DEVELOPMENT SYSTEM OF INFORMATION HUMAN RESOURCE MANAGEMENT AT PT. PAN PANCIFIC NESIA IN SUBANG

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ABSTRACT

PT. Pan Pacific Nesia is a foreign capital company (PMA) from South Korea which founded a new branch in 2008 on Pantura Margajaya Street, Subang - West Java. The company moves at garment export field, which produces trousers, shorts, shirts and jackets from textile.

Based on the problem at PT. Pan Pacific Nesia there's some mistakes for number recruitment employees with the needs of employees that accepted, where the number of employee mismatched when the company needed new labor to fullfill department. An other problem occurs in the employee performance evaluation for attendance. As for a absences still does manual, so sometimes there are employees who commit fraud in it. The problem is also found in taking of leave employee. Some employees did not organise to take a leave by the rules on the company. It is seen from the employees who take annual leave over the boundaries of the rules of the company. AHP method (Analytical Hierarchy Process) is a method used for employee performance evaluation will be undertaken by HRD/GA and the result will be a ranking that the employee will get promotion and bonuse, training and supervision. This system makes easy employees to file a leave with the type of leave and filed for retirement in the company.

Based on the results of testing blackbox and beta, it can be concluded that the system has already helped HRD/GA in determining the amount and criteria employees required. It's made easy to do assessment process of employees and makes decision.

Keywords: information systems of human resources management, AHP (Analytical Hierarchy Process) method, leave of absence, Employee retirement.

1. INTRODUCTION

1.2 Background

PT. Pan Pacific Nesia is a foreign capital company (PMA) from South Korea which founded a new branch in 2008 on Pantura Margajaya Street, Subang - West Java. The company moves at garment export field, which produces trousers, shorts, shirts and jackets from textile.

Employee acceptance procedure is divided into three phases, namely the administrative process, interviews and skill test for each Department. Based on the fact that the discrepancy has occurred the number of acquired the needs of employees with an employee who received, where the number of discrepancies when the company was in need of a new Labor Department to fill the void it has caused shortages employees received, a result of the shortage of many prospective employees received does not correspond to the criteria of the company.

Assessment attendance as seen from the attendance clerk, as for a absences are there inside still do manual sometimes there are just employees who commit fraud in it, then as a result attendance clerk who became a reference for the assessment of performance is very doubtful. Current performance assessment of officers has not been based on an assessment that considers other criteria. Performance appraisal done periodically every 6 months in June and December, the appraisal is done to provide a reward to employees annually. Because these criteria have not been applied on the employee performance appraisal process that occurs as a result then later can be hindered in performance assessment. The results of performance assessment is performance evaluation and awarding bonuses, such as salary bonuses and promotions, training, as well as training in supervision.

Sabbatical officers are divided into nine kinds of annual leave, i.e. leave workers marry, leave older workers marry, leave older workers organized, leave the wife gave birth to a worker/miscarriage, leave there family who died, leave family members in one house died giving birth and workers leave, furlough workers miscarriage. This decision process for responsible i.e. HRD/GA and assisted by the HRD, problems that occur in this process is the process of taking leave of absence which is not yet organised by the rules on the company. It is seen from the officers who took the annual leave over the boundaries of the rules of the company.

Staff retirement procedures the company no problems due to existing retirement process inside has not been terlaksanakan although there are

already procedures, because of factors that many officers resigned before his retirement that resulted in no employees who retire, but existing pensions are concerned with procedure will be done as a procedure proposed to the company to help to HRD/GA in making retirement employees.

1.2 Outline of the Problem

Based on the background described above, then it can be inferred that there is a problem formulation, namely, building management information system of human resources in the PT. Pan Pacific Nesia In Subang.

1.3 Purpose and Goals

The point of writing this final task is to build a management information system of human resources in Pan Pacific PT Cahya. With a view to the following:

a. helps HRD/GA in conducting the recruitment of prospective new employees in accordance with the criteria of the company.
b. Assist the HR/GA in determining employee performance assessment.
c. Assist the HR/GA in the process of taking leave of employees.
d. Assist the HR/GA in the process of taking retirement.

