MANAGEMENT INFORMATION SYSTEM PROMOTION AND TRAINING EMPLOYEE IN PT. BOSTINCO BOGOR

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ABSTRACT

PT. Bostinco Bogor established in 1952 is an industrial company that produces office equipment made of steel components With the number of employees of PT. Bostinco Bogor amounts to 334 people, consisting of permanent employees, contract employees and daily employees. Based on data and interviews with Mr. Rusifi as HR-GA Manager delivered up to this moment in the process of appraising employee performance for the position of executor down by looking at two assessment criteria such as absenteeism and accuracy in working on the project and not considering other criteria. Other problems are also present in the training process for the absence of reference provided by the company to determine which employees should be training. Based on the results of blackbox testing and interviews can be concluded that this system has helped the HRD to conduct the assessment process until decision making promotion and employee training.

Keywords : Management System Information, Promotion and Training, Management PDCA, Metode Simple Additive Weigthing.

1. INTRODUCTION

PT. Bostinco Bogor established in 1952 is an industrial company that produces office equipment made of steel components and the production of this company is labeled with the contents of Bostinco made in Indonesia with the number of employees PT.Bostinco Bogor amounted to 334 people, consisting of permanent employees , contract employees, and daily employees.

Based on data and interviews with Mr. Rusifi as HR-GA Manager submitted up to now in the process of appraising the performance of employees for the position of executor down which in value by the division supervisor by looking at two assessment criteria such as absence and accuracy in working on the given project, other criteria. Due to changing evaluation criteria, each evaluation period impacts the final result of the appraisal so that poorly rated employees can be promoted. Other issues are also contained in the training process provided only for the top executor, no reference given by the company to determine the employee of the undersigned who should be training.

The purpose of the research conducted is to build Management Information Systems Promotion and Training Employees in PT.Bostinco Bogor. While the purpose of this research is as follows

1. Assist HR-GA Manager in conducting employee performance appraisal process with criteria that have been specified in decision making for employee promotion.
2. Assist HR-GA Manager determines employees who can attend training based on employee performance appraisal results.

2. CONTENTS OF RESEARCH

2.1. Management information System

Human resource management information system is an information system that is part of the management information system within the organization used to manage employee data, used to complete administrative functions and used for

policy making relating to the management of human resources. [1]

2.2. PDCA

PDCA is an iterative problem-solving process used in quality control [2]. There are 4 stages in PDCA, that is

1. Plan (Plan) is to make a plan in solving the problem.
2. Do (*Do*) is a pre-defined implementation process and monitors the implementation process.
3. *Check* (check) is the stage of supervising and reviewing the results of the implementation of the do process.
4. *Act* (act) is the stage of following up what happens on hold do

2.3. Metode Simple Additive Weighting

SAW method is one of the methods used to solve the problem of Fuzzy Multiple Attribute Decision Making (FMADM) is the Simple Additive Weighting method (SAW) which is a method used to find the optimal alternative from a number of alternatives with certain criteria. Often also known terms weighted summing method. The basic concept of the SAW method is to find the weighted sum of performance ratings on each alternative on all attributes. This method requires the process of normalizing the X decision matrix to a scale comparable to all existing alternative ratings.[3]

SAW Settlement Steps as follows

1. Determining the criteria that will be used as a reference in decision making, namely Ci.
2. Specifies each alternative's match rating on each criteria.
3. Create a decision matrix based on criteria (Ci), then normalize the matrix based on the equation that is adjusted to the type of attribute (attribute gain or cost attribute) to obtain a normalized matrix R.
4. The final result is obtained from the ranking process that is the sum of the normalized matrix multiplication R with the weight vector to obtain the largest value chosen as the best alternative (Ai) as the solution. The formula for performing such normalization is [3]

$$r_{ij} = \begin{cases} \dfrac{x_{ij}}{Max_i\, x_{ij}} & \text{jika j adalah atribut keuntungan (benefit)} \\ \dfrac{Min_i\, x_{ij}}{x_{ij}} & \text{jika j adalah atribut biaya (cost)} \end{cases}$$

Rumus 2. 1 Perhitungan SAW

where:

Information:

Rij = performance rating is normalized

Maxij = the maximum value of each row and column

Minij = the minimum value of each row and column

Xij = rows and columns of the matrix

Where rij is the normalized performance rating of the alternative Ai on the attribute Cj; i = 1,2, ... m and j = 1,2, ..., n. The preference value for each alternative (Vi) is given as [3]

$$V_i = \sum_{j=1}^{n} w_j\, r_{ij}$$

Rumus 2. 2 Normalization of Matrices

Information:

Vi = The final value of the alternative

wj = The specified weight

rij = Normalization of the matrix

2.4.Analysis Recruitment

1. Planning

Planning This is the stage of planning the needs of the number of employees required by the company that will be done recruitment and selection of employees after approval from HR-GA Manager and General Manager. The following table monitoring employees of each department at PT.Bostinco in November 2017 as shown in the table below.

