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Simple Additive Weighting to Determine The Best Employee in a Freight Forwarding and Logistics Company

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ABSTRACT

The problem is that there is no method used to determine the best employee in the company based on the criteria set by the company. The purpose of this research is to propose simple additive weighting as a method for finding the best employees according to the weighting carried out. To make decisions, there are several criteria and criteria weights that are needed as a measuring tool to assess employees who will be promoted, attendance, QSM, Quiz, leading. Period of work and team work. The weight value of each criterion is attendance 0.20, QSM 0.25, Quiz 0.15, leading 0.20, tenure 0.10 and team work 0.10. Quality service management (QSM) if sub criteria < 200 QSM value 1, sub criteria 201 - 300 QSM value 2, sub criteria 301 - 400 QSM value 3, sub criteria 401 - 500 QSM value 4, sub criteria 501 - 600 QSM value 5. The results of the analysis with the saw method obtained two employees who got the highest score who had the right to be promoted for promotion with a value of 84.25 and 82.25. the conclusion is that the SAW method is influential in supporting and facilitating decision making to determine promoted employees.

Keywords: Employee; criteria; the company; Multi Criteria Choice Making; Simple Additive Weigthing

1. INTRODUCTION

Multi-Criteria Choice Making (MCDM) could be a portion of operations investigate that underpins the decision maker to resolve issues. MCDM may be a practical and effective instrument that will be utilized either beneath certainty or vulnerability which encourages the consolidation of quantitative and subjective examinations in a logical way(Sitorus et al., 2019)(Agar et al., 2023). Multi-Criteria Choice Making (MCDM) strategies are picking up notoriety due to their capabilities in tackling issues related to elective determination and decision-making (Aljaghoub et al., 2023).

The SAW strategy is picking up ubiquity since of its ease of utilize and straightforward computational method, in numerous MCDM issues the entropy strategy is utilized to decide the significance or weight of the measure (Vafaei et al., 2021)(Aminudin et al., 2018)(Abadi et al., 2018)(Adela et al., 2018)(Piasecki & Roszkowska, 2019).

Weights implying relative significance of the criteria (responses)play a vital part in any of the MCDM issues. When an elective is assessed with regard to different criteria, changes in relativeimportance of those criteria may result in critical changes within the last arrangement gotten by the embraced MCDM strategy. Subsequently, it is vigorously vital to send suitable weighting strategies as they straightforwardly affect accuracy and consistency of the ultimate arrangement. Broadly, criteria weighting strategies can be classified into subjective, objective and coordinates approaches (Chatterjee & Chakraborty, 2024)(Kaliszewski & Podkopaev, 2016).

The problem is that there is no method used to determine the best employee in the company based on the criteria set by the company. The purpose of this research is to propose simple additive weighting as a method for finding the best employees according to the weighting carried out. The Simple Additive Weighting (SAW) method has several advantages that make it suitable for solving research problems in finding the best employees. First, the simplicity of this method makes it easy to use and understand. Second, the flexibility of the weights allows customization of preferences and needs. Third, the accuracy of the assessment results based on the criteria values helps identify the best employees.

Assessment based on separate from normal arrangement (EDAS), created in 2015, is one of the well-known and as often as possible utilized strategies which is connected for distinctive sorts of choice making issues (Ibrahim & Surya, 2019)(Torkayesh et al., 2023). MCDM strategies permit the choice producer to evaluate complex issues

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including numerous and dissimilar criteria on the premise of the subjective judgements of a board of specialists or of partners influenced by the choice(Biswas et al., 2024)

2. LITERATURE REVIEW

Multi criteria choice making (MCDM) strategy since it coordinating numerous criteria to guarantee objective investigation and get the most excellent comes about(Boix-Cots et al., 2023)(Barton et al., 2020)(Więckowski & Sałabun, 2023). The choice back framework makes a difference examiners to decide the foremost appropriate numerous criteria choice examination strategy from the MCDA strategy and is most reasonable for a given decision-making issue(Cinelli et al., 2022)(Barbara et al., 2023)(Krisnawijaya et al., 2023).

