INFORMATION SYSTEM DEVELOPMENT OF HUMAN RESOURCE MANAGEMENT AT CV. RIMBA DJAYA RAYA 5 (RDR)

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ABSTRACT

CV. Djaya Rimba Raya which is located in the village of Cibereum Kulon Sumedang is a company that has stood since 2012, this company is engaged in the sale of sand quarrying and sand mill. Company CV. Djaya Rimba Raya 5 is a Company that has developed, it is characterized by the existence of other branches in the District Cileuksa Kecamatan Cimalaka namely CV. Djaya Rimba Raya 3.

Based on a problem that have at CV. Rimba Djaya Raya that currently in the process of hiring a new employee, HRD feel difficulty in determining the number of employees needs and criteria required by the company with employees who accepted. The other problem is employee performance evaluation results are still questionable results, because the appraisal process is only done by forecasts and observations and the absence of criteria that form the basis for decision making, assessment of employee performance becomes objectively. WP method (Weighted Product) is the method used for selection employee candidates that the result is a ranking of employee candidates from the highest to the lowest. AHP (Analytical Hierarchy Process) is the method used to evaluate employee performance that will be conducted by the HR Manager and the result will be ranked by the employee stating whether to get a promotion, transfer or demotion. In this system, employees can apply for leave in accordance with the existing criteria. HR managers also can monitor employee pension seen from its operational period.

Based on the results of black box testing and beta testing can be concluded that this system is already helping HR Manager in determining the number of employees needs and criteria required and processing the assessment of performance employee that appropriate to criteria and the result can make easier to take the decision.

Keywords*: Management Information Systems, Human Resources, Methods WP, AHP Method.*

1. INTRODUCTION

CV. Djaya Rimba Raya 5 (RDR) which is located in the village of Cibereum Kulon Sumedang is a company that has stood since 2012, this company is engaged in the sale of sand quarrying and sand mill. Company CV. Djaya Rimba Raya 5 is a Company that has developed, it is characterized by the existence of other branches in the District Cileuksa Hamlet Cimalaka namely CV. Djaya Rimba Raya 3 (RDR). For a company to manage and organize the Human Resources (HR) is not easy, so is experienced by CV. Djaya Rimba Raya 5 (RDR). Human Resource Management in a Company itself is a complex system, along with a growing number of clerks who owned the Company. Unknown until now the total number of employees in the CV. Djaya Rimba Raya numbered 83 people.

Based on interviews that have been conducted by the Rev. Mr. M as the Manager of HRD (Human Resources Development) in the CV. Djaya Rimba Raya 5 (RDR) states that the problems that exist in the Company today is in the process of hiring a new employee HRD feel difficulty in determining the number of employees needs and criteria required by the company to the employee received. It is experiencing difficulties in implementing the work placement and the determination of employee positions will be accepted at the company in because CV. Djaya Rimba Raya processing of employee data is only done in CV. Djaya Rimba Raya 5, while HRD should perform well in CV determination. Djaya Rimba Raya 3.

The difficulty in determining to pose any problems caused by the HRD SOP (Standard Operating Procedure) Recruitment, all phases of the recruitment process should be completed in a maximum of 15 days after doing it the recruitment process. Commencing at the selection stage, the data of applicants who must review the data amounted to 52 (per 2016) in the CV. Djaya Rimba Raya 5 and 31, the data (per 2016) in the CV. Djaya Rimba Raya 3, in the form of a cover letter and CV. Accumulation of data Applicants are making a review of documents for the selection process to be blocked as well as experiencing difficulties in implementing the placement service positions resulted in a target time of recruitment to be completed can not be completed on time which makes the work process in the company is hampered due to shortage of staff and impact on the quality of employee performance.

As a Human Resources Manager father Rev. M is also required to be assessor employee performance, which conveys other problems that exist in the CV. Rimba Djaya Kingdom 5 is the result of performance appraisal employee who still doubt the results by the Board as the assessment process is only done based on estimates and assessment process is also considered not objective due to the lack of criteria and requirements which form the basis for the assessment used to assess, it makes HRD difficulties in assessing an employee due to HRD CV. Djaya Rimba Raya 5 must assess the CV. Djaya Rimba Raya 3. This affects the determination of employee career development, namely Promotion Position, Position Transfers and Demotions Employees.

Based on the problems that were outlined earlier, we need an information management system that can provide assistance in the planning and implementation of the recruitment process in the employee performance evaluation CV.Rimba Djaya Kingdom 5 (RDR).

2. Content of Research

2.1 Theoretical Basis

The theoretical basis is a collection of theories that form the basis of development of management information system in CV. Djaya Rimba Raya.

