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ANALYSIS OF THE ANALYTIC HIERARCHY PROCESS (AHP) METHOD IN DETERMINING PRIORITY DECISIONS FOR HANDLING STUNTING IN BENGKULU PROVINCE

Rewan Jayadi[1*], Ramya Rachmawati[2], Siska Yosmar[3]

[1,2,3]Matematika Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Bengkulu
e-mail: ***jayadirewan6@gmail.com**,

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Abstract
Statistical Processing Data 2021 shows that technical efficiency in stunting intervention costs in Bengkulu Province always achieves efficient results in the technical system, however, for that reason, it is technically inefficient in costs. This research aims to analyze the Analytical Hierarchy Process (AHP) method in deciding to determine priorities for handling stunting in Bengkulu Province, which will then get results according to the level of needs of each district/city. This study used the AHP method to determine priorities for handling stunting by collecting primary data directly from respondents, namely the Bengkulu Province Health Service. Validity and reliability tests are used before researching to obtain good research results suitable for development. The results of the consistency test showed that the Consistency Ratio (CR) value for each criterion and the alternative was, which means that the filling and results of the questionnaire for respondents had obtained results that met the requirements. The results of the analysis of preferences for criteria/alternatives show that the main priority in making decisions for handling stunting in Bengkulu Province is North Bengkulu as the main priority, followed by South Bengkulu, Seluma, Rejang Lebong, Kepahiang, Central Bengkulu, Bengkulu, Mukomuko, Lebong, and finally Kaur.
Keywords: Analytic Hierarchy Process, Consistency Ratio, stunting, Bengkulu Province.

1. Introduction

Stunting is a condition of chronic malnutrition that can be caused by a lack of nutritional intake over a long period, which can result in disturbances in a child's growth, such as having a short height (stunt) compared to age standards. The international standard of the World Health Organization (WHO) is a reference for the suboptimal growth experienced by children in Indonesia resulting in stunting. If you look at the target for reducing stunting interventions in Indonesia, it still does not meet the target standard, which is the desired stunting reduction target, namely amounting to 20%, so by looking at these conditions, there are still many special efforts that can

be made to achieve the stunting prevalence target that meets the desired standards. In this case, the government is also targeting a reduction in the stunting rate in the 2020-2024 National Medium Term Development Plan (RPJMN), namely towards 14% in 2024.

According to PMK data no. 61/PMK.07 of 2019 Special Allocation Funds (DAK) in the stunting intervention process are of course integrated by Transfers to Regions and Village Funds (TKDD), a process that distributes to regions and village funds is an activity that is part of state spending and can allocated in a state's expenditure and income budget to regions and villages to provide funds to carry out various kinds of affairs to regions and villages, as submitted by the center. TKDD's role in supporting various kinds of stunting intervention activities is by providing Special Allocation Funds (DAK) which consist of health, drinking water, and sanitation. Of course, with central government funding to regional governments, especially in a National Strategic Plan, it can support the Sustainable Development Goals (SDGs) in point 2, namely being able to end hunger, achieve food security, contribute to improving nutrition, and be able to encourage sustainable agriculture so that it is hoped that it will be able to encourage acceleration in health development. One effort that can be made is to reduce the prevalence of stunting in Indonesia.

Every year, Bengkulu Province certainly receives funds from the central government related to funds needed to handle stunting, based on information from the 2021 Statistical Processing Data, shows that technical efficiency in stunting intervention costs in Bengkulu Province always achieves efficient results in the technical system, but for that reason not yet technically cost efficient. Therefore, in this case, it is necessary to have other alternatives that can be implemented by the central government and regional governments so that in the future the allocation of costs used for handling stunting in Bengkulu Province will be more efficient. One alternative that can be done is by looking at and analyzing various criteria from each region in providing funds for handling stunting. The criteria for areas receiving stunting funds that will be analyzed in this research are regional income, regional minimum wages, community education level, community welfare level, community health service facilities, and lack of community awareness of nutrition. These criteria were obtained by direct observation before data collection was carried out, p. This has several similarities with the results of previous research which stated that factors causing stunting include: health services, geographical location, healthy lifestyle, early marriage, food availability, disease infections, nutritional intake, and parenting patterns for children Seranggih (2021). So, from several of these criteria, an Analytical Hierarchy Process (AHP) method will be used in formulating to consider priorities for handling the allocation of stunting funds in Bengkulu Province.

