DEVELOPMENT OF MANAGEMENT INFORMATION SYSTEM HUMAN RESOURCES AT PT.NUSANTARA INDAH MAKMUR BRANCH OF SAMARINDA

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ABSTRACT

PT. Nusantara Indah Makmur is a company engaged in the national scale cigarette distributors. This company was existed March 23, 2007 and has thirteen branches in the cities of Indonesia, one of them are in Samarinda. The office in Samarinda currently has four depots that are : Balikpapan, Bontang, East and West Kutai. This company has employees as much as ninety six permanent and thirty onecontract.

Based on the resluts of the interviews have been conducted with Mr. Jaini as Area Manager stated that there had been a discrepancy the number of employees with the needs that are accepted and which have been accepted and eligible, do not correspond to the criteria that are expected by the company. The other problem is there are some employees who complain about the performance appraisal of employess, because they who do not have a good enough performance could obtain good value and can be elevated to permanent employees. Trouble is also found in the employee's leave of absence control procedures. To help Area Manager in selecting applicants, recommend decisions employee performance appraisal, and control of leave. Human resource management that used is POAC (Planning, Organizing, Actuating and Controlling). Employee acceptance and control of leave is done based on procedures and business rules of the company. AHP method (Analytical Hierarchy Process) is a method used for employee performance appraisal conducted by Area Manager and produced will be used for promotion, rotation, mutation and demotion of position and the appointment of a contract to be permanent employee.

Based on the results of the functional testing, UAT (User Acceptence Test) and testing of end user applications in a corporate environment. This research can be concluded that the system is already helping the company in the process of acceptence of employees, performance appraisal and control of leave.

Keywords : Management Information Systems, Human Resources, POAC Management, A Method of Analytical Hierarchy Process.

1. INTRODUCTION

PT Nusantara Indah Makmur Samarinda branch led by Area Manager. Privileges Area Manager in managing the human resources contained in SOP (Standard Operating Procedure). Based on interviews with Mr. M. Jaini as Area Manager stated that PT. Nusantara Indah Makmur Samarinda branch employed about 96 permanent employees, 31 contract employees.

Recruitment procedure is divided into three stages of processes including administrative proceedings, written test and interview. Based on the facts obtained had a disagreement with a number of employee needs employees who accepted, where such discrepancy has caused the problem of shortage and excess employees. Another issue related to employee acceptance procedure is happening in the marketing department, employees who have been accepted and eligible, not in accordance with the criteria expected by the company.

Employee performance appraisals and employee contracts remain to be done by him directly. So that the assessment will be used to determine promotion, rotation of office, transfer office, demotion of position and the appointment of contract employees to remain. Mr. M. Jaini said that there are some employees who complain about the performance appraisal, because employees who do not have a good enough performance to get good value and could be appointed as permanent employees. The employee performance appraisal of employees only received the final results, but results per criteria assessed value is not known, so that the employee does not know what criteria should be maintained or improved to support the quality of performance.

PT. Nusantara Indah Makmur restrict any employee who wishes to leave the employee is twelve days in a year for annual leave, as well as

other leave which has a range of different days. In addition to the type of leave, the rules on leave and leave history to determine the decision leave Mr. M.Jaini to see and consider how many employees are on leave. Employees who are already qualified M.Jaini Mr. leave application can still perform rescheduling.

The purpose of this study, to establish a system of human resource management information at PT.Nusantara Makmur Indah branch Samarinda. While the purpose of the research is as follows:

1. Assist Area Manager in selecting applicants according to the amount and the criteria expected of PT. Nusantara Indah Makmur.
2. Assist Area Manager in recommending a decision in performance assessment for promotion, rotation, transfer, demotion to the post of permanent employees and contract employees to determine the removal of the remains.
3. Area Manager helps in controlling employee leave the company.

