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Decision Support System for Selecting the Best Employees at PT SNI Using the MAUT and TOPSIS Methods

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Abstract: The selection of the best employees is one of the aspects that is quite important in a company because, with human resources that are superior and have high competence, it can increase the productivity and performance of a company and produce great leaders in the future. Some of the problems that occur in the selection of the best employees at PT SNI (Sumber Nelayan Indonesia) include, among others, the processing of candidate data for the best employees to be selected still requires a long time because it does not yet have standards and still uses a manual system, so that the assessment process is not yet transparent, accurate, and trustworthy. In the research entitled Application of the MAUT and TOPSIS Methods for the Selection of the Best Employees at PT SNI, there are 2 methods applied in this research, namely the MAUT and TOPSIS methods. For the MAUT method, there are 3 highest alternatives in the selection of the best employees, namely for first place with the name Joseph Martin Sinulingga obtained a value of 0.654, for second place with the name Handika Priadi Siregar obtained a value of 0.625, for third place with the name Mailinda obtained a value of 0.578. Meanwhile, for the TOPSIS method, there are 3 highest alternatives in the selection of the best employees at PT SNI, namely for first place with the name Joseph Martin Sinulingga obtained a value of 0.964, for second place with the name Mita Paramita obtained a value of 0.654, for the place with the name Anggun Ramadhani Harahap obtained a value of 0.582. Therefore, it can be concluded that the highest alternative is Joseph Martin Sinulingga, who is the best employee at PT SNI.

Keywords: Decision Support System, MAUT, TOPSIS

Abstract: Selection of the best employees is one aspect that is quite important in a company because human resources that are superior and have high competence can increase the productivity and performance of a company and produce great leaders in the future. Some of the problems that occur in the selection of the best employees at PT SNI (Sumber Nelayan Indonesia) include processing data on the best employee candidates to be selected which still takes a long time because they do not yet have standards and still use a manual system so the assessment process is still not transparent, accurate and Trusted. In the research entitled Application of the MAUT and TOPSIS Methods for selecting the best employees at PT SNI, there are 2 application methods in this research, namely the MAUT and TOPSIS methods. For the MAUT method, there are 3 highest alternatives in selecting the best employees, namely for the first place with the name Joseph Martin Sinulingga getting a score of 0.654, for the second place with the name Handika Priadi Siregar getting a score of 0.625, for the third place with the name Mailinda getting a score of 0.578. Meanwhile, for the TOPSIS method, there are 3 highest alternatives in selecting the best employees at PT SNI, namely for the first place with the name Joseph Martin Sinulingga getting a value of 0.964, for the second place with the name Mita Paramita getting a value of 0.654, for the order with the name Anggun Ramadhani Harahap getting a value of 0.582. So it can be concluded that the highest alternative is the name Joseph Martin Sinulingga who is the best employee at PT SNI.

Keywords: Decision Support System, MAUT, TOPSIS
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1. INTRODUCTION

Employees are important assets for a company to survive, develop, and compete with other companies. In an increasingly competitive business world, businesses must strive harder to improve quality, one of which is human resources[1]. High-quality employees are one of the components that determine the success of a company. High-quality employees will help the company manage its activities so that the goals that have been set can be achieved [2].

UD. Sumber Nelayan was founded due to the abundance of rebon shrimp produced by the sea off the coast of North Sumatra in 1983. Since its establishment, the company has succeeded in processing fresh rebon shrimp

into the highest-quality shrimp paste and has created decent jobs. In 2014, UD Sumber Nelayan changed into a legally incorporated company, PT. Sumber Nelayan Indonesia. Over time, PT. Sumber Nelayan Indonesia began to produce cooking seasonings with distinctive authentic Indonesian flavors [3]. This was done to further improve the company's performance so that it could compete better at the national level and could reach and sell high-quality products to the Indonesian people. Periodically, employees who meet the predetermined criteria will be given an award as the best employee. The best employees are those who behave in a manner consistent with the company's vision, mission, goals, culture, and values [4].

