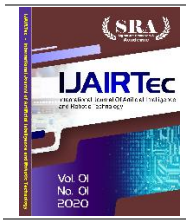

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DECISION SUPPORT SYSTEM FOR RECEIVING PKH ASSISTANCE USING THE SAW AND WP METHODS

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Abstract
Poverty in Indonesia is very concerning, therefore the government created an assistance program for poor families, namely PKH , to help determine in determining someone who is eligible to receive this assistance in Bagelen Village, a decision support system is needed because it can minimize the occurrence of errors in determining in selecting residents who wish to get PKH assistance , therefore the purpose of this research is to reduce the wrong target in making decisions in providing PKH assistance . Because there are still many decision-making errors in the provision of program assistance, Bagelen Village, Gedong Tatataan District, Pesawaran Regency, Lampung is one of the villages designated as beneficiary families whose components include school children, toddlers, pregnant women, the elderly, and those with severe disabilities. This program requires that Very Poor Households (RTSM) can follow the requirements set by the government in the program. The requirements are sending their children to education, as well as carrying out routine visits to health facilities for toddlers and pregnant women. From visits to several families receiving the PKH Program, families who receive this assistance can be said to meet the criteria desired by the Indonesian government. From PKH assistance recipients, valid data or definite data will be obtained and will soon be taken care of by the local village government. It is hoped that the data obtained can be used properly and correctly according to the needs of the families receiving PKH assistance. The author uses the SAW and WP methods to get or select which poor families are entitled to this assistance because the SAW and WP

methods can calculate more easily, quickly , and precisely, can be calculated manually as well as computer systems, using these two methods requires criteria for conduct an assessment, and the final result of the SAW and WP methods is to determine whether or not the PKH beneficiary is eligible or not based on the results of the calculations of the two methods.

I. INTRODUCTION

The problem of poverty in Indonesia is of great concern to the government in creating a program intended for a family called the Family Hope Program (PHK). The program is a community social assistance program for poor households designated as beneficiary families whose components include school children, toddlers, pregnant women, the elderly and those with severe disabilities. According to the regulation of the Minister of Social Affairs of the Republic of Indonesia number 1 of 2018 concerning the Family Hope Program Article 1 Paragraph 1 it states that the PKH program is a program of providing conditional social assistance to poor families. Pesawaran Regency, the percentage of poor people in the 2021 Pesawaran Regency Statistics Center is 15.11% of poor people. Bagelen Village is one of the villages located in Pesawaran District, in Bagelen Village itself the PKH program has entered to help poor families in Bagelen Village **.**

According to previous research compiled by Agung Sugiarto, et al which was compiled in 2021, the existence of this decision support system can speed up the processing of data on prospective PKH recipients in paneglang, this decision support system can help parties minimize the occurrence of misdirected **[1]** . Galih Wangsa Putra and Budi Apriyanto compiled in 2022 From the research, the application of the recipient's decision system has resulted in assisting PKH companions or administrators to recommend families who deserve assistance more quickly and accurately **[2]** . And also previous research compiled by Ayub Haryadi and Ricky Firmansyah decision support system for providing family hope program assistance with elections from the head of the village by providing a letter of indigent people to the people who were elected to get the hope assistance program, the decisions given were effective and all expectations had been fulfilled hold a meeting with the village head and local lurah to get PKH assistance **[3]** .

In research the Indonesian government seeks to accelerate the handling of poverty, the benefits of PKH can also change the behavior of poor families so that they can pay attention to children's education and health. As well as lightening the expenditure burden of poor households and also accelerating the MDGs (increasing access to education, health for pregnant women, reducing child mortality and also increasing gender equality). Through PKH, poor families are encouraged to increase the ability of beneficiary families (KPM) to utilize education and health services, as well as improve the nutrition of pregnant women and children under 6 years, increase children's educational participation rates, and also improve socio-economic conditions. In determining potential PKH beneficiaries in Bagelen Village, the authors use the Simple Additive Weighting (SAW) & Weighting Product (WP)

method manually and automatically using this method. help PKH assistants in the village to be more precise in determining which families will receive the assistance .

