EMPLOYEE INFORMATION PAYMENT SYSTEM IN PT. MECO INOXPRIMA SIDOARJO (CASE STUDY: PT. MECO INOXPRIMA)

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ABSTRACT

At present, the data and information processing requires speed and accuracy. Based on the knowledge we are studying, to Obtain it must be supported by an Appropriate and efficient information technology and relevant to its application. PT. Meco Inoxprima is one of the company's processing equipment and factories that will the make the payroll process to its employees and the make payroll report as accountability to the management of the company. The process of recording and calculation of Salaries applied by the company is still less effective Because The process is done only a few through the system that causes the salary process is Often too late. In solving the problem then the authors designed a payroll information system employees. In this design, the author uses the NetBeans IDE 8.2 programming language, with the database format using mysql, and the results of the reports using iReport NetBeans IDE 8.2. The results of this study Obtained a java-based payroll information system employees. Information Obtained from this system are: employee self-Data related to payroll and employee salary slips.

Keywords:Information System, Payroll, Employee, Java

I. INTRODUCTION

The increasingly rapid development of technology and increasingly fierce competition between companies in this era of globalization, requires the existing performance in the company to run accordingly professional and appropriate. Likewise all activities include planning and processing to get maximum results for the company.

PT, Inoxprima Meco was founded in 1978 as a small mechanical workshop, by Mr. S. Widjaja, President Director of PT. MECO INOXPRIMA, who completed his studies of mechanical engineering at the Technische University Berlin, Germany. Every effort has been made to develop engineering capabilities and manufacturing factories, mainly in the areas of processing equipment and plant. PT. Meco Inoxprima proud to be one of the leading companies in the field of processing equipment and plants. In 2008, PT. Meco Inoxprima proudly celebrating our 30th anniversary, which shows a continuous struggle to correct Mr. S. Widjaja PT. Meco Inoxprima be better. PT. Meco Inoxprima give our best to improve gradually. But the company is still less than optimal in employee payroll process. So that contract workers often receive a salary that is not appropriate.

The system information is a combination of information technology and the activities of people who use the technology to support the operation and management. In a very broad sense, the term information system is frequently used to refer to the interaction between people, algorithmic processes, data, and technology. In this sense, the term is used to refer not only to the use of the organization information and communication technology (ICT), But also for the way in which people interact with these technologies in support of business processes. Nothing makes a clear distinction between information systems, and computer ICT systems, and business processes. Different information systems of information technologies in the information system is usually seen as having ICT component. It mainly deals with the purpose of utilization of information technology. The
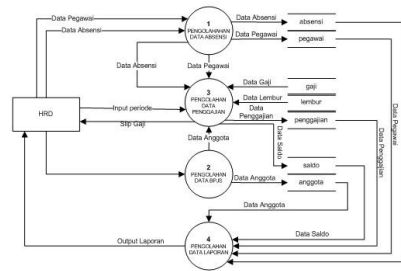
information system is also different from the business process. Information system helps to control the performance of business processBerity of the description above, it will do a research on Information Systems Payroll. As might be expected to optimize payroll process especially in the contract of PT Meco Inoxprima.

II LITERATURE

syaifudin, Bambang Eka Purnama, Beautiful Uly Wardati, 2013, the Information Systems Payroll On Store Winscom Pacitan Using PHP program. Winscom store Pacitan in the management of employees' salaries are still using conventional bookkeeping making it less effective and efficient as well as data generated kevalidannya doubt, therefore Winscom store Pacitan need an information system to make it easier to manage employee payroll data. The main objective of this research is the manufacturing information system that can be used for the calculation of salaries of employees in the store Winscom Pacitan. Methods adopted writer is to carry out observation, interviews, documentation, literature, questionnaires, analysis and design followed by Manufacture Information System Payroll Information System on Winscom store Pacitan. The results of this study is to provide easily manage the salaries of employees by having a more effective storage medium.

