DECISION SUPPORT SYSTEM CAREER PLANNING AND SELECTION OF ACHIEVEMENT EMPLOYEES IN CV. SAS BANDUNG

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ABSTRACT

CV. SAS (Syukur Abadi Sentosa) is a company engaged in general trading with the number of employees relative quite a lot so it will be difficult and time consuming in the process of succession planning and turnover of each employee position, because each and every personnel Human Resource Department (HRD) has not certainly familiar with the existing close to each employee.

In career planning as well as determining which employees often have difficulty performing due to the candidate who fit the profile by matching employees and job profiles for career planning is less well defined.

This research will be appointed a case of how to place the employee in the vacant position in accordance with their competence in CV SAS Bandung using the method of profile matching. This system has served to make the analysis of employees according to the calculation matches the criteria for filling vacant positions. Employee achievements and its potential to be seen whether competence has been in accordance with job duties he had.

Based on test results, a system built to help determine priorities better and to improve the effectiveness and efficiency in the selection of employees according to a certain position.

Keywords : decision support system, DSS, profile matching, career planning.

1. INTRODUCTION

1.1 Problem Identification

How to build and implement the Decision Support System for Career Planning and Selection of Outstanding Employees at SAS CV Bandung.

1.2 Purpose and Objectives

The purpose of writing this final report is to build a DSS employee career planning and selection of achievement on the CV. SAS Bandung.

While the purpose of the construction DSS Career Planning and Employee Selection achievement are as follows.

1. Provide facilities in the appraisal process employees.
2. Being able to measure the competency of employees with a clear position based on the specification.
3. Reduce the saturation and human error, thereby increasing the work ethic in analyzing employee who according to calculations suitable to occupy a certain position.
4. Speeding up the process of employee assessment and problem solving as an integrated system.

1.3 Benefits

The benefits in making this application include:

1. Can facilitate the appraisal process employees by the HR.
2. Can measure the competency of employees with a clear position based on the specification.
3. Can reduce the saturation and human error, thereby increasing the work ethic in analyzing the employee which, according to calculations suitable to occupy a certain position.
4. Can accelerate the employee evaluation process because the integrated system.

2. MODELS, ANALYSIS, DESIGN AND IMPLEMENTATION

2.1 Model

1. Stage of data collection
   a. Literature Review
   b. Observation
   c. Interview
2. Model of software development.
   a. System / Information Engineering
   b. Analisis
   c. Design
   d. Coding
   e. Testing
   f. Maintenance

2.2 Decision Support System

Definition of decision support system (DSS), an ideal that is:

a. DSS is a computer-based system with the interface between machines / computers and users.
b. DSS is intended to assist decision makers in solving a problem in various levels of management and not to replace the position of humans as decision makers.
c. DSS able to provide an alternative solution to the problem of semi / unstructured either to individuals or groups and in different kinds and styles of decision-making process.
d. DSS using data, databases and decision analysis models.
e. DSS is adaptive, effective, interactive, easy to use and flexible
f. DSS provides access to a variety of formats and types of data sources (data source).

2.3 Profile Matching Methods

Method of profile matching is the process of comparing the individual competencies with job competency so that can know the difference competence (also called gaps), the smaller the resulting gap, the greater the weight value which means having greater opportunities to employees occupying these positions.

2.4 Profile Matching Procedure

The step in the method of matching a profile are:

1. Determining Variables

The first step in the method of profile matching is to determine the variables that will be used as a point rating of the office employees.

2. Calculating Results Competency Mapping Gap

Gap is the difference between profile positions as well as the standard for career planning with employee profiles shown in the formula :

Gap = Employee Profil – Position Profil

After getting every gap of each employee, each employee profile is weighted according to the benchmark value in the table values weigh the value gap.

