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Support System for the Decision to Selection of the Best Employees in Career Development Employee Performance at the Airport

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***Abstract*— Airports are centers of economic activity, becoming the main gateway for the global movement of people and goods. Working conditions at airports are dynamic, so it is important to analyze the relationship between job training and career development with employee performance in the airport work environment. Optimal employee performance is critical in achieving efficient operational goals and providing quality service to passengers. Human resources are one of the factors that determine the effectiveness and productivity of an organization, the success of all types of organizations basically depends on the skills and abilities of the community of employees who make it up. Decision support system or can be used to analyze the selection of the best employees at the airport so as to create high morale and work motivation in employees. Analysis of the decision support system for selecting the best employees is carried out with applications used by leaders using the profile matching method in the process of finding value to be more effective and assessment to be more objective.**

Keywords—component, Airport, Human Resource,

I. INTRODUCTION

Employee performance is critical to a company's success. The employees who have high and positive performance provide benefits to the company. Positive and high employee performance has an impact on customer satisfaction, giving the company a positive reputation. Employees with good and high performance have motivation, high commitment in completing tasks and responsibilities. Therefore, the list of top priorities is managing and improving employee performance to achieve company success. Employee performance is the result of employee work which is assessed on aspects of quality, quantity, working time and cooperation in achieving the goals that have been set at the beginning. Airport is one of the transportation supporting the economy, development and mobility of the community [1]. Airports that are dynamic in nature, so employees are also required to have high performance.

Airport employees must have high competence, productivity, and service quality to be able to provide optimal service for passengers and other stakeholders.

However, there are still some challenges related to employee performance at the airport. For example, there are complaints about unsatisfactory service, inefficient procedures, and lack of speed and accuracy in handling problems. One of the increasing employee benefits is to provide rewards and often the provision of rewards is less objectively valued, so appropriate calculation methods are needed so that the assessment is more object in determining the best employees at the airport with various predetermined variables [2]. Today almost all organizations and companies need to increase human resources [3], [4], [5], [6]

To overcome these problems, the role of human resource management becomes very important. One of the efforts that can be done is through job training and career development programs for employees. Job training aims to improve the knowledge, skills, and abilities of employees according to the demands of work at the airport. Meanwhile, career development can encourage employee motivation and commitment in achieving superior performance.

The importance of the role of technology in supporting employee performance is also very influential [7], [8], [9], [10], [11]. Previous research has shown that the best employee selection decision support systems have a positive influence on career development [12], [13], [14]

Job training is a key aspect in improving employee performance in the company. Training gives employees the knowledge, skills, and competencies they need to perform their duties more efficiently and effectively. This not only improves the quality of work, but can also reduce the error rate. Skilled employees tend to be more motivated and have greater self-confidence, which contributes to higher productivity. In addition, training helps companies to keep up with the latest industry and technology, which keeps them competitive in the market. Thus, job training is an important investment in optimizing employee performance and achieving long-term business success.

Career development plays a key role in improving employee performance in the company. This creates high motivation, commitment, and job satisfaction among employees. With a clear career development plan, employees have long-term goals that give meaning to their work.

This encourages them to constantly improve their skills and knowledge, which directly affects performance. Employees who feel supported in their career development tend to contribute more, bring innovative thinking, and are ready to take on greater responsibility. Overall, career development creates a productive work environment, improves employee performance, and supports the company's long-term growth [15].

II. METHOD

A. Research Framework

Figure 1. Research Methods

There are several stages carried out as follows:

1. Identify the problem
   The initial stage is to identify the problems faced and then conduct existing problem analysis.
2. Data Expansion
   In processing data, data collection is also carried out by literature studies by reviewing literature related to previous research. Then identify employee performance appraisal criteria that are commonly used in the organization. In addition to literature studies, interviews are also supported using several sample data with human resource management at the airport to understand the employee performance appraisal process that is currently applied. Identify employee performance appraisal criteria that are considered important by management. Direct observation of the employee performance appraisal process carried out at the airport. Identify the obstacles faced in the current employee performance appraisal process.
3. Determination of Criteria
   Determination of assessment criteria is carried out by combining the results of literature studies and interviews to determine employee performance appraisal criteria to be used in the system. These criteria may include quality of work, quantity of work, discipline, cooperation, leadership, and others.

