# *THE SYSTEM OF DECISION SUPPORT INCREASE IN POSITION TO PT. SYSMEX BY USING METHOD PROFILE MATCHING*

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## *ABSTRACT*

*In accordance with the rules set PT. Sysmex in the promotion process position, the criteria needed to determine who will be elected to fill positions, especially at the divisional sales manager. In the process of determining these positions required a decision support system. One method that can be used for decision support system is to use the profile matching method.*

*In this research would be appointed a case of finding the best solution on the basis of competence of employees in PT. Sysmex (division sales) profile matching methods. This method was chosen because it can select the best candidates from a number of existing employees, in this case meant that candidates who are eligible employees of the available positions based on criteria determined. Research done by finding the weight values for each attribute, such examples are the aspects of intellectual capacity, aspects of work attitudes, and behavioral aspects, then conducted process that will determine the optimal alternative, the best employees.*

***Key Word :*** *Profile matching, competence, positioning,decision support system*

## *1. INTRODUCTION*

### *1.1 Identification of Problems*

*Human resources within an enterprise organization is very important to support progress and quality of the company in achieving goals. Promotion is a factor which is important for career planning for employees and also rejuvenating a position to be occupied by office someone who has the criteria that match to occupy a proposed office, often promotion process and career planning in company only based on certain factors, the level of education, length of time worked and groups. However, there are still many factors another to assess for the increase sesseorang positions such as endurance, perseverance and thoroughness or other skills. These factors can managed by a system that can help to decision-making.*

### *1.2 Literature Review*

*Research object being studied is PT. Sysmex Indonesia is located in Bandung.*

### *1.3 Purposes and Objectives*

*The purpose of the writing of this Final Project is to build the application decision support system of promotion on PT. Sysmex Indonesia profile matching methods.*

*While objectives to be achieved in this research are:*

1. *Help facilitate a decision-making process for PT. Sysmex Indonesia.*
2. *Assist in determining accurate results in the assessment of employees.*

### *1.4 Benefit*

*The benefits of making these applications include:*

1. *Can help employees work team selectors in the employee selection process.*

2. *Can accelerate the process of selecting employees*
3. *Can reduce errors in determining the value of employees.*

## *2. MODEL, ANALYSIS, DESIGN, AND IMPLEMENTATION*

### *2.1 Model*

1. *Data collection phase*
   *a. Study Literature.*
   *b. Observation.*
   *c. Interview.*
2. *Stage of software creation.*
   *a. System / Information Engineering*
   *b. Analisis*
   *c. Design*
   *d. Coding*
   *e. Trial/testing*
   *f. Maintenance*

### *2.2* SPK

*Definition of decision support system (PRS) is an ideal that is:*

*a. SPK is a computer-based system with the interface between machines / computers and users.*
*b. PRSP is intended to assist decision makers in resolving a problem in various levels of management and not to change the position of humans as decision makers.*
*c. SPK able to provide alternative solutions to the problem of semi / unstructured both for individuals or groups and in a variety of processes and decision-making styles.*
*d. SPK using data, databases and analytical decision models.*
*e. SPK is adaptive, effective, interactive, easy to use and flexible*
*f. SPK provides access to a variety of formats and types of data sources (data source).*

### *2.3 Profile Matching*

*Matching profile outlines a process of comparing the individual competencies into the competency of office so that they can know the difference of competence (also called gaps), the smaller the resulting gap is greater the weight value, which means a greater opportunity for the employee occupying that position.*

### *2.4 Completion*

*1) Gap = Employee Profile - Profile Position*
*After determining the weight value of the gap to three aspects of the aspects of intellectual capacity, work attitudes and behaviors in the same way. Then each of these aspects are grouped into 2 (two) groups of the Core and Secondary Factor Factor. Core factor for the calculation can be shown*
*in the formula below:*

$$2)\ \Sigma NCF = \frac{NC(I, s, p)}{\Sigma IC}$$

*Description:*
*NCF: The average value of core factors*
*NC (i, s, p): The total number of core values factor (Intellectual, work attitude, behavior)*
*IC: Number of items core factor*
*As for the calculation of secondary factors can be shown in the formula below:*

$$3)\ NCS = \frac{\Sigma NS(I, s, p)}{\Sigma IS}$$

*Description:*
*NSF: The average value of secondary factors*
*NS (i, s, p): The total value of secondary factor (Intellectual, work attitude, behavior)*
*IS: Number of items secondary factor*