The Analytical Hierarchy Process method is a model for supporting a decision that applies several criteria to get a good decision so that in solving this problem, namely in determining priority decisions for handling stunting, this AHP method is considered suitable for implementation so that it is hoped that it will be able to get priority results of interest for regional needs Kustitianto (2001). Of course, making a decision is based on criteria that have been previously considered. The benefits of making decisions are providing an alternative by going through stages such as creating a hierarchy, assessing criteria and alternatives, and determining a priority scale Saaty (2004).

This research aims to use the AHP method to help the central or regional government to draw a decision related to priorities for handling stunting funds in Bengkulu Province, by considering several criteria and alternatives which will later be obtained from the results of global priorities.

2. Methods

2.1. Subject/variable / research procedure

The type of research used is a case study, by determining alternatives in determining the priority scale for allocating stunting funds in Bengkulu Province using the Analytic Hierarchy Process (AHP) method. The object chosen in this research is the Bengkulu Province Health Service. The variables used in the research are district/city regional minimum wage, district/city regional income, education level, community welfare level, public health service facilities, and public awareness of the importance of nutrition. The data sources used in this research are primary data using a questionnaire, and secondary data sources using the previous year's budget as a reference obtained by districts/cities in Bengkulu Province for priority handling of stunting.

The procedures carried out in this research are as follows:

1. Carry out direct observations using interviews to obtain the necessary data, such as interests in determining the criteria for the research to be carried out
2. Create and carry out research instruments to test the validity and reliability spread the questionnaire Venetian to responded
3. Create a comparison matrix for each criterion/alternative
4. Determine the local priority scale from the pairwise comparison metrics, followed by creating a normalization matrix
5. Carry out Weighted Sum (WSV), consistency index (CI), and consistency ratio (CR) consistency test
6. Determine the global priority scale to obtain priority alternatives.

2.2 Validity and Reliability Test

a. Validity test

The research instrument is tested for validity so that it can provide results by the objectives. If the value $r_{hitung} < r_{tabel}$ then the instrument prepared is valid, but if $r_{hitung} < r_{tabel}$ then the research instrument If the question is not valid, it is necessary to re-analyze the question items. Product moment correlation is a formula that can be used in validity tests, namely as follows:

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)}}$$

Information: r_{xy} = correlation coefficient of the test created with the criteria, X = points for each respondent on variable X (test created), Y= points for each respondent on variable Y (criterion test), and N = number of responses Yusuf (2017).

b. Reliability test

Reliability testing is carried out to determine the consistency or stability of the scores of an instrument in research on the same individual and given at different times. If the Cronbach's alpha

value > significant level (0.6) is said to be reliable, conversely if < significant level (0.6), then the instrument is said to be unreliable.

The formula that can be used is Cronbach's alpha as follows:

$$r = \left(\frac{n}{n-1}\right)\left(1 - \frac{\sum \sigma_t^2}{\sigma_t^2}\right)$$

Note: r = sought reliability, n = sought reliability, σ_t^2 = total score variance, Setiaman S (2020).

