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Application Of The Simple Additive Weighting (Saw) Method In Determining The Restaurant Employees Worth To Be Promoted (Case Study: Xo Suki Restaurant & Dimsum Medan)

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ABSTRACT

XO Suki & Dimsum Medan is a Japanese food restaurant that is full of enthusiasts. Every month the customers who visit this restaurant can reach 10,000 people. Therefore, the welfare of employees needs to be considered by business owners so that customer satisfaction is always maintained. To improve the welfare of employees, restaurant business owners have a way that makes employees more enthusiastic, namely by recruiting employees who have met the requirements for higher positions. By increasing the position of the employee, it will automatically increase their income as well. This is what makes XO Suki & Dimsum Medan employees feel at home to work at the restaurant. According to the results of observations made at the XO Suki & Dimsum Medan restaurant, that in the process of hiring employees or commonly known as promotion is still subjective, so the decision for employees who get a promotion becomes unfair. In making decisions that are not in accordance with the conditions that occur in the field. In decision making, many factors need to be considered, namely the following criteria: loyalty, honesty, responsibility, work performance, and work initiative. So far, job promotions carried out by superiors and business owners are still often based on the closest person and oldest employee. Sometimes when one of the employees resigns / escapes (stops) it suddenly results in the boss having to choose or find an urgent position and requires a quick decision. These things cause the results of the election or promotion to be inaccurate and unfair. In order to facilitate and speed up decision making regarding the promotion of XO Suki & Dimsum Medan employees, a system is needed that can manage and select these factors in order to get accurate, fast, and precise decisions.

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1. INTRODUCTION

In today's very rapid technological development, we must always improve and update every skill and technological tool that we use. If the skills and technological tools we use are still old skills and backward technological tools, then we will be considered not up to date. For example, in the world of work, skills and technology tools that are always up to date make every employee have to get used to new things. Employees / employees who are unable to keep up with technological developments will remain in their current position or even lose their position.

Currently, competition between workers for promotion in the workplace is something that cannot be seen but can be felt. Many employees will improve skills to get it. However, the need for the position to be occupied is usually limited. This is where the tenacity, loyalty and initiative of the workers are increasing to get a place in the hearts of superiors or HRDs to be taken into account in the promotion of the position. Likewise at the XO Suki & Dimsum Medan restaurant, where the superiors are now employees who used to be just ordinary server / waiter employees.

XO Suki & Dimsum Medan is a Japanese food restaurant that is full of enthusiasts. Every month the customers who visit this restaurant can reach 10,000 people. Therefore, the welfare of employees needs to be considered by business owners so that customer satisfaction is always maintained. To improve the welfare of employees, restaurant business owners have a way that makes employees more enthusiastic, namely by recruiting employees who have met the requirements for higher positions. By increasing the position of the employee, it will automatically increase their income as well. This is what makes XO Suki & Dimsum Medan employees feel at home to work at the restaurant. According to the results of observations made at the XO Suki & Dimsum Medan restaurant, that in the process of hiring employees or commonly known as promotion is still subjective, so the decision for employees who get a promotion becomes unfair. In making decisions that are not in accordance with the conditions that occur in the field. In decision making, many factors need to be considered, namely the following criteria: loyalty, honesty, responsibility, work performance, and work initiative. So far, job promotions carried out by superiors and business owners are still often based on the closest person and oldest employee. Sometimes when one of the employees resigns / escapes (stops) it suddenly results in the boss having to choose or find an urgent position and requires a quick decision. These things cause the results of the election or promotion to be inaccurate and unfair. In order to facilitate and speed up decision making regarding the promotion of XO Suki & Dimsum Medan employees, a system is needed that can manage and select these factors in order to get accurate, fast, and precise decisions.

Little (Turban, 2005) defines a decision support system as a model of a set of system procedures for processing data with the aim of assisting managers in making specific decisions. The system is a decision support system using the Simple Additive Weighting (SAW) method which helps determine the eligibility of employees who are promoted to XO Suki & Dimsum restaurants in Medan. This method is often also known as a weighted addition. The basic concept of SAW is to find a weighted sum of the performance of each alternative on all attributes (Kusumadewi, 2006). Requires a decision matrix normalization process (X) to a scale that can be compared with all available alternative ratings. Very simple and easy to understand and can be implemented in a decision support system that is made by paying attention to weights and criteria so that the system is easier and more efficient.