*From the results of the calculation of each aspect of the above then calculated based on the total value of the presentation of the core and the secondary is expected to affect the performance of each profile. Example of calculation can be seen in the formula below:*

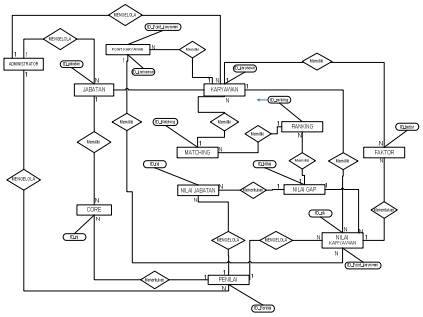
*4) N (i, s, p) = (x)% NCF (i, s, p). (x)% NSF (i, s, p)*
*Description:*
*(i, s, p): (Intellectual, Work Attitude, Behavior)*
*N (i, s, p): The total value of the aspect*
*NCF (i, s, p): The average value of core factors*
*NSF (i, s, p): The average value of secondary factors*
*(x)%: Value percent input*

*The end result of this process is the ranking of the candidates proposed to fill a particular position. Determination ranking refers to the results of certain calculations. The calculation can be shown in the formula below:*
*5) Ha = (x)% Ni + (x)% Ns + (x)% Np*

*Description:*
*Ha: Final Results*
*Ni: Value of Intellectual Capacity*
*Ns: Work Attitude Values*
*Np: Value Behavior*
*(x)%: Percent Value input*

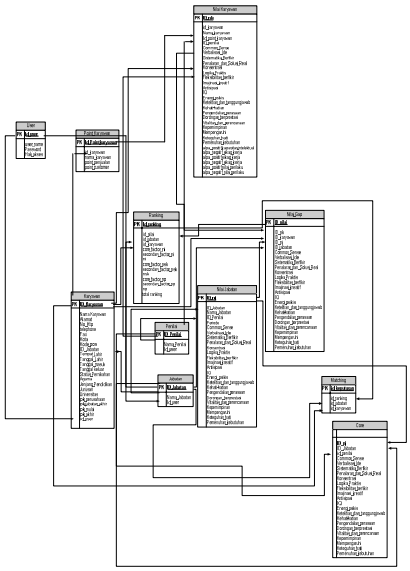
## *2.5 DESIGN*

*1. ERD (Entity Relationship Diagram)*



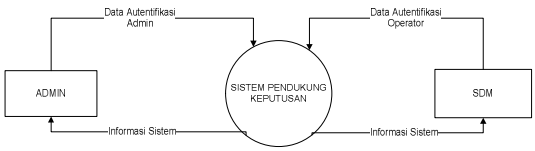
*Picture 1. ERD (Entity Relationship Diagram)*