2. CONTENTS OF RESEARCH

2.1 Information Management System

The information system of human resource management is a systematic procedure of collection, storage, maintenance, validation and data retrieval required human resources company in conducting activities of the human resources function and characteristics of the work unit. Basically a basic component model of information system management company's human resources together with the concept of management information systems in general, namely: first, the function of input subsystems include three basic components namely: information systems accounting, sub-systems research human resources, and sub-system inquiry source human. These three components are derived from internal sources or the environment organsisasi. Second, the human resource database, to determine the output sub-system. Third, the output subsystem component sub-systems with human resource planning, recruitment, placement, development, compensation systems and sub-systems discharge patterns (retirement). All the information that has been processed to be used as a basis for a decision will be the HR field. The concept is important in the development of SIM-HR is the formation of human resources information center. Overall system components and sub-systems of human resource information is illustrated in the following models[1] :

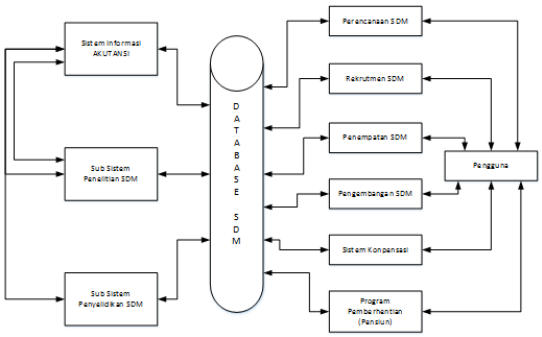


Figure 1. Management Information System Human Resources [1]

2.2. POAC (Planning Organizing Actuating Controlling)

Management is the achievement of the goals set in advance using other people's activities consisting of actions of planning (planning), organizing (organizing), mobilization (actuating), and control (controlling) The POAC management functions are as follows:



Figure 2. Management POAC

a. Planning (planning) Is an activity associated with choosing alternative - the alternative, wisdom - wisdom, procedures - procedures, and program - the program as a form of business to achieve the goals to be achieved. 4 (four) levels of basic skills in planning activities:
   1. Insight: the ability to gather facts by way of an investigation on matters related to the planned issue.
   2. Forsight: the ability to project or depict the way or ways that will be pursued, estimates the circumstances that may arise as a result of activities undertaken.
   3. Explorative study: the ability to see all sesuau as a whole, in order to obtain an integral picture of existing conditions.
   4. Doorsight: the ability to find any way to disguise the view, making it possible to be able to take decisions.

b. Organizing (organizing) Represents an action or activity combine the existing potentials of

all parts within a group of persons or organizations to work together in order to achieve predetermined objectives together, either for personal or group goals and organization. In organizing the technical term KISS (coordination, integration, simplification and synchronization) in order to create harmony in the organization's activities.

c. Implementation or application (actuating) Is the implementation of planning and organizing, where all the components are in one system and one of the organization work together in accordance with their respective fields in order to realize the goal.

Supervision (controlling) Represents controlling all activities of the process of planning, organizing and execution, whether all these activities provide an effective and efficient results and are valuable and effective.

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

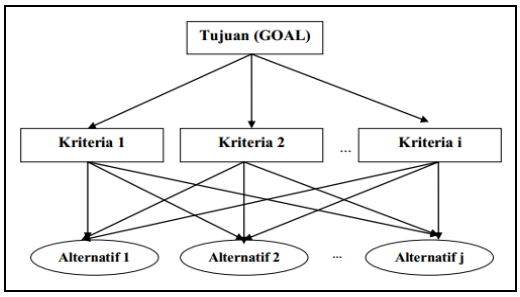


Figure 3. Hierarchy AHP Decision

2. comparative judgment

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 Value Pairwise Comparison

The intensity of Interests	Information
1	Both elements are equally important
3	Elements that one a little bit more important than any other element
5	Elements which one is more important than other elements
7	One element is clearly more important than the absolute other elements
9	The corner element is absolutely important than other elements
2,4,6,8	Values between two values adjacent consideration
reverse	If activity i got one point compared with activity j, then i have the opposite values compared to i

Assessment of the relative importance of two elements apply reciprocal axiom meaning that if the element i rated three times more important than j, then j elements must be equal to 1/3 times the importance compared to the element i. In addition, when the two elements compared yield figures 1 means equally important.

