

Policy and Program Priorities to Accelerate Unemployment Declining Progress in Sumbawa Regency; AHP Approach

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Abstract:- This research aims to identify alternatives and program priorities that need to be prioritized in order to accelerate the progress of reducing unemployment in Sumbawa Regency, Indonesia. This research is using Analytical Hierarchy Process (AHP) approach. Respondents in this study consist of two stakeholders, that are experts to weight the given criteria and unemployed persons as program beneficiaries to weight the alternatives. The results of this research indicate that the most considered criteria of policy and program that aimed to reduce unemployment in Sumbawa is the ability of a program to increase the unemployed work ethics and motivation. Moreover, the program of providing capital grantor business loan for small entrepreneurs has become the first program priority that need to be prioritized in order to accelerate the progress of reducing unemployment in Sumbawa Regency.

Keywords:- Policy; Program; Unemployment; Sumbawa; AHP.

I. INTRODUCTION

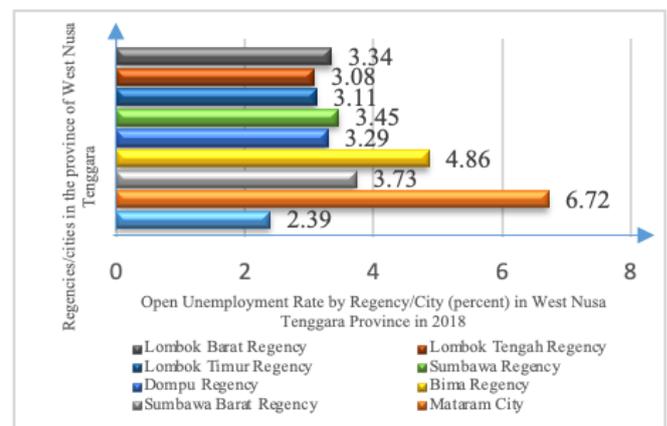
Economic conditions are directly related to the unemployment rate. Indonesian economic crisis in 1997 was one of the evidence of such theory. The crisis began with capital outflows that have had significant impacts on increasing employment layoffs that created a sudden unemployment wave rate that reduced public welfare substantially [1].

Chakravarty et al[2] explained that unemployment has adverse effects not only on society welfare conditions, but also in creating other social problems such as social marginalization, poverty, crime and the tendency of social depression. Therefore, the unemployment rate is considered as one of the most common indicators of economic condition.

As one of the major economic indicators, it is important for the government to be concerned about reducing the unemployment rate. The duty of reducing unemployment is even stated specifically In Indonesian Law number 13 of 2003 as it is philosophically believed that every labor force has the equal right of opportunity in getting work. Therefore, all government's institutions in every level of administrative

divisions are obliged to creatively design programs and policies that could effectively reduce unemployment [3].

As one of an administrative regions, Sumbawa's Government is also need to create the programs, especially due to its relatively high level of unemployment compared to other regencies in West Nusa Tenggara Province as indicated in the data below:



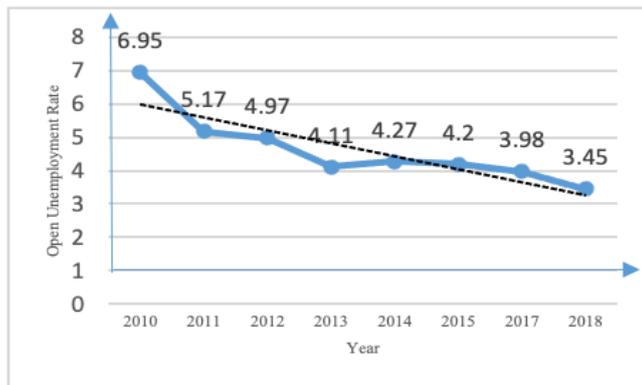
Source: Indonesian Statistic Agency[4]

Picture 1. Open Unemployment Rate by Regency/City (percent) in West Nusa Tenggara Province in 2018.

The data clearly showed that Sumbawa's unemployment rate was the fourth highest compared to other regencies and cities in West Nusa Tenggara Province (NTB) province by 3.45 percent. If the cities were excluded in the comparison, Sumbawa would be ranked as the second highest level of unemployment rate in West Nusa Tenggara Province, only outranked by its neighboring regency of West Sumbawa.

In Spite of its inferior relative position on unemployment rate in West Nusa Tenggara Province, Sumbawa's government had shown positive trend of reducing unemployment rate in the region through many specific local policies, programs, and projects. These policies and programs are defined as all form of the local government efforts in reducing poverty and unemployment that are mostly on micro scales and technical approaches, it's also specifically have a framework and strong relevance with the local society context [5] (Nugroho, 2009).

The achievement of Sumbawa's government on reducing unemployment rate could be seen in the data presented by the local statistics agency below:



Source: Indonesian Statistic Agency[4]

Picture 2. Sumbawa Regency Open Unemployment Rate in 2010 – 2018.

The graph explained a steady and consistent downward trend of unemployment rate in Sumbawa Regency throughout the 2010 to 2018 period of time. The success trend of declining unemployment rate was the result of some policies, programs, and projects that were implemented regularly in the region. However, the effort of reducing the unemployment rate in Sumbawa shall continue since the regency is still marked as one of the highest levels of unemployment rate in the province of West Nusa Tenggara Province.