*2. Relation table*



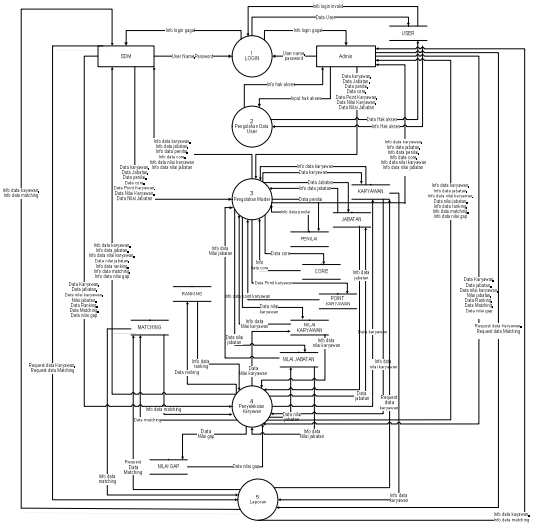
*Picture 2. Relation Table*

*3. Context diagram*



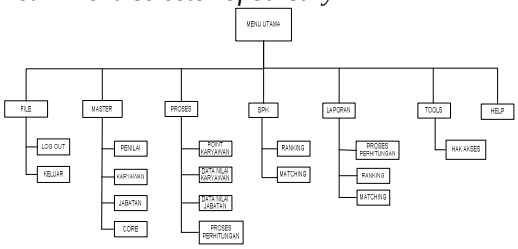

*Picture 3. Context diagram*

*4. DFD (Data Flow Diagram)*



*Picture 4 DFD Level 1*

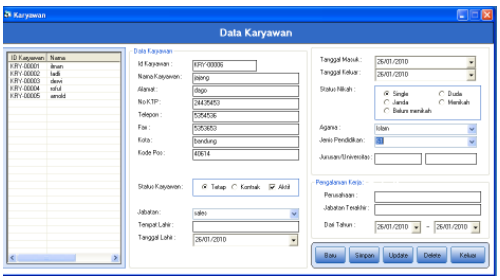
*5. Team menu selector of bursary*




*Picture 5. Menu selector architecture.*

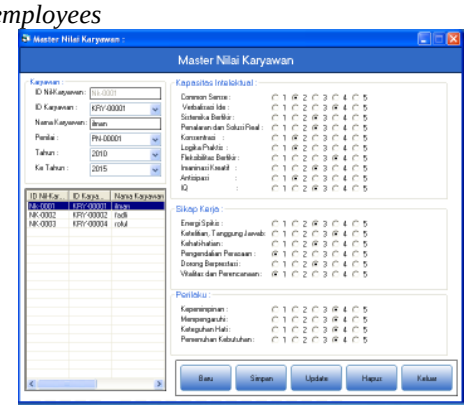
## *2.6 Implementation*

*1. View employee data management*



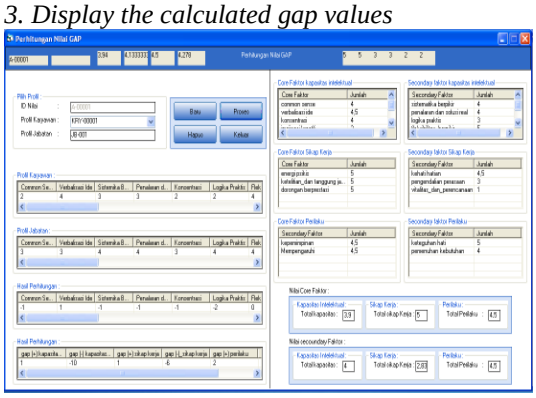

*Picture 6View employee data management*

*2. Display the value of data management employees*



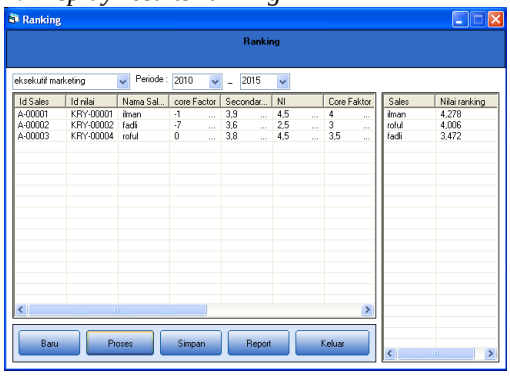

*Picture 7 Display the value of data management employees*

*3. Display the calculated gap values*



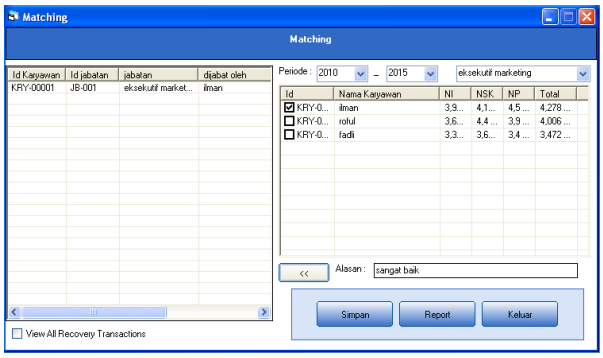

*Picture 8. Display the calculated gap values*

*4. Display results ranking*




*Picture 9 Display results ranking*

*5. Display matching results*




*Picture 10 Display matching results*

## 3. RESULTS AND DISCUSSION

### 3.1 The design process of profile matching method

*In the selection of employees by using the method required Profile Matching criteria and weights to perform calculations that will get the best alternative.*

### 3.2 Criteria

*For the calculation of the employee selection-gap collection gap that occurs itself on every aspect of a calculation of different*