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. Here are the steps in the search for value determination of priority:

1. A comparison with the B value is 1 (one) divided by the ratio of B to A is assumed that if there are criteria of 3 (three), then the comparison matrix can be seen below:

Table 2. Comparison Criteria

	KRITERIA 1	KRITERIA 2	KRITERIA 3
KRITERIA 1	1	NILAI PERBANDINGAN KRITERIA 1 TERHADAP KRITERIA 2	NILAI PERBANDINGAN KRITERIA 1 TERHADAP KRITERIA 3
KRITERIA 2	1/ NILAI PERBANDINGAN KRITERIA 2 TERHADAP KRITERIA 1	1	NILAI PERBANDINGAN KRITERIA 2 TERHADAP KRITERIA 3
KRITERIA 3	1/ NILAI PERBANDINGAN KRITERIA 3 TERHADAP KRITERIA 1	1/ NILAI PERBANDINGAN KRITERIA 3 TERHADAP KRITERIA 2	1

2. After creating a matrix comparison, the next step is to add value perkolomnya, so we get Σ value column for each criterion. This value will be used in determining the value of the matrix is normalized by dividing the value of the comparison matrix Σ value column or written: Normalized matrix (i, j) = matrix Comparison (i, j) / Σ j-th column
3. After getting value matrix is normalized, the priority value can be obtained by finding the average of the comparison matrix Π criteria per line or per line.

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:

1. 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.
2. Calculating the value of λ max by the formula λ max = Σ (λ) / n **(2.1)**
3. Calculating the value of CI by the formula CI = (λ max-n) / (n-1) **(2.2)**
4. CR calculate with formula

CR = CI / RI **(2.3)**

N	1	2	3	4	5	6	7	8
RI	0,000	0,000	0,580	0,900	1,120	1,240	1,320	1,410

N	9	10	11	12	13	14	15
RI	1,450	1,450	1,510	1,480	1,560	1,570	1,590

Figure 3. Random Value Index (RI)

2.4. Monitoring Analysis and Criteria Number of Employees

Monitoring the number and criteria of employees conducted by the Area Manager. Monitoring is done to look at the gap between each - each position and capacity.

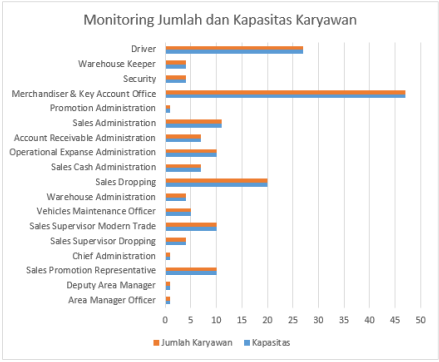


Figure 4. Monitoring capacity and office employees

2.5. Analysis and Determination of Number of employees criteria

1. ***Planning* (planning)**
   Analysis and criteria for determining the amount of employees is a procedure performed by the Area Manager for the request, determine the amount and the criteria for employees to HRD center.
2. ***Organizing* (Organizing)**
   Area Manager will check back to the vacancy by monitoring that has been done is in accordance with the procedure PT. Nusantara Indah Makmur before submitting the form of labor demand (FPTK) to the central HRD.
3. ***actuating* (Implementation)**
   Area Manager will determine the amount and the criteria that will be used as terms of office for the position Promotion Administrator, while the terms of office for the Promotion Administrator which can be seen below:

Table 3. Determination of Terms of Occupation Promotion Administration

Jabatan	Syarat Jabatan
Staf Promotion Administrator	1. Pria / wanita maksimal usia 30 tahun
	2. Pendidikan Min D3/S1 Ekonomi
	3. *Fresh Graduate*/ Pengalaman lebih disukai
	4.Berkepribadian Dominan/*Complience*

4. *controlling* (Control)

The process that has been approved by the HRD center will continue to admission procedures, but if there are still shortcomings Area Manager will review labor demand planning process. Determination of terms of office and re-submit the request form to HRD center workforce.

2.6. Analysis Recruitment

1. *Planning (*planning)

Recruitment is done for the needs of new workers for the post of Promotion Administrator. These plans will do the process of determining the values and criteria, along with the weight of each criterion.

2. *Organizing* (Organizing)

Pengorgnasisasian criteria - criteria that have been made to conform with the Planning (Planning). This stage is the process of organizing the examination and candidates are qualified positions and who are not eligible positions.