Tabel 1. Employee Monitoring November 2017

No	Division	Capacity	amount	information
1.	Direksi	5	5	Terpenuhi
2.	Coorporate	2	2	Terpenuhi
3.	RD	1	1	Terpenuhi
4.	PPIC	24	23	Tidak Terpenuhi
5.	MDEV	1	1	Terpenuhi
6.	Gudang	19	19	Terpenuhi
7.	General Affair	37	37	Terpenuhi
8.	Finance	11	11	Terpenuhi
9.	HRD	3	3	Terpenuhi
10.	PS	11	11	Terpenuhi
11.	Sales	12	12	Terpenuhi
7.	General Affair	37	37	Terpenuhi
8.	Finance	11	11	Terpenuhi

No	Division	Capacity	amount	information
9.	HRD	3	3	Terpenuhi
12.	Produksi	153	153	Terpenuhi

Through the monitoring process in the above table for the PPIC department has a difference between the capacity and the number of employees, so the Division Manager will submit a new labor request form and HR-GA will open a job vacancy for the PPIC department. The following table is a requirement to fill the vacancy of PPIC staff.

Tabel 2. Terms of Position

Position	Terms of position
Staff Administrasi PPIC	1. Male minimum 25 years / max 30 years
	2. Minimum high school / vocational education
	3. Single
	4. Able to master computer or Ms.Office program

2. Do

The implementation phases of HR-GA will open new job vacancy and ad creation with predetermined criteria. Next will be recruitment and selection, in the example of this case there are 4 prospective employees who apply for jobs to be placed on the PPIC department in need of new workers as much as 1 employee, as for 4 applicants who enter the application file. As in the table below

Tabel 3. Checking Applicant Data Files

Name	Education	Age	Status	Expertise	Information
Achmad Nizar Maulana	S1	26 tahun	Belum Menikah	Menguasai Komputer	Sesuai
Ramadhan Alkautsar	SMA	26 Tahun	Menikah	Tidak Menguasai Komputer	Tidak Sesuai
Muhammad Meinur Ahadrian	SMK	25 tahun	Belum Menikah	Menguasai Komputer	Sesuai
Syamsir Mustaba	S1	36 Tahun	Menikah	Menguasai Komputer	Tidak Sesuai

From the data of 4 applicants above, there are 2 applicants who passed the administrative stage because all the requirements of application files have been fulfilled. As in the table below

Tabel 4. Data Applicants Pass the Administration Stage

Name	Education	Age	Status	Expertise	Information
Achmad Nizar Maulana	S1	26 tahun	Belum Menikah	Menguasai Komputer	Sesuai
Muhammad Meinur Ahadrian	SMK	25 tahun	Belum Menikah	Menguasai Komputer	Sesuai

From the above data all applicants are eligible and can follow the interview stage. The results of applicant data from the interview stage with the criteria - the criteria of the company and use the business rules in PT.Bostinco can be seen in the table below

Tabel 5. Assessment of New Employee Selection of PPIC Interview Phase (1)

Name	Criteria	Initials	Value			
			1	2	3	4
Achmad Nizar Maulana	Pendidikan	K1			■	
	Kerjasama	K2		■		
	Kemampuan Menganalisa	K3	■			
	Motivasi	K4			■	
	Etika	K5			■	
	Pengetahuan Mengenai Perusahaan	K6		■		
	Kemampuan Berkomunikasi	K7		■		
	Penampilan Diri	K8			■	
	Kemampuan Bahasa Asing	K9			■	
	Toleransi	K10		■		
	Kemampuan teknis	K11		■		

Tabel 6. Assessment of New Employee Selection of PPIC Interview Phase (2)

Name	Criteria	Initials	Value			
			1	2	3	4
Muhammad Meinur Ahadrian	Pendidikan	K1	■			
	Kerjasama	K2			■	
	Kemampuan Menganalisa	K3		■		
	Motivasi	K4			■	
	Etika	K5		■		

	Pengetahuan Mengenai Perusahaan	K6				
	Kemampuan Berkomunikasi	K7				
	Penampilan Diri	K8				
	Kemampuan Bahasa Asing	K9				
	Toleransi	K10				
	Kemampuan teknis	K11				

3. Check

The Check stage is the stage to evaluate the process that has been done at the Planning and Do stage whether reaching the target.