In order to accelerate the success results of the policies and programs, Sumbawa's government shall implement program priorities based on the needs and wills of beneficiaries, the unemployed persons. Nugroho [6] stated that policy makers are required to implement programs by making priorities due to some obstacles that they may face such as the lack of human resources, budget constraint, and time limits.

This research is aimed to identify the possible program priorities of Sumbawa's government in accelerating the progress of reducing unemployment rate in the regency. The study was conducted using a pragmatic approach of Analytical Hierarchy Process (AHP) as a multi criteria decision making tool.

II. LITERATURE REVIEW

A. General Concept of Public Policy

Chakravarty and MacKay [7] explained that the theory of Keynes about unemployment was lack of microeconomic theory underpinning his explanation of macroeconomic view. Keynes was explicitly focus on his general view that a state should take more interventionist role in policy formulation for public matters especially economic and social problems based on knowledge, experiences and wisdoms. Keynes explains that any actions made by an autonomous government (bureaucrat) must be able to set aside any kind of private and individual motives, especially the motive of pursuing personal profit. Instead, every single policy should focus only for the benefit of public that would be able to enhance people prosperity. Moreover, the government must be able to distinguish between "technically social" and "technically individual" services, which means that instead of taking actions in matters that could be done alone by private individuals or public communities, the government should deal with aspects of public needs that technically cannot be done by individuals or communities.

Dye [8](2016) defines public policy as everything that is decided or not decided by governments, the reasons behind any government activities, and different results of the previous decision.

B. Stakeholders on Policy Making Process

Selected policies and programs could not be separated from the competent authorities and stakeholders that formulated the policies. Lester & Stewart [9] described the classification of stakeholders involved in policies selection process by dividing them into two groups, the first one is the formal actors that include state and administration officials while the second one is informal actors that include interest groups, academics and the beneficiary citizens themselves.

The process of creating policies involves many choices and interests of several different parties. Therefore, every policy is created in the most possible way of accommodating all interests of all parties. The quality and substance of a policy is often determined and directed by the ability of policy makers on aggregating the interests of several combined interest groups [10].

C. Program and Policy Implementation

Program implementation is a complex process in producing a desired output. Policy implementation is defined as the actualization of concepts, processes, actions from a series of decisions by institutions to achieve what the stakeholders expected. Implementation of policies is some activities and actions that are held by government officials to overcome public problems [11].

C. Model of Decision Making

Table 1. Model of Decision Making by Nugroho[5].

| | Definition | Characteristic |
|---|---|---|
| <i>Rational Actor Model</i> | Decision making model that maximizes logical value through a choice system that is gradually consistent with various policy issues or alternatives and their consequences | <ul style="list-style-type: none"> • Results are rational • Decision maker use a consistent choice system to choose the best alternative from each alternative <ul style="list-style-type: none"> • Decision maker can calculate the probability • Assumed to have adequate time, information and resources |
| <i>The Bounded Rationality Model</i> | Decision making model that recognize certain limitation of decision makers to act rationally | <ul style="list-style-type: none"> • makers choose alternative / issues that have an element of satisfaction because they need to maximize benefits or save time and resources • In the process of looking for alternative choices, do not consider all alternative to aim saving resources • Decision makers understand that the world as a simple conception |
| <i>The Bureaucratic Politics Model</i> | Decision making model is based on the unity of the decision making paradigm that considers (focus) the political process as a decision-making tool | <ul style="list-style-type: none"> • Can't be separated from the elements of politics and bureaucratic participation • Focus on the process of gaining power in government <ul style="list-style-type: none"> • Bound to the rules and procedures that apply |
| <i>Garbage Can Model</i> | Decision making model that randomly and non systematic based on the policies that have been taken | <ul style="list-style-type: none"> • The Decision making follows the pattern or flow of various decisions in organizations and individual decision that have passed • Pattern of decision making have irregularities caused by identifying information, and the dynamics of support and conditions that are always change. • Practically or easy to use because it tends to repeat the same decision in the past |

E. Unemployment

Unemployed persons are identified as the number of working-age population that enter the labor force and are unable to find jobs. The labor force is defined as people who are looking for jobs, waiting to work, preparing a new business, despairing in finding a job or have been hired but have not started the work yet [4].

F. Criteria of Program That Would be Able to Reduce Unemployment

Nugroho [6] explained that there are several aspects that need to be considered by policy makers in creating programs in order to overcome the problem of unemployment. These considerations are used as criteria in this research. The detailed criteria are explained in Table 2 below:

Table 2.Program criteria to overcome unemployment

| Criteria | Explanation |
|---------------------------------------|---|
| Creating Job Opportunity | Adding or providing job Opportunity to increase labors demand in certain economic sectors |
| Boosting Skill and competence | Expertise and skills possessed by labor in the form of knowledge, skills and behavior or attitudes required in carrying out work |
| Increasing Access and information | Affordability or impact of alternative programs can later be accessed by job seekers to find work. Information is defined as freedom of information for job seekers |
| Developing Work Ethics and Motivation | social situation is also a work culture that the labor should have in carrying out work by responding to the environment and the surrounding community |

Source : Nugroho[6].