Table 2.1 Weight of the gap value

No.	Difference (Gap)	Weight Value	Information
1	0	6	No Gap (competency as needed)
2	1	5,5	Individual competence excess 1 level / level
3	-1	5	Competence of individuals less than 1 degree / level
4	2	4,5	Excess of individual competence level 2 / level
5	-2	4	Competence of individuals less than 2 degree / level

6	3	3,5	Individual competency strengths 3 levels / level
7	-3	3	Competence of individuals less than 3 levels / level
8	4	2,5	Individual competence excess 4 levels / level
9	-4	2	Individual competence is less 4 levels / levell
10	5	1,5	Individual competence excess 5 levels / level
11	-5	1	Competence of individuals less than 5 the level

3. Counting and classifying Core Factor and Factor Secondary

Core factor is the aspect (competence), the most prominent or most needed by an office that is expected to produce optimal performance.

Calculation of core factors can be shown in the formula:

$$NCF = \frac{\Sigma NC}{\Sigma \text{IC}}$$

Description:
NCF : The average value of core factors
NC : The total number of core value factor (aspect 1, aspect 2, the aspect 3, etc..)
IC : Number of items core factor

Secondary factors are the items other than that there are aspects of the core factor (supporting factors).
Calculation of secondary factors can be shown in the formula:

$$NSF = \frac{\Sigma NS}{\Sigma \text{IS}}$$

Description:
NSF : The average value of the secondary factor
NS : Number of total value of secondary factor (aspect 1, aspect 2, the aspect 3, etc..)
IS : Number of items secondary factor

4. Calculating the Total Value of Each Aspect

From the calculation of each aspect of the total value is then calculated based on the percentage of core factors and secondary factors that are expected to affect the performance of each profile. Calculations can be seen in the formula:

Total Value = 60 % NCF + 40 % NSF

Description:
NCF : The average value of core factors
NSF : The average value of the secondary factor

5. Counting Final Result (Ranking)

The final result of the profile matching process is the ranking of the candidates who can be employees who can fill a certain position. Determination rankings are based on certain calculations, such calculations can be given on the formula:

HA = (x) % N1 + (x) % N2 + (x) % N3 + (x) % N4 +…

Description:

HA : Final Results
N1 : Aspects of a Total Value
N2 : The total value of Aspect 2
N3 : Total Value of Aspect 3
N4 : Total Value of Aspect 4
(X)% : The percent of the formula the final result (total 100%)

After each employee to get the final result, we can see the rating or ranking of each employee based on the greater value of the final result the greater the opportunity for career planning, and vice versa.

2.5 Design

1. ERD (Entity Relationship Diagram)

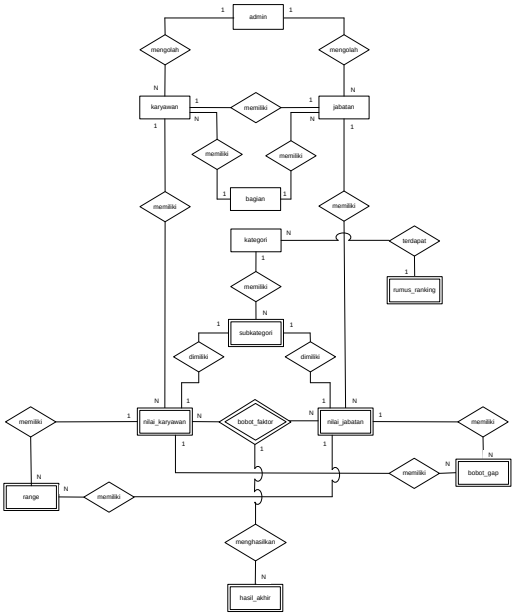


Figure 1 ERD (Entity Relationship Diagram)