III DESIGN SYSTEMS

3.1 Flowchart

Figure 1 Flowchart Menu Penggajian and Menu Cooperative

In Figure 1 illustrates some processes such as payroll payroll system, attendance, and BPJS. First - all display the main menu, the admin will select the process to be carried out. After the admin will enter the menu to process the attendance employee attendance every day. In attendance menu consisting of employee data input process, input attendance data, employee data report, and report attendance data. Furthermore, the admin will enter payroll system in which admin will make the process of employee payroll and paycheck printing, admin can also see statistics for payroll expenses in the period of a month. In BPJS system administrators perform data input BPJS members and see your balance BPJS members. For the cooperative system, first - all display the main menu. Admin will choose the menu entry. Menu entry consists of a menu entry member, deposits, and loans. After the admin will enter the menu report, the menu report admin can view and print documents that have been dientry or inclusion in the company's archive. The menu consists of reports members report, deposit report, credit report, report monthly savings and loan statements per month.

Figure 2 DFD Level 0 System Payroll, Attendance, and BPJS

In Figure 2 explained that the data input from HR to the attendance system consists of employee data and attendance data, and HR payroll system to input period for attendance data and data from the system BPJS take attendance and BPJS system. For BPJS system, HRD enter data member. Results of each - each system in the form of a report that can be printed digitally.
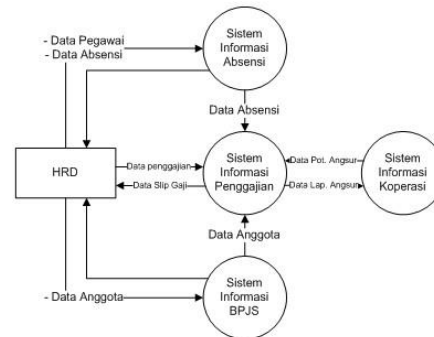

Figure 3 DFD Level 1 System Payroll, Attendance, and BPJS

In Figure 3 describes in detail the flow of the payroll system, attendance, and BPJS. HRD input some data to several data processing systems or to several. HRD input data consisted of employee data and attendance data to the data processing system of attendance or absenteeism, then enter a period for payroll data processing or payroll systems, and data members to the data processing system BPJS or BPJS. HR can view or print multiple reports from the report as an archive of data processing companies.
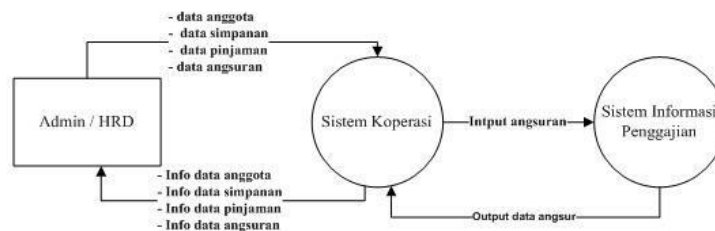
Figure 4 DFD Level 0 Cooperative System

In Figure 4 explained that the input data consists of data members, deposit data, installment loan data and the data for the cooperative system and payroll system is a data installment of the cooperative system. Output data consists of reports of member data, deposit data, installment loan data and the data for the cooperative system and the system of payroll data released is data to update to the data gradually fade in the cooperative system.
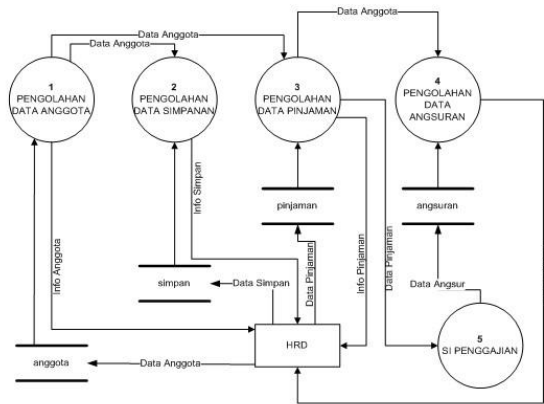
Figure 5 DFD Level 1 System of cooperatives