1.5 Limitation Problem

So that the discussion is not too broad and focuses only on existing problems so limit the problem is as follows:

a. The Data to be used i.e. employee data
   In may 2017.
b. The research Model used POAC.
c. The methods used for employee performance appraisal evaluation process using the AHP method.
d. The system cannot handle the data related to finance, due to the highly confidential financial data.

2. CONTENT OF RESEARCH

2.1 Theoritical Basis

The following will be discussed about the theory that it was the source of the study of management information system of human resources.

2.1.1 Management Information System

Management information systems, the concept of the SIM is always evolving along the growing techniques and computer technology, Computer dai over time can always be integrated with various other sciences, that originally only used on things which are science, currently a variety of things a non science utilizing computer technology to help conclude, predict and predict a range of trend-social trend. But the basic concept of management information system was not fundamentally shifted. Management information system is a set of interconnected information resources interact and use help take operational and production management policy within the organization. Management information systems, a collection of resources in the organization that is responsible for processing the data into information that is used at the management level. (Cushing, 1974).

2.2.2 POAC Management Functions

Management functions in the set goals to be achieved by a given organization, sets the rules and the implementation of the guidelines should be followed, as well as establish an overview of the cost required and the infusion of money is expected to be retrieved from the series of actions that will be done. This management function analysis using management methods according to George r. Terry (Terry, 1997; 171) i.e. Planning, Organizing, Actuating and Controlling (POAC). According To The Contemporary Business Dictionary, management has two meanings, that is, first, the process of planning, organizing, implementing, and monitoring the company to achieve certain goals. Second, the leaders of the company.

In fact management can be summed up as a series of systematic action to mengendalikandan utilizing all factor in resources to achieve a specific goal. Then there are the two main elements contained in terms of management, namely the element of control and utilization of resources. (Terry, 1997; 171) following the explanation from management functions as follows:

a. Planning (Planning)
   This function identifies that management need to have careful planning in order to achieve specified targets, both for short or long term the creation of programs of activities as well as the necessary means for dependencies with third parties. In addition to these programs is also planning in marketing, finance, human resources or recruitment in the face of competition-competition.
b. Organizing (Organizing)
   This function focuses on the way that targets designed can be implemented, that is, by using a container/organizational device.
c. Implementation (Actuating)
   An idea or concept, although it has been available in the form of organizational containers with description-description of the tasks and their hierarchy is not yet active will run without coined/about the implementation of the tasks in the Organization (Terry, 1977; 371), mentioning the actuating means move to action. Therefore to move so that the Organization could run well needed guidelines, instructions, ordinances. These things should be spelled out in the Organization, the governing statutes,

instructions, guidelines be mandatory layers hierarchy from the top until the commissioning in the field ketingkat/down.

d. Supervision (Controlling)
To convince the owners of the company then Member meeting will need to establish a body of outside administrators in charge of monitoring or researching on the implementation of the policies that are assigned to the Executive Board. The Agency is a watchdog. The principle of controlling this should be spelled out in the organization. In addition to the controlling is done by the Trustees, the Trustees are obliged to create a control system or commonly called the "build in control" (Terry, 1977; 481).



Figure 1. POAC Cycle

2.2.3 Analytical Hierarchy Process

AHP was developed by Thomas L. Saaty, a mathematician. This method is a framework for making decisions dengann effective on complex matters dengann simplify and accelerate the decision-making process dengann memecaKMan the problem into its parts, arranging parts or variables in a hierarchical arrangement, giving a numerical value to the consideration of the subjective importance of each variable and synthesize these considerations to set the variables which have the highest priority and act to affect the outcome of the situation. dNatural solve problems with AHP method, there are some basic principles that must be understood (Mulyono, 2004: 335-337):

1. Decomposition

This principle is solving the problems intact into its elements to form a hierarchy of decision-making process in which each element or elements are interconnected. If you want to get accurate results, the solution performed against the elements is not possible until the solution further to obtain some level of existing problems. The hierarchical structure of the decision can be said to be complete and incomplete. A hierarchy is called complete when all the elements at a level associated with all the elements at the next level, while the hierarchy's decision is the opposite of complete incomplete. Namely decomposition structural form:
The first level : The purpose of the decision (goal)
the second level : Criteria
The third level : Alternatives