Tabel 8. Applicants Rating

Name	Total value	Ranking
Achmad Nizar Maulana	26	I
Muhammad Meinur Ahadrian	23	II

Based on the above table, then obtained an alternative Applicant Achmad Nizar Maulana has the greatest value. So the chosen to fill the PPIC staff's empty field is Achmad Nizar Maulana.

4. Act

Act is a step to take action. So will be selected as the best alternative to fill the position of PPIC staff is Achmad Nizar Maulana and entitled to sign a work contract.

Tabel 9. Employment contract Achmad Nizar Maulana

Name	Department	Contract		Decision
		Start Date	End Date	Contract
Achmad	PPIC	1/10/2017	1/10/2018	✓

2.5. Performance Appraisal Analysis

1. Planning

Stages Planning is the stage of planning performance penilain employees by determining criteria and sub criteria. Performance appraisal for permanent employees is conducted for promotion of position to employees with the best assessment results and conduct training and supervision to employees who have a less than satisfactory assessment. The classification of values and the follow-up plan for performance appraisal for employees is as shown in the table below

Tabel 10. Employee Value Classification

Value	Value Index Information	Action plan
0,95 – 1	Very Good	Getting Reward & Promotion
0,85 - < 0,95	Good	Getting Reward
0,75 - < 0,85	Passably	Getting Reward
0,65 - < 0,75	Less	Following Training
< 0,65	Less than once	Following Training and in supervision

Tabel 13. Assessment Criteria Sales Position

Criteria	Sub Criteria	Code	Quality
Indikator Kinerja Utama	Pencapaian target penjualan	C1	40,0%
	Pencapaian prospek	C2	24,0%
	Aktivitas penjualan	C3	8,0%
	Laporan administrasi	C4	8,0%
Kompetensi Perilaku	Tanggung jawab	C5	6,0%
	Kerja sama	C6	4,0%
	Inisiatif	C7	4,0%
	Disiplin	C8	6,0%

2. Do

This stage of the stage of conducting employee performance appraisal using Simple Additive Weighting (SAW) method. With a range for the grading of 0-10 and for the range of the results of the assessment 0-1.Here is an alternative table of employee performance appraisals for sales positions based on the criteria presented in the Plan stage.

Tabel 14. Employee Assessment Alternative Sales Position

No	Name	Divisi	C1	C2	C3	C4	C5	C6	C7	C8
1	Atikah Juniarianti	Sales	8	8,5	7,5	7	8	8,5	7	7,5
2	Yudiyanto	Sales	7,5	8	8,5	7,5	7	8	8,5	8
3	M. Sueb	Sales	8	8,5	8	7	7,5	8	7	7,5

Dari tabel di atas selanjutnya dibentuk matriks keputusan sebagai berikut .

$$X=\begin{bmatrix} 8 & 8,5 & 7,5 & 7 & 8 & 8,5 & 7 & 7,5 \\ 7,5 & 8 & 8,5 & 7,5 & 7 & 8 & 8,5 & 8 \\ 8 & 8,5 & 8 & 7 & 7,5 & 8 & 7 & 7,5 \\ 6 & 7 & 7,5 & 8 & 8,5 & 8 & 8,5 & 7 \\ 5 & 6 & 6 & 5 & 5 & 5,5 & 6 & 6,5 \\ 6 & 6,5 & 6,5 & 5 & 6 & 6,5 & 5 & 6 \\ 6,5 & 7 & 7 & 7,5 & 6,5 & 6 & 5,5 & 7 \\ 8,5 & 8,5 & 8,5 & 8 & 7 & 7,5 & 7 & 6 \end{bmatrix}$$

Perform Normalization using the formula (2.1)

$r_{ij} = \frac{Xij}{\max Xij}$

The calculations are as follows

$R_{11} = \frac{8}{8,5} = 0,94$

$R_{12} = \frac{8,5}{8,5} = 1$

$R_{13} = \frac{7,5}{8,5} = 0,88$

Here is the normalization result for example Atikah Juniarianti sales division

R = [0,94 1 0,88 0,88 0,94 1 0,82 0,94]

The ranking process by using the weight that has been given

W = [0,40 0,24 0,08 0,08 0,06 0,04 0,04 0,06]

The results obtained are as follows.