II. LITERATURE REVIEW

2.1 Previous Research

Table 1. Previous Research

Researcher	Study Results	Method Used	Advantages	Deficiency
Ahmad Marjuki, Sulistyowati, Lili Rusdiana (2020)	This study determined PKH beneficiaries in Hanja Maju Pulang Pisau Village, in conducting this research the data collection method was carried out and described software design using the WP method. In calculating PKH selection in Hanjak Pulang Pisau village, it was carried out based on criteria, which had been determined and for each criteria have weight.	WP	Deciding using the WP Method and using a software design is easier, faster and more accurate in determining which families are entitled to get PKH.	In making software on a system, it still needs to be developed again so that it doesn't lag the new software.
Ilsa Pagar Ninditama, Robinsion, Theresia Widji A (2020)	In this research that uses the SAW method, in making decisions to determine the criteria for PKH beneficiary families, an information system is needed that can help overcome fraud in determining prospective PKH recipients, this system can support decision making for PKH beneficiary candidates based on predetermined criteria.	SAW	In this study the system built from technical and functional errors displayed results that were in accordance with what was worked out and had a fairly good quality in providing decision support.	In this study the criteria used are still incomplete.
Wakhidaturrahmah & Abdul Rozaq (2021)	This decision-making system is designed to support, resolve the problem of determining prospective beneficiaries and PKH is expected to help determine PKH beneficiary families with more efficient and targeted results.	SAW	In this study, prospective recipients can assist officers in determining potential recipients	This system is still offline.
Galih Wangsa Putra & Budi Apriyanto (2022)	From this research, a decision support application has been produced that can help PKH assistants or administrators to recommend residents who are eligible for PKH assistance.	SAW	More precise and accurate, and has used the web to input data on prospective PKH assistance recipients	Only PKH administrators can submit prospective PKH assistance recipients
Ricky Firmansyah, Ayub Haryadi (2022)	The decision support system for providing PKH assistance with the election of the lurah and giving a	WP	The existence of a decision system can help PKH assistants be more	Too few criteria are included, if the village side selects and

	certificate of inadequacy to the community, the decisions given are more effective and the elected ones have been discussed by the village head		targeted, and the system created can facilitate the performance of assistant staff and minimize misunderstandings	determines potential PKH beneficiaries, more criteria are included.

2.2 Decision Support System

A decision support system (spk) or can be called a decision system (dss) is a system that is able to provide problem solving and communication for problems with semi-structured and unstructured conditions in structured or unstructured situations where no one knows for sure how to decide. should be made. SPK aims to provide information, provide predictions and guide and direct users of information so they can make good decisions. Spk began to be developed in the 1960s, but the term spk itself only appeared in 1971, which was coined by g. Anthony Gorry and Michael S. Scott morton, they're both professors at mti. They do this with the aim of helping solve problems and increase the effectiveness of decision making **[2]** .

2.3 Fuzzy Multiple Attribute Decision (FMADM)

Fuzzy Multiple Attribute Decision Making (FMADM) is a method used to find alternatives from a number of certain criteria. The essence of FMADM is to determine the weight value for each attribute, after which it is followed by a ranking process that selects the alternatives that have been given. There are 3 approaches to find the weight value of the attribute, namely the subjective approach, the objective approach and the integration approach, namely between subjective and objective. In the subjective approach, the weight value is determined based on the subjective decision makers, so that several factors in the alternative ranking process can be determined freely. Meanwhile, in the objective approach, the weight value is calculated mathematically [4] .

2.4. Hope Family Program (PKH)

The Family Hope Program (PKH) is a program created as an effort to accelerate poverty alleviation. Implemented by the government since 2007, PKH has opened access to poor families, especially school children, pregnant women, toddlers and people with disabilities. Pkh is also directed to become the epistrum and center of excellence in poverty alleviation which synergizes various national social empowerment programs. Through the pkh program, poor families are encouraged to have access to and utilize basic social services, such as education, health, nutrition, and social protection programs [5] .

III. RESEARCH METHOD

3.1 Method Collection Data

At this stage the authors collect data by means of observation, interviews, literature study.

a. Observation (observation) .

In this method it is applied by coming directly to the object to be studied.

b. Interview.
Data collection by interview is an attempt to collect information by asking several questions orally, in this case the author conducted interviews with several residents who received PKH assistance in Bagelen Village.

c. Literature review.
To collect data, the authors conducted a decision study, read references to previous research journals, read the website, which explains the tenats of a decision support system using the SAW and WP methods.