The interaction amusement among distinctive systems in a noncooperative setting is carried out to maximize payoffs and fulfill client inclinations. The SAW strategy may be a really compellingapproach to MADM (Salih et al., 2015)(Assagaf et al., 2018)(Anggraeni et al., 2018)(Singh et al., 2022).

In this study, the condition where there is a gap between the results of previous research is the Evidence Gap, which occurs when previous research has not fully answered important questions or has not covered all important aspects of a topic.

3. METHOD

The stages of the research conducted are as follows:

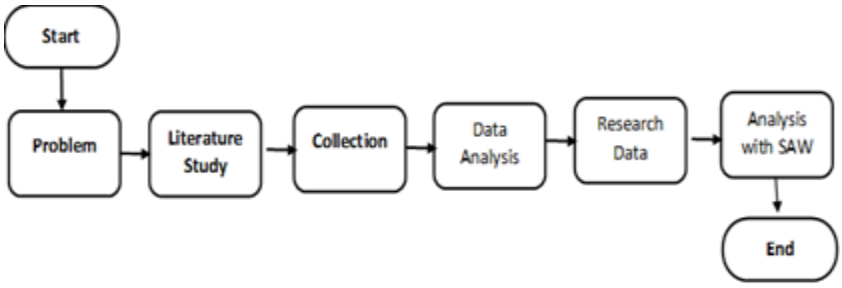

Fig.1 Research Stages

Figure 1: Research Stages:

1. Problem Identification:
   to determine the accuracy of employees who will be promoted.
2. Literature Study:
   To study and understand the theory of decision support system especially for simple additive weighting (SAW) method.
3. Data Collection
   Conducting direct interviews with the coordinator of the CS department and the human capital section of PT JNE to find out the information needed to collect performance appraisal data on the Customer Service department.
   to collect performance appraisal data on the Customer Service department.
4. Research Data
   This research obtained information from the company about the criteria set as an assessment reference for employees who are promoted to the following positions
   Attendance, QSM, Quiz, Respond Time, Total Respond, Team work, and also the weight of each criterion.
5. Analysis Result SAW Method
   stages in this saw method by calculating the matrix value X as a result in the form of a table of matching values in each criterion, then making a normalized matrix (R). Furthermore
   then determining the value based on the weight value used in ranking.
6. Conclusion
   The final results of the research conducted by using the SAW method with the criteria set by the company and

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producing the best employees based on the criteria for promotion.

The SAW method requires the normalization process of the decision matrix (X) to a scale that can be compared with all existing alternative branches, the completion of the SAW method. Simple Additive Weighting is used to find the weighted sum of the work ratings in each alternative for all attributes.

1. Determine the criteria that will be used as a reference in Ci decision making.
2. Determine the suitability rating of each alternative on each criterion.
3. Make a decision matrix based on the criteria (Ci), then normalize the matrix based on equations that are adjusted to the type of attribute (profit attribute or cost attribute) so that a normalized matrix R is obtained.
4. The final result of the ranking process is the sum of the multiplication of the normalized matrix R with the weight vector so that the largest value is selected as the best alternative (Ai) as a solution.

$$r_{ij} = \begin{cases} \dfrac{x_{ij}}{Max_i\, x_{ij}} & if\ j\ is\ benefit\ attribute \quad (1) \\ \dfrac{Min_i\, x_{ij}}{x_{ij}} & if\ j\ is\ cost\ attribute \quad (2) \end{cases}$$

Description:
Rij : Normalized performance rating value
Xij : Value of attributes owned by each criterion
Max xij : The largest attribute value of each criterion i
Min xij : The smallest attribute value of each criterion i
Benefit : If the largest value is the best
Cost : If the smallest value is the best

Calculating the preference weight value for each alternative

$$V_i = \sum_{j=1}^{n} w_j\, r_{ij} \quad (3)$$

Description:
Vi : Ranking for each alternative
Wj : Weight value of each criterion
Rij : Normalized performance rating value
A larger Vi value indicates that alternative Ai is more feasible to be selected