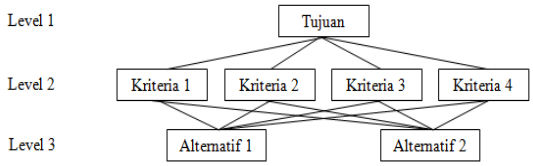


Figure 2. AHP Hierarchy

2. Comparative judgement

This principle provides an assessment of the relative importance of two elements at a certain level in relation to the level above it. This assessment is the core of the use of AHP. This assessment can be presented in the form of a matrix called pairwise comparison matrices are pairwise comparison matrix containing some level of preference for the alternative criteria. The scale of preferences with a scale of 1 indicates the lowest level to the highest scale of 9 levels. To scale pairwise comparisons are presented in the table below:

Table 1. Scale ValuePairwise Comparison

The Intensity of Interests	Information
1	Kedua elemen sama pentingnya
3	Elemen yang satu sedikit lebih penting daripada elemen yang lainnya
5	Elemen yang satu lebih penting daripada elemen lainnya
7	Satu elemen jelas lebih mutlak penting daripada elemen lainnya
9	Sudut elemen mutlak penting daripada elemen lainnya
2,4,6,8	Nilai-nilai antara dua nilai pertimbangan yang berdekatan
Kebalikan	Jika aktivitas i mendapat satu angka dibandingkan dengan aktivitas j, maka i memiliki nilai kebalikannya dibandingkan dengan i

3. Synthesis of Priority

On this principle presents a pairwise comparison matrix is then searched eigen vector to obtain local priority. Because the pairwise comparison matrix is present at all levels, then to get the global priortydapat do synthesis between local priority.

Criteria and alternatives will be conducted pairwise comparison matrix. From each pairwise comparison matrix eigen vector then sought to get local priority. Because pairwaise comparison matrix is present at all levels, then to get a global priority should be synthesized in each local priority.

4. Logical Consistency

Is the most important characteristic. This can be achieved by mengagresikan entire eigenvector

obtained from the level of the hierarchy and subsequently obtained a weighted composite vector that produces a sequence of decision-making.

Consistency has two meanings. The first is that similar objects can be grouped according to the uniformity and relevance. The second meaning is related to the level of relationships between objects based on specific criteria. This stage is an important characteristic of AHP. This is achieved by menagresikan whole eigen vectors obtained from various levels of the hierarchy and subsequently obtained composite weighted vector that produces a sequence of decision-making. Here are the steps to calculate the consistency ratio:

- Calculating the value of λ by way of multiplying the value of the matrix comparison with the results of the Local Priority divided by the average per line.
- Calculating the value of λ max by the formula λ max = Σ (λ) / n **(2.1)**
- Calculating the value of CI by the formula CI = (λ max-n) / (n-1) **(2.2)**
- CR calculate with formula CR = CI / RI **(2.3)**

Table 2. Random Value Index (RI)

N	1	2	3	4	5	6	7
IR	0.00	0.00	0.58	0.90	1.12	1.24	1.32

N	8	9	10	11	12	13	14
IR	1.41	1.45	1.49	1.51	1.48	1.56	1.57

2.3 Problem Analysis

The results of the interviews have been conducted with Mr. Morlan as HRD/GA PT. Pan Pacific Cahya stated that the company currently has the following constraints:

a. Recruitment Processes occur ketidaksesuian between the number of employees with the needs of the discrepancy criterion.
b. Performance assessment Process is still based on attendance manual.
c. The taking of leave are still not fit the rules of the company.
d. The procedure as the procedure proposed.

2.4 Analysis Model of POAC Management Information System of Human Resources at PT. Pan Pacific Nesia

POAC model is used to provide an overview of the process that exists in the management information system of human resources at PT. Pan Pacific Nesia.

2.4.1 Monitoring Analysis and Criteria Number of Employees

Analysis to determine the amount and the criteria required by the company employees conducted by HRD. The stages of the planning of the number of employee needs and criteria using the POAC cycle.

a. Planning
Plan how the number of vacancies for each Department that took place inside. Planning the number and the required labor criteria based on vacancies and workforce needs.