3.2 SAW and WP methods

3.2.1. Understanding the SAW and WP Methods

The SAW method is one of the methods used to solve the problem of Fuzzy Multiple Attribute Decision Making (FMADM) which is a simple Additive Weighting (SAW) method, which is a method used to find optimal alternatives from a number of alternatives with certain criteria.

The definition of the Simple Additive Weighting (SAW) method is often also known as the weighted sum method. The basic concept of the SAW method is to find a weighted sum of performance ratings on alternatives on all attributes. In determining the value of the priority weights of benefits and support, it is very necessary in calculating the value to be used as normalization to a scale that can be compared with all existing alternative ratings. The following is the formula for *benefits* and *costs*.

$$r_{ij} \begin{cases} \frac{X_{ij}}{Maxr_i X r_i} & \text{if j is an attribute (benefit)} \\ \frac{Min_i X_{ij}}{X_{ij}} & \boldsymbol{jika\ j\ ialah\ biaya}\ (\boldsymbol{cost}) \end{cases}$$

Information :
Rij : Normalized performance rating value
Xij : The attribute value owned by each criterion Xij / (maxi) (xij) : The largest value of each criterion (mini) (xij) /
Xij : the smallest value of each criterion
Benefit : The biggest value is the best
Cost : the lowest value is the best

After that, the W * R matrix is multiplied and the sum of the multiplication results to get the best alternative with the largest value is given as follows:

$$V_i = \sum_{j=1}^{n} w_j r_{ij}$$

Information :
Vi : ranking for each alternative
Wj : ranking weight value (each criterion)
Rij : normalized performance rating value

The value of W is the value that has been determined

a. Steps to apply the SAW method

1. First need to determine the criteria to be used.
2. Determine the suitability rating for each alternative on each criterion.
3. Make a decision matrix based on the criteria, then normalize the matrix based on the equation that has been adjusted according to the type of attribute (profit attribute or cost attribute) so that a normalized matrix R is obtained.
4. The final result obtained from the ranking process is the sum of the multiplication of the normalized matrix R with the weight vector so that the largest value can be selected as the best alternative as a solution.

b. Advantages of SAW Method

The advantage of the simple Additive Weighting method compared to other decision-making models lies in its ability to make a more precise assessment because it is based on predetermined criteria and preference weights, besides that SAW can also select the best alternative from a number of existing alternatives because of the process ranking after determining the weight for each existing attribute.

3.2.2. Weighted Product Method

Weighted Product is a settlement method using multiplication to connect attribute ratings, where the rating must be raised to the first power of the attribute weight in question. This process is the same as the normalization process.

The steps are as follows:

1. Determine the criteria, namely the criteria that will be used as a reference in making decisions, namely Ci and the nature of each criterion.
2. Determine the suitability rating, namely the suitability rating of each alternative on each criterion, and create a decision matrix.
3. Normalized Weight = Weight of each criterion / sum of all criteria weights.
   The value of the total weight must fulfill the equation:
   $$\sum_{j}^{n} = \mathbf{1}\, w_j = \mathbf{1}$$
4. Determine the value of vector S by multiplying all the criteria for an alternative with the weight as a positive exponent for the *benefit criterion* and the weight as a negative exponent for the *cost criterion* .
   The formula for calculating the preference value for alternative Ai, is given as follows:
   $$S_i = \prod_{j}^{n} = \mathbf{1}\, X_{ij}\, W_j, i = \mathbf{1}, \mathbf{2}, \dots, m$$

Information :
S : express alternative preferences which are analogous to vector S
X : denotes the criterion value
W : states the weight of the criteria
I : states an alternative

A : state the criteria
N : states the number of criteria

5. Determining the value of vector V is the value that will be used for ranking the relative preference value of each alternative which can be calculated using the formula:

$$V_i = \frac{\prod_j^n = 1 X_{ij\,w_j}}{\prod_j^n = 1\,(X_j) w_j}; i = 1, 2, \ldots, m$$

6. Ranking the value of vector V as well as making conclusions as the final stage.

Description of the flow of this research:

a. Efforts to find out what problems occur in determining decision making for PKH beneficiaries.
b. A series of activities using the method of searching and reading previous research.
c. Looking for data on poor families who meet the criteria.
d. After obtaining the data, the selection process uses SAW and WP calculations to get the top score that deserves the PKH assistance.
e. After searching for and selecting PKH beneficiary data, the names of the families who deserved it were known which poor families were more deserving of receiving the assistance.