V1=(0,40*0,94)+(0,24*1)+(0,08*0,88)+(0,08*0,875)+(0,06*0,94)+(0,04*1)+(0,04*0,82)+(0,04*0,94) = 0,94

The following table employee performance appraisal results by taking an example of 10 employees for the results of other employee assessments can be seen in the appendix. The results of sales assessment as in the table below.

Tabel 15. Results of Job Sales Performance Assessment

No	Name	Division	Total
1	Atikah Juniarianti	Sales	0,94
2	Yudiyanto	Sales	0,92
3	M. Sueb	Sales	0,94

3. Check

This stage is checked from the calculation of the assessment of employees at the stage do. Employees with excellent performance appraisal results get promotional recommendations in the event of a vacancy and for good grades and enough rewards. As for the results of the assessment of less and less category performance once able to attend training. Here is a table of recommendations for employee training along with employee assessment results can be seen in the table below

Tabel 16. Employee Data Recommended Training

No	Name	Division	position	Value	information
1.	Iwan Gunawan	S3	Manager	0,64	Pelatihan
2.	Endang Wahyudin	Dispo	Supervisor	0,66	Pelatihan
3.	Iwan Setiawan	S3	Supervisor	0,60	Pelatihan

4. Act

Act is the stage to take action whether the results that have been obtained at the previous check stage is in accordance with the initial planning. In employee appraisal the employee gets the highest appraisal, it will have an effect on the promotion process, the employee will be the candidate to fill vacancy when vacancy occurs. To be promoted the employee must meet the criteria that is already a permanent employee, with a vacant position and have good assessment results.

Tabel 17. Monitoring the Vacancy of Pension Office 2018

No	Department	Information	Date of vacancy	Position
1.	PPIC	1 Pensiun	21/Oct/2018	Staff Strorage
2.	Gudang	1 Pensiun	10/Jul/2018	Manager
3.	S-2	1 Pensiun	30/Apr/2018	Staff

Here is a table of recommendations for employee promotion along with vacancy results position can be seen in the table below

Tabel 18. Promotion Employee Data

No	Name	Old Division	New Division	old position	new position
1.	Sudiharjo	TN	Gudang	Supervisor TN	Manager Gudang
2.	Deppi Wulan Lestari	Marketing	S-2	Staff Marketing	Staff S-2
3.	Malanton Siantur i	Sales	Sales	Staff Sales	Staff S-3

Here is a table of recommendations type of employee training on the set by the direct

supervisor and assessment results can be seen in table 3.41 below

Tabel 19 Employee Training Type Data

No	Name	Division	Position	Type of Training
1.	Iwan Gunawan	S3	Manager	Creativity Training
2.	Endang Wahyudin	Dispo	Supervisor	Creativity Training
3.	Iwan Setiawan	S3	Supervisor	Creativity Training
4.	Nuryanti	Marketing	Staff	Retraining
5.	Lukman Hakim	GA	Staff	Skill Training

2.6. Analysis Control Cuti

1. Planning

This stage is a planning stage undertaken by PER to determine the rules of leave applicable in the company. The rules can be seen in the table below

Tabel 20. Types and Rules of Leave

Nama Cuti	Waktu	Keterangan
Cuti Tahunan	12 Hari	Setiap tahun karyawan mendapatkan jatah cuti sebanyak 12 hari,bisa diambil 3 hari dalam 1bulan. Jika satu tahun cuti tidak diambil,masih bisa di ambil tahun selanjutnya selama belum mencapai tanggal kadaluasra. Untuk karyawan kontrak dan harian tidak dapat mengajukan cuti tahunan.
Cuti Haid	2 Hari	Cuti haid bisa diambil jika karyawan sering mengalami sakit berlebihan ketika haid (waniita).
Cuti Melahirkan	3 Bulan	Cuti bersalin atau hamil bisa diambil 1 bulan sebelum bersalin dan 2 bulan sesudah bersalin.
Cuti Karyawan Menikah	3 Hari	Cuti ini bisa diambil jika karyawan akan menikah.
Cuti Anak Khitanan	2 Hari	Cuti ini bisa diambil jika anak karyawan khitanan.