There are several previous studies that can be used as references, namely “Implementation of the Multi Attribute Utility Theory (MAUT) Method in a Decision Support System for Determining Credit Recipients” After the decision support system was used to determine credit recipients at PT. XYZ using the Multi Attribute Utility Theory (MAUT) method [5]. In the study “Decision Support System for the Selection of the Best Housing Using the TOPSIS Method” After the TOPSIS testing, it was found that of the three housing samples, the third housing had a higher preference value of 0,6456, indicating that it was the best housing. Therefore, the TOPSIS method can produce faster and more accurate calculation results, and the information it produces can be used to support your decisions[6]. In the study “Design of an Information System for Determining Employee Bonuses Using the TOPSIS Method” The TOPSIS method is used to assess employee performance by using the highest value option, which allows certain employees to receive the largest bonuses. This calculation method can facilitate employee performance appraisal[7].

This research will create a decision support system called "Comparative Analysis of the MAUT and TOPSIS Methods for the Selection of the Best Employees at PT SNI" based on the decision-making problem statement. This assessment is carried out every month and will award the best employees based on several assessment points[8]. The authors hope that these two methods will produce effective and efficient results in determining high-achieving employees. They may also recommend further research on determining high-achieving employees[9].

2. THEORETICAL FRAMEWORK

2.1 Decision Support System

A Decision Support System is a computer-based system that has the capability to provide suggestions for the decision-making process[10]. DSS is one technique that can be designed with alternative data and criteria; if such data already exist, then all problems or issues can be resolved using DSS [11].

To assist in decision-making, a system designed based on usage needs is used to make decisions. The criteria and options that have been predetermined are used to make this decision, and the weights, which have been structured and programmed in the form of weighting, can be collected and normalized to produce a ranking[12].

2.2 The Multi-Arttribute Utilily Theory (MAUT)

The final evaluation method is Multi-Attribute Utility Theory (MAUT), in which v(x) of an object x is the weight summed with a value that is relevant to its dimensional value. Utility value is the term commonly used to describe it[13]. MAUT is used to transform various interests into numerical values on a scale of 0–1. A value of 0 indicates the worst choice, and a value of 1 indicates the best choice[14]. To start the Multi Attribute Utility Theory (MAUT) calculation, the decision matrix must be created using the following formula:

V(x) = ……...…..(1)

The function to normalize each attribute vi(x) into a 0-1 scale is called U(x), expressed by the formula as follows:

U(x) = ……..(2)
In the MAUT Method, the total weight wi is 1

……..(3)

2.3 The Technique For Others Reference by Similarity to Ideal Solution(TOPSIS)

TOPSIS is one of the methods in decision support or a decision support system; this method is the method that is most favored by other researchers in problem solving because this research facilitates the problem-solving process for prob lems [15]. The following are the steps of the TOPSIS method [16]:

1. Ranking of Each Alternative : TOPSIS requires the performance ranking of each alternative Ai on each criterion Cj that is normalized, namely
   $R_{ij} = X_{ij} / X_{ij}$ **(4)**
   where i = 1, 2, 3, . . , m; and j = 1, 2, 3, . . , n;
2. Weighted Normalized Decision Matrix
   $Y_{ij} = W_i . R_i$ **(5)**
   where i = 1, 2,. . . , m; and j = 1, 2, . . . , n
3. Positive and Negative Ideal Solutions : The positive ideal solution A+ and the negative ideal solution A- can be determined based on the weighted normalized ranking (yij) as follows
   A^+ = max (Y1,y2,…..) **(6)**
   A- = min (Y1,Y2,…..) **(7)**
4. Distance from the Ideal Solution : The distance of an alternative from the ideal solution positive is formulated as follows
   D_i^+ = **(8)**
   D_i^- = **(9)**
5. Preference Value for Each Alternative : The preference value for each alternative (Vi) is given as follows
   $V_i = D_i^- / D_i^- + D_i^+$ **(10)**
   A larger Vi value indicates that alternative Ai is more preferred.

