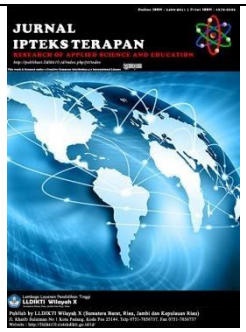

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IMPLEMENTATION OF THE MFEP METHOD IN DETERMINING THE PERFORMANCE OF VILLAGE GOVERNMENT APPARATUS BUHUNG SIBATU

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Abstract

Background : The village government is a government that conveys the aspirations of the community from the community to the hamlet head and to the village hall led by a village head. A village head must regulate and direct his apparatus to provide quality government services. One of the methods used by the Village Head to improve the quality of service is by knowing the performance of government officials at the Village Hall Office. **Method** : This method aims to determine the level of quality of the apparatus in the sub-district office. Apparatus assessment was also carried out by Bahung Sibatu Batu Village to determine the level of quality of the apparatus in the Village Hall Office. **Conclusion** : However, the current assessment is done manually on the assessment sheet and is still subjective, because there are no aspects of the assessment used in the implementation of this performance. In assessing the performance of the apparatus of Bahung Sibatu Batu Village by assessing which apparatus is in accordance with the Criteria with the Village Head. The criteria determine the performance of the attendance apparatus, attitude, loyalty, responsibility, and task completion. **Result** : Besides that, it is still using the conventional system, the proximity of the Village Head often results in decisions that are different from what they should, this causes the decision results to be inaccurate, so a decision support system is needed using the Multifactor Evaluation Process (MFEP).

Keywords: Determining the Performance of Government Apparatus, MFEP Method.

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INTRODUCTION

Along with the advancement of information technology today, the ability of computer technology is growing from just processing data or presenting information to being a provider of choices as decision support, this can happen because of technological developments both in terms of hardware and software. The application of the principles of good governance in the management of government has become a major demand, because the community has begun to be critical in monitoring and evaluating services from government agencies. On the other hand, measuring the success or failure of government agencies in carrying out their main tasks and functions is difficult to do objectively, because a performance measurement system has not been implemented, which can inform the level of success in an objective and measurable way from the implementation of programs in a government agency.

The current national development process is undergoing a shift from an authoritarian system to a democratic system. This causes the administration of government to be in the spotlight, especially in the aspects of transparency, accountability, efficiency and effectiveness. In this context, the application of the principles of good governance in the management of government is a major demand, which is indicated by the increasing formation of the community in monitoring and evaluating the benefits and values obtained from services from government agencies.

The village government is a government that channels the aspirations of the people from the community to the hamlet head and to the village hall led by a village head. A village head must be able to regulate and direct the apparatus to carry out quality government services. One of the methods used by the Village Head to improve quality services is to determine the performance of the government apparatus at the Village Hall Office. This method aims to determine the level of quality of the apparatus in the sub-district office. Apparatus assessment was also carried out by Bahung Sibatu Batu Village to determine the level of quality of the apparatus in the Village Hall Office. However, the assessment carried out now is still done manually on the assessment sheet and is still subjective, because there are no aspects of the assessment used in evaluating the performance of this apparatus.

Asahan Regency has a lot of undeveloped potential. From the potential of abundant natural resources, but in human resources there are still very few this is due to a lack of discipline in the sub-district apparatus in the Asahan area. So it is necessary to have a decision support system in performance appraisal in order to foster morale in the Village Head Office apparatus. This is what makes researchers want to conduct

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research using the Multifactor Evaluation Process (MFEP) method.

The advantage of using the Multifactor Evaluation Process method is more conceptual for the ability to assess the performance of the apparatus using the Multifactor Evaluation Process (MFEP) method. The MFEP method is a quantitative method that uses a weighting system. Decision making is done by giving subjective and intuitive considerations, considering various factors that have an important influence on alternative choices. This method is used because it is easy in the decision-making process from other methods, so that the results obtained are more accurate and become an effective solution in assessing the performance of the apparatus in Bahung Sibatu Batu Village.