   Criteria weighting is carried out by giving weight to employee performance appraisal criteria based on their importance. Weighting is done through expert judgment or using the Analytical Hierarchy Process (AHP) method.
4. Model Design
   Choose the appropriate decision-making method, for example using the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) or Simple Additive Weighting (SAW). Design the flow of the decision-making process in the decision support system.
5. System Implementation and Testing
   Implementation of the decision support system system in accordance with the design that has been made.
6. System Evaluation
   Evaluate the performance of the decision support system that has been implemented. Identify deficiencies or problems that still exist in the system.

III. RESULTS AND DISCUSSION

A. Employee Performance Appraisal Criteria

Based on the results of literature studies and interviews with human resource management at the airport, employee performance appraisal criteria were obtained that will be used in the decision support system, namely:

1. Quality of Work
2. Working Quantity
3. Discipline
4. Collaboration
5. Initiative
6. Leadership

B. Profile Matching Discussion

The profile matching method is a method that is often used as a mechanism in decision making by assuming that there is an ideal predictor variable level that must be met by the subject under study, rather than a minimum level that must be met or passed. In the profile matching process, broadly speaking, it is the process of comparing between each criterion of each assessment in a research proposal submitted so that the difference in scores (also called gaps) is known, the smaller the gap produced, the greater the weight of the value, which means it has a greater chance of prioritizing eligibility or graduation. The following is a table of gap value weights that have been determined from the Profile Matching method :

Table 1. Gap Profile Maching

No.	Selisih	Bobot	Keterangan
1	0	5	No difference (competence as required)
2	1		Individual competence advantages 1 level/level
3	-1	4	Individual competence lacks 1 level/level
4	2		Individual competence advantages 2 levels/levels

5	-2	3	Individual competence lacks 2 levels/levels
6	3		Individual competence advantages 3 levels/levels
7	-3	2	Individual competence lacks 3 levels/levels
8	4		Individual competence advantages 4 levels/levels
9	-4	1	Individual competence lacks 4 levels/levels

The following is an example of a calculation using the profile matching method in the process of selecting the best employees at the airport.

1. Determine the Criterion Weight Value

There are five criteria used to conduct the assessment, these criteria have been determined by the Airport, the following is a table of criteria weights:

Table 2. Bobot Kriteria

Kriteria	Bobot
Discipline	5
Cleanliness and Neatness	4
Speed and dexterity	4
Loyalty	4
Ibadah	4

Tabel 3. Criterion Value

Criterion Value	**Value**
> 90	5
< 90	4
>60 < =75	3
>50 < = 60	2
>50	1

2. Determining Candidates

There are five employees from Mie Ayam Jamur Spsesial Haji Mahmud who will be candidates (alternatively) to become the best employee, here is a table of candidates:

Tabel 4. Kandidat

Simbol	Kriteria
A1	Tono
A2	Meli
A3	Budi
A4	Santi
A5	Charles

3. Determining Assessments

At this stage of the assessment, each candidate will be given a score based on predetermined criteria, the following is a table of candidates:

Tabel 5. Valuation

Simbol	Displin	Kerapian dan kebersihan	Kecepatan dan kecekatan	Loyalitas	Ibadah
Tono	82	70	78	62	60
Meli	80	75	80	78	75
Budi	80	75	70	80	65
Santi	77	70	80	65	62
Charles	65	70	77	75	65

4. Determine the GAP

The following is the GAP calculation, the calculation will be calculated based on the formula from the Profile Matching method.

Table 6. Assessment to Criteria Value Conversion

Nama	Displin	Kerapian dan kebersihan	Kecepatan dan kecekatan	Loyalitas	Ibadah
Tono	4	3	4	3	2
Meli	4	3	4	4	3
Budi	4	3	3	4	3
Santi	4	3	4	3	3
Charles	3	3	4	3	3

Table 7. Reduction of Criteria Value and GAP Value

Nama	**Displin**	**Kerapian dan kebersihan**	**Kecepatan dan kecekatan**	**Loyalitas**	**Ibadah**
Tono	-1	-1	0	-1	-2
Meli	-1	-1	0	0	-1
Budi	-1	-1	-1	0	-1
Santi	-1	-1	0	-1	-1
Charles	-2	-1	0	-1	-1

5. *Determining the GAP Value Based on Value Weights*

The following is a table of the weight of gap values that have been determined from the *Profile Matching method:*

Table 8. GAP Value Weighting

No	Difference	Value weighting	Information
1	0	5	No difference (competence as required)
2	1	4,5	Individual competence advantages 1 level/level

