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Analysis of Pension Fund Payment Data Processing Information System Design

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ABSTRACT

Research has been carried out at PT. Pos Indonesia (Persero) Lubuk Sikaping, and problems were found regarding the processing of pension fund payment data, where data processing was still manual and data storage still used folders and stored in filing cabinets. The report creation process is long and inefficient. In writing this research using the SDLC development method (System Development life Cycle) using the Visual Basic 6.0 programming language. In the results of this research, the design analysis used is the Information System Flow. The results of this research are a new system that has the advantage of minimizing the risk of errors or errors error which occurs in processing pension fund payment data as well as assisting in preparing reports and archiving data. It is hoped that PT Pos Indonesia (Persero) Lubuk Sikaping can apply and use this new system and can overcome problems in processing data on pension fund payments.

Keywords: : Information Systems, Data Processing, Pension Funds, SDLC, PT.Pos Indonesia (Persero)

1. Introduction

Science and technology at this time are experiencing increasingly rapid development, so that many new technological inventions are all modern and sophisticated (Chandio, 2011). One of them is a computer. A computer is an electronic device used to perform simple to complex calculations and is specifically designed to be able to manipulate data and information which can later be used in decision making (Daliuwa & Didipu, 2022). At this time, all areas of life require this computer technology in supporting activities and making work easier because computers can process large amounts of data and can be completed quickly (Mustafidah & Fauzi, 2023).

From the observations made at PT Pos Indonesia (Persero) in Lubuk Sikaping, Pasaman Regency, it is found that in making reports, computers have been used as a supporting tool for processing pension fund data, but only to replace the function of typewriters because they use existing application programs such as Microsoft Word and Microsoft Excel and there is no structured program designed to process pension fund payment data.

Pension funds are funds given to employees, both public and private, which aim to ensure the welfare of employees in running the future or retirement so that their lives are guaranteed after no longer working

(Bodie, 1989). As for workers who are still active, it is a motivation to work even harder because this pension fund is a form of appreciation from the agency or company to its employees during their productive work (Maisharoh & Ali, 2020). With the development of technology, it can be used to process data and reports effectively and efficiently (Darmawan & Geni, 2023). Then information technology can be used in the long term and its implementation in the organisation can minimise the risks that occur. Therefore, to support better performance and minimal risk, IT infrastructure implementation is needed (Iskandar, 2011).

The use of computers in private companies and government agencies is one of the most appropriate ways to provide the best possible service to customers or people who need it, such as PT.Pos Indonesia (Persero) at the beginning of the month with pension fund payment activities, while the system used so far has not been adequate. For this reason, the researcher tries to analyse and design a data processing system for pension payments at PT Pos Indonesia (Persero) Lubuk Sikaping, data storage is made in a database using the Visual Basic 6.0 programming language, can make data processing at PT Pos Indonesia (Persero) tough and tested database and make it easier for users to run the pension payment system. From the explanation above, the researchers tried to make improvements in order to achieve various improvements in data processing by designing a better form of system than before.

2. Methodology

In this study using the SDLC (System Development life Cycle) method, which is a sequential system development method starting from the process of analysing, designing, coding, testing and maintaining the system to adapt to the needs and changing times (Hermansyah et al., 2022).

The following are the stages in the SDLC method

Figure 1. Stages of the System Development Life Cycle

To achieve the accuracy and thoroughness of data and information in this study, data collection is carried out by means of observation to the field to collect data directly by conducting interviews by presenting several questions. From the results of the interview, an analysis is carried out which is supported by theories obtained in books, the internet, articles, and other relevant reading materials. After analysing the data obtained, the next stage is to design using the old and new system flow design and Visual Basic 6.0 programming language.

The following is a picture of the stages of data collection.

Figure 2. Data Collection Stages

3. Results and Discussion

This section describes the research results. Data should be presented in Tables or Figures if possible. There should be no duplication of data in Tables and Figures. Discussions should be consistent and should interpret results clearly and concisely, and their significance, supported by appropriate literature. The discussion must demonstrate the relevance between the results and the field of investigation and/or hypotheses. Each table and figure should be clearly explained in the text.

3.1. Old Information System Analysis

Analysing the current system at PT Pos Indonesia (Persero) Lubuk Sikaping, the data is obtained through a study with existing data collection techniques, such as interviews and observations. From these interviews and observations, it is found that the pension payment process is still carried out manually, namely by using Microsoft Excel assistance and there is no system that can process pension fund payment data effectively and efficiently.

The analysis carried out on the processes carried out on the old pension fund payment information system showed three problems:

1. Processing of pension fund payment data is still done manually.
2. Officers have difficulty knowing and looking for the desired data, because they have to search through piles of folders stored in file cabinets. This can reduce system performance because the system works with a long processing time.
3. Officers have difficulty in the process of making reports because of the large amount of data that must be prepared in advance, so that the process of making reports becomes longer.

The results contain answers to research problems quantitatively and/or qualitatively in a clear, precise and complete manner that can use actual information in the form of pictures/graphs/tables/descriptions.

3.2. Old Information System Flow

In the Old Information System Analysis at PT Pos Indonesia (Persero) Lubuk Sikaping, the parts that play a role in the process of processing pension fund payment data are: Pension, PT.Taspen, Post Treasurer, and Chairman. PT Taspen provides a list of pension payments to the pension treasurer and the pension treasurer enters the pension fund receipt data. When the retiree collects the salary, the retiree gives the Pension Identity Card to the pension treasurer. Then, the pension fund is paid and the pension treasurer gives the pension fund payment receipt letter and Pension Identity Card to the pensioner.