***Table 1. Criteria***

| *Criteria* | *Keterangan Sub Criteria* |
|---|---|
| *Aspects of Intellectual Capacity* | *CS: Common Sense*<br>*VI: verbalization Ideas*<br>*SB: Thinking Systematics*<br>*PSR: Reasons and Real Solutions*<br>*KN: Concentration*<br>*LP: Practical Logic*<br>*FB: Thinking Flexibility*<br>*IK: Creative Imagination*<br>*ANT: Anticipation*<br>*IQ: Intelligence Potential* |
| *Aspects Of Work Attitude* | *EP: Psychic Energy*<br>*KTJ: Accuracy and Responsibility*<br>*KH: Prudence*<br>*PP: Control Feelings* |

| | |
|---|---|
| | *DB: Encouragement Achievement*<br>*VP: Vitality and Planner*<br>*Aspects of Behavior D: Dominance (Power)*<br>*I: Influences (Influence)*<br>*S: Steadiness (Firmness Heart)*<br>*C: Compliance (Compliance)* |
| *Aspects Of Behaviour* | *D: Dominance (Power)*<br>*I: Influences (Influence)*<br>*S: Steadiness (Firmness Heart)*<br>*C: Compliance (Compliance)* |

### *3.3 Example*

*Np SALES-0001 = (60% x 4,5)(40% x 4,5) = 4,5*
*Np SALES-0001 = (60% x 4,75)(40% x 4,5) = 4,65*
*Np SALES-0001 = (60% x 4)(40% x 3) = 3,6*

*Tabel 2. Table value total Gap aspects of conduct*

| *No* | *ID_Karyawan* | *NCF* | *NSF* | *Np* |
|---|---|---|---|---|
| *1* | *SALES-0001* | *4,5* | *4,5* | *4,5* |
| *2* | *SALES-0002* | *4,75* | *4,5* | *4,65* |
| *3* | *SALES-0003* | *4* | *3* | *3,6* |

***1. Calculation of final determination result/ranking***

*The end result of this process is the ranking of the candidates proposed to fill a particular position. Determination ranking refers to the results of certain calculations. The calculation can be shown in the formula below:*

*Ha = (x)%Ni + (x)%Ns + (x)%Np*

*Description:*
*Ha: Final Results*
*Ni: Value of Intellectual Capacity*
*Ns: Work Attitude Values*
*Np: Value Behavior*
*(x)%: Percent Value diinputkan*
*As an example of the formula for the calculation of final results on the final results of the employee with the PH001 aspects asub percent value = 20%, 30% and 50%. Can be seen in the process below:*
*The end result SALES-0001*
*= (20% x 3,94) + (30% x 4,13) + (50% x 4,5)*
*= 0,78 + 1,24 + 2,25*
*= 4,278*

*The end result SALES-0002*
*= (20% x 4,2) + (30% x 3,56) + (50% x 4,65)*
*= 0,84 + 1,06 + 2,32*
*= 4,235*

*The end result SALES-0003*
*= (20% x 4,16) + (30% x 3,73) + (50% x 3,6)*
*= 0,83 + 1,11+ 1,8*
*= 3,752*

*Above process can be seen in Table 3 :*

*Table 3.End Results*

| *No* | *ID_Karyawan* | *Ni* | *Ns* | *Np* | *Ha* |
|---|---|---|---|---|---|
| *1* | *SALES-0001* | *3,94* | *4,13* | *4,5* | *4,278* |
| *2* | *SALES-0002* | *4,2* | *3,56* | *4,65* | *4,235* |
| *3* | *SALES-0003* | *4,16* | *3,73* | *3,6* | *3,752* |

*Greatest value is in Ha is the alternative chosen as the best alternative to the promotion process.*

## *4. CONCLUSIONS AND RECOMMENDATIONS*

### *4.1 Conclusion*

1. *The system is built to facilitate the work of human resources in conducting a decision.*
2. *The system is built to accelerate the advancement office.*
3. *The system was built to assist employers in determining decisions.*
4. *The system was built to reduce congestion documents.*

### *4.2 Suggestions*

1. *Criteria for the position made even more dynamic.*
2. *Data being entered into the program are expected to use the correct data.*
3. *Admin expected to continue to perform regular system maintenance.*

4. *Stay maintained coordination among users in selecting employees do.*

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