2. RESEARCH METHOD

The framework is the stages in problem solving in order to provide direction for the preparation of research. The following is the research framework used, namely:

The field study in this research is collecting data from the XO Suki & Dimsum Medan restaurant by recording data from company documents. The data obtained and collected in this study are:

- 1. Restaurant Employee Data
 - Restaurant employee data will contain data regarding the name of the employee, date of work of the employee, period of service of the employee, etc.
- 2. Sales data for the last 3 months / as needed
 - 3 months sales data will contain data regarding the total sales generated by employees during the last 3 months.
- 3. Employee Assessment Data for the Last 3 Months / as needed
 - The 3 months employee appraisal data is an assessment form filled out by the manager or the highest supervisor at the XO Suki & Dimsum Medan restaurant monthly for 3 months. The assessment form will assess and evaluate employees with criteria, namely: employee performance, employee initiative, and employee behavior.

The data collection method that the writer uses is the document study method. Document study is a data collection technique by collecting and analyzing documents, both written documents, images and electronic data. The documents that are collected are selected in accordance with the objectives and focus of the problem (Sukmadinata, 2010: 221-222).

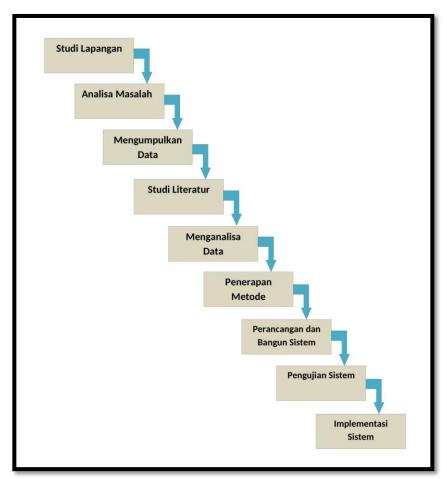


Figure 1. Research Framework

3. RESULTS AND DISCUSSION

In selecting employees who are eligible for promotion based on predetermined criteria, namely:

- 1. Working Period
- 2. Push Selling
- 3. Performance
- 4. Initiative
- 5. Behavior

Several steps were taken to make calculations in determining the appropriate employees to be promoted at XO Suki & Dimsum Medan with the Simple Additive Weighting (SAW) method, the detailed calculation process using the SAW method can be seen in the following description.

Previously, the following were employee data, sales by employees, performance appraisals, initiative and employee behavior of XO Suki & Dimsum Medan.

 Table 1. Employee Data

No.	Nama Karyawan	Jabatan	No. Finger	тмк	Masa Kerja(Bulan)
1	Ferry	Manajer	717	09-Oct-17	29
2	Mesoli	Asst. Supervisor	815	28-Nov-17	28
3	Nelis	Asst. Supervisor	814	08-Jun-18	21
4	Syukur	Kapten	99	21-Apr-16	47
5	Tety	Kapten	695	18-May-18	22
6	Adilhati	Kapten	827	11-Apr-16	47
7	Hotma	Kapten	84	02-Sep-13	78
8	Ernia	Kasir	804	11-Nov-19	4
9	Angel	Kasir	748	10-Nov-18	16
10	Putri	Greeter	722	13-Jul-18	20
11	Junita	Display	822	26-Nov-19	4
12	Yudita	Display	759	12-Jan-18	26
13	Kasih	Display	783	15-May-19	10
14	Lisman	Pantry	760	05-Aug-18	19
15	Turpan	Pantry	776	21-Jan-19	14
16	Riska	Pelayan	811	18-Nov-19	4
17	Mediana	Pelayan	824	30-Sep-19	6
18	Yusnita	Pelayan	825	30-Sep-19	6
19	Yofan	Pelayan	829	11-Dec-19	3
20	Suprianus	Pelayan	700	19-May-18	22
21	Dasma	Pelayan	384	26-Aug-17	31
22	Andi	Pelayan	888	17-Nov-19	4
23	Putra	Pelayan	897	20-Nov-19	4

The table above explains the tenure of XO Suki & Dimsum Medan employees until 31 March 2020 in a matter of months.

