance customers by sorting key including: Receipt No and Policy No.

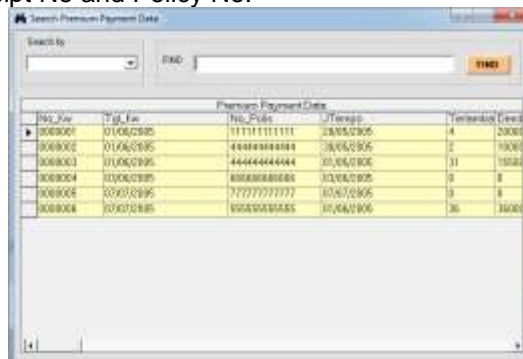


Figure 17. Search Premium Payment Data Page

The report (figure 18) is the result of a printable insurance policy application. Reports are useful as accountability to customers and companies regarding sales and others.

from Allianz insurance policies, the convenience created by the programmer in inputting, updating and deleting data on this system so that the data can be updated by the user, this application is equipped with a monthly percentage of the company's sales each year, this application is also equipped with a report for customers who want to know proof of a cooperation agreement with Allianz.

REFERENCES

- Alloni, K. Y. (2017). *Analisis Dan Desain Website Program Studi Administrasi Bisnis* (Studi pada Fakultas Ilmu Administrasi Universitas Brawijaya Malang), 51(2).
- Amelia, Ria, Tachbir, Asep, (2018), *Pembangunan Sistem Informasi Asuransi Jaminan Pada PT. BIMA Perkasindo, Prosiding SNST Fakultas Teknik Unwahas*, 1(1), 2018
- Destiana, T., 2018. "Analisis Penerapan Asuransi Kerugian Dalam Pembiayaan Kendaraan Bermotor pada PT. BPRS Mitra Agro Usaha". Skripsi Fakultas Ekonomi dan Bisnis Islam UIN Raden Intan Lampung , Maret 2018.
- Kirana, C., Perkasa, E. B., & Saputra, R. A. (2018). *Rancang Bangun Aplikasi Pengajuan Klaim Asuransi Kendaraan Bermotor Menggunakan Smartphone Berbasis Android*, 8–9.
- Kramer, Mitch. (2018). *Best Practices in Systems Development Lifecycle: An Analyses Based on the Waterfall Model*. 9. 77-84.
- Majdalawieh, M. & Khan, S. (2022). Building an Integrated Digital Transformation System Framework: A Design Science Research, the Case of FedUni. *Sustainability*, 14, 6121. <https://doi.org/10.3390/su14106121>
- Mayasari, M., Andrika, Y., Arie Pradana, H., & Rovik (2019). Aplikasi Sistem Informasi Asuransi Kendaraan Studi Kasus: Pt. Asuransi Parolamas Cabang Pangkalpinang. *Simetris: Jurnal Teknik Mesin, Elektro dan Ilmu Komputer*. 10. 259-272. 10.24176/simet.v10i1.2963.
- Margaretha, G.S., Pakereng, M.A.I. Perancangan Sistem Informasi Buku Tabungan Menggunakan Oracle Application Development Framework PT. ASURANSI SINARMAS. *Jurnal Teknik Informasi dan Komputer (Tekinkom)*, 5(1), 49-59, doi: <https://doi.org/10.37600/tekinkom.v5i1.513>.
- Priambodoh, I. (2018). *Planning Development of Web-Based Fixed Asset Management Information System in PT Asuransi Allianz Indonesia*. Thesis. Department Of Commercial Administration. Politeknik Negeri Bandung
- Putri, M. E., Ayu, D., & Wulandari, N. (2016). *Sistem Informasi Monitoring Siswa Berbasis Web Dan SMS Gateway Pada SMK Negeri 37 Jakarta*, 11(2), 49–55.
- Shalahuddin, M., & Sukamto. (2018). *Rekayasa perangkat Lunak Terstruktur dan Berorientasi Objek*. Bandung: INFORMATIKA.
- Sujarwo, Anton & Sari, Adika & Lestari, Rina & Yani, Desri. (2020). Sistem Informasi Pengajuan Klaim Asuransi Kendaraan Berbasis Web Menggunakan UML. *Jurnal Sistem Komputer dan Informatika (JSON)*. 1(294). 10.30865/json.v1i3.2197.