2.1.1. Management information System

Management Information Systems or SIM is a computer-based system makes the information can be used by managers to the same needs. The manager is usually the unity of formal organization, which is a company or one of its functional area. It describes the company or its main system with regard to what happened in the past, what is happening now, and what might happen in the future. Information is generated in the form of newsletters, special reports, and the output of the mathematical simulation. The information is used by managers to make decisions in solving the problem and are available in the form of periodic reports, special reports, and the output of a mathematical simulation.

SIM definition can be described as a model in Fig.1. Listener information is on the left. He includes a computer with a database that contains the data and information from internal and environmental, as well as software libraries. Another important element that although not visible in the model is an information specialist staff.

Processing information provides information in three basic forms to users of SIM. Users, which is displayed in the middle of the organizational chart is placed on an organizational level and in all areas of functioning.

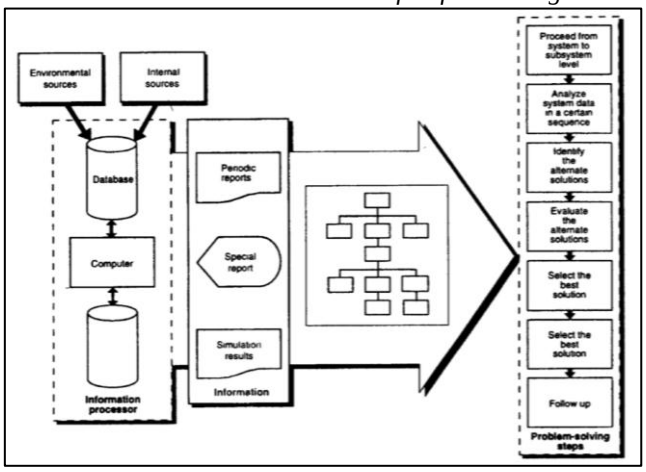


Figure 1 Model SIM

The right hand side of the model shows how the information is used in problem solving. The arrow that connects the three forms of information with the troubleshooting steps show how users implement SIM output. That information gave a statement to the problem and not to a particular decision, and it is for managers to determine how the information will be used.

Companies can start a SIM implementation efforts to create sources of information can be used by managers in the company. Alternatively, sub-organizational units, such as the level of management or functional areas can start using the SIM primarily to support or assist the manager's job on a sub-unit or functional area. As an example of the SIM dirancangan effort to support this level of management is an executive information system. SIM effort aimed at supporting managers in specific functional areas include marketing information systems, manufacturing information systems, financial information systems, and human resource information systems. The subsystems are not physically separated. Most databases used by an organizational subsystem can be used by another subsystem, and it is possible for this subsystem to use the program together as illustrated in Figure 2

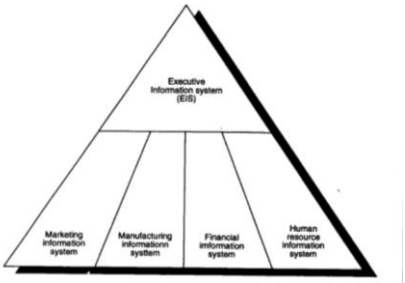


Figure 2 Subsistem Informasi Organisasional

2.1.2. Human Resource Management

There are three terms of human resources, namely:

a. *Human resources are the people who work in the environment of an organization (also called the personnel, labor, worker or employee).*
b. *Human resource is the human potential as a driving force in realizing the organization's existence.*
c. *Human resources is a potential that the assets and serves as the capital (non-material / non-financial) in business organizations, which can manifest into real potential (real) physical and non-physical in realizing the existence of the organization.*

Based on the understanding that it can be concluded that human resources is a process of utilizing the labor of man as a human way, so that the potential of its physical and psychological functioning optimally to the achievement of organizational goals (institution).

2.1.3. Management Information Systems of Human Resource

Human resource management is a process of dealing with various issues on the scope of employees, workers, managers and other workers to be able to support the activities of the organization or company to achieve its intended purpose. Section or unit that is usually in charge of human resources is the human resources department.

HR information systems (human resouces information system) is a systematic procedure for collecting, storing, retaining, engaging and validate the data that is needed by a company to improve human resource decisions.

2.1.4. Meaning of Analysis PDCA

PDCA, the English abbreviation of "Plan, Do, Check, Act" (Plan, Do, Check, Follow-up), is a four-step problem-solving process is iterative commonly used in quality control. PDCA cycle shown in Figure 3



Figure 3 Cycle PDCA

1. Plan (Plan): identify the problem, determine goals to be achieved and analyzing the cause of the problem.
2. Do (Do): execute what is on stage plan.
3. Check (Cheque): results of the monitoring and evaluation of the work done, whether in accordance with the planned phase plan.
Act (Followup): follow up to make the necessary repairs.