In assessing the performance of the apparatus of Bahung Sibatu Batu Village by evaluating which apparatus matches the criteria with the Village Head. The criteria for determining the performance of the apparatus include attendance, attitude, loyalty, responsibility and task completion. In addition to still using the conventional system, the closeness of the Village Head with employees often results in decisions that are different from what they should, this causes the results of the decisions to be inaccurate, so a decision support system is needed using the Multifactor Evaluation Process (MFEP) method.

Understanding the system according to Jogianto suggests that the system is a collection of elements that interact to achieve a certain goal. This system describes events and real entities are real objects, such as places, objects, and people that really exist and occur [6].

Understanding the system according to Injarit suggests that the system implies a collection of components that have elements of the relationship between one another [6].

Based on the opinions of the experts above, it can be concluded that the system is a collection of components from subsystems that work together from related procedures to produce outputs in achieving certain goals.

The definition of Information Systems is as follows: "The information system is a collection of any subsystems, both physical and non-physical that are interconnected with each other and work together in harmony to achieve one goal, namely processing data into meaningful and useful information" [7]

Information system is a framework that coordinates resources (human and computer) to convert input (input) into output (information) in order to achieve company goals [8].

Understanding Decision Support System is a decision support system as a computer-based information that produces various alternative decisions to assist management in dealing with various structured and unstructured problems using data and models [9].

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The definition of a decision support system defines that a decision support system can handle semi-structured and unstructured situations), a problem can be explained as a structured and unstructured problem only by paying attention to the decision maker or a specific [9].

Based on the opinions of the experts above, it can be concluded that a decision support system is a system that is able to provide data management functions based on a certain model, so that users of the system can choose the best decision alternative.

Below are the steps of the calculation process using the MFEP method, namely:

Determine the factor and factor weights where the total weighting must be equal to 1 (∑ weighting = 1).

Fill in the value for each factor that influences decision making from the data to be processed, the value entered in the decision-making process is the objective value, which is certain, namely the evaluation factor whose value is between 0 -1.

The process of calculating the weight evaluation which is the process of calculating the weight between the factor weight and factor evaluation with the summation of all the results of the weight evaluations to obtain the total evaluation results.

The use of the Multifactor Evaluation Process model can be realized as follows [2]:

1. The calculation of the value of the evaluation weight is referred to in Equation (1).

WE=FWx E (1)

Information :

WE = Weighted Evaluation

FW = Factor Weight

E = Evaluation

2. The calculation of the total evaluation value is referred to in Equation (2).

_(i=1)^n WEi = WE1 + WE2 … (2)

Information :

_(i=1)^n WEi = Total Value of evaluation weight

WEi = value of evaluation weight ke−i

In multi-factor decision making, decision makers subjectively and intuitively weigh various factors that have an important influence on their choice of alternatives. For strategically influential decisions, it is preferable to use a quantitative approach such as the MFEP. In the MFEP, first of all, all the criteria that are important factors in making considerations are given an appropriate weighting. The same steps are carried out for the alternatives to be selected, which can then be evaluated in relation to these consideration factors. The sum of each criterion weight (w) must be equal to 1 and have a range of criteria evaluation values (e) 1-9.

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RESEARCH METHODS

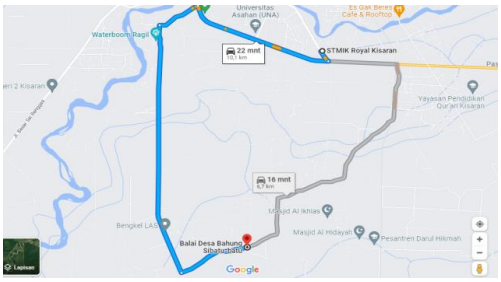

Figure 1. Research Location

In research, there are two types of hypotheses that researchers often have to make, namely research hypotheses and statistical hypotheses. Research hypothesis testing refers to testing whether the hypothesis actually occurs in the sample under study or not. If what is in the hypothesis really happens, then the research hypothesis is proven, and vice versa. Meanwhile, statistical hypothesis testing means testing whether the research hypothesis that has been proven or not proven based on the sample data can be applied to the population or not.

The qualitative research method is a method that emphasizes the aspect of in-depth understanding of a problem rather than looking at the problem for generalization research. This research method prefers to use in-depth analysis techniques, namely examining one problem that will differ from the nature of other problems. The purpose of this methodology is not a generalization but an in-depth understanding of a problem. Qualitative research serves to provide substantive categories and qualitative research hypotheses.