3. Result and Discussion

3.1 Calculation of the Analytical Hierarchy Process (AHP) Method

1. Arranging a Hierarchy

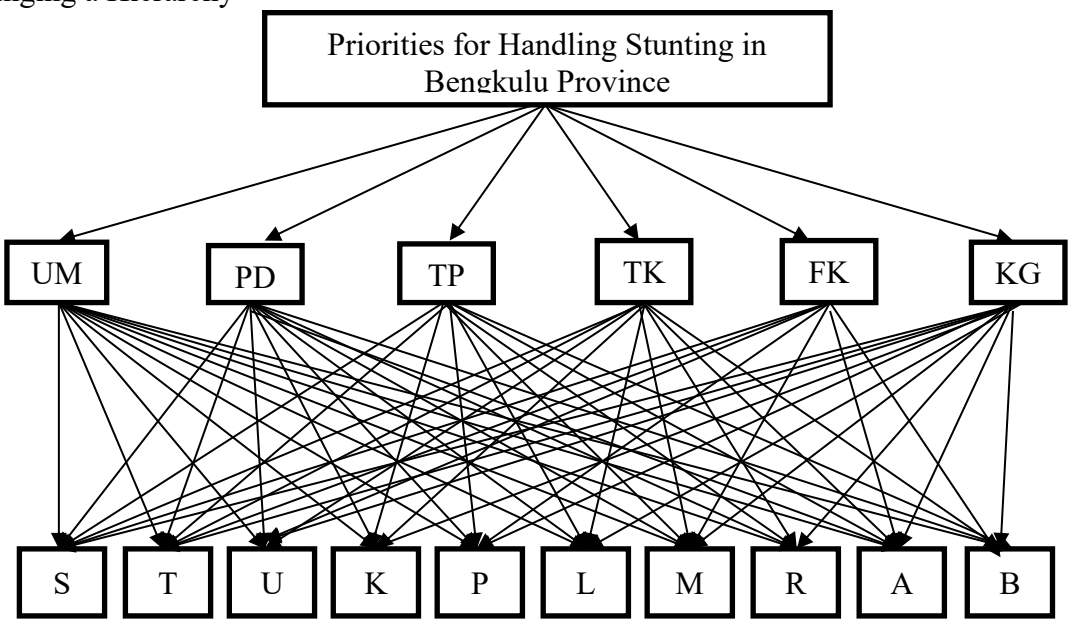

Figure 1. Hierarchy of Decisions for Handling Stunting

The preparation of this hierarchy is carried out as an initial stage in using the AHP method which aims to be a process in preparing a complex problem so that it becomes an element that will later have a relationship with each other in the form of a hierarchical decision. The creation hierarchy that will be carried out is divided into three parts, namely (Priorities for Handling Stunting), criteria (Regional Minimum Wage, regional income, level of education, level of welfare, health service facilities, and public awareness of nutrition), as well as alternative supports (Bengkulu, Seluma, Rejang Lebong, Mukomuko, Lebong, Kepahiang, Kaur, Central Bengkulu, South Bengkulu, and North Bengkulu).

2. Develop a pairwise comparison matrix of criteria/alternatives.

This pairwise comparison matrix is made from the results of collecting respondent questionnaire data, in this case, the pairwise comparisons are made in fractional form because they still represent the results of the questionnaire. However, to make it easier to search for the pairwise

comparison matrix, it is made in decimal form, so the next step is to normalize each criterion/alternative matrix.

a. According to Alternative Criteria

	UM	PD	TP	TK	FK	KG
UM	1	1/5	1/2	1/5	1/3	1/3
PD	2	1	3	3	3	3
TP	5	1/3	1	1/3	1	1
TK	2	1/3	3	1	2	2
FK	3	1/3	1	1/5	1	2
KG	3	1/3	1	1/5	1/5	1

b. According to the Alternative of the Regional UMR

	S	T	U	K	P	L	M	R	A	B
S	1	2	1	2	1	2	2	1	1/3	3
T	1/2	1	1/2	2	1/3	2	3	1	1/3	3
U	1	2	1	1	1	1	1	1	1	2
K	1/2	1/2	1	1	1/2	1/2	1/2	1/2	1/2	1/2
P	1	3	1	2	1	2	2	1	1	2
L	1/2	1/2	1	2	1/2	1	1	1/3	1/3	1
M	1/2	1/3	1	2	1/2	1	1	1/2	1/2	3
R	1	1	1	2	1	3	2	1	2	2
A	3	3	1	2	1	3	2	1/2	1	2
B	1/3	1/3	1/2	2	1/2	1	1/3	1/2	1/2	1