2.1.5. Decision Support System

Little (1970) defines a decision support system or decision support system (DSS) as a "set of model-based procedures to process the data and assessments to help managers in decision-making." He believes that to be successful, the system must be simple, robust, easy to control, adaptive, full of important issues, and easy to communicate with. Alter (1980) defines a decision support system with their contrast with (EDP) electronic data processing system in five dimensions. Moore and Chang (1980) argues that the concept of structured ness, so much a part of the definition of the initial DSS (ie, that DSS can handle situations semistructured and unstructured), is meaningless in general; the problem can be described as either structured or unstructured only with respect to specific decision-maker or a specific situation (eg, structured decision-structured because we choose to treat them as such). Thus, they define DSS as an extended system capable of supporting ad hoc data analysis and decision modeling, planning a future-oriented, and is used at irregular intervals unplanned.

Table 1 DSS versus EDP

Dimensi	*SPK*	*EDP*
Use	*Aktif*	*Pasif*
User	*Manajemen Staf*	*Clerical*
Goal	*Keefektifan*	*Efisiensi Mekanis*
Time horizon	*Sekarang dan di masa depan*	*Lalu*
Objektive	*Fleksibilitas*	*Konsistensi*

2.1.6. Metode Weighted Product (WP)

Weighted Product use multiplication method to connect rating attributes, where each attribute rating should be raised to a first weight attribute is concerned.
WP is one of the multi-criteria decision analysis (multi-criteria decision analysis / MCDA) is very popular. Methods of multi-criteria decision making multi-criteria decision making (MCDM). MCDA method, which granted is a limited set of decision alternatives described in terms of a number of decision criteria. Any alternative compared with other decisions by multiplying the number of ratios, one for each decision criteria. Each ratio is raised to the power equivalent to the relative weight of the

matching criteria following figure is a workflow methods WP

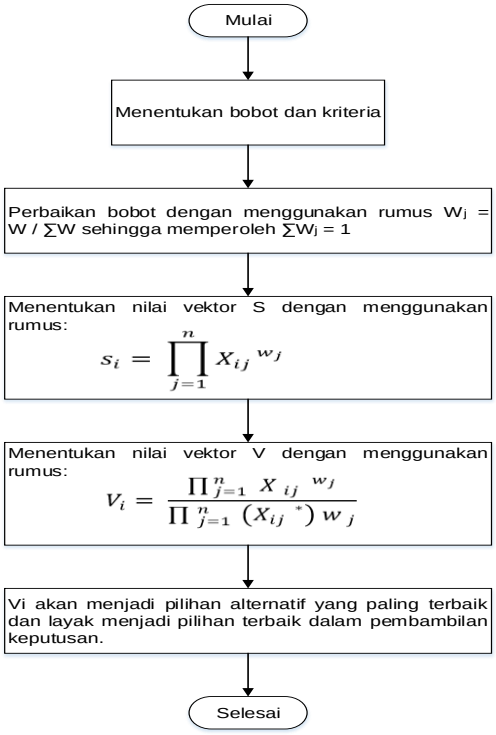


Figure 4 Flowchart Metode WP

The concept of product weighted calculation method:

1. Determining the value of the vector S.

The preference for alternative given the following formula:

$$s_i = \prod_{j=1}^{n} X_{ij}^{w_j}$$

with i = 1,2,...,m dan j = 1, 2, ...n.

where :

S: alternatif Preferens of vektor S

X: score of criteria

W: weight of criteria /sub criteria

i: Alternatif

j: criteria

n: number of criteria

1. Make improvements weights first. The initial weight fixed in advance by the following formula:

$$W_j = \frac{w_j}{\sum w_j} \quad \textit{sehingga} \quad \sum W_j = 1$$

1. This was followed by determining the value of the vector to be used calculating the referrers (Vi) to perangkingan / search the best alternative to the following

formula:

$$V_i = \frac{\prod_{j=1}^{n} X_{ij}^{w_j}}{\prod_{j=1}^{n} (X_{ij}^{*}) w_j} \quad (2.3)$$

information:

V_i *= the highst score will be chosen*

Π *= product*

X_{ij} *= alternatif score i to atribute j*

w_j *= weighten*

The formulas:

$$V_i = \frac{S_i}{S_1 + S_2 + \cdots S_n}$$

1. *After performing the calculation of preferences (vi) above will then obtain alternative options most worthy of the best and be the best choice in decision-making.*

2.2.7 Methode Analytical Hierarchy Process (AHP)

Analytical Hierarchy Process (AHP) developed by Thomas L. Saaty in the 1970s. This method is one of multiple criteria decision-making model that can help the human frame in which the factors of logic, experience or knowledge, emotions and sense of optimized into a systematic process. Basically, AHP is a method used to solve complex problems and are not structured into their groups, to organize the group into a hierarchy, and then enter a numerical value as a substitute for human perception in making relative comparisons. With a hypothesis then it can be determined which elements should have the highest priority.