In Figure 5 illustrates the flow of the cooperative system operated by the HRD. HRD input some data and see the report data that has been entered. The cooperative system is also automatically input the loan installments member to the payroll system, then the payroll system to report the data to the cooperative system gradually to be seen by the human resources department.
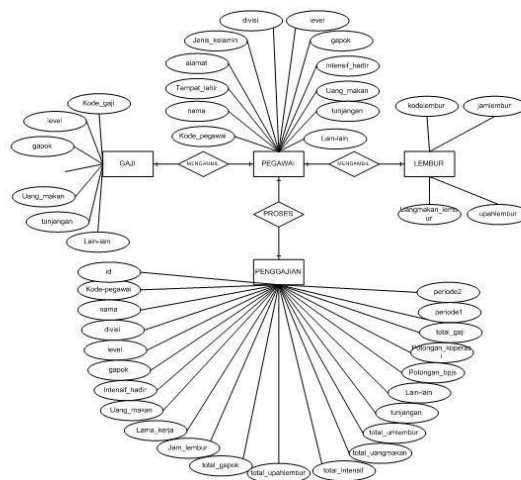
Figure 6 ERD Payroll System

In Figure 6 explained that the data are stored consisting of employee data, payroll and overtime. Employee data to process payroll data and data overtime. Or each employee can access the data from the salary and the data from the data overtime.
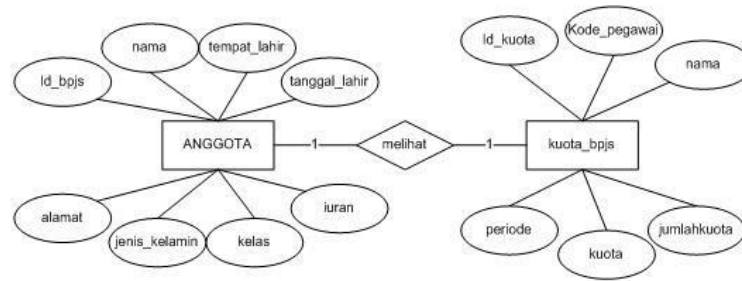
Figure 7 ERD System BPJS

In Figure 4.7 explained that the stored data consists of data members and quota data BPJS. Data member has 8 fields and quota data BPJS has 6 fields.
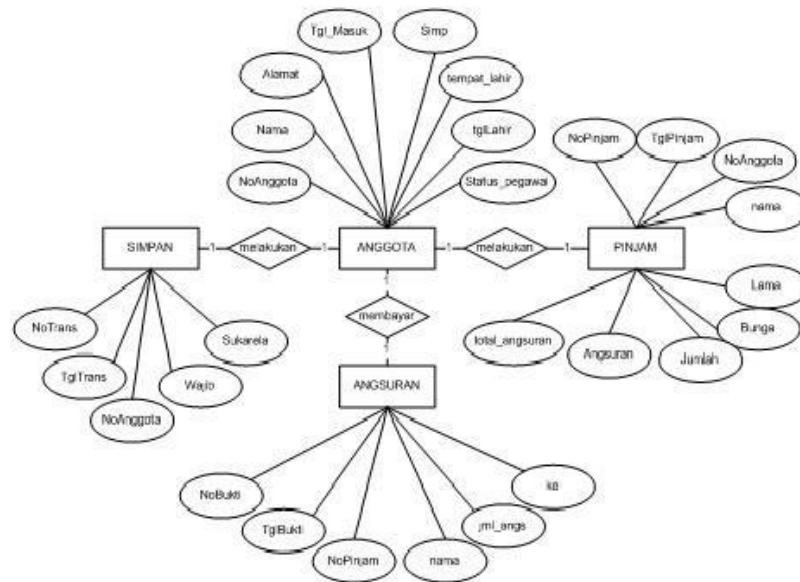
Figure 8 ERD Cooperative System

In Figure 8 described the data flow of the cooperative system that has multiple data between other members, savings, loans, and installment.

IV IMPLEMENTATION AND TESTING

4.1 Implementation

anyway the implementation of the system are as follows:
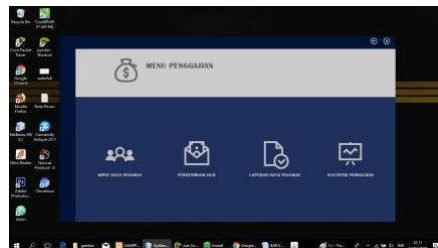
Figure 9 Page Menu Payroll