c. According to Alternatives from Regional Income

	S	T	U	K	P	L	M	R	A	B
S	1	5	1/2	5	1	5	5	1/2	1/2	5
T	1/5	1	1/3	5	1	3	2	1/3	1	2
U	2	3	1	5	5	5	5	5	5	5
K	1/5	1/5	1/5	1	1/2	1	1	1/3	1/3	1
P	1	1	1/5	2	1	5	5	1/2	1/2	4
L	1/5	1/3	1/5	1	1/5	1	1	1/8	1/8	1
M	1/5	1/2	1/5	1	1/5	1	1	1/8	1/8	1
R	2	3	1/5	3	2	8	8	1	1	7
A	2	1	1/5	3	2	8	8	1	1	7
B	1/5	1/2	1/5	1	1/4	1	1	1/7	1/7	1

d. According to Alternatives of Education Level

	S	T	U	K	P	L	M	R	A	B
S	1,	4	4	4	4	4	4	4	4	4
T	1/4	1	1	1	1	1	1	1	1	1
U	1/4	1	1	3	2	2	2	2	3	2
K	1/4	1	1/3	1	1/2	1/2	1/2	1/2	1/2	1/2
P	1/4	1	1/2	2	1	1/2	1/2	1/2	1/2	1/2
L	1/4	1	1/2	2	2	1	1/2	1/2	1/2	1/2
M	1/4	1	1/2	2	2	2	1	1/2	1/2	1/2
R	1/4	1	1/2	2	2	2	2	1	1/3	1/3
A	1/4	1	1/3	2	2	2	2	3	1	1/2
B	1/4	1	1/2	2	2	2	2	3	2	1

e. According to Alternatives of Welfare Levels

	S	T	U	K	P	L	M	R	A	B
S	1	3	3	3	3	3	3	3	3	3
T	1/3	1	1/3	1	1	1	1	1	1	1
U	1/3	3	1	6	6	6	6	6	6	5
K	1/3	1	1/6	1	1/2	1/2	1/2	1/2	1/2	1/2
P	1/3	1	1/6	2	1	1/2	1/2	1/2	1/2	1/2
L	1/3	1	1/6	2	2	1	1/2	1/2	1/2	1/2
M	1/3	1	1/6	2	2	2	1	1/2	1/2	1/2
R	1/3	1	1/6	2	2	2	2	1	1/2	1/2
A	1/3	1	1/6	2	2	2	2	2	1	1/2
B	1/3	1	1/5	2	2	2	2	2	2	1

f. According to Alternatives from Public Health Care Facilities

	S	T	U	K	P	L	M	R	A	B
S	1	1/3	1	1	1	1	1	1	1	1
T	3	1	1	1	1	1	1	1	1	1
U	1	1	1	1	1	4	4	4	4	4
K	1	1	1	1	1/4	1/3	1/3	1/3	1/3	1/3
P	1	1	1	4	1	2	3	3	2	3
L	1	1	1/4	3	1/2	1	1	1	1	1
M	1	1	1/4	3	1/3	1	1	1	1	1
R	1	1	1/4	3	1/3	1	1	1	3	3
A	1	1	1/4	3	1/2	1	1	1/3	1	3
B	1	1	1/4	3	1/3	1	1	1/3	1/3	1

and finally, namely the pairwise comparison matrix of respondents' results for alternative public awareness of the importance of nutrition. This result is the same as the previous comparison matrix which is a representation of respondents regarding current conditions

g. According to Alternatives from Public Awareness of Nutrition

	S	T	U	K	P	L	M	R	A	B
S	1	1	1/6	1	1	1	1	1	1	5
T	1	1	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
U	6	3	1	5	5	5	5	5	1	5
K	1	3	1/5	1	1	1	1	1/4	1/4	1/4
P	1	3	1/5	1	1	1/2	1/2	1/2	1/2	1/2
L	1	3	1/5	1	2	1	1	1	1	3
M	1	3	1/5	1	2	1	1	1	1	1
R	1	3	1/5	4	2	1	1	1	1	2
A	1	3	1	4	2	1	1	1	1	2
B	1/5	3	1/5	4	2	1/3	1	1/2	1/2	1