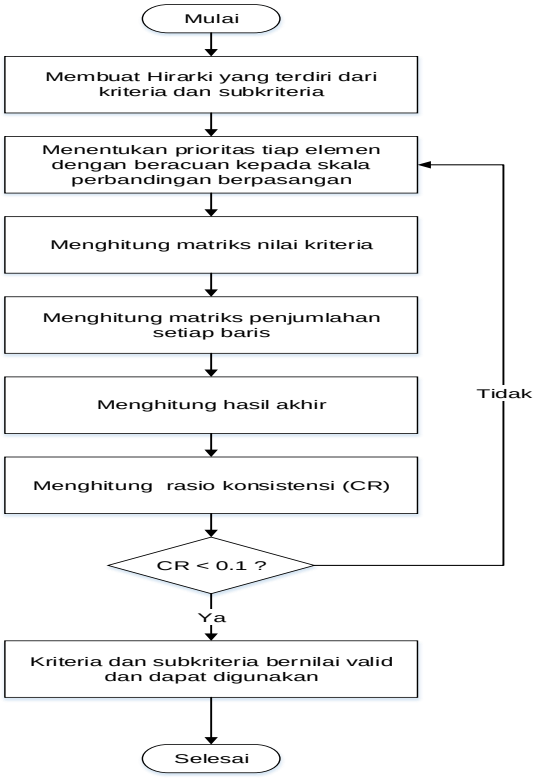


Figure 5 Flowchart Methode AHP

AHP is a component of a functional hierarchy with the main input in the form of human principles. AHP has many advantages one of which is can be depicted graphically so easily understood by all parties involved in a decision-making. Some principles when using AHP DSS issues that must be understood, including:

1. Make hierarchy

A complex system can be understood by breaking it down into the supporting elements, composing elements in the hierarchy, and combining or synthesizing. Decomposition is used to solve problems or divide the whole into the elements and to form a hierarchy of decision making process, in which each element is related to each other. AHP hierarchical structure can be seen in Figure 6 below:

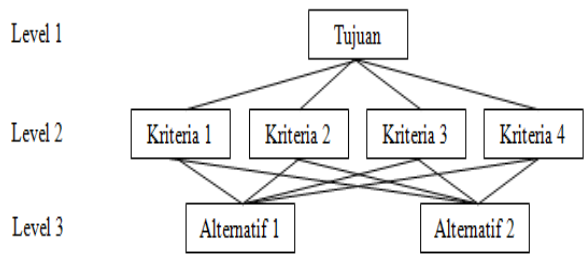


Figure 6 Strukture Hierarki AHP

1. Assessment criteria and alternative
Criteria and alternatives conducted by paired comparison. Scale comparative value pairs.
2. systhesis of priority (Set priorities)
Each criteria and alternatives need to be paired comparisons (pairwise comprasions). The values of all comparisons can be adjusted by a judgment which has ditentuk to produce a weight and priority. Weights and priority calculation by performing matrix manipulation or can also perform mathematical equations.
3. Logical Consistency (Consistency Logical)
Consistency has two meanings. First, the objects of the same / similar can be classified based on the uniformity and relevance. Second, regarding the level of relationships between objects based on specific criteria.

2.2. Problem analysis

Based on the results of interviews that have been conducted by the Rev. Mr. M as HRD CV. Djaya Rimba Raya Integration stated that currently still have a problem as follows:
1. In the process of recruitment in determining the amount of an employee's needs and criteria required by the company to the employee received. It is experiencing difficulties in implementing the work placement and the determination of employee positions will be accepted at the company in because CV. Djaya Rimba Raya processing of employee data is only done in CV. Djaya Rimba Raya 5, while HRD should perform well in CV determination. Djaya Rimba Raya 3.
2. In the annual performance appraisal process Employee performance evaluation results which still doubted the results by the Board as the assessment process is only done based on estimates and assessment process is also considered not objective due to the lack of criteria and conditions are the basis for the assessment used to assess, it is create difficulties in assessing employee HRD HRD due CV. Djaya Rimba Raya 5 must assess the CV. Djaya Rimba Raya 3.