Table 3. Monitoring Number of Departmens

Departments	Cap	Total	Status
PATTERN	11	11	Terpenuhi
SAMPLE	15	15	Terpenuhi
WAREHOUSE	24	24	Terpenuhi
CUTTING	126	126	Terpenuhi
SEWING	2075	2074	Kosong
FINISHING	120	120	Terpenuhi
PACKING	80	80	Terpenuhi
QC. SEWING	109	109	Terpenuhi
QC FINISHING	64	64	Terpenuhi
QA	44	44	Terpenuhi
LAYOUT	12	12	Terpenuhi
MEKANIK	32	32	Terpenuhi
KBS	14	14	Terpenuhi
OFFICE PRODUKSI	21	21	Terpenuhi
OFFICE	48	48	Terpenuhi
DRIVER	6	6	Terpenuhi
SECURITY	28	28	Terpenuhi
KOREAN	7	7	Terpenuhi

Table 4. Terms of staff *Sewing*

Jabatan	Syarat Jabatan
Staf Sewing	1. Wanita minimal 18 tahun
	2. Pendidikan minimal SMA
	3. Mempunyai *skill* menjahit

b. Organizing
Organised from the planning stages and is requesting approval to open job postings.
c. Actuating
Stages of implementation, where the HRD will open new jobs and the creation of ads to inform the community through oral or writing to Department of Sewing, with numbers and determine the criteria for the job.
d. Controlling
Controlling stage is the stage of the control or to conduct surveillance against a process that has been performed on the stage of the Palnning, Orgaanizing and Actuating.

2.4.2 Analysis of the Recruitment and selection of Employees

Recruitment and selection of employees undertaken by HRD planning based on the needs of human resources that have been made.

a. Planning (Planning)
   The planning phase that is doing the terms criteria employees who are required by the company, determine the weights of the criteria values employees and specify the amount of labor.
b. Organizing (Pengorganisiran)
   Organizing criteria of planning officers are already in accordance with the vacancy or not.
c. Actuating (Implementation)
   An example of this case, there are 3 candidates employees applying for the job to be placed on the Sewing Department is undergoing a vacuum as much as 1 employees.

Table 5. Inspection of Prospective Employee Data

Name	Educ	Age	*Skill*	Exp	Information
Sri Bilqis	SMA	22 th	Jahit	1	Sesuai
Euis H	SMA	19 th	Jahit	2	Sesuai
Iin N	SMA	20 th	Jahit	1	Sesuai

Table 6. Employee Appraisal Stage Interview

CP	Inisial	Assessment	Value
Sri B	K1	Memuaskan	2
	K2	SMA/SMK/D1	1
	K3	1 - 3 tahun	3
	K4	Bersedia Bekerjasama	1
	K5	Kurang Sopan	1
	K6	Baik, Siap Untuk Kerjasama	3
	K7	Sedik Bagus	1
	K8	Jelas, kecenderungan untuk rutinitas	1

Table 7. Number of New Employee Assessment Sewing Stage Interview

CP	Inisial Kriteria								Total
	K 1	K 2	K 3	K 4	K 5	K 6	K 7	K 8	
Sri B	2	1	3	1	1	3	1	1	13
Euis	1	1	3	1	2	1	2	3	14
Iin N	2	1	3	2	1	2	1	2	14

d. Controlling
   Controlling stage is the stage of the examination of the results of the selection are among the altrenatif prospective employees will be the best choice to be selected and accepted by the company.

Table 8. Number of Rankings

CP	Total Nilai	Peringkat
Sri Bilqis	13	III
Euis H	14	II
Iin N	14	I

2.4.3 Analysis Of The Adoption Contract Employees To Remain

Appointment of contract employees to remain at PT. Pan Pacific Nesia is based on long employment contracts of employees who have passed the second contract for 1 year of service.

a. Planning (Planning)
   Planning for long-term employment of contract employees. Contract system I is done with a time span of 6 months, while the contract II has a time span of 1 year.
b. Organizing (Organizing)
   Organizing long-term employment planning of contract employees conducted by HRD.
c. Actuating (Implementation)
   Perform the process of hiring contract employees to remain, and signing out contracts.
d. Controlling (Supervision)
   Controlling or supervising the process of appointing contractual employees to permanent performance.

2.4.4 Employee Performance Appraisal Analysis Using AHP

A performance appraisal stage that calculates the AHP method and uses the POAC cycle as below.

a. Planning (Perencanaan)
   The HRD party plans the criteria along with its weight, value system and period to conduct employee performance appraisal.