After that, the pension treasurer makes a pension payment report which will be given to the leadership for ratification. The pension payment report that has been approved by the leadership is given by the pension treasurer to the Post Treasurer, PT. Taspen and to the Chairman. As for more details can be seen in figure 3.

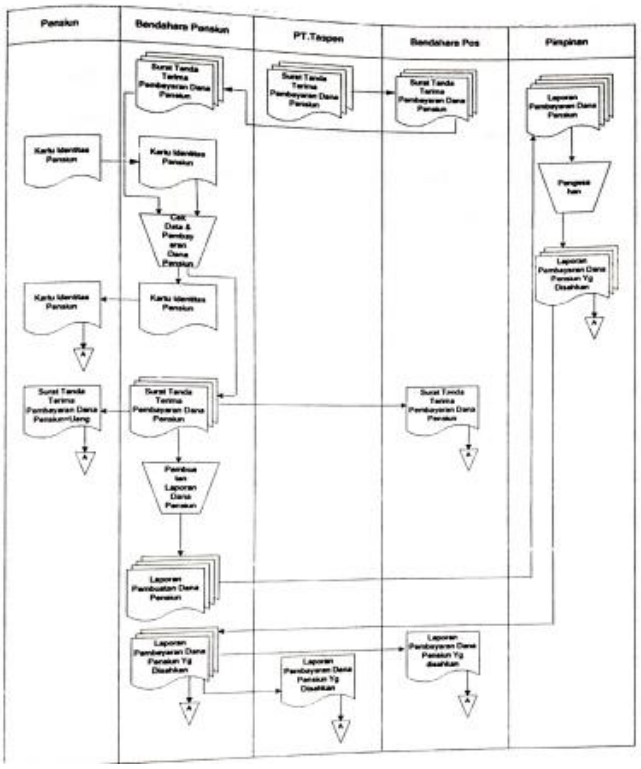

Figure 3. Old Information System Flow

From the Old Information System Analysis that exists at PT Pos Indonesia (Persero) Lubuk Sikaping, there are several weaknesses, including:

1. Checking pension data takes a long time because there is no specific database for processing pension data.
2. There will be a repetitive report generation process.
3. Data about pension payments will be easily lost or damaged because reports are stored in the form of paper archives

3.3. New Information System Flow

The research discussion explains the summary of research results, linkages with concepts or theories and other relevant research results, interpretation of findings, research limitations, and implications for concept or scientific development.

After seeing the weaknesses that exist in the old ASI that is currently running at PT Pos Indonesia (Persero) Lubuk Sikaping, then a new system is proposed to overcome the weaknesses of the old system. As for the flow of this new information system, changes are made in the process of processing pension fund payment data by forming a pension database and a pension fund payment database. While the part that plays a role in the data processing process for the payment of pension funds remains as before. For details can be seen in the following figure.

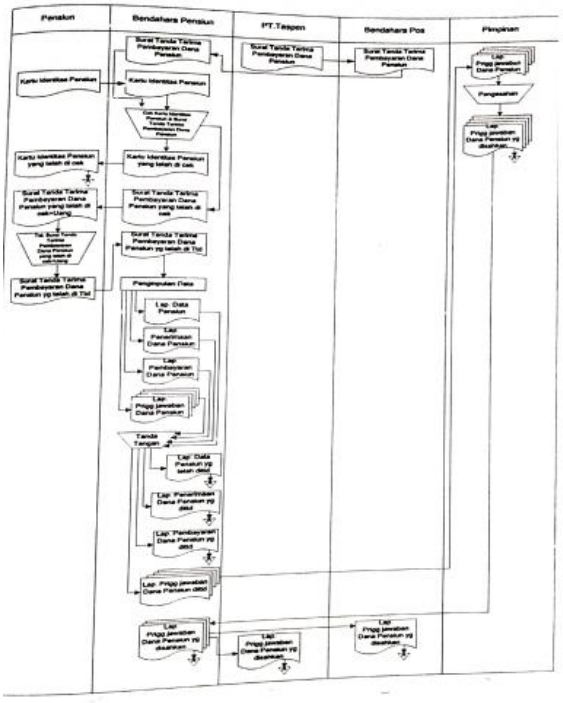

Figure 4. New Information System Flow

From this new information system flow, several advantages can be seen, namely:

1. Checking pension data and pension salary payment data no longer takes a long time because of the existence of a database that is able to process pension data and pension fund payments.
2. Report generation is faster.
3. Pension fund payment data will be more secure.

4. Conclusion

Based on the analysis of the pension fund payment data processing system at PT Pos Indonesia (Persero) Lubuk Sikaping, several key improvements are evident. The implementation of a computer-based data processing system has significantly reduced delays in processing, enhancing the timeliness and reliability of data management. With the integration of computer assistance tools, the generation of information regarding pension fund payments has become both swift and precise. This advancement ensures that critical data is available quickly, supporting more informed decision-making and operational efficiency.

Moreover, the new system design and application program have markedly improved the efficiency and effectiveness of processing pension fund payment data. By addressing existing issues and streamlining workflows, the updated system facilitates faster generation of information and reports. This capability ensures that PT Pos Indonesia (Persero) Lubuk Sikaping can meet its data processing needs promptly, thereby achieving its information system goals and optimizing overall performance.

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