2.2.1. Analysis PDCA

Analysis PDCA (Plan, Do, Check, Act) is a follow-up analysis of the current system. This section will analyze how an HR procedures will be implemented in HR Management Information System is built on the CV. Djaya Rimba Raya. PDCA stages are described in figure 7:

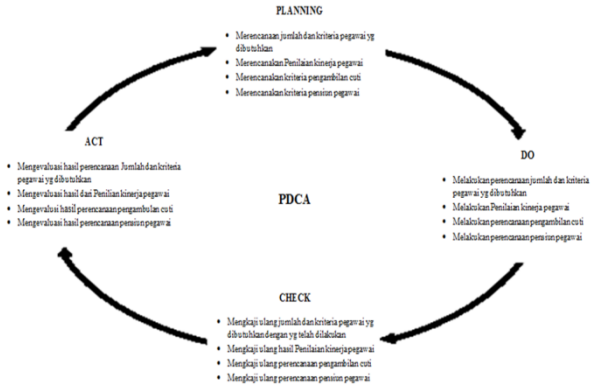


Figure 7 Cycle PDCA

2.2.1.1 Analysis and Planning Criteria Number of Employees On Human Resource Management Information System

1. Plan

This stage is the planning of human resources needs to determine the criteria and the number of employees needed conducted periodic and non-periodic. Through this planning process, the human resources department will be able to determine what positions are currently vacant, how the number of employees needed and what criteria are needed to fill these positions. Is assumed as follows:

1. Periodic

In January-February the Company undertake workforce planning. Then each unit of work can apply for employment purposes. In assuming a vacancy occurs in the work unit sales. Then the unit leader will propose the sale of labor requirements with employee needs 3. Due to unit sales of just being in RDR 3 The HRD will open up the jobs with the following criteria:

1. Male / Female maximum 25 Years

2. D3 to all majors

3. Experience of work 2 years

4. Able to operate Computer

5. Able to communicate well to the consumer

2. The non-periodic

A vacancy occurred on the Financial Manager happened because Mr. Sugema resigned from the company. Thus the human resources department of Human Resources will plan non-periodically to fill a vacancy on the Finance Manager. Eg for a vacancy on the Finance Manager, because under Mr Sugema there are other employees, the human resources department will determine the amount and the criteria employees needed to fill a vacancy on the Finance ie 1 person. Here is the result of the determination of the planning criteria for employees to Manager of Finance:

1. Male / Female maximum 27 years

2. Education D3 / S1 Accounting

3. Work Experience Minimum 3 years

4. Able to operate Computer

2. Do

This stage is the stage of planning that has been made. After getting the right amount and the criteria for filling Demand for labor or vacancies that exist, then this step is to request approval of an employee to the HR Manager and the Board approved and carried out or not out of the planning stages. If it is approved it will do employee performance evaluation of employee performance evaluation and recruitment to mememuhi employee needs.

3. Check

at this stage of evaluation of the results of the planning process criteria and the amount of human resources has been done in the process do if it is appropriate, ie check the determination of the amount and the criteria are in accordance with the required positions or not.

4. Act

This stage is the stage to take action if the results that have been obtained at this stage of the previous check is in conformity with human resource planning. then the Company must memenuhui needs of employees is 3 employees for the sales department and one employee for financial managers.

2.2.1.2 Analysis Assessment Process KinerjaPegawai

PDCA analysis of employee performance evaluation process in human resource management information system in CV. Djaya Rimba Raya as follows:

Planning and Assessment calculations of employees using AHP as follows:

1. Plan

In this case planning will be an evaluation of the performance of non-periodic due to a vacancy occurred on the Financial Manager, Mr. Sugema who resigned, the evaluation is conducted to obtain the appropriate employee to replace Mr Sugema positions as Finance Manager. In the planning stage will be conducted to determine the criteria and sub-criteria and their weights of each - each. Before evaluating the performance assessment, the HRD construct a hierarchy that contains stages in AHP, where in this compilation will get an idea keterstrukturannya criterion. Specify the general criteria until more specific criteria or so-called sub-criteria. Before making hierarchy, the first to do is to analyze the criteria and sub-criteria that have been determined by the company and has been described in Limitations in Chapter I, following the results of the analysis of criteria and evaluation process subriteria employee performance evaluation that is in the CV. Djaya Rimba Raya. Based on the analysis of this research, a hierarchy can be created like this:

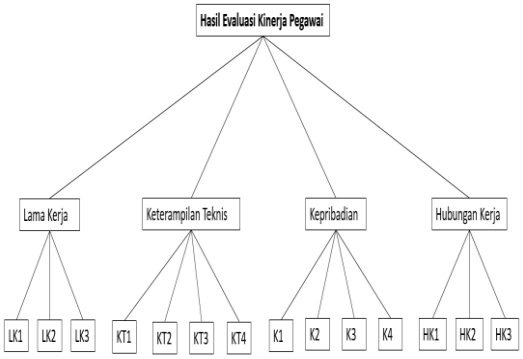


Figure 8 Hirarki criteria of assesment

2. Do

This stage is for Determining a priority on the assessment of the AHP, because this is where a decision will be obtained. Here is a stage - the stage in determining priorities.

after testing the consistency ratio value, it can be concluded that the values in the column of Table 3.9 results referable ratings for CR <0.1.