2.4 Employee Performance Appraisal

Performance appraisal is a process for identifying strengths and employee development areas, providing a basis for decision-making regarding promotions, skill development, and recognition of good performance. Performance appraisal is not only a tool for determining individual success, but also for shaping the personal and professional development of employees and for providing a basis for management decisions regarding promotions, awards, or further development. With an effective performance appraisal process, a company can create a work environment that supports employee growth and improves organizational performance as a whole [12]. Employee performance appraisal is a critical process in human resource management aimed at measuring, evaluating, and providing feedback on individual performance in the context of their work. The process involves gathering data from various sources, including supervisor evaluations, peer reviews, and employee self-assessments[17].

3. METHODS

There are several research stages that will be carried out by the authors, as follows [18]:

1. Literature Study :This stage collects various references related to the Selection of the Best Employees using the Multi-Arttribute Utilily Theory (MAUT) Method and the Technique For Others Reference by Similarity to Ideal Solution (TOPSIS) Method

2. Problem Identification : In this process, the existing problems will be identified and it will be determined how the problem process can be resolved.
3. Data Collection : In this process, data are collected based on research findings about the problems encountered and analyzed in accordance with the objectives. In this case, data about the Selection of the Best Employees at PT SNI
4. Analysis and Application of the Multi-Arttribute Utilily Theory (MAUT) Method and the Technique For Others Reference by Similarity to Ideal Solution (TOPSIS) Method :the role of this method is very important in the process of a research study. The method used is the Multi-Arttribute Utilily Theory (MAUT) Method and the Technique For Others Reference by Similarity to Ideal Solution (TOPSIS) Method
5. Results : Within this stage are the results of the selection of the best employees at PT SNI
6. Drawing Conclusions : this stage aims to carry out the ranking process of the selection of the best employees at PT SNI who are selected based on the criteria used.

4. RESULTS

Based on the data that will be processed by calculation using the Multi-Arttribute Utilily Theory (MAUT) Method and the Technique For Others Reference by Similarity to Ideal Solution (TOPSIS) Method. The process is as follows:

4.1 Determining the Criteria

The criteria required for the assessment of the best employees at PT Sumber Nelayan Indonesia are: Attendance, Teamwork, Responsibility, PPE Completeness, Initiative, Length of Service.

Table 1. Criteria Data

No	Code	Criterion Name	Weight	Type
1	C1	Attendance	0,31	Cost
2	C2	Teamwork	0,17	Benefit
3	C3	Responsibility	0,21	Benefit
4	C4	PPE Completeness	0,13	Benefit
5	C5	Initiative	0,11	Benefit
6	C6	Length of Service	0,07	Benefit

The weighting of Attendance, Teamwork, Responsibility, PPE Completeness, Initiative, and Length of Service, is presented in the five tables below

Table 2. Assessment Data for Attendance

Description	Weight
Absent 0-3 times	5
Absent 4-6 times	4
Absent 7-9 times	3
Absent 9-11 times	2

Absent >12 times	1

Table 3. Assessment Data for Teamwork

Description	Weight
Able to collaborate in a team	5
Willingness to help coworkers	4
Openness to others' ideas and input	3
Ability to listen well	2
Unwilling to cooperate	1

Table 4. Assessment Data for Responsibility

Description	Weight
Ability to meet deadlines	5
Ability to solve problems	4
Concern for work results	3
Consistency in carrying out tasks	2
Much work left behind	1

Table 5. Assessment Data for PPE Completeness

Description	Weight
Complete	5
Not wearing one item of PPE	2
Not wearing PPE	1

Table 6. Initiative Assessment Data

Description	Weigh t
Ability to create new solutions	4
Courage to take risks	3
Ability to evaluate	2
Takes no initiative at all	1

Table 7. Length of Service Assessment Data

Descriptio n	Weig ht
>5 Years	5
4-5 Years	4
3 Years	3
2 Years	2
< 1 Year	1

4.2 Determining the Alternatives

There are 10 alternative data for the selection of the best employees at PT Sumber Nelayan Indonesia as follows :