3. Determine the Local Priority Scale

Local prioritization is a step that can be carried out by compiling a pairwise comparison matrix of all elements for each subhierarchy, and then the comparison of each element's weight is displayed in matrix form. For example, in matrix A, the next step that can be taken is to look for A_{norm} which is the normalization matrix of A. This A_{norm} then obtains the results of the local priorities for each alternative/criterion. The way to find A_{norm} is, for example, matrix A, then each element in column i of the matrix can be divided by the number of all elements contained in column i. This can be done in all columns i, this method is done in all columns of the pairwise comparison matrix so that later it will produce a new matrix called the normalization matrix. In the normalization column, the elements will add up to 1, so after that the next step is to calculate the average of each row of A_{norm} with the number of elements n which can be seen from the final result of the criteria/alternative priority so that you then get a result called a weight vector, as follows results obtained:

Table 1. Relative Value Weights Matrix A

Criteria	Relatif Weight A
Regional UMR	0,050
Regional Income	0,370
Level of education	0,106
Prosperity level	0,227
Health Service Facilities	0,138
Public Awareness of Nutrition	0,109

Based on the results of Table 1, it is found that in determining priorities for handling stunting in Bengkulu Province, the regional income criterion is the main priority criterion which is taken into consideration in determining priorities for handling stunting. Next, the priority criteria for

handling other stunting are followed by the level of community welfare, community health service facilities, community awareness of the importance of nutrition, education level, and finally, the regional minimum wage.

Table 2 Relative Value Weights for Alternative Criteria Matrix

Criteria	UM	PD	TP	TK	FK	KG
South Bengkulu	0,117	0,137	0,287	0,221	0,083	0,088
Central Bengkulu	0,099	0,078	0,072	0,062	0,107	0,037
North Bengkulu	0,104	0,277	0,130	0,281	0,193	0,292
Kaur	0,054	0,033	0,044	0,041	0,055	0,057
Kepahiang	0,130	0,088	0,053	0,047	0,157	0,055
Lebong	0,064	0,027	0,062	0,055	0,079	0,092
Mukomuko	0,078	0,028	0,071	0,063	0,076	0,082
Rejang Lebong	0,135	0,159	0,078	0,072	0,100	0,101
Seluma	0,164	0,146	0,095	0,081	0,084	0,122
Bengkulu	0,056	0,029	0,109	0,092	0,066	0,074

4. Consistency Testing

The opinion of each respondent can involve an assessment that allows for consistency with each respondent's criteria and alternatives. Therefore, in determining the assessment to get consistent results, first look for the WSV value and continue by calculating the CI and CR values. The way to find the Weighted Sum Vector (WSV) value is as follows:

$$\boldsymbol{WSV} = \boldsymbol{Ab}$$

$$\begin{bmatrix} w_1 \\ w_2 \\ \vdots \\ w_n \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{\mathrm{nn}} \end{bmatrix} \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_n \end{bmatrix}$$

with $w_1 = \sum_{i=1}^{n} a_{il}\, b_l$

So from WSV value can be searched λ_{maks} by using the following formula:

$$\lambda_{maks} = \frac{1}{n}\sum_{i=1}^{n} \frac{w_i}{b_i}$$

Table 3. WSV Matrix A Value Weights

Criteria	$WSV\ A$
Regional UMR	0,305
Regional Income	2,359
Level of education	0,652
Prosperity level	1,412
Health Service Facilities	0,849
Public Awareness of Nutrition	0,671