Table 2. Employee Performance Appraisal Data

Outlet			Medan 1	Penilai :	Ferry (Ma	najer)		
Depar	temen: Operasiona	1						
Period	le : Januari - M	aret 2020						
No.	Nama Karyawan	Status	Jabatan		Kinerja		Total	Rata-rata
110.	•	3813877/A3618/		Jan	Feb	Mar	273,075,4440000	7.000.000.000.000.000
1	Mesoli	Aktif	Asst. Supervisor	85	80	85	250	83.33
2	Nelis	Aktif	Asst. Supervisor	80	80	80	240	80.00
3	Syukur	Aktif	Kapten	80	80	80	240	80.00
4	Tety	Aktif	Kapten	90	90	90	270	90.00
5	Adilhati	Aktif	Kapten	80	80	80	240	80.00
6	Hotma	Aktif	Kapten	75	75	80	230	76.67
7	Emia	Aktif	Kasir	80	80	80	240	80.00
8	Angel	Aktif	Kasir	80	80	80	240	80.00
9	Putri	Aktif	Greeter	85	85	85	255	85.00
10	Junita	Aktif	Display	75	75	85	235	78.33
11	Yudita	Aktif	Display	85	80	80	245	81.67
12	Kasih	Aktif	Display	80	80	80	240	80.00
13	Lisman	Aktif	Pantry	85	80	80	245	81.67
14	Turpan	Aktif	Pantry	80	80	80	240	80.00
15	Riska	Aktif	Pelayan	80	80	80	240	80.00
16	Mediana	Aktif	Pelayan	80	80	80	240	80.00
17	Yusnita	Aktif	Pelayan	80	80	80	240	80.00
18	Yofan	Aktif	Pelayan	85	85	85	255	85.00
19	Suprianus	Aktif	Pelayan	80	80	80	240	80.00
20	Dasma	Aktif	Pelayan	80	80	80	240	80.00
21	Andi	Aktif	Pelayan	85	85	85	255	85.00
22	Putra	Aktif	Pelayan	85	85	85	255	85.00

The table above describes the assessment of the performance criteria for XO Suki & Dimsum Medan employees as assessed by the manager during the period January 2020 - March 2020.

Table 3. Employee Initiative Assessment Data

Outle Depar	t : XO Suki & rtemen : Operasiona		vicuui	Penilai :	Ferry (Ma	najerj		
Perio								
**	N	C	**.		Inisiatif		Total	n
No.	Nama Karyawan	Status	Jabatan	Jan	Feb	Mar	lotai	Rata-rat
1	Mesoli	Aktif	Asst. Supervisor	85	80	85	250	83.33
2	Nelis	Aktif	Asst. Supervisor	80	80	80	240	80.00
3	Syukur	Aktif	Kapten	80	80	75	235	78.33
4	Tety	Aktif	Kapten	90	75	80	245	81.67
5	Adilhati	Aktif	Kapten	80	75	85	240	80.00
6	Hotma	Aktif	Kapten	75	80	80	235	78.33
7	Ernia	Aktif	Kasir	80	75	85	240	80.00
8	Angel	Aktif	Kasir	80	80	85	245	81.67
9	Putri	Aktif	Greeter	85	80	80	245	81.67
10	Junita	Aktif	Display	75	80	80	235	78.33
11	Yudita	Aktif	Display	85	75	85	245	81.67
12	Kasih	Aktif	Display	80	80	85	245	81.67
13	Lisman	Aktif	Pantry	85	75	75	235	78.33
14	Turpan	Aktif	Pantry	80	85	80	245	81.67
15	Riska	Aktif	Pelayan	80	85	80	245	81.67
16	Mediana	Aktif	Pelayan	80	80	80	240	80.00
17	Yusnita	Aktif	Pelayan	80	80	75	235	78.33
18	Yofan	Aktif	Pelayan	85	75	85	245	81.67
19	Suprianus	Aktif	Pelayan	80	80	80	240	80.00
20	Dasma	Aktif	Pelayan	80	75	85	240	80.00
21	Andi	Aktif	Pelayan	85	75	85	245	81.67
22	Putra	Aktif	Pelayan	85	80	75	240	80.00