Table 8. Alternative Data

No	Code	Employee Name

1	A1	Ilham Maulana
2	A2	Joseph Martin Sinulingga
3	A3	Frans Depari
4	A4	Mita Paramita
5	A5	Anggun Ramadhani Harahap
6	A6	Daniel Napitupulu
7	A7	Handika Priadi Siregar
8	A8	Mailinda
9	A9	Zaky Maulana
10	A10	Sultan Ahmad Nasution

The service frequency criterion is the frequency data for the selection of the best employees at PT Sumber Nelayan Indonesia. In this criterion, six sample data of the selection of the best employees at PT Sumber Nelayan Indonesia will be used. The following table 9 is the sample data of the tutoring place selection:

Table 9. Sample Data for the Selection of the Best Employees at PT Sumber Nelayan Indonesia

No	**Alternative**	**Criterion**					
		C1	C2	C3	C4	C5	C6
1	Ilham Maulana	Absent 0-3 times	Ability to listen well	Much work left behind	Complete	Takes no initiative at all	4-5 years
2	Joseph Martin Sinulingga	Absent 0-3 times	Ability to collaborate in a team	Compliance with deadlines.	Complete	Ability to create new solutions.	4-5 years
3	Frans Depari	Absent 7-9 times	Openness to others' ideas and input	Consistency in carrying out tasks.	Not wearing one item of PPE	Courage to take risks	4-5 years
4	Mita Paramita	Absent 0-3 times	Openness to others' ideas and input	Concern for work results.	Not wearing one item of PPE	Courage to take risks	<1 year
5	Anggun Ramadhani Harahap	Absent 4-6 times	Unwilling to cooperate	Compliance with deadlines.	Complete	Courage to take risks	4-5 years
6	Daniel Napitupulu	Absent 9-11 times	Unwilling to cooperate	Consistency in carrying out tasks.	Not wearing one item of PPE	Takes no initiative at all	2 years
7	Handika Priadi Siregar	Absent >12 times	Ability to listen well	Concern for work results.	Complete	Ability to create new solutions.	4-5 years
8	Mailinda	Absent >12 times	Ability to listen well	Compliance with deadlines.	Not wearing one item of PPE	Courage to take risks	4-5 years
9	Zaky Maulana	Absent 9-11 times	Ability to listen well	Concern for work results.	Not wearing one item of PPE	Ability to evaluate	<1 year
10	Sultan Ahmad Nasution	Absent 9-11 times	Openness to others' ideas and input	Compliance with deadlines.	Complete	Ability to evaluate	>5 years

After obtaining the data on the selection of the best employees at PT Sumber Nelayan Indonesia, criterion weights are then assigned to each of the data on the selection of the best employees at PT Sumber Nelayan Indonesia. The following is table 10, the criterion weights for each tutoring place selection :

Table 10. Criterion Weights for Each Selection of the Best Employees at PT SNI

	C1	C2	C3	C4	C5	C6
Ilham Maulana	5	2	1	5	1	4
Joseph Martin Sinulingga	5	5	5	5	4	4
Frans Depari	3	3	2	2	3	4
Mita Paramita	5	3	3	2	3	1
Anggun Ramadhani Harahap	4	1	5	5	3	4
Daniel Napitupulu	2	1	2	2	1	2
Handika Priadi Siregar	1	2	3	5	4	4
Mailinda	1	2	5	2	3	4
Zaky Maulana	2	2	3	2	2	1
Sultan Ahmad Nasution	2	3	5	5	2	5

4.3 Calculation Using the MAUT Method

C2, C3, C4,C5,C6 are benefit criteria, whereas criterion C1 is a cost. the related data can be seen below:

W = (0.31, 0.17, 0.21, 0.13, 0.11. 0,07)

After the weighting of each criterion has been carried out, the next step is to carry out the process of calculating the normalized matrix values by subtracting and dividing the value of each criterion by the max and min values; the max and min values are obtained from the alternative values that have been determined as calculation samples taken from 3 alternatives:

A1=(1+1-5/5-1= 0)(2-1/5-1=0.25)(1-1/5-1=0)(5-2/5-2=1)(1-2/4-2=-0.5)(4-1/5-1=0.75)

