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# Application of Pension Fund and Jubilee (Case Study OF PG Rejo Agung Baru Madiun)

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#### **ABSTRACT**

PG Rejo Agung Baru Madiun is a sugar factory managed by PT PG Rajawali I, a subsidiary of state-owned agribusiness PT Rajawali Nusantara Indonesia (RNI). PG Rejo Agung Baru has several sections, one of which is HR and General Affairs. The HR and General Affairs department handles matters relating to employees which include employee salaries, employee pension funds, jubilees, promotions, employee recruitment and so on. Companies need information relating to employees quickly and accurately to make a decision. Decision making is something that is very vital in the company.

This study aims to design and build a web-based application for calculating pension and jubilee funds. This application for calculating pension and jubilee funds was created to solve the problems faced by the HR and General Department, namely the manual processing of employee data.

The pension and jubilee fund application can increase the efficiency of the pension and jubilee calculation because the admin does not need to do the calculations manually, besides that this application can also help reduce the risk of human error in the process of calculating age, salary, severance pay, pension benefits, taxes and jubilee. The report generated from this application has a consistent format so as to support the process of managing pension funds and jubilee consistently

#### INTRODUCTION

The development of information technology is currently increasingly advanced, one of the results of technological developments is computers. A computer is a tool with an electronic system that is useful for manipulating data quickly and precisely and designed to automatically be used to receive and store data which is then processed to produce a step program instruction stored in memory. Computers assist users in processing data and producing information quickly and appropriately. Information is one of the important needs for an agency, company, organization and institution. Information can be received well if the informant conveys the information well.

PG Rejo Agung Baru Madiun is one of the big companies that need an application that can provide information quickly and accurately. The application needed by PG Rejo Agung Baru is one of

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the applications for calculating pension and jubilee funds. Pension funds are legal entities that manage and run programs that promise retirement benefits. Pension funds can help employees reduce the risks that will be faced in the future, such as entering old age, the risk of disability and even death. The risks that may occur are very influential on their lives, therefore a pension program was created to overcome these possible risks.

Pension funds are divided into two types, namely the Employer Pension Fund (DPPK) and the Financial Institution Pension Fund (DPLK). Employer Pension Fund is a pension fund established by a person or entity that employs employees, as founders, to organize a Defined Benefit Pension Program or a Defined Contribution Pension Program, for the benefit of part or all of its employees as participants, and which creates obligations to the employer. Financial Institution Pension Fund is a pension fund established by a bank or life insurance company to administer a defined contribution pension plan for individuals, both for employees of employers and independent workers, which is separate from the Employer Pension Fund for employees of the bank or life insurance company concerned.

PT Rajawali Nusantara Indonesia (Persero) operates a defined benefit pension fund for all of its permanent employees based on the latest basic salary and years of service of the employees. The management of pension funds within the company is handled by the Rajawali Nusantara Indonesia Pension Fund (Dapen RNI) which is a legal entity in the form of an employer pension fund (DPPK) which was established to manage and develop funds to ensure and maintain income continuity for participants and their families by organizing a pension program. definite benefit. The Company has applied the latest assessment in accordance with PSAK No. 24 2013 revision made by PT Daya Mandiri, an independent actuary using the "Project Unit Credit Cost Method". The previous pension fund calculation was based on the Attained Age Norm method. The Projected Unit Credit method requires an entity to attribute benefits to the current period (to determine the current service cost) and the current and prior periods (to determine the present value of the defined benefit obligation).

The entity attributes the benefits to the periods in which the obligation to provide post-employment benefits arises. The obligation arises when employees provide services that provide post-employment benefits that the entity expects to pay in future reporting periods. Actuarial techniques allow an entity to measure the obligation with a level of reliability sufficient to allow the liability to be recognized. The participant's retirement age is determined to be 56 years old, the accelerated retirement age is set at 10 years before reaching the normal retirement age, the mandatory retirement age is set to 60 years, the participant's age for determining pension benefits is determined on the basis of the date of birth mentioned at the first appointment as an employee according to evidence. - valid evidence.