IV. RESULTS AND DISCUSSION

4.1. Results

The results of SAW and WP calculations to determine beneficiaries of the PKH program are carried out using control variables such as income, occupation, shape of house, responsibilities, domicile, home ownership status, and poverty status. Control variables will be weighted based on predetermined weights. Furthermore, the highest alternative test results will be determined as the selected alternative for PKH program recipients.

4.2. Discussion

a. SAW method

Criteria and Weighting

The Hopeful Family Program (PKH) is the main target of the program, namely disadvantaged families, of course, having criteria set by the government. PKH criteria include income, occupation, shape of house, dependents, with these criteria the PKH program will be right on target for underprivileged families. PKH is a program for underprivileged families. With this program, it is hoped that families who receive this assistance can improve family welfare.

Table 2 weights and criteria

Criteria	Weight
Income (C1)	20 (cost)
Occupation (C2)	15 (cost)

House Shape (C3)	10 (cost)
Dependents (C4)	10 (benefits)
Domicile (C5)	10 (benefits)
Poverty Status (C6)	20 (cost)
Status Home ownership	15(Cost)

Table of Criteria C1

The following is a table of income criteria described in table 3 below.

Table 3 Income Criteria.

Income	Score
≤ 600,000	3
6 00,000 – 1 million	4
1 million – 2.5 million	5

Criteria Table C2

The following is a table of job criteria described in table 4 below.

Table 4 Job Criteria.

Work	Score
Unemployment	3
Trader	4
Farmer	4
Self-employed	5
Private sector employee	5

Table of Criteria C3

The following is a table of criteria for the shape of the house in table 5 below.

Table 5 Criteria for the shape of the house.

Condition house	Ni laai _
Walls / boards	3
Geribik	4
Permanent	5

Table of Criteria C4

The following table of dependent criteria is described in table 6 below.

Table 6 Criteria for Dependents.

Amount dependent	Score
School children	5

Toddler	4
Pregnant mother	4
Elderly	4

Criteria Table C5

The following table of dependent criteria is described in table 7 below.

Table 7 Domicile Criteria.

Origin of Domicile	Score
Native	5
Comer	3

Table of Criteria C6

The following table of poverty criteria is described in table 8 below.

Table 8 Poverty Criteria

Poverty Status	Score
Very poor	2
Poor	3
Vulnerable poor	4
Not poor	5

Table of Criteria C7

The following table of the criteria for home ownership is described in table 9 below.

Table 9 Criteria for home ownership.

Poverty Status	Score
Rent	3
Private property	4

Based on each of the criteria tables above, the results are obtained from the weighting of each PKH beneficiary candidate on each criterion. Table 10 describes the results of the weighting.

Al	Criteria						
	C1	C2	C 3	C4	C 5	C6	C 7
A 1	4	4	5	5	5	3	3
A 2	4	4	4	4	5	4	3

A 3	5	4	5	5	5	3	4
A 4	4	5	5	5	5	2	4
A 5	4	5	5	5	5	2	3

$$\mathbf{X}=\begin{pmatrix} 4\,4\,5\,5\,5\,3\,3 \\ 4\,4\,4\,4\,5\,4\,3 \\ 5\,4\,5\,5\,5\,3\,4 \\ 4\,5\,5\,5\,5\,2\,4 \\ 4\,5\,5\,5\,5\,2\,3 \end{pmatrix}$$

Then the process of normalizing the X matrix to calculate each value on each criterion. The normalized rating results form the normalized matrix R.