The table above describes the assessment of the XO Suki & Dimsum Medan employee performance initiatives assessed by the manager during the period January 2020 - March 2020. Table 4. Employee Behavior Assessment Data

FORM PENILAIAN KARYAWAN (PERILAKU) IXO : XO Suki & Dimsum Medan Penilai : Ferry (Manajer) Departemen : Operasional Januari - Maret 2020 Perilaku No. Nama Karyawan Status Jabatan Rata-rata Jan Mar Feb Mesoli Aktif Asst. Supervisor 240 80.00 Nelis Aktif Asst. Supervisor 80 80 85 245 81.67 260 Syukur Aktif Kapten 85 85 90 86.67 Tety Aktif 90 90 90.00 Kapten Adilhati Aktif 90 90 80 260 86.67 240 80.00 Hotma Aktif Kapten 80 80 80 80.00 Emia Aktif 80 Kasir Aktif Kasir 80 80 85 245 81.67 85 85 85.00 Putri Aktif Greeter 85 250 235 Aktif 83.33 Display Junita 11 12 80 75 Yudita Aktif Display 80 75 75 75 78.33 75.00 225 Kasih Aktif Display 13 Aktif 75 75 80 230 76.67 Lisman Pantry 14 15 Aktif Pantry 75 80 80 235 78.33 78.33 80 Riska Aktif Pelayan 80 16 Mediana Aktif Pelayan 75 75 80 230 76.67 235 17 Yusnita Aktif Pelayan 75 75 85 78.33 18 85 85 80 83.33 Yofan Aktif Pelayan 19 Aktif Pelayan 80 80 85 245 81.67 Suprianus 20 Dasma Aktif Pelayan 80 75 80 235 78.33 80 Andi Aktif Pelayan 80 Aktif 80.00 Catatan :

The table above explains the behavioral assessment of XO Suki & Dimsum Medan employees as assessed by the manager during the January 2020 - March 2020 period.

Table 4. Sales Data by Employees

DATA PENJUALAN XO SUKI & DIMSUM MEDAN

Periode: 1 Januari - 31 Maret 2020 Sumber Quinos 2A(1)
Tanggal cetak 31 Juli 2020

		50		Tanggal cetak	31 Juli 2020
No.	Nama Karyawan	Januari	Total Penjualan Februari	Maret	Total Penjualan
1	Ferry	9,196,000	10,428,000	11,956,000	31,580,000
2	Andini	4,180,000	5,776,000	11,155,000	21,111,000
3	Mesoli	7,488,000	8,544,000	15,840,000	31,872,000
4	Nelis	6,992,000	6,873,000	10,488,000	24,353,000
5	Syukur	53,934,000	52,840,000	46,992,000	153,766,000
6	Tety	60,291,000	50,463,000	45,568,000	156,322,000
7	Adilhati	67,466,000	68,040,000	76,728,000	212,234,000
8	Hotma	85,215,000	68,085,000	80,631,000	233,931,000
9	Ernia	13,520,000	19,303,000	19,260,000	52,083,000
10	Angel	16,150,000	23,571,000	20,592,000	60,313,000
11	Putri	13,750,000	22,528,000	23,030,000	59,308,000
12	Junita	17,622,000	26,117,000	24,831,000	68,570,000
13	Yudita	10,296,000	15,026,000	13,884,000	39,206,000
14	Kasih	16,384,000	20,124,000	24,130,000	60,638,000
15	Lisman	8,792,000	10,947,000	11,253,000	30,992,000
16	Turpan	17,120,000	9,594,000	12,936,000	39,650,000
17	Riska	82,236,000	82,231,000	85,152,000	249,619,000
18	Mediana	74,394,000	69,540,000	83,235,000	227,169,000
19	Yusnita	91,865,000	81,468,000	80,730,000	254,063,000
20	Yofan	95,760,000	81,540,000	99,057,000	276,357,000
21	Suprianus	84,838,000	78,560,000	78,185,000	241,583,000
22	Dasma	84,966,000	74,184,000	76,184,000	235,334,000
23	Andi	75,870,000	68,364,000	84,550,000	228,784,000
24	Putra	51,660,000	49,680,000	56,916,000	158,256,000
	Total	1,049,985,000	1,003,826,000	1,093,283,000	3,147,094,000
	Rata-rata	2,090,774,000	41,826,083	45,553,458	131,128,917

The table above describes sales by XO Suki & Dimsum Medan employees during the period January 2020 - March 2020 as a reference for push selling criteria.