Population

Generalization area consisting of: objects / subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. The population used is JNE employee data. Data sources are obtained by conducting interviews directly with JNE, and research at JNE in the East Jakarta area which is located at jln mataram raya. The number of employees is 25 people for determining criteria determined by management and discussed based on literature studies in determining criteria and weights that are adjusted to the wishes of management. QSM with a weight of 20 or 0.20 as a form of service to consumers is an important value so that consumers are satisfied with the services provided by the company. Quiz with a value of 15 or 0.15 as a consumer response to the services provided objectively to employees in carrying out their duties properly. Leading with a value of 20 or 0.20 whether there is a leadership spirit from each employee in carrying out the assigned tasks with responsibility and honesty. Tenure with a value of 10 or 0.10 will affect employees, of course, this tenure means that employees who have a high tenure have a better level of mastery and understanding than employees who work with a number of years of service. Teamwork is given a value of 10 or 0.10 as a form of cooperation in carrying out tasks in order to do the task well with efficient and precise time.

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Table 1.
Employee Data JNE

No	Employee Name	No	Employee Name
1	Employee 1 = Gemuti Dwi Ajeng	14	Employee 14 = Jepri G
2	Employee 2 = M Rasyid Alfather R	15	Employee 15 = Mardalih
3	Employee 3 = Elgita Virginia Andirsa	16	Employee 16 = Y kamludin
4	Employee 4 = Stevi Roseria	17	Employee 17 = Rizki Arya B
5	Employee 5 = Anastasia A	18	Employee 18 = Harry S
6	Employee 6 = Andis W	19	Employee 19 = Nisbah J
7	Employee 7 = Suatnto Reza L	20	Employee 20 = Siti Hami H
8	Employee 8 = Didah P	21	Employee 21 = Firmansyah
9	Employee 9 = M Yusuf	22	Employee 22 = Yuliana
10	Employee 10 = Afriadi	23	Employee 23 = Ali Akbar
11	Employee 11 = Idmuhidin	24	Employee 24 = Yudha Septiawan
12	Employee 12 = Acha W N	25	Employee 25 = Sopyan H
13	Employee 13= Ira Renianda		

4. RESULT

a. Analysis with SAW method

The criteria and weighting criteria for promotion are as follows

The Simple Additive Weigthing (SAW) method requires criteria and weights used in determining promotion.

Table 2.
Criteria and Weighting

Criteria	Remark	Range/weight
Attedance	Benefit	20/0.20
QSM	Benefit	25/0.25
Quiz	Benefit	15/0.15
Leading	Benefit	20/0.20
Period of Employment	Benefit	10/0.10
Team Work	Benefit	10/0.10

To determine the weighting of each of these criteria, of course, get approval and discussion with the management with the following explanation attendance criteria are given a weighting value of 20 or 0.20. Quality Service Management with a weight value of 25 or 0.25, Quiz with a weight value of 15 or 0.15, Leading with a weight value of 20 or 0.20, tenure with a weight value of 10 or 0.10 and team work 10 or 0.10.

To determine the weighting of each criterion set by management with the value of each criterion based on literature studies and discussions with management on the six criteria. The value of each criterion is adjusted to the company's responsibility. JNE is a service company, so the biggest assessment is on service of 25 or 0.25, leading and attendance with a value of 20 or 0.20 how an employee has a sense of responsibility for the tasks assigned and the presence of employees so that they are able to work together to deliver consumer goods on time and the goods are in good condition. tenure and teamwork with a value of 10 or 0.10 of course with a tenure of more than 2 years of work will have better abilities and services than those who work 1 to 2 years. Team work if working together is not good will be given a value of 1 and very good teamwork will get a value of 5.