On the income criterion on C1 with the attribute Cost, the Min value is obtained from the criterion value:

$$\boldsymbol{A^1} = \frac{\mathbf{min(3,4,5)}}{\mathbf{4}} = \frac{\mathbf{3}}{\mathbf{4}} = 0.75$$

$$\boldsymbol{A^2} = \frac{\mathbf{min(3,4,5)}}{\mathbf{4}} = \frac{\mathbf{3}}{\mathbf{4}} = 0.75$$

$$\boldsymbol{A^3} = \frac{\mathbf{min(3,4,5)}}{\mathbf{5}} = \frac{\mathbf{3}}{\mathbf{5}} = 0.6$$

$$\boldsymbol{A^4} = \frac{\mathbf{min(3,4,5)}}{\mathbf{4}} = \frac{\mathbf{3}}{\mathbf{4}} = 0.75$$

$$\boldsymbol{A^5} = \frac{\mathbf{min(3,4,5)}}{\mathbf{4}} = \frac{\mathbf{3}}{\mathbf{4}} = 0.75$$

From the calculation results, the normalization matrix R is obtained, namely:

$$\begin{pmatrix} \mathbf{0,75\ 0,75\ 0,6\ 1\ 1\ 0,6\ 1} \\ \mathbf{0,75\ 0,75\ 0,75\ 0,8\ 1\ 0,5\ 1} \\ \mathbf{0,6\ 0,75\ 0,6\ 1\ 1\ 0,6\ 0,75} \\ \mathbf{0,75\ 0,6\ 0,6\ 1\ 1\ 1\ 0,75} \\ \mathbf{0,75\ 0,6\ 0,6\ 1\ 1\ 1\ 1} \end{pmatrix}$$

For the ranking process, the weight is multiplied by normalization:

V1: (20*0.75)+(15*0.75)+(10*0.6)+(10*1)+(10*1)+(20*0.6)+(15*1) = 80

V2: (20*0.75)+(15*0.75)+(10*0.75)+(10*0.8)+(10*1)+(20*0.5)+(15 *1)=66

V3: (20*0.6)+(15*0.75)+(10*0.6)+(10*1)+(10*1)+(20*0.6)+(15*0 .75) = 73

V4: (20*0.75)+(15*0.6)+(10*0.6)+(10*1)+(10*1)+(20*1)+(15*0.75)=81

V5: (20*0.75)+(15*0.6)+(10*0.6)+(10*1)+(10*1)+(20*1)+(15*1)= 85

The results of the above calculations have been obtained

V1 = 80

V2 = 66

V3 = 73

V4 = 81

V5 = 85

So the best score to determine which family is entitled to PKH assistance is V5 and the second and third highest scores are V4 and V1.

b. WP method

In applying the wp method, initial weighting for each criterion is also very necessary. In the data taken, the weighting of each criterion is in table 1.

Then after getting the results on the weights in each criterion are:

$$W1 = \frac{20}{20+15+10+10+10+20+15} = \mathbf{0,2}$$

$$W2 = \frac{15}{20+15+10+10+10+20+15} = \mathbf{0,15}$$

$$W3 = \frac{10}{20+15+10+10+10+20+15} = \mathbf{0,1}$$

$$W4 = \frac{10}{20+15+10+10+10+20+15} = \mathbf{0,1}$$

$$W5 = \frac{10}{20+15+10+10+10+20+15} = \mathbf{0,2}$$

$$W6 = \frac{20}{20+15+10+10+10+20+15} = \mathbf{0,2}$$

$$W7 = \frac{15}{20+15+10+10+10+20+15} = \mathbf{0,15}$$

Find the value of the vector S

$S1 = (\mathbf{4^{-0,2}}) + (\mathbf{4^{-0,15}}) + (\mathbf{5^{-0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{3^{-0,2}}) + (\mathbf{3^{-0,15}}) = 6.42$

$S2 = (\mathbf{4^{-0,2}}) + (\mathbf{4^{-0,15}}) + (\mathbf{4^{-0,1}}) + (\mathbf{4^{0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{4^{-0,2}}) + (\mathbf{3^{-0,15}}) = 6.36$

$S3 = (\mathbf{5^{-0,2}}) + (\mathbf{4^{-0,15}}) + (\mathbf{5^{-0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{3^{-0,2}}) + (\mathbf{4^{-0,15}}) = 6.35$

$S4 = (\mathbf{4^{-0,2}}) + (\mathbf{5^{-0,15}}) + (\mathbf{5^{-0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{2^{-0,2}}) + (\mathbf{4^{-0,15}}) = 6.42$