3. check

This stage is the stage of examination of whether the results of the performance evaluation conducted was in accordance with what is expected of companies. This check is performed by examining the results of the performance evaluation of each employee. Making the final value based on the value of employees multiplied by the value of the priority

Before Calculating the results of the employee at this stage of organizing a result of the determination priortas each criteria and sub-criteria that has been done in previous stages.

Making the final value based on the value of employees multiplied by the value of the priority. Here are the results of evaluation based on employee ratings.

Table 2 The results of the performance evaluation of employees based on employee ratings

No	*Name*	*Last Score*	*Ranking*
1	*Supri*	*254755*	*III*
2	*Handoko*	*244260*	*IV*
3	*Yati*	*274150*	*II*
4	*Asep*	*289015*	*I*
5	*Yunita*	*238895*	*V*

4. Act

Because it is appropriate it will be created a standard process documentation and recap the results of the assessment. Because Asep get the highest final value of 289 015 in the first rank. Based on the final value obtained by Asep, then he will get a promotional gift from the company. After consideration approved by the Board of the company, then Asep eligible for promotion provided by the company will replace Mr. Sugema. Likewise, other employees will get a decision based on the final value that Job Promotion, Transfer of Employment and Demotion Position according to business rules. but because the performance evaluation is done only to replace the post of Finance Manger, then other employees will not get any change other than Asep. The performance evaluation is an overview of the employee's performance is generated, the evaluation results could also reflect whether the placement stage had previously been targeted in accordance with the needs that have been planned.

2.2.1.3 Recruitment and Selection Process Analysis Method Using WP

Recruitment and selection of human resources conducted by the human resources department based on the planning of human resources needs that have been approved by the Human Resources and Management at CV. Djaya Rimba Raya. Recruitment was opened by the company in case of vacancy and every January to February. After doing the hiring will be selected prospective employees, the management information system is using WP method that can provide an alternative choice where the best employees and the most potential to be recruited by the company.

1. Plan

Recruitment and selection of employees do if a vacancy occurs and in January and February by way of prospective employees provide CV directly to the company. Because there is demand for labor on the part of sales staff due to the occurrence of a vacancy on the sales staff with employee requests that three people, then the vacancy should be filled to prevent the inhibition of jobs the company a maximum of 15 days after the filing of the demand for labor. In the planning stage will be conducted to determine the needs of employees and their criteria weighting criteria. Stages of the recruitment and selection of employees first is determining the weights and criteria, with determination Pemberan range is as follows:

2. Do

This stage involves the selection of an employee who had previously planned. HRD has determined the terms of recruitment and employee selection criteria, will then determine the weight of the criteria that will be determined based on the needs of employees needed. In this case example, suppose there are four candidates for employees who applied for a job to be placed on the post of Finance staff because Asep get promotions, then the Finance staff are experiencing vacancies. Sample data service candidates with requisite criteria for each and has been carrying out a written test and interview as in Table 3 below:

Table 3 Data Prospective employees

Calon Pegawai	***Kriteria***				
	Pendidikan	***Work***	***Ranking***	***score***	***score***
Agus	*S1*	*Belum*	*1 prestasi*	*85*	*70*
Elprian dila	*S2*	*2 tahun*	*Belum Pernah*	*80*	*70*
Maryono	*SMA*	*Belum Pernah*	*Belum Pernah*	*70*	*85*
Yasmin	*S1*	*< 1 tahun*	*1 prestasi*	*80*	*70*

Data values are in the table above 3 will now be fixed weighting of the criteria for the level of education, work experience and achievements gained. Data prospective employees who have fixed weight value criteria of level of education, work experience, and achievements that have been obtained.