PG Rejo Agung Baru is a sugar factory managed by PT PG Rajawali I, a subsidiary of the state-owned agribusiness PT Rajawali Nusantara Indonesia (RNI) which participates in providing a defined benefit pension program to its permanent employees. Permanent employees in PG Rejo Agung Baru Madiun are divided into two, namely Staff Employees (KS) and Non-Staff Employees (KNS).

Pension fund participants before entering retirement age submit a letter of application for payment of pension benefits addressed to the RNI Pension Fund. The submission of this pension benefit payment often encounters several obstacles, one of which is the time of submitting the form. The obstacle is due to the large number of employees at PG Rejo Agung Baru, besides that the calculation of pension and jubilee funds is still using Microsoft Excel. The use of microsoft excel requires a longer time in the data input process, resulting in employees being missed and late in the process of submitting pension benefits payments, awarding service ranks and jubilee. The service rank is part of the pension fund given to employees five months before retiring on the condition that for 4 consecutive years they do not get a promotion, while the jubilee is a service award for permanent employees who have served at least 25 years to the company.

The problems in calculating pension and jubilees can be solved by designing and building an application that helps users to calculate pension and jubilees using the PHP programming language and MySQL database. Calculation of pension funds and jubilees using this web-based application is considered more efficient than calculations using Microsoft Excel.

The design of the application for calculating the pension and jubilee funds is expected to prevent employees who are missed and late in providing service and jubilee ranks and make calculations easier. The design of this application requires a clear process and formulation of the problem, namely how to make a web-based application for calculating pension and jubilee funds at PG Rejo Agung Baru Madiun.

The purpose of this research is to design and build a web-based application for calculating pension and jubilee funds at PG Rejo Agung Baru Madiun. This application will later function for the calculation of pension funds and the jubilee of permanent employees of PG Rejo Agung Baru Madiun.

#### **MATERIALS AND METHODS**

The method used in this research is to analyze the system needed by the company to be studied, after that to design and create the application.

Identification of system requirements is carried out to determine the system requirements needed in making applications, in this application a pension and jubilee fund calculation system is needed with the calculation formula as follows:

#### a) Calculation of Pension Benefits

The calculation of pension benefits that will be carried out in the application that will be made is adjusted to the Pension Fund Regulations of PT Rajawali Nusantara Indonesia articles 29 and 30 which are the reference in PG Rejo Agung Baru, following the normal pension benefit formula used:

 $MP = MK \times F \times PhDP$ 

Information:

MP = Retirement Benefits,MK = Working Period,

F = Year of service award factor,

PhDP = Basic Pension Income, provided that the working period is calculated up to the remaining normal pension calculated up to the remaining normal pension.

The award factor per year of service is set at 2.5% (two and a half percent). The participant's pension benefit is set at a maximum of 80% (eighty percent) of the basic pension income per month. Pension benefits can be paid at once or 100% paid per month, if paid all at once then 20% of the pension benefits are paid at once and the remaining 80% is paid per month.

Pension benefits for participants who pass away are different from normal pension benefits. Retirement benefits paid to registered heirs (widows/widowers/children) are 80% of the pension benefits received by retirees each month.

## b) Calculation of Retirement Severance pay

The calculation of the retirement severance pay that will be made is adjusted to the Law Manpower No. 13 of 2003 Article 156 which is the reference in PG Rejo Agung Baru, the following format for calculating the retirement severance pay is used:

- 1) Severance pay (paragraph 2) = T x total salary
- 2) Service award (paragraph 3) = U x total salary
- 3) Sub. Sum (a + b)
- 4) Compensation money (paragraph 4) = 15% x V

Calculation of pension severance pay for employees who resign voluntarily (accelerated retirement), only receive compensation for entitlements in accordance with the provisions of Article 156 paragraph (4) and will receive severance pay, the amount and implementation of which is regulated in a work agreement, company regulations or collective work agreement. Employees who experience prolonged illness, are disabled due to work accidents and are unable to carry out their work after exceeding the limit of 12 (twelve) months can apply for termination of employment and be given severance pay 2 (two) times the provisions of Article 156 paragraph (2) work 2 (two) times the provisions of Article 156 paragraph (3), and money in lieu of rights 1 (one) time the provisions of Article 156 paragraph (4). The format of the retirement severance pays for disabled employees.