Ongoing system analysis is one of the techniques to describe the problem and look for an overview of the current system at the Bahung Sibatu Batu Village Hall Office with an analysis of the weaknesses of the current system can be known. So the system that is currently running in assessing the performance of government officials for employees at the Bahung Sibatu Batu Village Hall Office uses the old system. The system still uses computer data processing that relies on Microsoft Excel.

The performance assessment of government officials at the Bahung Sibatu Batu Village Hall Office is carried out by providing a responsibility assessment with the criteria set by the Bahung Sibatu Batu Village Hall Office and can be explained by the following old system flow:

1. The secretary provides a performance appraisal form to the employee, then the employee fills out the form and the file is given to the secretary.

2. After that, the Secretary will select the performance file of the government apparatus.

3. Then the Secretary inputs employee data to be selected based on the terms and conditions in Microsoft excel.

4. After obtaining the results of the performance of employees who are entitled to the best employees and printed and then given to the Village Head.

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5. The Village Head signs and archives the results of the employee performance recipients based on the conditions obtained from the Employee data provisions section.

6. Furthermore, the Secretary takes a report that has been signed by the Village Head and is archived by the Secretary and given to the employee.

RESULTS

The analysis of the new system is an analysis that will be carried out by applying the MFEP method. The analysis of the system that will be used in building a decision support system in assessing the performance of government officials by applying the MFEP method. For the performance appraisal of the government apparatus, the flow of the new system can be explained as follows:

1. The secretary provides a performance appraisal form to the employee, then the employee fills out the form and the file is given to the secretary.

2. After that, the Secretary will select the Government Apparatus Performance appraisal file.

3. Then the secretary/admin inputs the criteria data and performance appraisal of the government apparatus and then evaluates the criteria and employee performance.

4. Then the Secretary performs the processing of the MFEP method.

5. After the results of the recommendations for the performance of the government apparatus are obtained, then the results are printed by the Secretary/admin and the results of the employee performance appraisal report are obtained. Furthermore, the Secretary provides the results of the employee performance appraisal report to the Village Head for inspection and approval.

6. Furthermore, the Secretary takes a report that has been approved by the Village Head and is archived by the Secretary and given to the best employee.

1. Determination of Criteria

Required criteria for performance appraisal of government officials:

a. Presence

b. Attitude

c. Loyalty

d. Responsibility

e. Task completion

From each of these criteria, the formula for finding the criteria value will be determined:

Definisi	Nilai
Not good	1
Not good	2
Currently	3
Healthy	4
Very good	5

Table 1. Criteria

The weighting of attendance, attitude, loyalty, responsibility and task completion has been approved by the Secretary of the Bahung Sibatu

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Batu Village Hall Office. The following is a table of 4 weighting criteria:

Criteria	Scale	Score
Presence	100 %	5
	90 – 99 %	4
	80 – 89 %	3
	70 – 79 %	2
	< 70%	1

Table 2. Weighting Criteria

Criteria	Sclae	Score
attitude	Very good	5
	Well	4
	Pretty good	3
	Not good	2
	Not good	1

Table 3. Attitude Criteria Weighting

Criteria	Scale	Score
Loyalitas	Very care	5
	Care	4
	Caring Enough	3
	Careless	2
	Not care	1

Table 4. Loyalty Criteria Weighting

After knowing the performance data of the government apparatus, then giving the weight of the criteria for each performance data of the government apparatus. The following is table 4.8 the value of the weight of the criteria for each government apparatus performance.

No	Name	Kriteria				
		Attdance	**Attitude**	**Loyalty**	**Responsibility**	**Task completion**
1	Arrizka Nazmi Sitorus	2	2	3	2	4
2	Sri Wahyuni	2	3	3	2	5
3	Nurhani	4	3	3	3	4
	Harahap					
4	Sri Ayu Kartika	5	4	3	2	3
5	Shandy syachrezy	4	4	3	4	4
6	Rahma Daniarti	5	5	5	4	4
7	Mansyur Rajagukguk	4	2	2	4	3
8	Syafarizal	4	2	2	3	3
9	Junidi	5	4	3	2	2
10	Tampil Hasnal MAnurung	3	4	3	3	4
11	Misman	3	3	4	3	2
12	Adi sucipto Batu Bara	4	2	4	4	3
13	Rara Winarsih	5	2	3	3	2
14	Tampil Hasnal Manurung	2	3	2	3	2
15	Misran	1	2	2	1	3