The weighting criteria for determining the best employee

Table 3.
Atendance Criteria

Sub Criteria	Attendance
>18	1
14 – 17	2

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10 – 13	3
7 - 9	4
<6	5

This table is used to evaluate employee attendance, where different attendance ranges result in different scores or attendance quality levels. Sub Criteria is the range of employee attendance within a certain number of days. While Attendance is the attendance score given based on the range of days.

Table 3 Attendance criteria with sub criteria >= 18 with attendance value 1, sub criteria 14 to 17 with attendance value 2, sub criteria 10 to 13 with attendance value 3, sub criteria 7 to 9 with attendance value 4, and sub criteria <= 6 with attendance value 5.

Table 4.
Qualitty Service Management Criteria

Sub Criteria	**QSM**
<= 200	1
201 – 300	2
301 – 400	3
401 – 500	4
501 - 600	5

This table may be used to evaluate quality service management performance based on quantifiable metrics. A sub-criterion is a range of values that describes quality service management performance, this sub-criterion is based on a specific number (QSM) achieved. Whereas QSM Value is the QSM value assigned based on the sub criteria value range:

Table quality service management, sub criteria <= 200 with QSM value 1, sub criteria 200 - 300 with QSM value 2, sub criteria 301 - 400 with QSM value 3, sub criteria 301 - 400 with QSM value 4, sub criteria 501 - 600 with QSM value 5.

Table 5.
Quiz Criteria

Sub Criteria	**Quiz**
<= 200	1
201 – 300	2
301 – 400	3
401 – 500	4
501 - 600	5

Table Quiz Criteria, sub criteria <= 200 with Quiz value 1, sub criteria 200 - 300 with Quiz value 2, sub criteria 301 - 400 with Quiz value 3, sub criteria 301 - 400 with Quiz value 4, sub criteria 501 - 600 with Quiz value 5.

Table 6.
Leading Criteria

Sub Criteria	**Leading**
Not good	1
Less good	2
Pretty good	3
good	4
Very good	5

Table Leading Criteria, sub criteria Not good with Leading value 1, sub criteria Less good with Leading value 2, sub criteria Pretty good with Leading value 3, sub criteria good with Leading value 4, sub criteria Very good with Leading value 5.

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Table 7.
Length of Service Criteria

Sub Criteria	Length of Service
1-2 year	1
3 year	2
4 year	3
5year	4
>5 year	5

Table Length of Service Criteria, sub criteria 1-2 year with Length of Service value 1, sub criteria 3 year with Length of Service value 2, sub criteria 4 year with Length of Service value 3, sub criteria 5 year with Length of Service value 4, sub criteria >5 year with Length of Service value 5.

Table 8.
Team Work Criteria

Sub Criteria	Team Work
Not good	1
Less good	2
Pretty good	3
good	4
Very good	5

Table Team Work Criteria, sub criteria Not good with Team Work value 1, sub criteria Less good with Team Work value 2, sub criteria Pretty good with Team Work value 3, sub criteria good with Team Work value 4, sub criteria Very good with Team Work value 5.

Table 9.
Suitability Rating

No	Cost/benefit Weight Alternatives/criteria	benefit 20 Attendance	benefit 25 QSM	benefit 15 Quiz	benefit 20 Leading	benefit 10 Years of service	Benefit 10 Team Work
1	Employee 1	6	450	470	Pretty good	1.5 year	less good
2	Employee 2	8	430	400	Pretty good	1.7 year	less good
3	Employee 3	6	420	480	Less good	1.6 year	less good
4	Employee 4	5	400	400	Less good	1 year	less good
5	Employee 5	7	410	400	Pretty good	3 year	less good
6	Employee 6	8	450	380	Pretty good	5 year	good
7	Employee 7	6	420	450	Less good	3 year	pretty good
8	Employee 8	5	440	460	Less good	3 year	pretty good
9	Employee 9	5	440	500	Less good	2 year	good
10	Employee 10	6	390	490	Less good	3 year	pretty good
11	Employee 11	7	400	480	good	4 year	good
12	Employee 12	10	380	400	good	5 year	good
13	Employee 13	5	420	470	Less good	3 year	less good
14	Employee 14	6	400	400	Less good	1.5 year	pretty good
15	Employee 15	6	440	350	Pretty good	3 year	pretty good
16	Employee 16	7	410	400	Pretty good	4 year	pretty good
17	Employee 17	5	410	400	Less good	1 year	less good
18	Employee 18	5	430	400	Less good	3 year	pretty good
19	Employee 19	5	440	400	Less good	3.4 year	less good
20	Employee 20	5	420	400	Less good	1 year	less good