The calculation of retirement severance pay for deceased employees is slightly different from the calculation of normal, disabled, delayed and accelerated severance pay. Calculation of severance pay for deceased employees used at PG Rejo Agung Baru is as follows:

- 1) Severance pay =  $2 \times Normal = A$
- 2) Service Period Award = 1 x Normal = B
- 3) Entitlement Reimbursement = 15% X (A + B)
- c) Jubilee Calculation

The Jubilee is a service award given by PG Rejo Agung Baru to its employees. Jubilee is given to permanent employees who have served at least 25 years with the following calculation details:

Jubilee = (((Salary + UMK allowance) x 5) - PPh 21) - Pot. PUPL

Information:

Salary = Salary scale according to group

UMK = UMK Compensation Allowance PPh 21 = Income Tax Article 21

Pot. PUPL = Deduction from the Cooperative on previous loans

The method used in this research is a structured method. The structured method is a technique used to design and write programs in a clear and consistent manner.

a. System planning

Designing outputs, inputs, file structures, programs, procedures, hardware and software needed to support information systems.

b. Application design

The application design process is in accordance with the design and needs that have been prepared. The design of this application aims to make the application look neater; a neat appearance will make it easier for users to carry out activities. The design of the application made will make users feel comfortable when using it.

c. Application testing

After the application reaches the final stage, application testing is carried out to find out whether the application is running as needed, in addition to finding out whether the user encounters significant obstacles when the application is operated.

d. Revise the program when necessary

Make improvements to the application system so that it can run as needed by paying attention to errors that occurred during previous testing. Revision is needed so that users can operate the application smoothly.

e. Application implementation

The process of implementing and maintaining applications that have been made according to the needs of the company.

#### **RESULTS AND DISCUSSION**

PG Rejo Agung Baru Madiun operates an employer pension fund. The purpose of establishing a pension fund is to manage and develop funds to ensure and maintain sustainable income for participants and their families by organizing a defined benefit pension program. Employees who are at least 18 years old or married and have a working period of 1 (one) year are entitled to become participants of the Rajawali Nusantara Indonesia Pension Fund and this participation will stop if the participant dies, stops working by transferring the funds to another Pension Fund and participant have stopped working before reaching the 3-year working period.

The pension and jubilee fund calculation application has been made based on the required system requirements, with the pension and jubilee fund calculation system as follows:

- 1. Retirement Benefit Calculation
  - a. Periodic Retirement Benefit Calculation
  - b. Calculation of Retirement Benefits at Once
  - c. Retirement Benefit Calculation
  - d. Calculation of Retirement Benefits Dies at Once

- 2. Retirement Severance Calculation
  - a. Calculation of Staff Employee Pension (KS)
  - b. Calculation of Non-Staff Employee Retirement (KNS)
  - c. Calculation of Death Retirement of Staff Employees (KS)
  - d. Calculation of Death Pension for Non-Staff Employees (KNS)
- 3. Jubilee Calculation

#### **CONCLUSIONS AND SUGGESTION**

The conclusions that can be drawn based on the results obtained from the analysis, design and implementation of this pension and jubilee fund application are as follows:

- 1. This application can help reduce the risk of human error in the process of calculating age, salary, severance pay, pension benefits, taxes and jubilees so as to increase the efficiency of calculating pension and jubilees.
- 2. This application also produces reports in a consistent format so as to support the process of managing pension funds and jubilee consistently.

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