Table 9. Performance Appraisal Criteria and Subcriteria

Kriteria	Subkriteria	Kode
Kepribadian	Kejujuran	K1
	Kedisiplinan dan Loyalitas	K2
	Penampilan	K3
	Absensi	K4
Komunikasi Tim	Kerjasama Tim	KT1
	Komunikasi Tim	KT2
	Sikap Kerja Tim	KT3
Kemampuan Manajerial	Kemampuan Memimpin	KM1

Kriteria	Subkriteria	Kode
	Pengambilan Keputusan	KM2
	Kemampuan Komunikasi	KM3

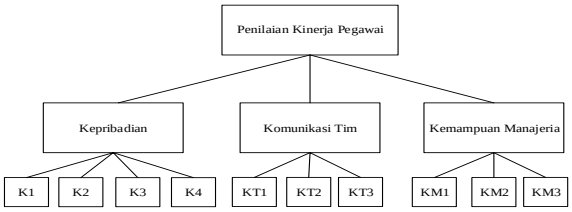


Figure 3. Hierarchy of Assessment Criteria

Table 10. Matched Comparison Matrices

	K1	K2	K3	K4
K1	1/1	3/1	5/1	5/1
K2	1/3	1/1	5/1	3/1
K3	1/5	1/5	1/1	3/1
K4	1/5	1/3	1/3	1/1

Table 11. Matrix Result of Amount of Each Row

	K1	K2	K3	K4	∑Baris
K1	0.53	1.59	2.65	2.65	7.42
K2	0.09	0.28	1.4	0.84	2.61
K3	0.03	0.03	0.13	0.39	0.58
K4	0.02	0.03	0.03	0.08	0.16

Table 12. Calculation of Consistency Ratio

	∑ Baris	Prioritas	Hasil = B∑ Baris+ ∑ Prioritas
K1	7.42	0.53	7.95
K2	2.61	0.28	2.89
K3	0.58	0.13	0.71
K4	0.16	0.08	0.24
Jumlah			11.79

b. Organizing (Organizing)
Organize planning criteria and sub criteria with each priority.
c. Actuating (Implementation)
Perform or implement a performance assessment in accordance with planning and organizing that has been made.

Table 13. Employee Performance Appraisal Results

Kriteria	A	B	C	D
Kepribadian				
K1	472.5	540	472.5	472.5
K2	220	192.5	192.5	206.2
K3	18.9	18.9	18.9	18.9
K4	44.1	44.1	50.4	50.4
Komunikasi Tim				
KT1	19.6	21	22.4	22.4
KT2	504	504	504	441
KT3	111.2	111.2	111.2	97.3
Kemampuan Manajerial				
KM1	22.4	22.4	22.4	22.4
KM2	504	472.5	504	504
KM3	104.2	111.2	111.2	111.2
Nilai Akhir	2020.9	2037.8	2009.5	1946.3

d. Controlling (Supervision)
Controlling or supervising ongoing performance appraisals, evaluating performance appraisal results, making improvements to juka planning is required.

Table 14. Performance Appraisal Results

No	Nama Pegawai	Nilai Akhir	Peringkat
1	Iin Nurrohmah	2020.9	II
2	Rahmat Kartolo	2037.8	I
3	Susi Susilawati	2009.5	III
4	Devi Sri Suranti	1946.3	IV

2.4.5 Analysis of Employee Leave

The leave submission stage can be analyzed using the POAC cycle, as below.

a. Planning (Implementation)
Determine the types of leave, leave time, and leave requirements and leave requirements.
b. Organizing (Organizing)
Organize the type of leave planning, in accordance with the basic rules or not.
c. Actuating (Implementation)
Conduct the implementation of Planning and Organizing when there are employees who apply for leave.
d. Contrrolling (Supervision)
Evaluate the results of the leave control and control all activities so that no one deviates.

2.4.6 Analysis Of The Submission Retires's Servants

Stages of employee retirement submissions can be analyzed using the POAC cycle as below.

a. Planning (Planning)
Plan the criteria for employee pension submission.
b. Organizing (Organizing)
Setting pensionization criteria has been done in Planning.
c. Actuating (Implementation)
Conduct the implementation of Planning and

Organizing when there are employees mengajuan pension.

d. Controlling (Supervision)
Evaluate haisl from pension submission and control all activities so that no one deviates.