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21	Employee 21	7	440	350	Pretty good	5 year	good
22	Employee 22	6	430	400	Pretty good	4 year	less good
23	Employee 23	6	450	400	Less good	2 year	less good
24	Employee 24	6	420	350	Less good	3 year	less good
25	Employee 25	7	430	380	Pretty good	4 year	pretty good

3. The values from the match table results are then made into a matrix form as follows:

Table 10.
Result Matrix X

$$X = \begin{bmatrix} 5 & 4 & 4 & 3 & 1 & 2 \\ 4 & 4 & 3 & 5 & 1 & 2 \\ 5 & 4 & 4 & 2 & 1 & 2 \\ 5 & 3 & 3 & 3 & 1 & 2 \\ 4 & 4 & 3 & 3 & 2 & 2 \\ 4 & 4 & 3 & 3 & 4 & 4 \\ 5 & 4 & 4 & 2 & 2 & 3 \\ 5 & 4 & 4 & 2 & 2 & 3 \\ 5 & 3 & 3 & 2 & 1 & 4 \\ 5 & 3 & 4 & 2 & 2 & 3 \\ 4 & 3 & 4 & 4 & 3 & 4 \\ 3 & 3 & 3 & 4 & 4 & 4 \\ 5 & 4 & 4 & 2 & 2 & 2 \\ 5 & 3 & 3 & 2 & 1 & 3 \\ 5 & 4 & 3 & 3 & 2 & 3 \\ 4 & 4 & 3 & 3 & 3 & 3 \\ 5 & 4 & 3 & 2 & 1 & 2 \\ 5 & 4 & 3 & 2 & 2 & 3 \\ 5 & 4 & 3 & 2 & 2 & 2 \\ 5 & 4 & 4 & 2 & 1 & 2 \\ 4 & 4 & 3 & 3 & 4 & 5 \\ 5 & 4 & 3 & 3 & 3 & 2 \\ 5 & 4 & 3 & 2 & 1 & 2 \\ 5 & 4 & 3 & 2 & 2 & 2 \\ 4 & 4 & 3 & 3 & 3 & 3 \end{bmatrix}$$

4. Make matrix normalization based on equations that are adjusted to the type of attribute so that a normalized matrix R is obtained

Table 11.
Classification Criteria

No	Criteria	Benefit
R1	Attendance	√
R2	QualityService Management	√
R3	Quiz	√
R4	Leading	√
R5	Years of service	√
R6	Team Work	√

the result of the normalized matrix R as follows:

Description:
If j attribute benefit
If the cost attribute
Rij is the normalized performance rating of alternative Ai on each attribute. Cj. I = 1,2,.....,m dan j=1,2,.....n.

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Table 12.
Matrix Ternormalisasi