2. Diagram Relation

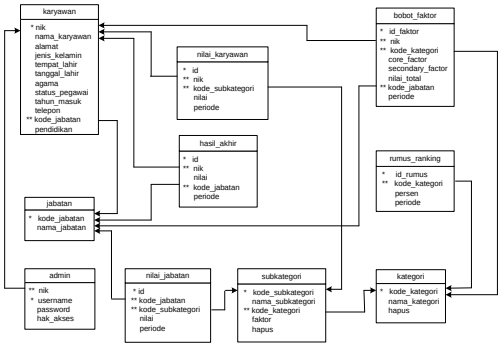


Figure 2 Diagram Relation

3. Context Diagram

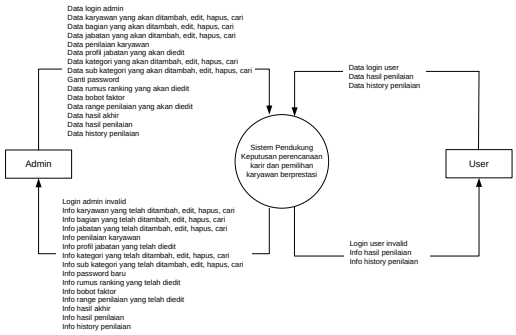


Figure 3 Context Diagram

4. DFD (Data Flow Diagram)

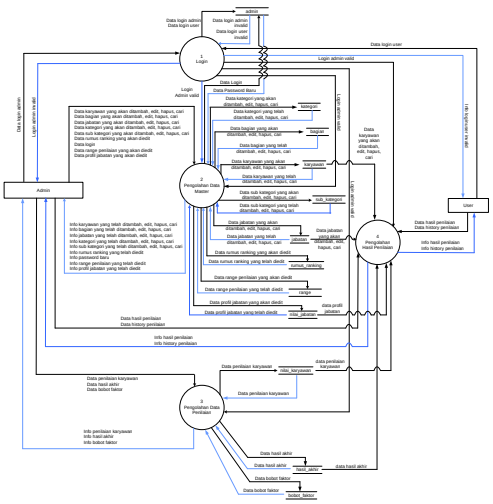


Figure 4 DFD (Data Flow Diagram)

5. Admin Menu

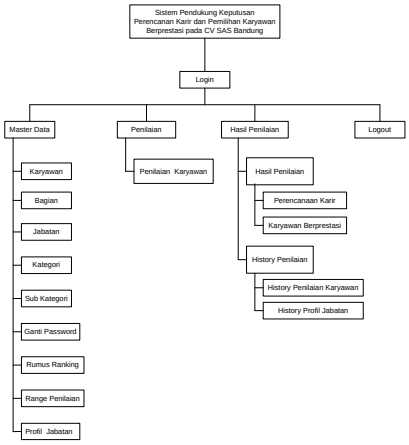


Figure 5 Admin Menu

6. User Menu

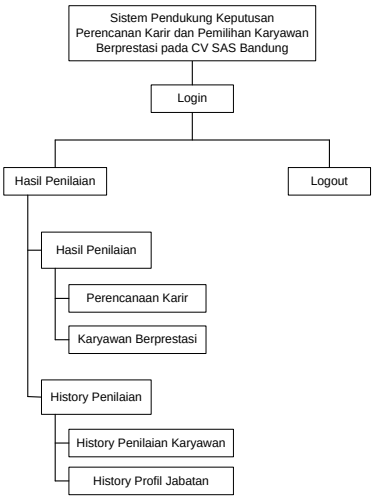


Figure 6 User Menu

2.6 Implementation

1. Software Implementation

The software used to implement the system are as follows.

1. Windows XP Operating System
2. Tools using PHP
3. MySQL for databases
4. Mozilla Firefox or Google Chrome to the browser.

2. Hardware Implementation

The hardware used to implement the system using the following specifications:

1. Processor: Pentium4 2.2 GHz.
2. Harddisk: 120 Gb.
3. Memory: DDR 1 Gb.
4. Monitor: 17 "

3. Interface Implementation

In this section, the program will be implemented interface is built.