From the case example above, a Supervisor is in resign status, therefore the relevant position to get a Supervisor promotion is Assistant Supervisor.

- a. Determine the criteria that will be used in determining eligibility for a promotion:
 - C1 = period of service
 - C2 = Push Selling
 - C3 = Performance
 - C4 = Initiative
 - C5 = Behavior

Table 5. Determination of Criteria Weights

	Two ev Beterimination of Criteria Weights									
Kode Kriteria	Ketentuan Kriteria	Bobot Preferensi (W)								
C1	Masa Kerja	0.15 (15%)								
C2	Push Selling	0.25 (25%)								
C3	Kinerja	0.25 (25%)								
C4	Inisiatif	0.20 (20%)								
C5	Perilaku	0.15 (15%)								

b. Provide value and weight for each alternative on each predetermined criterion.

Table 6. Weighted Service Period, Performance, Initiatives and Behavior

Kode Kriteria	Ketentuan Kriteria	Bobot Preferensi (W)
C1	Masa Kerja	0.15 (15%)
C2	Push Selling	0.25 (25%)
C3	Kinerja	0.25 (25%)
C4	Inisiatif	0.20 (20%)
C5	Perilaku	0.15 (15%)

Table 7. Weighted Service Period, Performance, Initiatives and Behavior

	Nilai T	ertulis				
Masa kerja	Kinerja	Inisiatif	Perilaku	Variabel	Skor	Bobot
0 -12 (bulan)	70.00 -	70.00 -	70.00 - 75.00	Kurang Baik	1	0.25
	75.00	75.00				
13 - 24	75.01 –	75.01 –	75.01 -	Cukup Baik	2	0.5
(bulan)	80.00	80.00	80.00			

25 – 48	80.01 -	80.01 -	80.01 - 85.00	Baik	3	0.75
(bulan)	85.00	85.00				
>48	>85.00	>85.00	>85.00	Sangat Baik	4	1
(bulan)						

 Table 7. Weighting of Push Selling

Nilai Tertulis			
Push Selling	Variabel	Skor	Bobot
- 10.000.000	Sangat Buruk	1	0.10
10.000.001 - 50.000.000	Buruk	2	0.20
50.000.001 - 100.000.000	Cukup	3	0.40
100.000.001 - 150.000.000	Cukup Puas	4	0.60
150.000.001 - 200.000.000	Puas	5	0.80
>200.000.000	Sangat Memuaskan	6	1

c. Provide score and suitability rating for each alternative for all criteria. As an example of the calculation after the assessment, the score is obtained in the following table

Table 8. Recap of Scores from the Documentation Study

	KODE	•				
No.	KARYAWAN	C1	C2	C3	C4	C5
1	K1	3	1	3	3	2
2	K2	2	1	2	2	3
3	K3	3	5	2	2	4
4	K4	2	5	4	3	4
5	K5	3	6	2	2	4
6	K6	4	6	2	2	2
7	K7	1	3	2	2	2
8	K8	2	3	2	3	3
9	K9	2	3	3	3	3
10	K10	1	3	2	2	3
11	K11	3	1	3	3	2
12	K12	1	3	2	3	1
13	K13	2	2	3	2	2
14	K14	2	2	2	3	2
15	K15	1	6	2	3	2
16	K16	1	6	2	2	2
17	K17	1	6	2	2	2
18	K18	1	6	3	3	3
19	K19	2	6	2	2	3
20	K20	3	6	2	2	2
21	K21	1	6	3	3	2
22	K22	1	5	3	2	2