3. *actuating* (Implementation)

Table 4. Determination of Terms of Occupation

Promotion Administration

Calon Karyawan	Kriteria									
	Pendidkan Formal	Pendidkan Non-Formal	Kemampuan Bahasa	Kemampuan Bicara	Kemampuan Membaca	Kemampuan Menulis	Prestasi	Riwayat Pekerjaan	Nilai Tertulis	Nilai Wawancara
Aulia Istiqomah	3	2	4	4	4	3	2	2	70	70.73

Calon Karyawan	Kriteria									
	Pendidkan Formal	Pendidkan Non-Formal	Kemampuan Bahasa	Kemampuan Bicara	Kemampuan Membaca	Kemampuan Menulis	Prestasi	Riwayat Pekerjaan	Nilai Tertulis	Nilai Wawancara
Riaya Ayu F	2	2	4	4	4	3	3	2	85	72.73
Dewi S	2	1	4	4	4	3	2	1	75	74
Siti Fatimah M	3	3	4	4	4	3	2	2	80	73.18
Riqma M	3	1	4	4	4	3	2	1	75	73.27

Calon Karyawan	Kriteria										
	Pendidkan Formal	Pendidkan Non-Formal	Kemampuan Bahasa	Kemampuan Bicara	Kemampuan Membaca	Kemampuan Menulis	Prestasi	Riwayat Pekerjaan	Nilai Tertulis	Nilai Wawancara	Nilai Akhir
Aulia Istiqomah	3	2	4	4	4	3	2	2	70	70.73	164. 73
Riaya Ayu F	2	2	4	4	4	3	3	2	85	72.73	181. 73
Dewi S	2	1	4	4	4	3	2	1	75	74	170
Siti Fatimah M	3	3	4	4	4	3	2	2	80	73.18	178. 18
Riqma M	3	1	4	4	4	3	2	1	75	73.27	170.27

4. *controlling* (Control)

Supervision is done after the process of planning, organizing, and implementation has been completed, the final phase of recruitment is recruitment examination results based on the value that has been obtained prospective employees Promotion Administration will be used to perangkingan.

Table 5. Results Ranking of Candidates

Calon Karyawan Staf Promotion Administration	Nilai Akhir	Ranking
Aulia Istiqomah	164. 73	V
Riana Ayu F	181. 73	I
Dewi S	170	IV
Siti Fatimah	178. 18	II
Riqma M	170.27	III

The applicants follow the entire procedure recruitment and produce 1 applicants having the largest value that Ayu Riana F, making it the best choice to occupy the vacant positions Promotion Administrator. Area Manager signed a letter PKWT (Specific Time Employment Agreement) so Applicants Ayu Riana F status changes to employee contracts.

Table 6. Employees contract I

Nama	Jabatan	Kontrak I		Memutuskan	
		Tanggal Awal	Tanggal Akhir	Perpanjangan	Keluar
Riana Ayu F	*Promotion Administrator*	1-Jun-16	1-Des-16	√	

Table 6. Employee Contract II

Nama	Jabatan	Kontrak I		Kontrak II		Memutuskan	
		Tanggal Awal	Tanggal Akhir	Tanggal Awal	Tanggal Akhir	Diangkat	Keluar
Riana Ayu F	*Promotion Administrator*	1-Jun-16	1-Des-16	1-Des-16	1-Jun-16	√	

2.7. Analysis of Employee Performance Assessment Method Using AHP (Analytical Hierarchy Process)

1. Planning (Planning)

This plan does the determination of the criteria and sub-criteria and their respective weights. Previous Area Manager analyzing the criteria and sub criteria of what is used as a reference in the performance appraisal process.