3	-1	4	Individual competence lacks 1 level/level
4	2	3,5	Individual competence advantages 2 levels/levels
5	-2	3	Individual competence lacks 2 levels/levels
6	3	2,5	Individual competence advantages 3 levels/levels
7	-3	2	Individual competence lacks 3 levels/levels
8	4	1,5	Individual competence advantages 4 levels/levels
9	-4	1	Individual competence lacks 4 levels/levels

Table 9. GAP value to GAP Value Weights

Name	Displin	The fragility and cleanliness	Speed and dexterity	Loyalty	Ibadah
Tono	4	4	5	4	3
Meli	4	4	5	5	4
Budi	4	4	4	5	4
Santi	4	4	5	4	4
Charles	3	4	5	4	4

6. Determining Core and Secondary Factor Calculations

The core factors are discipline, neatness and cleanliness, worship and then the secondary factors of speed and dexterity, loyalty.
Core Factor : 60% = 0,6
Secondary Factor : 40% = 0,4

a) Menghitung Core Factor :

Tono : NCF = (4+4+3)/3 =3.66

Meli : NCF = (4+5+4)/3 = 4,33

Budi : NCF = (4+5+4)/3 = 4,33

Santi : NCF = (4+4+4)/3 = 4

Charles : NCF = (3+4+4)/3 = 3,66

b) Menghitung Secondary Factor :

Tono : NSF = (4+5)/2 = 4,5

Meli : NSF = (4+5)/2 =4.5

Budi : NSF = (4+4)/2 = 4

Santi : NSF = (4+5)/2 = 4,5

Charles : NSF = (4+5)/2 = 4,5

c) Total Value Calculation

From the calculation of each aspect, the next calculated total value is based on the percentage of core and secondary that are estimated to influence:

a. For Tono :

N = 60 % (NCF) + 40 % (NSF) N = (0,6 x 3,66) + (0,4 x 4,5)

Yield Value = 2,19 + 1,8 = 3.99 = 4

b. For Meli :

N = 60 % (NCF) + 40 % (NSF) N = (0,6 x 4,33) + (0,4 x 4,5)

Yield Value = 2,59 + 1,8 = 4,39 = 4,4

c. For Budi :

N = 60 % (NCF) + 40 % (NSF) N = (0,6 x 4,33) + (0,4 x 4)

Yield Value = 2,59 + 1,6 = 4,19 = 4,2

d. For Santi :

N = 60 % (NCF) + 40 % (NSF) N = (0,6 x 4) + (0,4 x 4,5)

Yield Value = 2,4 + 1,8 = 4,2

e. For Charles :

N = 60 % (NCF) + 40 % (NSF) N = (0,6 x 3,66) + (0,4 x 4,5)

Yield Value = 2,19 + 1,8 = 3,99 = 4

7. Determining whining

Based on the results of the assessment of the selection of the best employee at the Haji Mahmud Special Mushroom Chicken Noodle, the one who has the right to be the best employee is Andre with a value of 4.39 = 4.4.

Table 10. Prengkingan

Name	Value
Meli	4,4
Budi	4,2
Santi	4,2
Tono	4,0
Charles	4,0

- From the results of the trial data sample, the Employee Named Meli obtained was an Employee Named Meli with a score value of 4.4 points.

IV. CONCLUSION

A. Conclusion

Based on the results of research from the decision support system using the profile matching method in selecting the best

employees at the airport, the author draws conclusions, as well as providing the following suggestions:

1. The decision support system using the profile matching method in the selection of the best employees at the airport can be applied using the calculation of the Profile Mching method with data testing using a Website-based application so that the calculation process and obtaining outstanding employees becomes more accurate, precise and efficient.
2. The decision support system using the profile matching method in the selection of the best web-based employees can be an alternative admin and manager in the process of selecting the best employees at the airport more effectively and efficiently than calculations with Microsoft Excel auxiliary tables that have more errors and data recaps than using Web-based applications.
3. Decision support system using profile matching method in the selection of the best employees at the airport is web-based, admins can create assessment reports easily and quickly. Can perform calculations periodically so as to create an innovative work environment and high work ethic.

B. Suggestion

Based on the conclusions above, the author can provide suggestions from the decision support system using the profile matching method in selecting the best employees at the airport as follows:

1.Other research can be developed with other methods and determine which method is more effective and efficient.

2. It is expected that other researchers who develop the best employee selection decision support system can develop in mobile form, namely Android-based.

3.This system should be developed and needs to be added with more accurate and clear information so that such a system can be used in any company.

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