After obtaining the data value of the prospective employee, a step - step of the process of recruitment and selection of new employees using WP is as follows:

1. *1. Determine the initial weights of each criteria have been determined, the initial weight value can change - change in accordance with the conditions set by the company for the recruitment and selection of new employees. HRD determine the initial weight for each - each criteria, ie criteria of education level is 5, work experience is four, a feat never obtained is 3, the results of the written test is 3, and the results of the interview is 5. The initial weighting of each criterion leave reference weights as follows:*

   W = (5, 4, 3, 3, 5) ∑W = 20
2. *Make repairs weight by using the formula W_j = W / (ΣW) so as to obtain ΣW_j = 1 How The solution is as follows:*

$$W_1 = \frac{5}{5 + 4 + 3 + 3 + 5} = \frac{5}{20} = 0{,}25$$
$$W_2 = \frac{4}{5 + 4 + 3 + 3 + 5} = \frac{4}{20} = 0{,}20$$
$$W_3 = \frac{3}{5 + 4 + 3 + 3 + 5} = \frac{3}{20} = 0{,}15$$
$$W_4 = \frac{3}{5 + 4 + 3 + 3 + 5} = \frac{3}{20} = 0{,}15$$
$$W_5 = \frac{5}{5 + 4 + 3 + 3 + 5} = \frac{5}{20} = 0{,}25$$

∑W = 0.25 + 0.2 + 0.15 + 0.15 + 0.25 = 1

3. *Then the next step is to determine the value of vector S, where data - the data will be multiplied, but reappointment previously done with the initial weight. How can the solution using the formula 2.1 is no chapter II, namely :*

$$s_i = \prod_{j=1}^{n} X_{ij}{}^{w_j}$$

the formulas

$$S_i = \left(C_1{}^{W_1}\right)\left(C_2{}^{W_2}\right)\left(C_3{}^{W_3}\right)\left(C_4{}^{W_4}\right)\left(C_5{}^{W_5}\right)$$

This is example how the formulas work

$$S_1 = (3^{0,25})\,(1^{0,2})\,(2^{0,15})\,(85^{0,15})\,(70^{0,25})$$
$$= 1.31\ x\ 1\ x\ 1.1\ x\ 1{,}94\ x\ 2.89 = \mathbf{8.10}$$

$$S_2 = (4^{0,25})\,(3^{0,2})\,(1^{0,15})\,(80^{0,15})\,(70^{0,25})$$
$$= 1.41\ x\ 1.24\ x\ 1\ x\ 1{,}92\ x\ 2.89 = \mathbf{9.74}$$

$$S_3 = (1^{0,25})\,(1^{0,2})\,(1^{0,15})\,(70^{0,15})\,(85^{0,25})$$
$$= 1\ x\ 1\ x\ 1\ x\ 1{,}89\ x\ 3.03 = \mathbf{5.74}$$

$$S_4 = (3^{0,25})\,(2^{0,2})\,(2^{0,15})\,(80^{0,15})\,(70^{0,25})$$
$$= 1.31\ x\ 1.14\ x\ 1.1\ x\ 1{,}92\ x\ 2.89 = \mathbf{9.19}$$

From the calculation, the values obtained for the vector S

4. *Determine the value of vector V to be used for ranking alternative choices by using the formula in Section II, namely :*

$$V_i = \frac{\prod_{j=1}^{n} X_{ij}^{\ w_j}}{\prod_{j=1}^{n} \left(X_{ij}^{\ *}\right) w_j}$$

Simply like this:

$$V_i = \frac{S_i}{S_1 + S_2 + \cdots S_n}$$

Here is a way to resolve:

$$V_1 = \frac{8.10}{5.74 + 9.19 + 8.10 + 9.74} = \frac{8.10}{32.77} = \mathbf{0,247}$$

$$V_2 = \frac{9.74}{5.74 + 9.19 + 8.10 + 9.74} = \frac{9.74}{32.77} = \mathbf{0.297}$$

$$V_3 = \frac{5.74}{5.74 + 9.19 + 8.10 + 9.74} = \frac{5.74}{32.77} = \mathbf{0,175}$$

$$V_4 = \frac{9.19}{5.74 + 9.19 + 8.10 + 9.74} = \frac{9.19}{32.77} = \mathbf{0,280}$$

From the above calculation, the obtained value - value for the vector V is as follows:

Table 4 Vektor V score

Prospective employees	***Vektor V score***
Agus	*0.247*
Elpriandila	*0.297*
Maryono	*0.175*
Yasmin	*0.280*

3. Check

This stage is the stage of the examination results of the screening are among the prospective employee V1, V2, V3, and V4 which one would be the best option to be selected and accepted by the company. Results of ranking is derived from the value of each prospective employee can be seen in the table below 5:

Table 5 rank result of assement

Alternatif	***Prospective employees***	***score***	***Rank***
V2	*Elpriandila*	*0.297*	*I*
V4	*Yasmin*	*0.280*	*II*
V1	*Agus*	*0.247*	*III*
V3	*Maryono*	*0.175*	*IV*

According to the table above, the obtained among prospective employees V1, V2, V3, and V4 which has the largest value is V2 is Elpriandila. Due to the demand for sales staff three people then Elpriandila, Yasmin and Agus will be selected to be the best option to choose to fill positions that become vacant in the company's sales staff CV. Djaya Rimba Raya 3.