Figure 10 Page Input Employee
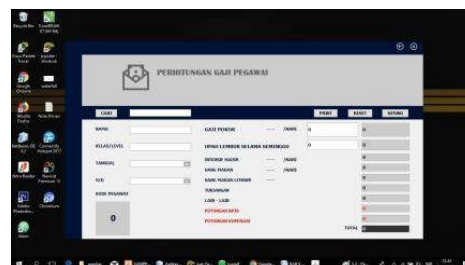
Figure 11 Page Payroll
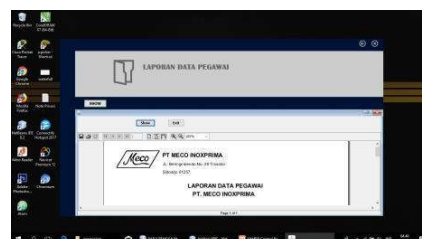
Figure 12 Weather Report Employee Data
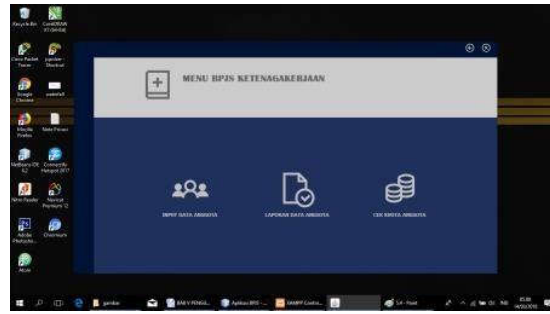
Figure 13 Page BPJS
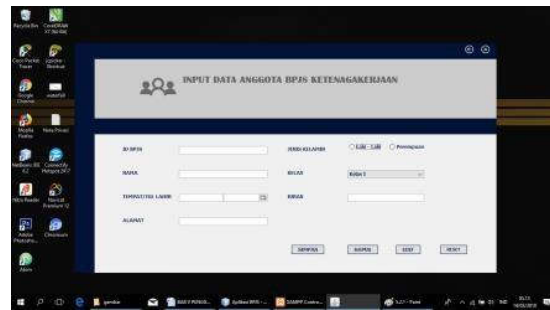
Figure 14 Member Data Input page BPJS
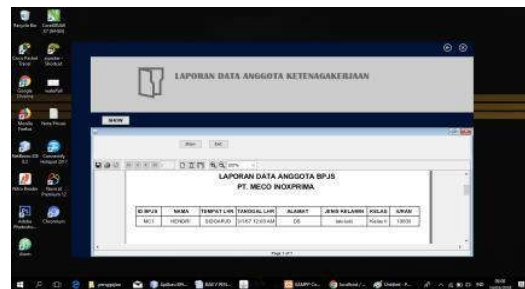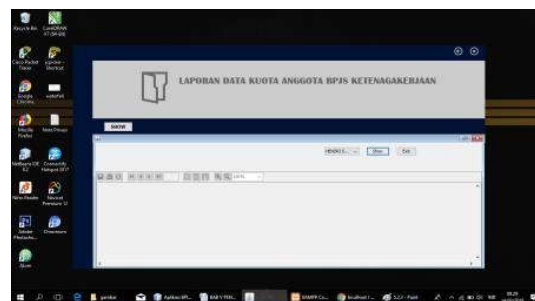

Figure 15 page report BPJS Member Data

Figure 16 Page Balance BPJS
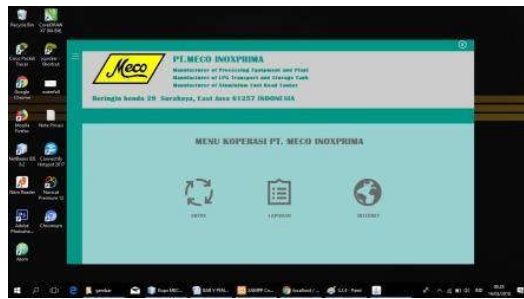
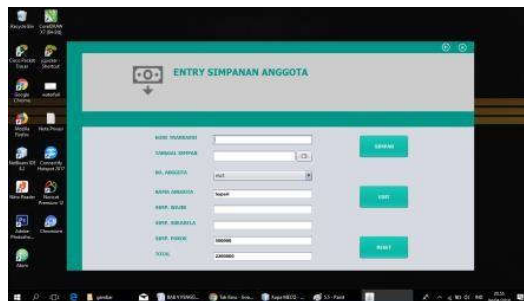Figure 17 Page Menu Cooperative
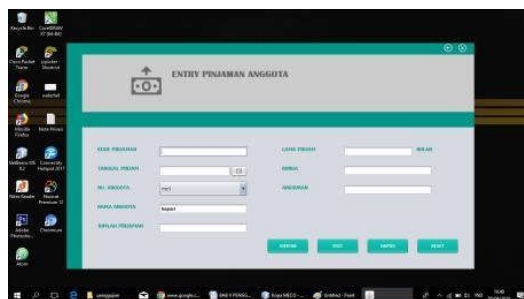