Table 9. Match Rating Table

		lable 9. Ivi	atch Kathi	gradic		
	KODE					
No.	KARYAWAN	C1	C2	C3	C4	C5
1	K1	0.75	0.10	0.75	0.75	0.50
2	K2	0.50	0.10	0.50	0.50	0.75
3	K3	0.75	0.80	0.50	0.50	1
4	K4	0.5	0.80	1	0.75	1
5	K5	0.75	1	0.50	0.50	1
6	K6	1	1	0.50	0.50	0.50
7	K7	0.25	0.40	0.50	0.50	0.50
8	K8	0.50	0.40	0.50	0.75	0.75
9	K9	0.50	0.40	0.75	0.75	0.75
10	K10	0.25	0.40	0.50	0.50	0.75
11	K11	0.75	0.10	0.75	0.75	0.50
12	K12	0.25	0.40	0.50	0.75	0.25
13	K13	0.50	0.20	0.75	0.50	0.50
14	K14	0.50	0.20	0.50	0.75	0.50
15	K15	0.25	1	0.50	0.75	0.50

16	K16	0.25	1	0.50	0.50	0.50
17	K17	0.25	1	0.50	0.50	0.50
18	K18	0.25	1	0.75	0.75	0.75
19	K19	0.50	1	0.50	0.50	0.75
20	K20	0.75	1	0.50	0.50	0.50
21	K21	0.25	1	0.75	0.75	0.50
22	K22	0.25	0.80	0.75	0.50	0.50

d. Creating a decision matrix of each criterion. The decision matrix (X) is formed from the suitability rating table of each criterion. The value from the results of the compatibility table is then made into a matrix form as follows:

$$X = \begin{bmatrix} 0.75 & 0.10 & 0.75 & 0.75 & 0.50 \\ 0.50 & 0.10 & 0.50 & 0.50 & 0.75 \\ 0.75 & 0.80 & 0.50 & 0.50 & 1 \\ 0.50 & 0.80 & 1 & 0.75 & 1 \\ 0.75 & 1 & 0.50 & 0.50 & 0.50 \\ 0.25 & 0.40 & 0.50 & 0.50 & 0.50 \\ 0.50 & 0.40 & 0.50 & 0.75 & 0.75 \\ 0.50 & 0.40 & 0.50 & 0.75 & 0.75 \\ 0.25 & 0.40 & 0.50 & 0.75 & 0.75 \\ 0.25 & 0.40 & 0.50 & 0.50 & 0.75 \\ 0.25 & 0.40 & 0.50 & 0.75 & 0.50 \\ 0.25 & 0.40 & 0.50 & 0.75 & 0.50 \\ 0.25 & 0.40 & 0.50 & 0.75 & 0.50 \\ 0.25 & 0.40 & 0.50 & 0.75 & 0.50 \\ 0.25 & 1 & 0.50 & 0.75 & 0.50 \\ 0.25 & 1 & 0.50 & 0.50 & 0.50 \\ 0.25 & 1 & 0.50 & 0.50 & 0.50 \\ 0.25 & 1 & 0.50 & 0.50 & 0.50 \\ 0.25 & 1 & 0.50 & 0.50 & 0.75 \\ 0.75 & 1 & 0.50 & 0.50 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 1 & 0.75 & 0.75 & 0.50 \\ 0.25 & 0.80 & 0.75 & 0.50 & 0.50 \end{bmatrix}$$

e. Creating a Normalized Matrix, normalization based on an equation that is adjusted to the type of attribute so that the normalization matrix R is obtained as follows:

$$R = \begin{bmatrix} 0.75 & 0.10 & 0.75 & 1 & 0.50 \\ 0.50 & 0.10 & 0.50 & 0.6667 & 0.75 \\ 0.75 & 0.80 & 0.50 & 0.6667 & 1 \\ 0.50 & 0.80 & 1 & 1 & 1 \\ 0.75 & 1 & 0.50 & 0.6667 & 1 \\ 1 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 0.40 & 0.50 & 0.6667 & 0.50 \\ 0.50 & 0.40 & 0.50 & 1 & 0.75 \\ 0.50 & 0.40 & 0.50 & 1 & 0.75 \\ 0.25 & 0.40 & 0.50 & 0.6667 & 0.75 \\ 0.25 & 0.40 & 0.50 & 0.6667 & 0.75 \\ 0.25 & 0.40 & 0.50 & 1 & 0.25 \\ 0.50 & 0.20 & 0.75 & 1 & 0.50 \\ 0.50 & 0.20 & 0.75 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 1 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.50 & 0.6667 & 0.50 \\ 0.25 & 1 & 0.75 & 1 & 0.50 \\ 0.25 & 1 & 0.75 & 1 & 0.50 \end{bmatrix}$$