2. Do

This stage is the stage of implementation of the employee to apply for leave based on the type of leave that has been set. Employees who apply for leave will first choose which types of leave to take. Division Manager will see which types of leave to take. For more details can be seen in the case example. Where there are 3 employees apply for leave can be seen in table below

Tabel 21. Applying for November Leave

No	Name	Type of leave	Length of Leave	Remaining days off	Date Leave	Date of filing	Division
1	Rahmat Suhandi	CKA	2	8	08/11/2017	05/11/2017	Gudang
2	Ahmad Sudrajat	CT	3	8	11/11/2017	08/11/2017	Purchasing

3. Check

Check stage is to check whether the process of leave application in accordance with the rules of the company, whether the petition submitted by the employee has met the requirements of leave. Per will check the leave requirements by looking at the leave history of each employee. Employee annual leave history data can be seen in the table table below

Tabel 22. Rahmat Suhandi leave history in 2017

No	Tanggal Cuti	Jenis Cuti	Lama Cuti
1	20/04/2017	CT	2
2	2/05/2017	CT	2
Sisa Cuti Tahunan			8

Tabel 23. Ahmad Sudrajat leave history in 2017

No	Tanggal Cuti	Jenis Cuti	Lama Cuti
1	5/04/2017	CT	2
2	23/06/2017	CT	2
Sisa Cuti Tahunan			6

From the examination result of the history of leave then Per can determine the decision for approval of the leave application. For rejected leave requests will be rescheduled by PER. The result of the employment decision of the employee.

4. Act

This stage is the stage of approval of the leave application. Per will evaluate the results of the check by looking at how many employees are applying for leave. So with the control of leave control can be seen employees who are on leave. Approval leave application data can be seen in the table below

Tabel 25. Decision Results of Approved Leave

No	Nama Karyawan	Divisi	Jenis Cuti	Lama Cuti	Persetujuan	Keterangan
1	Rahmat Suhandi	Gudang	CKA	2	Ya	Syarat lengkap
2	Ahmad Sudrajat	Purchasing	CT	3	Ya	Syarat lengkap

2.7. Employee Retirement Analysis

1. Planning

Planning is the stage where HR-GA will determine the retirement of employees whose age has reached the retirement age of 56 years. HR-GA will provide severance in accordance with the employment period. With the determination of severance that has been determined by the company as in the table below

Tabel 26. Retirement Pension

Masa Kerja	Pesangon
MK < 1thn	2x
1 Tahun <= MK < 2 Tahun	4x
2 Tahun <= MK < 3 Tahun	6x
3 Tahun <= MK < 4 Tahun	10x
4 Tahun <= MK < 5 Tahun	12x
5 Tahun <= MK < 6 Tahun	14x
6 Tahun <= MK < 7 Tahun	17x
7 Tahun <= MK < 8 Tahun	19x
8 Tahun <= MK < 9 Tahun	21x
9 Tahun <= MK < 10 Tahun	22x
10 Tahun <= MK < 11 Tahun	22x
11 Tahun <= MK < 12 Tahun	22x
12 Tahun <= MK < 13 Tahun	23x
13 Tahun <= MK < 14 Tahun	23x
14 Tahun <= MK < 15 Tahun	23x
15 Tahun <= MK < 16 Tahun	24x
16 Tahun <= MK < 17 Tahun	24x
17 Tahun <= MK < 18 Tahun	24x
18 Tahun <= MK < 19 Tahun	25x
19 Tahun <= MK < 20 Tahun	25x
20 Tahun <= MK < 21 Tahun	25x
21 Tahun <= MK < 22 Tahun	26x
22 Tahun <= MK < 23 Tahun	26x
23 Tahun <= MK < 24 Tahun	26x
MK => 24 Tahun	28x

2. Do

This stage is the stage of implementation or implement all that has been planned at the stage of the plan including the collection of employee data that has reached the retirement age of 56 years. Here is a table of employee data that will reach the age limit of 56 years can be seen in the table below.

Tabel 27. Employee Monitoring Pension Year 2018

No	Nama	Tanggal lahir	Usia	Massa Kerja	Divisi	Jabatan
1.	M.Yunus	21/Oct/1962	55	19 Tahun	PPIC	Staff Storage
2.	KristantoTanudjaja	10/Jul/1962	55	34 Tahun	Gudang	Manager
3.	Moch Arief Tirtana	30/Apr/1962	55	26 Tahun	S-2	Staff

3. Check

Check is the examiner stage whether the pension proposal made at the stage do in accordance with the rules of the company. Employee data according to the employee's retirement age limit or not, and HR-GA will be responsible for monitoring the employee retirement process.

4. Act

Act is the stage to take action whether the results of employee pension process at the stage of planning, do, and check in accordance with company rules. At this stage to monitor the number of employees who retired for the end of the service period and determine the amount of severance that employees will receive by looking at the service period.