$$R = \begin{bmatrix} 1,00 & 1,00 & 1,00 & 0,60 & 0,25 & 0,40 \\ 0,80 & 1,00 & 0,75 & 1,00 & 0,25 & 0,40 \\ 1,00 & 1,00 & 1,00 & 0,40 & 0,25 & 0,40 \\ 1,00 & 0,75 & 0,75 & 0,60 & 0,25 & 0,40 \\ 0,80 & 1,00 & 0,75 & 0,60 & 0,50 & 0,40 \\ 0,80 & 1,00 & 0,75 & 0,60 & 1,00 & 0,80 \\ 1,00 & 1,00 & 1,00 & 0,40 & 0,50 & 0,60 \\ 1,00 & 1,00 & 1,00 & 0,40 & 0,50 & 0,60 \\ 1,00 & 1,00 & 1,00 & 0,40 & 0,25 & 0,80 \\ 1,00 & 0,75 & 1,00 & 0,40 & 0,50 & 0,60 \\ 0,80 & 0,75 & 1,00 & 0,80 & 0,75 & 0,80 \\ 0,60 & 0,75 & 0,75 & 0,80 & 1,00 & 0,80 \\ 1,00 & 1,00 & 1,00 & 0,40 & 0,50 & 0,40 \\ 1,00 & 0,75 & 0,75 & 0,40 & 0,25 & 0,60 \\ 1,00 & 1,00 & 0,75 & 0,60 & 0,50 & 0,60 \\ 0,80 & 1,00 & 0,75 & 0,60 & 0,75 & 0,60 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,25 & 0,40 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,50 & 0,60 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,50 & 0,40 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,25 & 0,40 \\ 0,80 & 1,00 & 0,75 & 0,60 & 1,00 & 1,00 \\ 1,00 & 1,00 & 0,75 & 0,60 & 0,75 & 0,40 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,25 & 0,40 \\ 1,00 & 1,00 & 0,75 & 0,40 & 0,50 & 0,40 \\ 0,80 & 1,00 & 0,75 & 0,60 & 0,75 & 0,60 \end{bmatrix}$$

5. In determining the value of each employee who will be promoted, the ranking process or the best value by entering each criterion and the weight value used in ranking is W = [20 25 15 20 10 10] then the ranking process.

Calculating the preference weight value for each alternative

V1 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,60 x 20)+ (0,25 x 10) + (0,40 x 10)}=78,50
V2 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (1,00 x 20)+ (0,25 x 10) + (0,40 x 10)}= 78,75
V3 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,40 x 20)+ (0,25 x 10) + (0,40 x 10)}= 74,50
V4 = {(1,00 x 20) + (0,75 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,25 x 10) + (40 x 10)}= 68,50
V5 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,50 x 10) + (0,40 x 10)}= 73,25
V6 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (1,00 x 10) + (0,80 x 10)}= 82,25
V7 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,40 x 20)+ (0,50 x 10) + (0,60 x 10)}= 79,00
V8 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,40 x 20)+ (0,50 x 10) + (0,60 x 10)}= 79,00
V9 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,40 x 20)+ (0,25 x 10) + (0,80 x 10)}= 78,500
V10 ={(1,00 x 20) + (0,75 x 25) + (1,00x 15) + (0,40 x 20)+ (0,50 x 10) + (0,60 x 10)}= 72,75
V11 = {(0,80 x 20) + (0,75 x 25) + (1,00 x 15) + (0,80 x 20)+ (0,75 x 10) + (0,80 x 10)}= 81,25
V12 = {(0,60 x 20) + (0,75 x 25) + (0,75 x 15) + (0,80 x 20)+ (1,00 x 10) + (0,80 x 10)}= 76,00
V13 = {(1,00 x 20) + (1,00 x 25) + (1,00 x 15) + (0,40x 20)+ (0,50 x 10) + (0,40 x 10)}= 77,00
V14 = {(1,00 x 20) + (0,75 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,25 x 10) + (0,60 x 10)}=66,50
V15 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,50 x 10) + (0,60 x 10)}= 79,25
V16 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,75 x 10) + (0,60 x 10)}=77,75
V17 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,25 x 10) + (0,40 x 10}= 70.75
V18 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,50 x 10) + (0,60 x 10)}= 75,25
V19 = {(1,00 x 20) + (25,00 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,50x 10) + (0,40x 10)}= 78,25

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V20 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,40x 20)+ (0,25 x 10) + (0,40x 10)}=70,75
V21 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (1,00 x 10) + (1,00 x 10)}=84,25
V22 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,75 x 10) + (0,40 x 10)}= 79,75
V23 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,25 x 10) + (0,40 x 10)}= 70,75
V24 = {(1,00 x 20) + (1,00 x 25) + (0,75 x 15) + (0,40 x 20)+ (0,50 x 10) + (0,40x 10)}= 73,25
V25 = {(0,80 x 20) + (1,00 x 25) + (0,75 x 15) + (0,60 x 20)+ (0,75 x 10) + (0,60 x 10)}=77,75

6. Ranking Results
After the results of the ranking calculation are obtained, the table will be made in order based on the largest value, the best alternative is chosen to have the largest value.