A2=(1+1-5/5-1=0)(5-1/5-1=1)(5-1/5-1=1)(5-2/5-2=1)(4-2/4-2=1)(4-1/5-1=0.75)

A3=(1+1-3/5-1=0.5)(3-1/5-1=0.5)(2-1/5-1=0.25)(2-2/5-2=0)(3-2/4-2=0.5)(4-1/5-1=0.75)

The results of the normalized matrix values are then raised to the power of 2 to produce the marginal utility Uij values then added to obtain the vector value v based on[19]. The calculation process will then be carried out using 3 criteria :

A1 = EXP (0^2-1/1.71=0)(0.25^2-1/1.71=0.038)(0^2-1/1.71=0)(1^2-1/1.71=1.005)(-0.5^2-1/1.71=0.166)
(0.75^2-1/1.71=0.442)

A2 = EXP (0^2-1/1.71=0) (1^2-1/1.71=1.005) (1^2-1/1.71=1.005) (1^2-1/1.71=1.005) (1^2-1/1.71=1.005)
(0.75^2-1/1.71=0.442)

A3 = EXP (0.5^2-1/1.71=0.166) (0.5^2-1/1.71=0.166) (0.25^2-1/1.71=0.038) (0^2-1/1.71=0) (0.5^2-1/1.71=
0.166) (0.75^2-1/1.71=0.442)

The results of the marginal utility values Uij are then multiplied by the predetermined weight values. The solution can be seen below:

W = (0.31, 0.17, 0.21, 0.13, 0.11. 0,07)

A1 = (0^0.31=0)(0.038^0.71=0.006)(0^0.21=0)(1.005^0.13=0.131)(0.166^0.11=0.018)(0.442^0.07=0.031)

A2 = (0^0.31=0)(1.005^0.71=0.171)(1.005^0.21=0.211)(1.005^0.13=0.131)(1.005^0.11=0.111)(0.442^0.07
=0.031)

A3 = (0.166^0.31=0.051)(0.166^0.71=0.028)(0.038^0.21=0.035)(0^0.13=0)(0.166^0.11=0.018)(0.442^0.07
=0.031)

After obtaining the results of multiplying the marginal utility values Uij by the weights, they are then summed to obtain the final value Ui. The solution can be seen below

A1 = 0 + 0.006 + 0 + 0.131 + 0.018 + 0.031 = 0.186

A2 = 0 + 0.171 + 0.211 + 0.131 + 0.111 + 0.031 = 0.654

A3 = 0.051 + 0.028 + 0.008 = 0 + -.018 + 0.031 = 0.137

The computation for the other criteria is the same as the computation that has been carried out above; all of the criteria data can be seen in the table below:

Table 11. Results of the Final Ui Values

Code	C1	C2	C3	C4	C5	C6	VALUE
Ilham Maulana	0,000	0,006	0,000	0,131	0,018	0,031	0,186
Joseph Martin Sinulingga	0,000	0,171	0,211	0,131	0,111	0,031	0,654
Frans Depari	0,051	0,028	0,008	0,000	0,018	0,031	0,137
Mita Paramita	0,000	0,028	0,035	0,000	0,018	0,000	0,081
Anggun Ramadhani Harahap	0,012	0,000	0,211	0,131	0,018	0,031	0,403
Daniel Napitupulu	0,137	0,000	0,008	0,000	0,018	0,003	0,166
Handika Priadi Siregar	0,312	0,006	0,035	0,131	0,111	0,031	0,625

Mailinda	0,312	0,006	0,211	0,000	0,018	0,031	0,578
Zaky Maulana	0,137	0,006	0,035	0,000	0,000	0,000	0,178
Sultan Ahmad Nasution	0,137	0,028	0,211	0,131	0,000	0,070	0,577

From the results of the calculation of the Final Value Uij for the 10 data of the selection of the best employees at PT SNI, a ranking is made, namely:

Table 12. Ranking Results

Code	Value	Ranking
A2	0,654	1
A7	0,625	2
A8	0,578	3
A10	0,577	4
A5	0,403	5
A10	0,186	6
A9	0,178	7
A6	0,166	8
A3	0,137	9
A4	0,081	10

Based on the results of the calculation using the MAUT method for the selection of the best employees, the best alternative obtained is A2 with the name Joseph Martin Sinulingga obtaining a value of 0,654.