Figure 18. Entry Page Cooperative Members
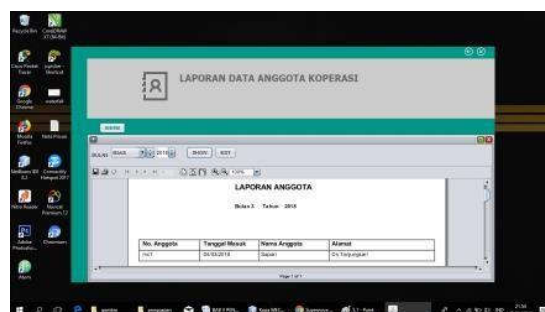

Figure 19 Entry Maps Member Loans
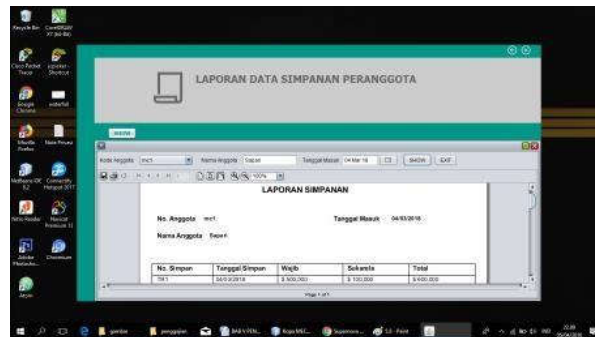

Figure 20 Data Report Page Cooperative Members

Figure 21 page report saves data Member

4.2 Trial Results

Payroll system information on PT. Meco Inoxpirma, testing the system applies the white-box testing techniques flow graph, cyclomatic complexity, and graph matrix.

*Flow graph*adalah chart used to describe the control flow of a program. In contrast to the flowchart, the flow graph graph does not describe in detail the processes that occur in each block notation. Kind of notation in the flowchart described differently (diamond, rectangle, parallelogram, etc.) to describe the different processes, whereas the flow graph notation is only represented by a circle notation. Of use, flowchart used at the design stage to illustrate the logic of the program while the flow graph used in the testing phase that focuses on the depiction of the control flow of a program.

*Cyclomatic Complexity*adalah a software metric that provides a quantitative measure of the complexity of the logic of a program. Using the results of the measurement or calculation of cyclomatic complexity metric, we can determine whether a program is a program that is simple or complex based on the logic that applied to the program. When linked with software testing (software testing), cyclomatic complexity can be used to determine how minimal test cases that must be run to test a program by using the technique of testing base path. In testing the base path, flow control logic described using flow graph.

Givekut are the test results Payroll Information System in PT. Meco Inoxprima, both flow graph and cyclomatic complexit ,. Here is the source code to store employee data:

Table 1 Source Code Store Employee Data

A1	public void Simpan(){
A2	System.out.println("Telah ditekan");
A3	kode = this.txtkodepegawai.getText();
A4	nama = this.txtnamapegawai.getText();
A5	tmpt = this.txttempat.getText();
A6	tgl =(java.util.Date) this.txttanggal.getDate();
A7	almt = this.txtalamat.getText();
A8	if (rblaki.isSelected()){
A9	jenkel="Laki-Laki";
A10	}else if(rbperempuan.isSelected()){
A11	jenkel="Perempuan";
A12	}else{
A13	jenkel="Tidak Punya";
A14	}
A15	lvl = (String) this.cblevel.getSelectedItem();
A16	setColor(panel3);
A17	gapok = this.txtgapok.getText();
A18	intensif = this.txtintensif.getText();
A19	um = this.txtuangmakan.getText();
A20	tj = this.txttunjangan.getText();
A21	lain = this.txtlainlain.getText();
A22	try {
A23	Connection c = AplikasiBPJS.getkoneksi();
A24	String sql = "INSERT INTO pegawai VALUES ᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥᵥ)";
A25	p = (PreparedStatement) c.prepareStatement(sql);
A26	p.setString(1, kode);
A27	p.setString(2, nama);
A28	p.setString(3, tmpt);
A29	p.setDate(4, new java.sql.Date(tgl.getTime()));
A30	p.setString(5, almt);
A31	p.setString(6,jenkel);
A32	p.setString(7, lvl);
A33	p.setString(8, gapok);
A34	p.setString(9, intensif);
A35	p.setString(10,um);
A36	p.setString(11,tj);
A37	p.setString(12,lain);
A38	p.executeUpdate();
A39	p.close();
A40	JOptionPane.showMessageDialog(this, "Sukses Tambah data");
A41	}catch(SQLException e){
A42	System.out.println("Tidak berhasil tersimpan" + e);
A43	}}

Flow graph the store employee data is tested for errors in the program flow. Flow graph store employee data can be seen in the image below:
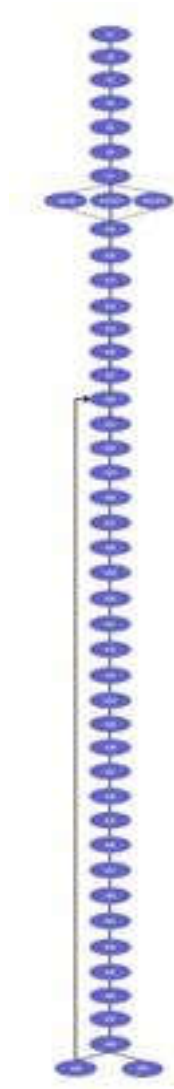

Figure 22 Flow Graph Data Store Employee

Measurement software that provides quantitative measurements and the complexity of the program logic to find the number of paths in the flowgraph.

Cyclomatic complexity

V (G) = E - N + 2

Where: E = the number of edges (kids arrows) on the graph

N = the number of nodes (points) on the graph flow

Seby:

V (G) = 48 edge - 46 nodes + 2 = 4

     The results obtained by the order flowgraph main menu as much as 10 path. Here is the path obtained from the path sequence flowgraph main menu:

putth 1: A1, A2, A3, A4, A5, A6, A7, (A8, A9), A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28 , A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, (A41-A43), A22.

putth 2: A1, A2, A3, A4, A5, A6, A7, (A10, A11), A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28 , A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, (A41-A43), A22.

putth 3: A1, A2, A3, A4, A5, A6, A7, (A12, A14), A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28 , A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, (A41-A43), A22.

putth 4: A1, A2, A3, A4, A5, A6, A7, (A10, A11), A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28 , A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40.

     To prove the test data has been successfully saved then it will display the image database of employees. More details can be seen in Figure 23.

Figure 23 Database Employee Data

V CONCLUSION

Berity the results of research and discussion, we can conclude that:

a) Payroll Information System

In PT. Inoxprima Meco, running smoothly, where the results of testing goes well functioning entity.

b) Users of Information Systems

Payment PT. Meco Inoxprima is HRD (Human Resource Department) at the PT. Meco Inoxprima.

c) Pursuant to the test results

By white box testing can be seen that the white box testing will detect the conditions are not appropriate and to detect when the loop will stop. Incompatibility assumptions, featuring assumptions not correspond to reality, to be analyzed and corrected. But for software that is quite large, white box testing is regarded as belonging wasteful strategy, as it would involve a great resource to do so. From the above test results it can be stated that the system is feasible test white-box testing.

VI SUGGESTIONS

Berity of research results and conclusions, suggestions that may be useful begi PT. Meco Inoxprima are as follows:

a) *User* must do the utilization and optimal use of the system as a medium of information will accelerate the delivery of information.
b) Implementation system will run well and smoothly when all parties concerned to support the implementation of payroll information system.
c) Payroll system information should always be on the analysis of whether the system is viable or not to use, so it can be known whether or not to do development or replacement of existing systems to meet the needs of PT. Meco Inoxprima.

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