Table 5. Criteria Weight Value of Each Government Apparatus Performance

Calculation Using MFEP

The steps for solving the problem using the Multifactor Evaluation Process method are as follows:

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Determine the factor and the weight of the factor where the total weighting must be equal to 1 (Σ weighting = 1), namely the factor weight. Factors and weights can be seen in the following table :

No	Factor	Weight
1	**C1**	4
2	**C2**	3
3	**C3**	4
4	**C4**	3
5	**C5**	3
Total (Σ *Wj*)		**17**

Table 6. Factor and Value

WC1= 4/(17) = 0,2353

WC2 = 3/(17) = 0,1765

WC3 = 4/(17) = 0,2353

WC4 = 3/(17) = 0,1765

WC5 = 3/(17) = 0,1765

No	Factor	Weight(w)
1	**C1**	0.2353
2	**C2**	0.1765
3	**C3**	0.2353
4	**C4**	0.1765
5	**C5**	0.1762
Total (Σ *Wj*)		**1**

Table7. Factors and Weights

The process of calculating the weight evaluation which is the process of calculating the weight between the factor weight and the evaluation factor with the summation of all the results of the weight evaluation to obtain the total evaluation results. Based on the evaluation value of each alternative per criteria as follows:

1) A1
- 0,2353 x 2 = 0,471
- 0,1765 x 2 = 0,353
- 0,2353 x 3 = 0,706
- 0,1765 x 2 = 0,353
- 0,1765 x 4 = 0,706

2) A2
- 0,2353 x 2 = 0,471
- 0,1765 x 3 = 0,529
- 0,2353 x 3 = 0,706
- 0,1765 x 2 = 0,353
- 0,1765 x 5 = 0,882

3) A3
- 0,2353 x 4 = 0,941
- 0,1765 x 3 = 0,529
- 0,2353 x 3 = 0,706
- 0,1765 x 3 = 0,529
- 0,1765 x 4 = 0,706

4) A4
- 0,2353 x 5 = 1,176
- 0,1765 x 4 = 0,706
- 0,2353 x 2 = 0,471
- 0,1765 x 2 = 0,3553
- 0,1765 x 3 = 0,529

5) A5
- 0,2353 x 4 = 0,491
- 0,1765 x 4 = 0,706
- 0,2353 x 3 = 0,706
- 0,1765 x 4 = 0,706
- 0,1765 x 4 = 0,706

6) A6
- 0,2353 x 5 = 1,176
- 0,1765 x 5 = 0,882
- 0,2353 x 5 = 1,176

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- 0,1765 x 4 = 0,706
- 0,1765 x 4 = 0,706

7) A7

- 0,2353 x 4 = 0,941
- 0,1765 x 2 = 0,353
- 0,2353 x 2 = 0,471
- 0,1765 x 4 = 0,706
- 0,1765 x 3 = 0,529

8) A8

- 0,2353 x 4 = 0,941
- 0,1765 x 2 = 0,353
- 0,2353 x 2 = 0,471
- 0,1765 x 3 = 0,529
- 0,1765 x 3 = 0,529

9) A9

- 0,2353 x 5 = 1,176
- 0,1765 x 4 = 0,706
- 0,2353 x 3 = 0,706
- 0,1765 x 2 = 0,529
- 0,1765 x 2 = 0,529

10) A10

- 0,2353 x 3 = 0,706
- 0,1765 x 4 = 0,706
- 0,2353 x 3 = 0,706
- 0,1765 x 3 = 0,353
- 0,1765 x 4 = 0,353

11) A11

- 0,2353 x 3 = 0,706
- 0,1765 x 3 = 0,529
- 0,2353 x 4 = 0,941
- 0,1765 x 3 = 0,529
- 0,1765 x 2 = 0,353

12) A12

- 0,2353 x 4 = 0,941
- 0,1765 x 2 = 0,353
- 0,2353 x 4 = 0,941
- 0,1765 x 4 = 0,706
- 0,1765 x 3 = 0,529