Table 13.
Ranking employees based on the largest score

No	Employee	Rangking
1	Employee 21	84,25
2	Employee 6	82,25
3	Employee 11	81,25
4	Employee 22	79,75
5	Employee 15	79,25
6	Employee 7	79
7	Employee 8	79
8	Employee 2	78,75
9	Employee 1	78,5
0	Employee 9	78,5
11	Employee 16	77,75
12	Employee 25	77,75
13	Employee 13	77
14	Employee 12	76
15	Employee 18	75,25
16	Employee 3	74,5
17	Employee 5	73,25
18	Employee 19	73,25
19	Employee 24	73,25
20	Employee 10	72,75
21	Employee 17	70,75
22	Employee 20	70,75
23	Employee 23	70,75
24	Employee 4	68,5
25	Employee 14	68,5

After weighting each criterion, namely attendance (0.20), QSM (0.25), Quiz (0.15), leading (0.20), tenure (0.10) and team work * (0.10) then a match table is made in the table. from the match table, the X matrix will be made which will be continued by normalizing the normalized matrix (R). To determine which employees will be promoted, a ranking is made by entering each criterion with its weight value, W = [20 25 15 20 10 10], then the ranking process is in the table 12. The result of this ranking process is the order of the largest value and the best alternative based on the employee who has the largest value. The results obtained employee 21 on behalf of Firmansyah with the largest value of 84.25 being the best employee then employee 6 name Andis Wanandis being the second best with a value of 82.25 and so on. For this promotion, only the best were selected so that it became a motivation for other employees to show better performance and became a motivation for all employees to give their best.In this section, the researcher will explain the results of the research obtained. Researchers can also use images.

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5. DISCUSSIONS

After weighting each criterion, namely attendance (0.20), QSM (0.25), Quiz (0.15), leading (0.20), tenure (0.10) and team work * (0.10) then a match table is made in the table. from the match table, the X matrix will be made which will be continued by normalizing the normalized matrix (R). To determine which employees will be promoted, a ranking is made by entering each criterion with its weight value, W = [20 25 15 20 10 10], then the ranking process is in the table ..... The result of this ranking process is the order of the largest value and the best alternative based on the employee who has the largest value. The results obtained employee 21 on behalf of Firmansyah with the largest value of 84.25 being the best employee then employee 6 name Andis Wanandis being the second best with a value of 82.25 and so on. For this promotion, only the best were selected so that it would motivate other employees to show better performance and motivate all employees to give their best.

6. CONCLUSION

In this study, the HR team used the Simple Additive Weighting (SAW) method to evaluate employees and determine who deserved to be promoted. The two employees with the highest scores, 84.25 and 82.25, were identified as candidates for promotion. The SAW method proved its effectiveness in simplifying the decision-making process. By combining relevant criteria and assigning weights to each criterion, the HR team can objectively measure employee performance. Attendance, quality of service, understanding of the job, leadership, tenure, and teamwork are all carefully taken into account.The main advantage of this method is its ability to incorporate quantitative data and produce reliable rankings. Thus, promotion decisions are based on facts and evidence, not on subjective preferences. However, further research could improve some aspects: Validation of Results, observing the performance of promoted employees over a period of time to ensure that the SAW score truly reflects good performance. Criteria and Weight Improvement, involving more stakeholders to determine more relevant criteria and improve the weight given to each criterion.Consideration of Qualitative Factors, in addition to quantitative data, consider qualitative factors such as work ethics, initiative, and adaptability. With a holistic and data-driven approach, companies can ensure fair promotions and motivate employees to grow.

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