Table 7. Criteria and Sub Criteria for Performance Assessment of employees

No	Kriteria	Subkriteria	Kode
1	Kemampuan Umum	Inisiatif dan Kreatif	KU1
		Kerjasama	KU2
		Potensi untuk maju	KU3
		Tata cara berpenampilan	KU4

Table 7. Criteria and Sub Criteria for Performance Assessment of employees (continued)

No	Kriteria	Subkriteria	Kode
2	Kemampuan Manajerial	Kemampuan Memimpin	KM1
		Pengambilan Keputusan	KM2
		Kemampuan Komunikasi	KM3
3	Loyalitas	Integritas	L1
		Prioritas	L2
		Efisien dan Efektif Kerja	L3
		Penyampaian Alternatif Solusi	L4
4	Realisasi Target	Pencapaian Target	RT1
		Perencanaan Kerja	RT2
		Organisasi Kerja	RT3
		Kontrol Kerja	RT4
5	Disiplin	Akurat info dan data	D1
		Responsif dan Proaktif	D2
		Bertanggung Jawab	D3
		Kerja Optimal	D4

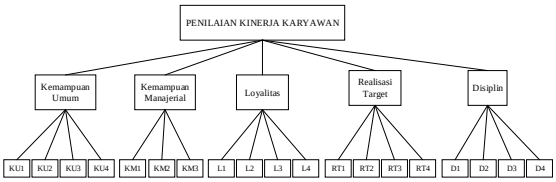


Figure 4. Monitoring capacity and office employees

2. Organizing (Organizing)

This stage is the stage doing the organizing results of each of the prioritization criteria and sub-criteria that have been made at this stage of planning (planning).

Table 8. Priority Values

No	Kriteria	Kode	Nilai Prioritas
1	**Kemampuan Umum**	KU1	7.875
		KU2	2.841
		KU3	0.675
		KU4	0.215
2	**Kemampuan Manajerial**	KM1	6.00
		KM2	2.20
		KM3	0.216
3	**Loyalitas**	L1	7.875
		L2	2.841
		L3	0.675
		L4	0.215
4	**Realisasi Target**	RT1	12.768
		RT2	3.026
		RT3	0.592
		RT4	0.134
5	**Disiplin**	D1	7.875
		D2	2.841
		D3	0.675
		D4	0.215

3. Actuating (Implementation)

This stage is the implementation of the performance appraisal conducted by Area Manager. The performance assessment is done in the period of 6 months. The guidelines for the performance appraisal conducted by Area Manager.

Table 9. Employee Performance Assessment Guide

Nilai	Keterangan
0-20	Kinerja tidak memuaskan
21-40	Kinerja kurang memuaskan
41-60	Kinerja cukup memuaskan
61-80	Kinerja dilakukan dengan baik
81-100	Kinerja dilakukan dengan sangat baik

Table 10. Results of Performance Evaluation employees

Kriteria	A	B	C	D
Kemampuan Umum				
KU1	590.625	630	630	630
KU2	213.075	198.87	213.075	213.075
KU3	54	54	54	50.625
KU4	15.695	15.695	16.125	15.05
Kemampuan Manajerial				
KM1	432	420	420	438
KM2	176	176	165	176
KM3	16.2	16.2	15.12	17.28
Loyalitas				
L1	551.25	574.875	574.875	630
L2	207.393	198.87	227.28	213.075
L3	47.25	54	54	47.25
L4	17.20	15.48	15.05	15.05
Realisasi Target				
RT1	893.76	957.60	893.76	893.76
RT2	226.95	242.08	211.82	242.08
RT3	41.44	47.36	44.40	44.40
RT4	9.38	9.782	10.05	9.38
Disiplin				
D1	590.625	574.875	630	590.625
D2	207.393	198.87	213.075	227.28
D3	49.275	54	50.625	50.625
D4	17.20	16.125	16.125	17.20
Nilai Akhir	**4356.711**	**3625.812**	**3611.305**	**3677.68**

Based on the above it is known that the highest value to lowest was obtained on behalf of employees Winda Pandan Sari, Emma Yunita, Dwi Ferawati, Ajeng Ayu Cardinal.

Table 11. Ranking of Performance Assessment

No	Nama Karyawan	Nilai Akhir	Peringkat
1	Winda Pandan Sari	4356.711	I
2	Dwi Ferawati	3625.812	III
3	Ajeng Ayu Kardina	3611.305	IV
4	Emma Yunita	3677.68	II

4. Controlling (Controlling)

Inspection and monitoring the performance of employees to the work that has been done in accordance with what is expected by the company PT Nusantara Indah Makmur.