f. Looking for the value of the ranking of each alternative. Determining the values V1 to V22 is as follows:

```
V1 = (0.15 \times 0.75) + (0.25 \times 0.10) + (0.25 \times 0.75) + (0.20 \times 1) + (0.15 \times 0.50)
     = 0.6
V2 = (0.15 \times 0.50) + (0.25 \times 0.10) + (0.25 \times 0.50) + (0.20 \times 0.6667) + (0.15 \times 0.75)
     = 0.4708
V3 = (0.15 \times 0.75) + (0.25 \times 0.80) + (0.25 \times 0.50) + (0.2 \times 0.6667) + (0.15 \times 1)
     =0.7208
V4 = (0.15 \times 0.5) + (0.25 \times 0.80) + (0.25 \times 1) + (0.20 \times 1) + (0.15 \times 1)
     = 0.875
V5 = (0.15 \times 0.75) + (0.25 \times 1) + (0.25 \times 0.50) + (0.20 \times 0.6667) + (0.15 \times 50)
     = 0.77084
V6 = (0.15 X 1) + (0.25 X 1 + (0.25 X 0.50) + (0.20 X 0.6667) + (0.15 X 0.50)
     = 0.73334
V7 = (0.15 \times 0.25) + (0.25 \times 0.4) + (0.25 \times 5) + (0.20 \times 0.6667) + (0.15 \times 0.50)
     = 0.47084
V8 = (0.15 \times 0.5) + (0.25 \times 0.4) + (0.25 \times 0.5) + (0.20 \times 1) + (0.15 \times 0.75)
     = 0.6125
V9 = (0.15 \times 0.5) + (0.25 \times 0.4) + (0.25 \times 0.75) + (0.20 \times 1) + (0.15 \times 0.75)
     = 0.675
V10 = (0.15 \times 0.25) + (0.25 \times 0.4) + (0.25 \times 0.5) + (0.20 \times 0.667) + (0.15 \times 0.75)
     = 0.50834
V11 = (0.15 \times 0.75) + (0.25 \times 0.1) + (0.25 \times 0.75) + (0.20 \times 1) + (0.15 \times 0.5)
     = 0.6
V12 = (0.15 \times 0.25) + (0.25 \times 0.4) + (0.25 \times 0.5) + (0.20 \times 1) + (0.15 \times 0.25)
     = 0.5
```

= 0.75

$$\begin{array}{l} \text{V13} = (0.15 \text{ X } 0.5) + (0.25 \text{ X } 0.2) + (0.25 \text{ X } 0.75) + (0.20 \text{ X } 0.6667) + (0.15 \text{ X } 0.5) \\ = 0.52084 \\ \text{V14} = (0.15 \text{ X } 0.5) + (0.25 \text{ X } 0.20) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 1) + (0.15 \text{ X } 0.5) \\ = 0.525 \\ \text{V15} = (0.15 \text{ X } 0.25) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 1) + (0.15 \text{ X } 0.5) \\ = 0.6875 \\ \text{V16} = (0.15 \text{ X } 0.25) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 0.6667) + (0.15 \text{ X } 0.5) \\ = 0.6209 \\ \text{V17} = (0.15 \text{ X } 0.25) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 0.6667) + (0.15 \text{ X } 0.5) \\ = 0.6209 \\ \text{V18} = (0.15 \text{ X } 0.25) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.75) + (0.20 \text{ X } 1) + (0.15 \text{ X } 0.75) \\ = 0.7875 \\ \text{V19} = (0.15 \text{ X } 0.5) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 0.6667) + (0.15 \text{ X } 0.75) \\ = 0.69584 \\ \text{V20} = (0.15 \text{ X } 0.75) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.5) + (0.20 \text{ X } 0.6667) + (0.15 \text{ X } 0.5) \\ = 0.69584 \\ \text{V21} = (0.15 \text{ X } 0.25) + (0.25 \text{ X } 1) + (0.25 \text{ X } 0.75) + (0.20 \text{ X } 1) + (0.15 \text{ X } 0.5) \\ = 0.7 \\ \end{array}$$