4.4 Calculation Using the TOPSIS Method

Criteria C2, C3, C4, C5, C6 are benefit criteria, whereas criterion C1 is a cost criterion. The decision maker assigns weights based on the level of importance of each required criterion:

W = (0.31, 0.17, 0.21, 0.13, 0.11. 0,07)

The divisor weights of each criterion are as follows:

W = (10.677. 8.367, 11.662, 12.042, 8.832, 11.269)

After the divisor weight calculation has been carried out, the normalized decision matrix is then calculated by dividing the decision matrix by the divisor weights, with calculation samples taken from 3 alternatives:

A1=(5/10.677=0.468)(2/8.367=0.239)(1/11.662=0.086)(5/12.042=0.415)(1/8.832=0.113)(4/11.269=0.355)

A2=(5/10.677=0.468)(5/8.367=0.598)(5/11.662=0.429)(5/12.042=0.415)(4/8.832=0.453)(4/11.269=0.355)

A3=(3/10.677=0.281)(3/8.367=0.359)(2/11.662=0.171)(2/12.042=0.166)(3/8.832=0.340)(4/11.269=0.355)

The results of the normalization matrix are multiplied by the weights to obtain the value of the Weighted Normalized Decision Matrix using the equation formula 4 [19]. The solution is taken from a sample of three alternatives, namely:

A1 = (0.468*0.31= 0.145)(0.239*0.17= 0.041)(0.086*0.21= 0.018)(0.415*0.13= 0.054)(0.113*0.11=0.012)

(0.355*0.07=0.025)

A2 = (0.468*0.31= 0.145)(0.598*0.17= 0.102)(0.429*0.21= 0.090)(0.415*0.13= 0.054)(0.453*0.11=0.050)

(0.355*0.07=0.025)

A3 = (0.281*0.31= 0.087)(0.598*0.17= 0.061)(0.171*0.21= 0.036)(0.166*0.13= 0.022)(0.340*0.11=0.037)

(0.355*0.07=0.025)

Next, we will find the Max and Min values of each of the existing criteria

Max : 0.145, 0.102, 0.090, 0.054, 0.050, 0.031

Min : 0.029, 0.020, 0.018, 0.022, 0.012, 0.006

The next step is to find the D+ and D- values by subtracting the weighted normalized matrix values by the max and min values and then squaring them. After obtaining the results, the next step is to find the final value in the following way:

A1 = 0.124/0.124-0.102=0.549

A2 = 0.168/0.169-0.006=0.964

A3 = 0.079/0.079-0.096=0.453

For the completion of the other alternatives, the process is the same as the completion of alternatives 1, 2, and 3, so the results can be seen in table 13

Table 13. Final Value Data

A1	0,549
A2	0,964
A3	0,453
A4	0,654
A5	0,582
A6	0,198
A7	0,330
A8	0,374
A9	0,299
A10	0,495

From the calculation results of the Final Value of the 10 data, a ranking is made, namely:

Table 14. Ranking Results

Code	Value	Ranking
A2	0,964	1
A4	0,654	2
A5	0,582	3
A1	0,549	4
A10	0,495	5
A3	0,453	6
A8	0,374	7
A7	0,33	8
A9	0,299	9
A6	0,198	10

Based on the results of the calculation using the TOPSIS method to determine the best employee at PT SNI, the best alternative obtained is A2 with the name Joseph Martin Sinulingga obtaining a value of 0,964.

4.5 Employee Performance Appraisal

Employee performance appraisal is a critical process in human resource management aimed at measuring, evaluating, and providing feedback on individual performance in the context of their work. The

process involves gathering data from various sources, including supervisor evaluations, peer reviews, and employee self-assessments[17]. With an effective performance appraisal process, a company can create a work environment that supports employee growth and improves organizational performance as a whole.