The value WSV that has been obtained is used for the next step, namely finding the value λ_{maks} by using the formula λ_{maks}, as follows:

$\lambda_{maks} = \left[\left(\frac{0,305}{0,050}\right) + \left(\frac{2,359}{0,370}\right) + \left(\frac{0,652}{0,106}\right) + \left(\frac{1,412}{0,227}\right) + \left(\frac{0,849}{0,138}\right) + \left(\frac{0,671}{0,109}\right)\right]$

$\lambda_{maks} = 6,247$

Next, substitute the values λ_{maks} to the CI formula to get values like the following:

$$CI = \frac{(\lambda_{\text{maks}} - n)}{(n-1)}$$

$$CI = \frac{(6,326 - 6)}{(6-1)}$$

$$CI = 0,049$$

after getting the CI value, the next step is to calculate the CR value using the following formula, where the RI value is taken for the matrix of order so the following results are obtained:

$$CR = \frac{(CI)}{(RI)}$$

$$CR = \frac{(0,049)}{(1,24)}$$

$$CR = 0,039$$

Table 4. Alternative Matrix Value Weights

Criteria	*UM*	*PD*	*TP*	*TK*	*FK*	*KG*
South Bengkulu	1,275	1,485	3,139	2,595	0,929	1,051
Central Bengkulu	1,079	0,840	0,785	0,678	1,165	0,417
North Bengkulu	1,155	3,325	1,435	3,141	2,216	3,357
Kaur	0,579	0,359	0,465	0,427	0,612	0,619
Kepahiang	1,449	0,963	0,557	0,491	1,812	0,606
Lebong	0,682	0,280	0,641	0,566	0,886	1,044
Mukomuko	0,827	0,293	0,739	0,652	0,860	0,897
Rejang Lebong	1,480	1,778	0,814	0,750	1,161	1,140
Seluma	1,913	1,621	1,029	0,862	0,952	1,374
Bengkulu	0,592	0,303	1,200	0,998	0,737	0,823

Based on the value WSV above, the CI and CR values for each alternative are obtained. The work in this step is the same as the previous step, so the results are obtained:

1. Alternative regional UMR values are obtained:

- $\lambda_{maks} = \left[\left(\frac{1,275}{0,117}\right) + \left(\frac{1,079}{0,099}\right) + \left(\frac{1,155}{0,104}\right) + \left(\frac{0,579}{0,054}\right) + \left(\frac{1,449}{0,130}\right) + \left(\frac{0,682}{0,064}\right) + \left(\frac{0,827}{0,078}\right) + \left(\frac{1,480}{0,135}\right) + \left(\frac{1,913}{0,164}\right) + \left(\frac{0,592}{0,056}\right)\right]$
- $\lambda_{maks} = 11,033$
- $CI = \frac{(11,033-10)}{(10-1)} = 0,114$
- The next step is to calculate the value CR where the RI value is taken as a matrix of order 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}114)}{(1{,}51)} = 0{,}075$$

2. Alternative regional income values are obtained:

- $\lambda_{maks} = \left[\left(\frac{1{,}485}{0{,}137}\right) + \left(\frac{0{,}840}{0{,}078}\right) + \left(\frac{3{,}325}{0{,}277}\right) + \left(\frac{0{,}359}{0{,}033}\right) + \left(\frac{0{,}963}{0{,}088}\right) + \left(\frac{0{,}280}{0{,}027}\right) + \left(\frac{0{,}293}{0{,}028}\right) + \left(\frac{1{,}778}{0{,}159}\right) + \left(\frac{1{,}621}{0{,}146}\right) + \left(\frac{0{,}303}{0{,}029}\right)\right]$
- $\lambda_{maks} = 11{,}247$
- $CI = \frac{(11{,}247-10)}{(10-1)} = 0{,}138$
- The next step is to calculate the value CR which is on value RI The ordered matrix is taken 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}138)}{(1{,}51)} = 0{,}091$$