3.1 Main Menu Display

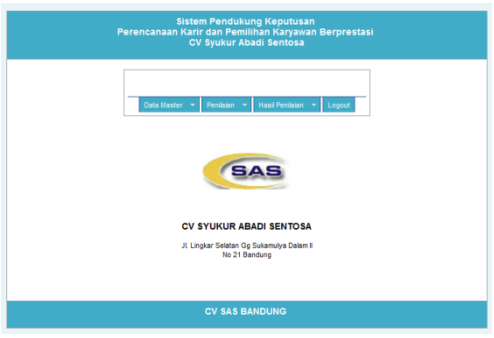


Figure 7 Main Menu Display

3.2 Employee Master Display



Figure 8 Employee Master Display

3.3 Ranking Formulas Display



Figure 9 Ranking Formulas Display

3.4 Position Profile Display



Figure 10 Tampilan profil jabatan

3.5 Employee Assessment Display

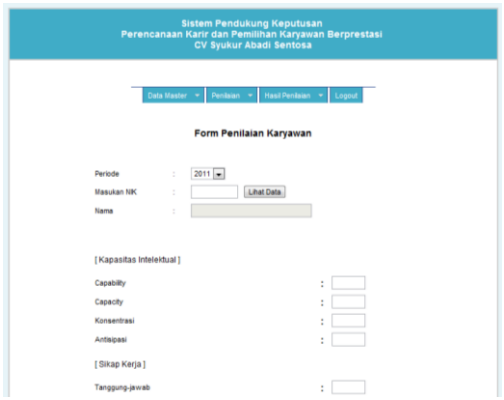


Figure 11 Employee Assessment Display

3.6 Results Employee Assessment Display

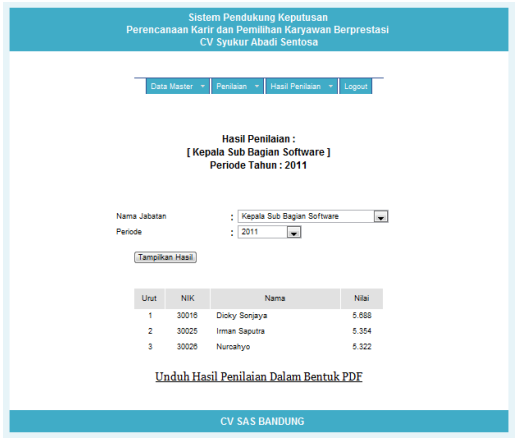


Figure 12 Results Employee Assessment Display

3.7 History Employee Assessment Display



Figure 13 History Employee Assessment Display

3.8 History Position Profile Display

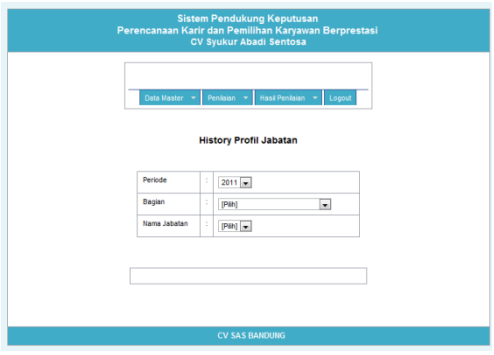


Figure 14 History Position Profile Display

3. RESULTS AND DISCUSSION

Decision support system of career planning and selection of outstanding employees who have built the following capabilities:

1. The system built to provide convenience and speed up the process of placing certain positions and selection of employees.
2. Decision support system built able to measure the competency of employees with a clear position based on the specification.
3. The system was built to reduce the saturation and human error, thereby increasing the work ethic in analyzing the employee which, according to calculations suitable to occupy a certain position.

4. CONCLUSIONS AND SUGGESTIONS

4.1 Conclusions

Based on the description of the discussion of analysis and testing that has been done, it can be concluded against the decision support system for career planning and selection of outstanding employees as follows:

1. The system built to provide ease of placement of certain positions and the selection of employees.
2. Decision support system built able to measure the competency of employees with a clear position based on the specification.
3. The system was built to reduce the saturation and human error, thereby increasing the work ethic in analyzing the employee which, according to calculations suitable to occupy a certain position.
4. The system is built to accelerate the process of employee assessment and problem solving as an integrated system.

4.2 Suggestions

This decision support system can still be developed further to reach a higher stage and better system performance.

Here are some suggestions for further development:

1. It is expected that the future for these applications look more attractive.
2. Master data input process is expected to be imported from existing files.

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