4. Act

Because it is appropriate it will be created as a solution process documentation standards. After that the HRD merekap Applicants of data that can later be reused if a vacancy occurs and Administration section makes a contract with Elpriandila, Yasmin and Agus as a prospective employee to fill a void that is for sales staff.

2.3 Analysis Basic Data

In the SIM system development of human resources required in a design database, database modeling can be seen in Figure 9..

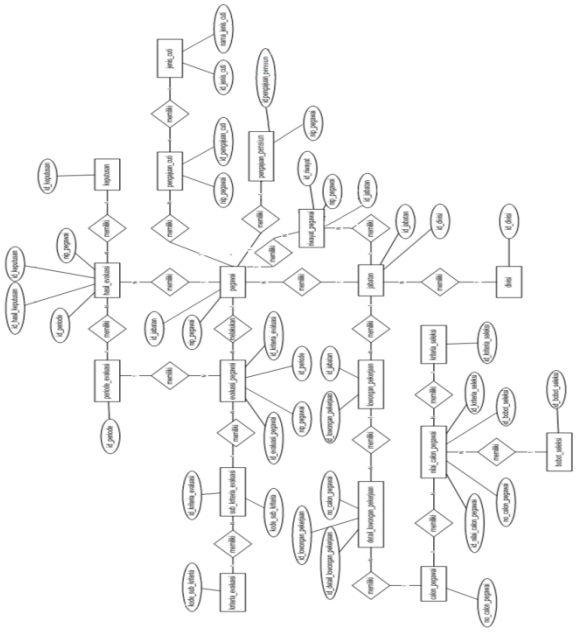


Figure 9. Diagram ERD

2.4. Diagram Konteks

Diagram Context is a simple diagram A diagram that illustrates the relationship between external entities, input and output of the system. Direpsentasikan context diagram with a single circle that represents the whole system. There are 5 users that play a role in this system is the chairman, administrators, and members in which each actor has the right info and types of data that can be seen in the picture below.

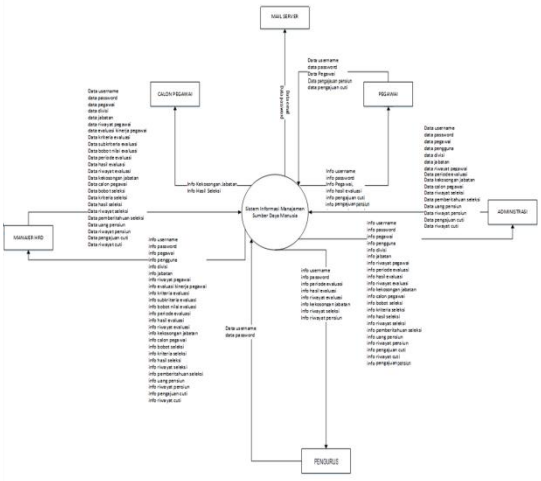


Figure 10. Diagram Konteks

2.9. Testing System

Testing of the system is the cornerstone that aims to find errors or omissions in the information system under test. System testing is to determine the performance of information systems that have been made in accordance with the purpose of information system design. Testing the system uses black box testing. Black box testing focuses on functional requirements of the software.
Test plan will do is to test the system built by Black Box and Beta.

3. CLOSING

In this chapter, will be presented the conclusions that can be derived from the discussion of the previous chapters, as well as suggestions for improvement and further development of the system.

3.1. Conclusion

Based on the description of the discussion of the analysis and testing that has been done, it can be a conclusion to the Management Information System of Human Resources in the CV. Djaya Rimba Raya is as follows:

1. Can help HRD in determining the number of employees needs and criteria needed to avoid a shortage of staff and errors in the placement of employees.

HRD can assist in making the assessment process kinerjai employees who fit the criteria that the assessment does not raise doubts and facilitate decision-making for granting promotion, transfer office, and demotion of employees.

3.2. Suggestion

Based on the conclusions that have been described above, it is expected in the future is that the Company can develop Management Information System Human Resources CV. Djaya Rimba Raya wider by building into the next phase of the ERP (Enterprise Resource Planning). With ERP, the Company can manage the entire resources of all the stages will be undertaken at the company until the operational stages that will be used optimally to produce better results for all interested parties (Stake Holder) on the company.

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