2.8. Non Fungsional Analysis

Non-functional needs made priority of a design because if the error of non-functional requirements will cause various errors in software development, done in the early stages of software modeling so that needs can be defined properly.

2.8.1. Hardware Analysis

Hardware analysis is a necessary requirement also in operating management information systems and employee training and training PT. Bostinco Bogor needs hardware. The hardware analysis that will be described is hardware analysis at PT.Bostinco Bogor and the required hardware analysis.

1. Prosecor with a speed of 2.26 Ghz
2. 1GB Memory
3. VGA Card 256 MB
4. Monitor 14 "800x600 resolution
5. 80 GB hard drive

2.8.2. Software Analysis

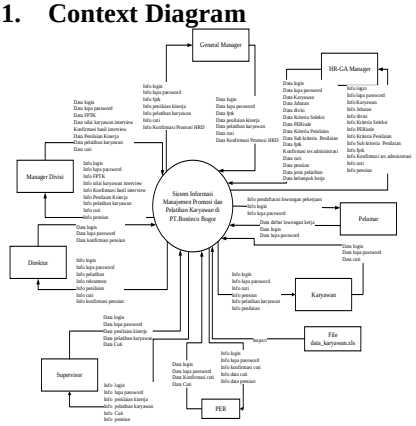
Software analysis is a necessary requirement in operating the system. The software analysis to be described is software analysis at PT.Bostinco Bogor and the required software analysis is: [4]

1. Sistem Operasi Microsoft Windows7,8,10
2. Browser Mozilla, Google Chrome

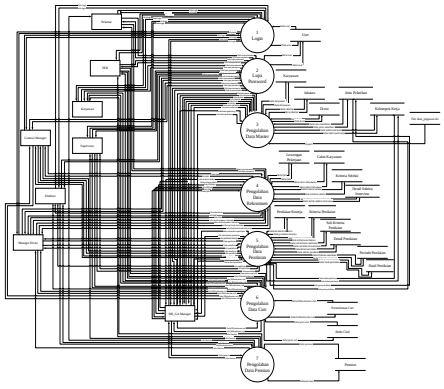
2.9. Functional Needs Analysis

Functional needs analysis is an analysis that describes the flow of data, information and processes to illustrate, plotting separate elements into a single entity that serves to define software development.

2.9.1. Context Diagram



2.9.2. DFD Level 1



2.10. Implementation and Testing

Implementation system is the stage of application of analysis results and system design. Implementation aims to confirm with the design results so that system users can provide input to system development.

System testing is the most important thing that aims to find and fix as many errors as possible in the program [5]. Testing to test the system using black box testing method, focused on testing the functional requirements of information systems.

2.10.1. BlackBox Testing

Black box testing is focused on the functional requirements of built software

2.10.2. Beta Testing

Based on beta test above meal can be concluded that

1. The system is good enough in the process of appraising employee performance.
2. The system performs an assessment with criteria appropriate to the company. Because the results of the assessment can be used as a reference for decision-making
3. System is quite helpful in decision making promotion and training of employees.
4. The system is good enough in the process of submitting a new workforce.
5. System is quite helpful in conducting employee selection at the administrative and interview stage.
6. The system is quite helpful in the process of application for leave and monitoring employee leave is easier and faster.
7. System is quite helpful in performing employee leave approval.
8. The system is quite helpful in the data collection of employees who will retire.

2.10.3. Testing Application in the corporate environment

1. This management information system has been able to assist HR-GA Manager in recommending decisions in performance appraisal for employee promotion and training.Sistem informasi manajemen ini sudah dapat membantu HR-GA Manager dan Manager Divisi dalam proses perekrutan tenaga kerja baru.
2. This management information system has been able to assist PER and Division Manager in the application process of employee leave.
3. This management information system has been able to assist HR-GA Manager in the employee retirement planning process.

3. CLOSING

3.1 Conclusion

Based on the results obtained in the research and preparation of this thesis, it can be concluded as follows

1. This management information system has been able to assist HR-GA Manager in recommending decisions in performance appraisal for employee promotion and training..
2. This management information system has been able to assist HR-GA Manager and Division Manager in the process of recruitment of new workforce.
3. This management information system has been able to assist PER and Division Manager in the application process of employee leave.
4. This management information system has been able to assist HR-GA Manager in the employee retirement planning process.

3.2 Suggestion

Based on the whole process in developing this human resources management system, following some suggestions given in further system development is to improve and develop more broadly to produce better result for PT Bostinco Bogor.

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