Table 12. Results of Performance Evaluation employees

No	Peringkat	Keterangan
1	1 - 3	Mendapatkan Bonus 1x gaji
2	4 - 10	Mendapatkan Bonus insentif tambahan
..	..	Mengikuti Pelatihan
n-10 - n	n-10 - n	Mengikuti Pelatihan dan Dalam Pengawasan *Sales Supervisor Dropping*

a. PROMOTION POSITION

Table 12. Data prospective sale

No	Nama Karyawan	Hasil Nilai * 50 %	Pengalaman * 25%	Tingkat Pendidikan * 25%
1	Winda Pandan Sari	4356.711*0.5	60*0.25	60*0.25
2	Dwi Ferawati	3625.812*0.5	40*0.25	60*0.25
3	Ajeng Ayu Kardina	3611.305*0.5	40*0.25	60*0.25
4	Emma Yunita	3677.68*0.5	40*0.25	60*0.25

No	Nama Karyawan	Hasil Nilai	Pengalaman	Tingkat Pendidikan	JUMLAH
1	Winda Pandan Sari	2178.35	15	15	2208.35
2	Dwi Ferawati	1812.906	10	15	1837.906
3	Ajeng Ayu Kardina	1805.652	10	15	1830.652
4	Emma Yunita	1838.84	10	15	1863.84

b. MUTATION POSITION

Mutations in the PT Nusantara Indah Makmur performed based on the results of performance appraisal, but the decision will be fully refunded to the Area Manager adapted to the conditions of the company.

c. ROTATION POSITION

Rotation happens to PT Nusantara Indah Makmur performed based on the results of performance appraisal, but the decision will be fully refunded to the Area Manager adapted to the conditions of the company.

d. DEMOTION POSITION

Demotion happened to PT Nusantara Indah Makmur is a decrease in employee positions are due to a variety of things, such as negligence in work, is not responsible for and get a Warning Letter (SP3), for example is as follows.

Table 13. Employee Demotion

No	Nama	Jabatan	Tanggal Berakhir	Jenis SP		
				SP1	SP2	SP3
1	Sarliansyah	Merchandiser	16 Agustus 2015			√

2.8. Analysis Control Cuti

1. Planning (Planning)

Planning in this case is done the determination of the type of leave will apply to PT.Nusantara Indah Makmur along with taking time off, which can be seen below:

Table 14. Criteria employee leave

Nama Cuti	Hari
Cuti tahunan	12 hari
Cuti hamil	90 hari
Orang tua meninggal	2 hari
Cuti menikah	2 hari
Cuti khitanan anak	2 hari
Cuti keluarga meninggal dalam satu rumah	2 hari

2. Organizing (Organizing)

Checking or organizing the leave application filed by the employee, the checks include the type - the type of leave and their time is to meet the rules of PT Nusantara Indah Makmur or not. Area Manager will be responsible at this stage is going to approve the filing of employee leave.

3. Actuating (Implementation)

Table 15. Initial employee leave

Nama Cuti	Inisial
Cuti tahunan	CT
Cuti hamil	CH
Orang tua meninggal	COM
Cuti menikah	CM
Cuti khitanan anak	CK
Cuti keluarga meninggal dalam satu rumah	CKM

Table 16. Data employee leave

No	Nama Karyawan	Divisi	Jenis Cuti	Lama Cuti	Keterangan	Status
1	Aris Nugroho	Marketing	CT	3	Cuti dikarenakan lebaran idul fitri	Diterima
2	Ahmad Yani	Marketing	CT	2	Cuti dikarenakan idul fitri	Diterima
3	Daniar Chandra Kusuma	Marketing	COM	2	Cuti dikarenakan orang tua laki-laki meninggal	Diterima
4	Ahmad Jumain	Marketing	CM	2	Cuti dikarenakan menikah	Diterima
5	Lenny Risma Agustina	Administrasi	CH	90	Cuti dikarenakan hamil	Diterima
6	Rudi Hamzah	Marketing	CKM	2	Cuti dikarenakan keluarga meninggal	Diterima
7	Chandra	Marketing	CK	2	Cuti dikarenakan khitan anak	Diterima
8	Ahmad Yani	Marketing	CT	3	Cuti pulang kampung	Ditolak
9	Dimas Chandra	Marketing	CT	3	Cuti pulang kampung	Ditolak
10	Sidiq K	Marketing	CT	3	Cuti pulang kampung	Ditolak