 $V22 = (0.15 \times 0.25) + (0.25 \times 0.80) + (0.25 \times 0.75) + (0.20 \times 1) + (0.15 \times 0.5)$

g. The following is the value of the ranking of each alternative in the table. **Table 10.** Results of Ranking Value

	Kode	Nama		Nilai	
No.	Alternatif	Karyawan	Jabatan	Perangkingan	Keterangan
1	V1	Mesoli	Asisten	0.6	Layak Dipromosikan
			Supervisor		
2	V2	Nelis	Asisten	0.4708	Tidak Layak
			Supervisor		Dipromosikan
3	V3	Syukur	Kapten	0.7208	Tidak Layak
					Dipromosikan
4	V4	Tety	Kapten	0.875	Layak Dipromosikan
5	V5	Adilhati	Kapten	0.77084	Tidak Layak
					Dipromosikan
6	V6	Hotma	Kapten	0.73334	Tidak Layak
					Dipromosikan
7	V7	Ernia	Kasir	0.47084	Tidak Layak
					Dipromosikan
8	V8	Angel	Kasir	0.6125	Tidak Layak
					Dipromosikan
9	V9	Putri	Greeter	0.675	Tidak Layak
					Dipromosikan
10	V10	Junita	Display	0.50834	Tidak Layak
			1 ,		Dipromosikan
11	V11	Yudita	Display	0.6	Tidak Layak
					Dipromosikan
12	V12	Kasih	Display	0.5	Tidak Layak
					Dipromosikan
13	V13	Lisman	Pantry	0.52084	Tidak Layak
					Dipromosikan
14	V14	Turpan	Pantry	0.525	Tidak Layak
					Dipromosikan
15	V15	Riska	Pelayan	0.6875	Tidak Layak

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,					Dipromosikan
16	V16	Mediana	Pelayan	0.6209	Tidak Layak
					Dipromosikan
17	V17	Yusnita	Pelayan	0.6209	Tidak Layak
					Dipromosikan
18	V18	Yofan	Pelayan	0.7875	Layak Dipromosikan
19	V19	Suprianus	Pelayan	0.69584	Tidak Layak
					Dipromosikan
20	V20	Dasma	Pelayan	0.69584	Tidak Layak
					Dipromosikan
21	V21	Andi	Pelayan	0.75	Tidak Layak
					Dipromosikan
22	V22	Putra	Pelayan	0.7	Tidak Layak
					Dipromosikan

The biggest value for the alternative Supervisor is V1, so the recommendation for promotion to the Supervisor position is Mesoli. The biggest value for the Assistant Supervisor alternative is V4, so the recommendation for the Assistant Supervisor promotion is Tety. The greatest value for the alternative Captain is V18, so the recommendation for promotion to the position of Captain is Yofan.

4. CONCLUSION

In the SAW (Simple Additive Weighting) method, a calculation process starts to determine alternatives, determine criteria, determine weights, create a decision matrix (X), normalize the matrix (R), add and multiply normalized matrix elements, make a ranking of the results. From the calculation using this method, with reference to the criteria of tenure, performance appraisal, employee behavior assessment, employee initiative assessment and push selling, 3 employees will be selected who will get a promotion, namely employees named Mesoli, Tety, and Yofan. Thus to get an employee promotion, it is not only seen in terms of how long the employee has worked but also must have performance, good behavior, high initiative and the ability to offer / sell products. In the SAW (Simple Additive Weighting) method carried out in research to get a promotion to this position, the percentage of accuracy for the selection of Supervisors is 60%, the selection of Assistant Supervisors is 87.5% and the selection of Captain is 78.75%.

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