3. Alternative levels of education are obtained:

- $\lambda_{maks} = \left[\left(\frac{3{,}139}{0{,}287}\right) + \left(\frac{0{,}785}{0{,}072}\right) + \left(\frac{1{,}435}{0{,}130}\right) + \left(\frac{0{,}465}{0{,}044}\right) + \left(\frac{0{,}557}{0{,}053}\right) + \left(\frac{0{,}641}{0.062}\right) + \left(\frac{0{,}739}{0{,}071}\right) + \left(\frac{0{,}814}{0{,}078}\right) + \left(\frac{1{,}029}{0{,}095}\right) + \left(\frac{1{,}200}{0{,}109}\right)\right]$
- $\lambda_{maks} = 10{,}804$
- $CI = \frac{(10{,}804-10)}{(10-1)} = 0{,}089$
- The next step is to calculate the value CR which is on value RI The ordered matrix is taken 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}089)}{(1{,}51)} = 0{,}058$$

4. Values are obtained for alternative levels of welfare:

- $\lambda_{maks} = \left[\left(\frac{2{,}595}{0{,}221}\right) + \left(\frac{0{,}678}{0{,}062}\right) + \left(\frac{3{,}141}{0{,}281}\right) + \left(\frac{0{,}427}{0{,}041}\right) + \left(\frac{0{,}491}{0{,}047}\right) + \left(\frac{0{,}566}{0{,}055}\right) + \left(\frac{0{,}652}{0{,}063}\right) + \left(\frac{0{,}750}{0{,}072}\right) + \left(\frac{0{,}862}{0{,}081}\right) + \left(\frac{0{,}998}{0{,}092}\right)\right]$
- $\lambda_{maks} = 11{,}159$
- $CI = \frac{(11{,}159-10)}{(10-1)} = 0{,}128$
- The next step is to calculate the value CR which is on value RI The ordered matrix is taken 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}128)}{(1{,}51)} = 0{,}084$$

5. Results have been obtained from alternative public health service facilities:

- $\lambda_{maks} = \left[\left(\frac{0{,}929}{0{,}083}\right) + \left(\frac{1{,}165}{0{,}107}\right) + \left(\frac{2{,}216}{0{,}193}\right) + \left(\frac{0{,}612}{0{,}055}\right) + \left(\frac{1{,}812}{0{,}157}\right) + \left(\frac{0{,}886}{0{,}079}\right) + \left(\frac{0{,}860}{0{,}076}\right) + \left(\frac{1{,}161}{0{,}100}\right) + \left(\frac{0{,}952}{0{,}084}\right) + \left(\frac{0{,}737}{0{,}066}\right)\right]$
- $\lambda_{maks} = 11{,}330$
- $CI = \frac{(11{,}330-10)}{(10-1)} = 0{,}147$

- The next step is to calculate the value CR which is on value RI The ordered matrix is taken 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}147)}{(1{,}51)} = 0{,}097$$

6. Alternative public awareness of the importance of nutrition is gaining value:

- $\lambda_{maks} = \left[\left(\frac{1{,}051}{0{,}088}\right) + \left(\frac{0{,}417}{0{,}037}\right) + \left(\frac{3{,}357}{0{,}292}\right) + \left(\frac{0{,}619}{0{,}057}\right) + \left(\frac{0{,}606}{0{,}055}\right) + \left(\frac{1{,}044}{0{,}092}\right) + \left(\frac{0{,}897}{0{,}082}\right) + \left(\frac{1{,}140}{0{,}101}\right) + \left(\frac{1{,}374}{0{,}122}\right) + \left(\frac{0{,}823}{0{,}074}\right)\right]$
- $\lambda_{maks} = 11{,}329$
- $CI = \frac{(11{,}329-10)}{(10-1)} = 0{,}147$
- The next step is to calculate the value CR which is on value RI The ordered matrix is taken 10×10 is 1,51 so the results are as follows:

$$CR = \frac{(0{,}147)}{(1{,}51)} = 0{,}097$$

Based on consistency testing, the CR value against the criteria was obtained $0{,}039$, The regional minimum wage alternative is 0.075, the regional income alternative gets a CR value of 0.091, the education level alternative is 0.058, the welfare level alternative is 0.084, the health service facility alternative is 0.097, and the public awareness alternative of the importance of nutrition gets a value of 0.097. Therefore, based on the overall CR value results, all alternatives carried out in this research obtained consistent results so that the results of this research were quite good and feasible to continue using the AHP method.