4. Controlling (Controlling)

Table 17. History of employee leave

No	Nama Karyawan	Divisi	Jenis Cuti	Lama Cuti	Keterangan	Status
1	Aris Nugroho	Marketing	CT	3	Cuti dikarenakan lebaran idul fitri	Diterima
2	Ahmad Yani	Marketing	CT	2	Cuti dikarenakan idul fitri	Diterima

Table 17. History of employee leave (continued)

No	Nama Karyawan	Divisi	Jenis Cuti	Lama Cuti	Keterangan	Status
3	Daniar Chandra Kusuma	Marketing	COM	2	Cuti dikarenakan orang tua laki-laki meninggal	Diterima
4	Ahmad Jumain	Marketing	CM	2	Cuti dikarenakan menikah	Diterima
5	Lenny Risma Agustina	Administrasi	CH	90	Cuti dikarenakan hamil	Diterima
6	Rudi Hamzah	Marketing	CKM	2	Cuti dikarenakan keluarga meninggal	Diterima
7	Chandra	Marketing	CK	2	Cuti dikarenakan khitan anak	Diterima
8	Ahmad Yani	Marketing	CT	3	Cuti pulang kampung	Ditolak
9	Dimas Chandra	Marketing	CT	3	Cuti pulang kampung	Ditolak
10	Sidiq K	Marketing	CT	3	Cuti pulang kampung	Ditolak

2.8 Analysis of Non-Functional Requirements

Analysis of non-functional requirements is the analysis needed to determine the need for system specifications.

2.8.1 Analysis Hardware

The hardware used to run the web-based management information system.

A. Hardware specifications on PT. Nusantara Indah Makmur Samarinda branch is as follows:
   a. Processor with a speed of 2.6 GHz
   b. 4 GB of RAM
   c. Hard drive capacity 500 GB
   d. LAN / WAN network for internet access.

B. Needs minimal hardware required to run this system are as follows:
   a. The minimum processor speed of 1.8 GHz
   b. RAM is used at least 512 MB
   c. The hard drive is used at least 10 GB
   d. Network for internet access.

C. Conclusion analysis hardware

After analyzing the existing hardware in the PT. Nusantara Indah Makmur Samarinda branch turned

out to meet the specification requirements for using the system to be built.

2.8.2 Analysis Software

Needs analysis software is used to be able to support the passage of the system.

A. Software specifications on PT. Nusantara Indah Makmur Samarinda branch is as follows:
   a. Operating System Windows 7 Professional
   b. WAMP Server / XAMPP
   c. Web Browser Google Chrome, Mozilla Firefox, Internet Explorer
   d. Adobe Reader to view the report as a PDF

B. The software required to run a web-based information management system on any system requires the following specifications, namely:
   a. OS (Operating System): in this case to run the system to be built minimal operating system used is Windows XP Professional Operating System with SP3.
   b. WAMP Server / XAMPP
   c. Web browser (Mozilla Firefox, Google Chrome)
   d. Adobe Reader to view the report as a PDF

C. Conclusion analysis software

Based on the results of the comparison between the results and the analysis of non-functional requirements then the company has been qualified to run the system.

2.9 Functional Needs Analysis

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

2.9.1 Context Diagram

Diagram Context is a simple 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. Diagram context is also a data flow diagram (DFD Data Flow Diagram or) to the top level (top level). Diagram context of the system of human resource management information can be seen in the image below.