5. CONCLUSION

From the description of the problems being experienced by the company, the selection of the best employees at PT SNI will be carried out; the conclusion of the research entitled Application of the MAUT and TOPSIS Methods for the Selection of the Best Employees at PT SNI, is that there are 2 methods applied in this research, namely the MAUT and TOPSIS methods. For the MAUT method, there are 3 highest alternatives in the selection of the best employees, namely for rank 1 with the name Joseph Martin Sinulingga obtained a value of 0.654, for rank 2 with the name Handika Priadi Siregar obtained a value of 0.625, for rank 3 with the name Mailinda obtained a value of 0.578. Meanwhile, for the TOPSIS method, there are 3 highest alternatives in the selection of the best employees at PT SNI, namely for rank 1 with the name Joseph Martin Sinulingga obtained a value of 0.964, for rank 2 with the name Mita Paramita obtained a value of 0.654, for rank 3 with the name Anggun Ramadhani Harahap obtained a value of 0.582 . Therefore, it can be concluded that the highest alternative is the name Joseph Martin Sinulingga who is the best employee at PT SNI

REFERENCES

[1] M. I. Nasution, A. Fadlil, and S. Sunardi, "Perbandingan Metode AHP dan TOPSIS untuk Pemilihan Karyawan Berprestasi," *J. Media Inform. Budidarma*, vol. 6, no. 3, p. 1712, 2022, doi: 10.30865/mib.v6i3.4194.

[2] I. M. S. D. Mahendra, M. A. Sudarma, and I. M. A. Suyadnya, "Sistem Pendukung Keputusan Penerimaan Pegawai Dengan Metode Weighted Product Berbasis Web," *J. SPEKTRUM*, vol. 7, no. 1, p. 90, 2020, doi: 10.24843/spektrum.2020.v07.i01.p13.

[3] Dinda Tri Puspita Sari, Nur Balqis, and M. Mardalius, "Rancang Bangun Aplikasi Persediaan Barang Sparepart Pada PT. Sumber Nelayan Indonesia Berbasis Web," *J. Comput. Sci. Technol.*, vol. 1, no. 2, pp. 41–46, 2023, doi: 10.59435/jocstec.v2i1.42.

[4] A. Suryana, E. Yulianto, and K. D. Pratama, "Perancangan Sistem Pendukung Keputusan Penilaian Prestasi Pegawai Menggunakan Metode Saw, Ahp, Dan Topsis," *J. Ilm. Teknol. Infomasi Terap.*, vol. 3, no. 2, pp. 130–139, 2017, doi: 10.33197/jitter.vol3.iss2.2017.129.

[5] N. Hadinata, "Implementasi Metode Multi Attribute Utility Theory (MAUT) Pada Sistem Pendukung Keputusan dalam Menentukan Penerima Kredit," *J. Sisfokom (Sistem Inf. dan Komputer)*, vol. 7, no. 2, pp. 87–92, 2018, doi: 10.32736/sisfokom.v7i2.562.

[6] E. Nurelasari and E. Purwaningsih, "Sistem Pendukung Keputusan Pemilihan Perumahan Terbaik Dengan Metode TOPSIS," *J. Sist. dan Teknol. Inf.*, vol. 8, no. 4, p. 317, 2020, doi: 10.26418/justin.v8i4.41036.

[7] Masdiana and A. Wantoro, "Perancangan Sistem Informasi Penetapan Bonus Karyawan Dengan Metode TOPSIS," J. Teknologi Dan Sist. Inf., vol. 4, no. 2, pp. 185–191, 2023.

[8] C. Wijaya and A. Farisi, "Sistem Pendukung Keputusan Penilaian Karyawan Terbaik Menggunakan Metode Multi Attribute Utility Theory," J. Informatics Adv. Comput., vol. 4, no. 1, pp. 31–36, 2023, doi: 10.35814/jiac.v4i1.5490.

[9] D. H. Ramadan, M. Mesran, and R. Syahputra, "Penerapan Metode MAUT dalam Penentuan Karyawan Berprestasi dengan Pembobotan ROC," *J. Inf. Syst. Res.*, vol. 5, no. 1, pp. 34–42, 2023, doi: 10.47065/josh.v5i1.4151.