2.5 Non-Functional Needs Analysis

The analysis of non-functional requirements is the analysis needed to determine the system specification requirements. This specification also covers what will be built until the system is implemented.

2.6 Functional Needs Analysis

Functional Needs Analysis is an analysis that describes the flow of data or information that includes the drawing, planning, and sketching or arrangement of several separate elements into a unified whole and functioning in the process of making software to be built.

2.6.1 Context Diagram

Context Diagram is a simple diagram that describes the relationship between the outer entity, the input and output of the system. The context diagram is represented by a single circle representing the whole system.

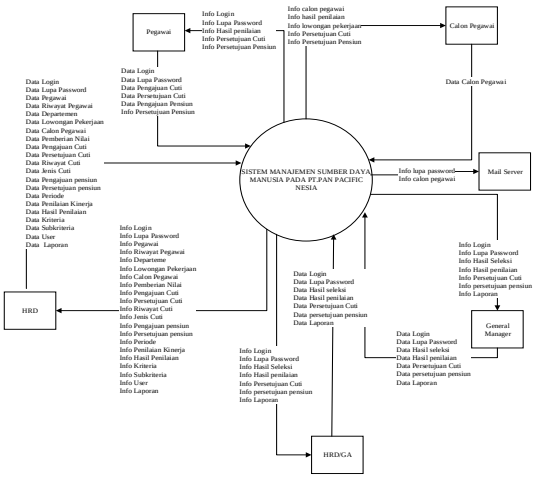


Figure 4. context diagram

2.6.2 Level 1 DFD

DFD Level 1 Management Information System at PT. Pan Pacific Nesia can be seen in the picture below.

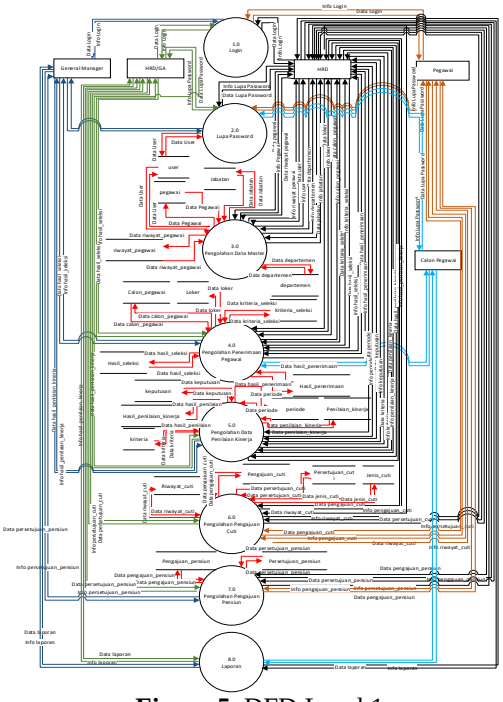


Figure 5. DFD Level 1

3. CLOSING

In this section, describes the conclusions that contain the results obtained after the research.

3.1 Conclusions

a) Based on the description of the analysis and testing that has been done, it can be taken a conclusion to the Human Resources Management Information System at PT. Pan Pacific Nesia is as follows: Human Resource Management Information System at PT. Pan Pacific Nesia, is enough to help HRD / GA and HRD in recruitment of new employee candidates in accordance with the needs of the company by looking at vacancies.

b) Human Resource Management Information System at PT. Pan Pacific Nesia, is enough to assist HRD in conducting employee performance appraisal based on criteria assessment in accordance with PT. Pan Pacific Nesia.

c) Human Resource Management Information System at PT. Pan Pacific Nesia, is sufficient to assist HRD in employee leave control, determining decisions or approval of employee leave to HRD / GA and General Manager.

d) Human Resource Management Information System at PT. Pan Pacific Nesia, is enough to help the HRD / GA and HRD in the employee retirement process.

3.2 Suggestions

Based on the conclusions that have been described above, the expected future is for the Human Resource Management Information System at PT. Pan Pacific Nesia can be developed more widely and covers other areas so that there is the

possibility for data synchronization, so it can facilitate the PT. Pan Pacific Nesia in managing his company.

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