$S5 = (\mathbf{4^{-0,2}}) + (\mathbf{5^{-0,15}}) + (\mathbf{5^{-0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{5^{0,1}}) + (\mathbf{2^{-0,2}}) + (\mathbf{3^{-0,15}}) = 6.46$

Find the value of V

$$V1 = \frac{6,42}{32,01} = \mathbf{0,20}$$

$$V2 = \frac{6,35}{32,01} = \mathbf{0,19}$$

$$V3 = \frac{6,35}{32,01} = \mathbf{0,19}$$

$$V4 = \frac{6,42}{32,01} = \mathbf{0,20}$$

$$V5 = \frac{6,46}{32,01} = \mathbf{0,20}$$

The following is the result of a comparison of the results of the SAW and WP calculations.

Table 11 results of comparison of SAW and WP.

Alternative	Method	Results	Method	Results
Candidate p1	SAW	80	WP	0.20
Candidate p2	SAW	66	WP	0.19
Candidate p3	SAW	73	WP	0.19
Candidate p4	SAW	81	WP	0.20
Candidate p5	SAW	85	WP	0.20

From the calculation results of the SAW & WP method to determine which families are eligible to receive the PKH assistance program, then from these calculations 5 potential recipients are more appropriate because the final score is the highest and in second and third positions, namely 4 prospective recipients and 1 prospective recipients.

V. CONCLUSION

From visits from beneficiary families of the Family Hope Program (PKH) it can be concluded that families that receive PKH assistance do meet the predetermined criteria. With visits to PKH beneficiaries, the data received is valid. Families who get PKH assistance in accordance with the provisions. From the results of visits from several PKH beneficiaries, valid data or definite data will be obtained and will soon be taken care of by the local village government. In the future, the PKH government can use the funds properly and correctly according to the needs of families who receive PKH assistance.

REFERENCE

[1] Agung Sugiarto, Neli Nailul Warda, Ayu Mira Yunita, Robby RiZKY " Determining Recipients of the Family Hope Program (Pkh) Using the Simple Additve Weigting Method (Case Study of Pandeglang Regency.Pdf."P-ISNN:1907-5693 E-ISSN: 2684-8856

[2] Ayub Haryadi, Ricky Firmansyah "Decision Support System for Selection of Recipients of Family Hope Program (Pkh) Assistance in Mungcangela Village.Pdf."

[3] Ega Agutina, Natalis Ransi, La Surni, Andi Theoriawaru, La Ode Saidi "Decision System for Family Hope Program Assistance Recipients Using the Wp. Pdf Method." Vo. 2, No. 2, 2022

[4] Ahmad Marjuki, Sulisyowati, Lili Rusdiana "Wp Determines Recipients of Pkh Assistance in Hanjak Maju Pulang Pisau Village". Vol. 4, No. 1, 2022

[5] Wakhidaturrahmah, Abdul Razak "Spk Recipients of Pkh Village Bangunsari Saw Method" P-ISNN: 2685-5615, 2021.

[6] Ilsa Pagar Ninditama, Robinson, Therresea Wijia "Decision Support System for PKH Beneficiaries in Ilir Barat II District, Palembang Using the SAW Method. Pdf" Vol. 01, No. 01, 2020

[7] Galih Wangsa Putra Budi Apriyanto “Spk Web-Based Method of Receiving Pkh Assistance.Pdf” Vol. 01, No. 08, 2022

[8] Ayub Ardi, Ricky Firmansyah "Spk Selection of Pkh Aid Recipients in Muncangela Village"
[9] Diana, Lin Seprina "Spk to Determine Recipients Of Social Assistance Implementing Wpm" Vol.05, No. 03, 2019
[10] Ade Riani Nurrahman 'Spk Eligibility for Recipients of Pkh Topsis and Wp Methods" Vol. 02, No. 02, 2020
[11] Lisa Riyanti, Gunawan Ali "Spk Recipients of Pkh Saw Method" Vol. 04, No. 04, 2022
[13] Umu Hibibah, Miftarrahman "Spk Recipients of Direct Cash Assistance in Pekandangan Village Ahp-Topsis Method" Vol. 06, No. 01, 2022
[14] Chairunnisa, Rusdianto, Roestam "Spk Determination of Public Health Insurance Beneficiaries Saw Method at Raden Mattaher Hospital Jambi" Vol. 07, No. 03, 2022