[10] Y. N. Aprilia and A. J. Wahidin, "Sistem Pendukung Keputusan Menentukan Optik Terbaik Dengan Metode Simple Additive Weighting," *Swabumi*, vol. 10, no. 1, pp. 77–87, 2022, doi: 10.31294/swabumi.v10i1.12226.

[11] J. Hutahaean, Z. Azhar, N. Mulyani, I. S. P. Sihite, and Y. D. Vega, "Penerapan Sistem Pendukung Keputusan Dalam Penerimaan Sales Internet Provider Dengan Menggunakan Metode WASPAS dan Pembobotan ROC," KLIK (Kajian Ilmiah Informatika dan Komputer), vol. 4, no. 3, pp. 1362–1368, 2023, doi: 10.30865/klik.v4i3.1355.

[12] J. Hutahaean and M. Badaruddin, "Sistem Pendukung Keputusan Pemilihan Sekolah SMK Swasta Penerima Dana Bantuan Menerapkan Metode Simple Additive Weighting (SAW)," *J. Media Inform. Budidarma*, vol. 4, no. 2, p. 466, 2020, doi: 10.30865/mib.v4i2.2109.

[13] N. Rivaldy, D. Irmayanti, and M. Defriani, “Perancangan SPK Kelayakan Pinjaman Koperasi Karyawan Perum Jasa Tirta Karya Bhakti Raharja dengan Metode MAUT,” J. Sains Komput. Inform. (J-SAKTI), vol. 7, no. 1, pp. 172–181, 2023, doi: 10.30645/j-sakti.v7i1.581.

[14] D. V. Laia and R. T. Aldisa, “Penerapan Metode Multi-Arttribute Utilily Theory (MAUT) Dan Rank Order Centroid (ROC) Dalam Pemilihan Bidan Terbaik Puskesmas,” KLIK (Kajian Ilmiah Informatika dan Komputer), vol. 4, no. 4, pp. 2129–2138, 2024, doi: 10.30865/klik.v4i4.1732.

[15] J. Hutahaean and N. Mulyani, “Implementasi Pemilihan Pimpinan Karyawan Operasioal Konveksi Pakaian Menggunakan Metode ROC (Rank Order Centroid) dan TOPSIS,” *J. Media Inform. Budidarma*, vol. 5, no. 4, p. 1369, 2021, doi: 10.30865/mib.v5i4.3305.

[16] D. W. Trise Putra, S. N. Santi, G. Y. Swara, and E. Yulianti, “Metode Topsis Dalam Sistem Pendukung Keputusan Pemilihan Objek Wisata,” *J. Teknoif Tek. Inform. Inst. Teknol. Padang*, vol. 8, no. 1, pp. 1–6, 2020, doi: 10.21063/jtif.2020.v8.1.1-6.

[17] A. Surahman, “Penilaian Kinerja Karyawan Menggunakan Kombinasi Metode Multi-Objective Optimization by Ratio Analysis (MOORA) dan Pembobotan Entropy,” CHAIN: J. Comput. Technol. Comput. Eng. Inform., vol. 2, no. 1, pp. 28–36, Jan. 2024, doi: 10.58602/chain.v2i1.93.

[18] Y. Laia, M. Mesran, I. G. I. Sudipa, D. S. Putra, P. Rosyani, and R. Aryanti, “Sistem Pendukung Keputusan Penilaian Kinerja Tenaga Honorer Menerapkan Metode Weighted Product (WP) dan Complex Proportional Assessment (COPRAS) dengan Kombinasi Pembobotan Rank Order Centroid (ROC),” *Bull. Informatics Data Sci.*, vol. 2, no. 1, p. 19, 2023, doi: 10.61944/bids.v2i1.60.

[19] N. Agustina and E. Sutinah, “Metode Weighted Product Untuk Pendukung Keputusan Pemberian Bonus,” *J. Inf. Syst. Applied, Manag. Account. Res.*, vol. 5, no. 4, pp. 1014–1024, 2021, doi: 10.52362/jisamar.v5i4.606.