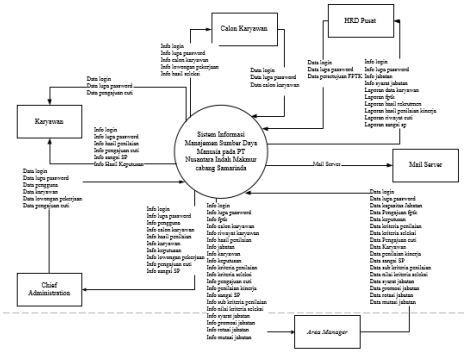


Figure 6. Diagram Context

2.9.2 DFD Level 1

DFD level 1 Management Information Systems in PT.Nusantara Indah Makmur Samarinda branch can be seen in the picture

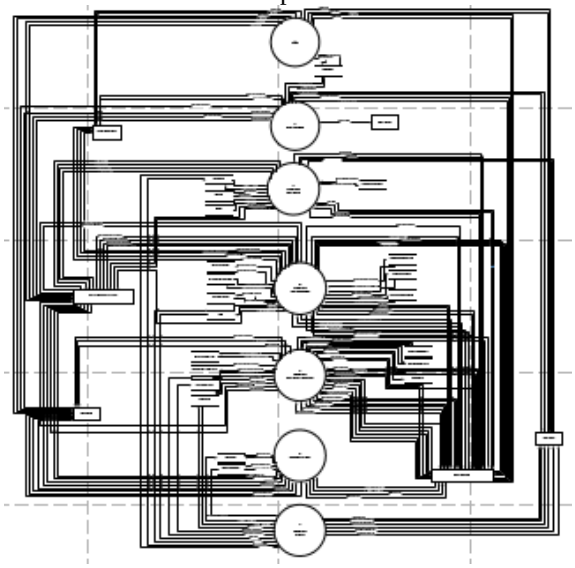


Figure 7. DFD Level 1

2:10 Implementation and Testing

Testing the system aims to find out the errors or deficiencies in Human Resources Information Systems at PT. Nusantara Indah Makmur branch Samarinda tested

2.10.1 Functional Testing

Functional testing is focused on the functional requirements of software built. Based on test results with sample test cases that have been done can be concluded that the process is correct. Filtering processing errors in the form of landing page display messages is fairly maximum. Functional system can already produce the expected output.

2.10.2 Testing UAT (User Acceptance Testing)

Based on testing hasi user acceptance test has been done on the management information system of human resources at PT. Nusantara Indah Makmur Samarinda branch, it can be concluded that the system can proceed to the end-user acceptance testing phase, if the conditions are accepted by the records then the system must first be fixed in accordance with the records provided to the user before entering the final user acceptance stage

2.10.3 End User Testing in an enterprise environment

Testing of end users within the enterprise is a test that is directly the actual environment. Users make an assessment of the software using interviews.

Based on the functional testing of the above it can be concluded that:

1. The system can manage employee data properly.
2. The system can manage the data of candidates who applied properly.
3. The system is already managing data properly leave.
4. The system is quite helpful in assessing performance.
5. The system helps in taking decisions on the assessment results.
6. The system has helped acceptance of new candidates.
7. The system is fairly easy to learn and use.

2.10.4 End User Testing in the Application in corporate environments

1. The information system of human resource management have been able to assist the Area Manager in selecting applicants according to the amount and the criteria expected of PT Nusantara Indah Makmur branch Samarinda.
2. The information system of human resource management have been able to assist the Area Manager in recommending a decision in the performance assessment for promotion, rotation of office, transfer office, demotion to the post of permanent employees, and determine the appointment of contract employees to remain.
3. The information system of human resource management has been able to assist the Area Manager in controlling employee leave the company

3. CLOSING

In this section, describes the conclusions which contains the results obtained after the study. Results are not the things that are raw but used as a reference and a reference in future system improvements.

3.1 Conclusions

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 Human Resources at PT. Nusantara Indah Makmur Samarinda branch is as follows:

a) Information Systems Human Resource Management has been able to assist the Area Manager in selecting applicants according to the amount and the criteria expected of PT Nusantara Indah Makmur branch Samarinda.
b) Human Resource Information Systems has been able to assist the Area Manager in recommending a decision in the performance assessment for promotion, rotation of office, transfer office, demotion to the post of permanent employees and contract employees to determine the removal of the remains.
c) Human Resource Information Systems has been able to assist the Area Manager in controlling employee leave the company.

3.2 Suggestion

Based on all the processes in building management information system of human resources, following some of the advice given in the development of the system is further improve and develop the system broadly by heading ketahap next (Enterprise Resource Planning), which will involve all branches of the company and the parties interest in the management of the company from top to operations in order to produce a better result for the company PT Nusantara Indah Makmur.

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