5. Determine the Global Priority Scale

Global priority can be found by calculating all alternative weights by switching the eigenvalues of each element at a smaller level with elements at a larger level. The alternative weight results are obtained as in the following table:

Table 5. Each Alternative from Relative Weight

District/city	Relative Weight UM	Relative Weight PD	Relative Weight TP	Relative Weight TK	Relative Weight FK	Relative Weight KG
South Bengkulu	0,117	0,137	0,287	0,221	0,083	0,088
Central Bengkulu	0,099	0,078	0,072	0,062	0,107	0,037
North Bengkulu	0,104	0,277	0,130	0,281	0,193	0,292
Kaur	0,054	0,033	0,044	0,041	0,055	0,057
Kepahiang	0,130	0,088	0,053	0,047	0,157	0,055
Lebong	0,064	0,027	0,062	0,055	0,079	0,092
Mukomuko	0,078	0,028	0,071	0,063	0,076	0,082

Rejang Lebong	0,135	0,159	0,078	0,072	0,100	0,101
Seluma	0,164	0,146	0,095	0,081	0,084	0,122
Bengkulu	0,056	0,029	0,109	0,092	0,066	0,074

Next, the step used in the AHP method to determine global priorities is to substitute the results obtained in Table 5 into the formula $g_i = \sum_{i=1}^{n} b_i c_{ij}$. The global priority results are obtained as in the following table:

Table 6. Results of Global Priority Value for Each Alternative

Number	District/city	Global Priorities
g_1	South Bengkulu	0,181
g_2	Central Bengkulu	0,080
g_3	North Bengkulu	0,254
g_4	Kaur	0,046
g_5	Kepahiang	0,087
g_6	Lebong	0,058
g_7	Mukmuko	0,061
g_8	Rejang Lebong	0,121
g_9	Seluma	0,123
g_{10}	Bengkulu	0,071

The results show that overall the district/city in Bengkulu Province which is the main priority in handling stunting is North Bengkulu Regency as the main priority with a value of 0,254, followed by South Bengkulu Regency with a value of 0,181, Seluma Regency is as large as 0,123, Rejang Lebong Regency is as large as 0,121, Kepahiang Regency is as large as 0,087, Central Bengkulu Regency is equal to 0,080, Bengkulu city Regency is as large as 0,071, Mukomuko Regency is as large as 0,061, Lebong Regency is as large as 0,058, and finally, Kaur Regency is equal to 0,046. The results of this AHP research method are quite relevant to existing conditions, based on information from the Bengkulu Province BKKBN in 2022 that 3 districts receive the largest stunting management funds, namely: South Bengkulu, Central Bengkulu, and North Bengkulu. Previous research examining the AHP method in allocating general allocation funds in Bengkulu Province shows that North Bengkulu Regency is the fourth priority out of ten districts/cities in allocating Sembiring general allocation funds (2022).

4. Conclusion

Conclusions can be drawn, based on the research results, which are as follows:

1. The Analytical Hierarchy Process (AHP) method determines priorities in handling stunting which is effective enough to determine the order of priority criteria/alternatives.

2. The priority order for districts/cities in the process of considering handling stunting in Bengkulu Province is North Bengkulu, South Bengkulu, Seluma, Rejang Lebong, Kepahiang, Central Bengkulu, Bengkulu, Mukomuko, Lebong, and finally Kaur.

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