13) A13

- 0,2353 x 5 = 1,176
- 0,1765 x 2 = 0,353
- 0,2353 x 3 = 0,706
- 0,1765 x 3 = 0,529
- 0,1765 x 2 = 0,353

14) A14

- 0,2353 x 2 = 0,471
- 0,1765 x 3 = 0,529
- 0,2353 x 2 = 0,471
- 0,1765 x 3 = 0,529
- 0,1765 x 2 = 0,353

15) A15

- 0,2353 x 1 = 0,235
- 0,1765 x 2 = 0,353
- 0,2353 x 2 = 0,471
- 0,1765 x 1= 0,176
- 0,1765 x 3 = 0,529

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No	Alternative Name	Criteria					Total
		C1	C2	C3	C4	C5	
1	Arrizka Nazmi Sitorus	0,471	0,353	0,706	0,353	0,706	2,588
2	Sri Wahyuni	0,471	0,529	0,706	0,353	0,882	2,941
3	Nurhani Harahap	0,941	0,529	0,706	0,529	0,706	3,412
4	Sri Ayu Kartika	1,176	0,706	0,706	0,353	0,529	3,471
5	Shandy syachrezy	0,941	0,706	0,706	0,706	0,706	3,765
6	Rahma Daniarti	1,176	0,882	1,176	0,706	0,706	4,647
7	Mansyur Rajagukguk	0,941	0,353	0,471	0,706	0,529	3,000
8	Syafarizal	0,941	0,353	0,471	0,529	0,529	2,824
9	Junidi	1,176	0,706	0,706	0,353	0,353	3,294
10	Tampil Hasnal MAnurung	0,706	0,706	0,706	0,529	0,706	3,353
11	Misman	0,706	0,529	0,941	0,529	0,353	3,059
12	Adi sucipto Batu Bara	0,941	0,353	0,941	0,706	0,529	3,471
13	Rara Winarsih	1,176	0,353	0,706	0,529	0,353	3,118
14	Tampil Hasnal Manurung	0,471	0,529	0,471	0,529	0,353	2,353
15	Misran	0,235	0,353	0,471	0,176	0,529	1,765

Table 8. Result of Multiplication of Evaluation Value of Each Alternative Per Criterion

From the results of the weight evaluation calculation above, the ranking results are obtained as follows:

Nama Alternatif	Prefensi	Rangking
Arrizka Nazmi Sitorus	2,588	15
Sri Wahyuni	2,941	12
Nurhani Harahap	3,412	5
Sri Ayu Kartika	3,471	4
Shandy syachrezy	**3,765**	**2**
Rahma Daniarti	**4,647**	**1**
Mansyur Rajagukguk	3,000	11
Syafarizal	2,824	13
Junidi	3,294	7
Tampil Hasnal Manurung	3,353	6
Misman	3,059	10
Adi sucipto Batu Bara	**3,471**	**3**
Rara Winarsih	3,118	9
Tampil Hasnal Manurung	2,353	17
Misran		

Table 9. Total Evaluation and Ranking

The data that received assistance was approximately 15 employees at the Bahung Sibatu Batu Village Hall Office, for this reason the researchers took samples (alternatives), from the 15 employees selected into 3 employees, it can be obtained from the calculation of alternative preferences for the performance of the government apparatus above, then the decision to choose from an alternative that is chosen from the highest value, then the one selected as the performance of the government apparatus is an employee on behalf of Rahma Daniarti, who deserves to be recommended as the best employee in assessing the performance of the government apparatus.

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CONCLUSION

Based on the results of testing the MFEP method calculation system with calculations carried out by the Bahung Sibatu Batu Village Hall Office using the Microsoft Excel application, the final results are close to the same. The Decision Support System (SPK) Determining the Performance of Government Apparatuses using the MFEP method gives results, namely a method with calculations that begin with giving weight to each criterion that has been determined by the Bahung Sibatu Batu Village Hall Office and is processed using the MFEP method to obtain ranking results.

From the implementation results it is explained that the decision support system for Determining the Performance of Government Apparatus is a system that provides convenience in solving problems Determining the Performance of Government Apparatus at the Bahung Sibatu Batu Village Hall Office based on existing criteria easily and quickly obtained in accordance with the results expected by the Balai Desa Bahung Sibatu Batu Village.

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