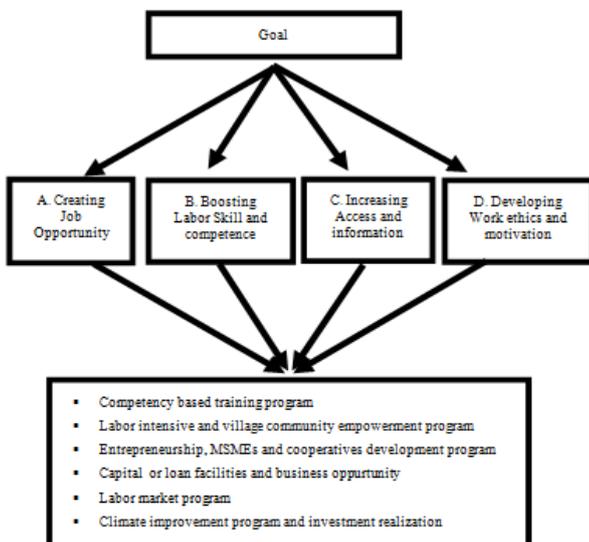
III. RESEARCH METHOD

This research is using a qualitative method with a descriptive approach. The data in this research are primary data that obtained directly from respondents by conducting in-depth interviews and spreading questionnaires. The data then analyzed using the Analytical Hierarchy Process (AHP) as a pragmatic multi criteria decision making tools.

This research was conducted from August 2019 to February 2020 in Sumbawa Besar Town as a representative of the Sumbawa Regency. The population in this research are both the local government officials and unemployed persons in Sumbawa’s region. Lester & Stewart [9] describes population as the combination of formal and informal relevant stakeholders in the selected research location.

Respondents in this research are divided in to two categories. The first category is experts that gave their opinion on weighting the criteria. Meanwhile, the second category is unemployed persons in Sumbawa as beneficiaries of government policies that gave their opinion on weighting alternatives based on every given criteria. There were 15 experts respondents and 50 non experts respondents in this research. The expert respondents were chosen by purposive sampling that targeted specific persons with good understanding about unemployment in Sumbawa. Some of the expert respondents were senior government officials, members of local people representative council, academicians, and leaders of concerned Non-Government Organization (NGO) in Sumbawa. On the other hand, the non-experts respondents were chosen by stratified convenience sampling. They were stratified based on their educational background, job expectations, and ages that adopted from the concept that developed by Pusparsisa[12].

Data was analyzed using Analytical Hierarchy Process (AHP) that consists of some steps or hierarchies as describe in the following picture:



Picture 3. The Research Hierarchies of Analyses

The tools that used to run the data was Analytical Hierarchy Process - Online System (AHP-OS) and Microsoft Excel application to minimize the possibility of human error and strengthen validation of the data.

IV. RESULTS AND DISCUSSIONS

The first step in the hierarchy is determining the goals or objectives of the process[13]. In this research the goal is to decide which alternatives are needed to be made as policy or program priorities in order to accelerate the declining progress of unemployment rate in Sumbawa.

The second step in the process is weighting the criteria based on the opinion of expert respondents[13]. The respondents were asked to decide which criteria is more important compared to the other criteria. All criteria had the same opportunity to be compared with the other criteria. The comparison could be described by the following pictures:

| Criteria A | | | | | Criteria B | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

| Criteria A | | | | | Criteria C | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

| Criteria A | | | | | Criteria D | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

| Criteria B | | | | | Criteria C | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

| Criteria B | | | | | Criteria D | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

| Criteria C | | | | | Criteria D | | | |
|------------|---|---|---|---|------------|---|---|---|
| 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 |

If the respondent chose 1, it means that in the opinion of the respondent, the two criteria are equally important.

If the respondent chose 3 either in the left or right side, it means that the side is slightly more important than the opposite side.

If the respondent chose 5, either in the left or right side, it means that the side is clearly more important than the opposite side.

If the respondent chose 7, either in the left or right side, it means that the side is extremely more important than the opposite side.

absolutely not important compare to the chosen criteria with 9 value.

If the respondent chose 9, either in the left or right side, it means that the side is absolutely more important than the opposite side. On the other world, the other side or criteria is

The opinion of expert respondents were then presented in a matrix by using its mean values. The result can be seen in the following table:

Table 3. Pair-wise Matrix of Criteria Mean Values (*non-normalized values*)

| Matrix of Criteria | Creating Job Opportunity | Boosting Labor Skill and competence | Increasing Access and information | Developing Work ethics and motivation |
|---------------------------------------|--------------------------|-------------------------------------|-----------------------------------|---------------------------------------|
| Creating Job Opportunity | 1.00 | 1.12 | 1.08 | 0.91 |
| Boosting Labor Skill and competence | 0.89 | 1.00 | 1.22 | 0.93 |
| Increasing Access and information | 0.92 | 0.82 | 1.00 | 0.79 |
| Developing Work ethics and motivation | 1.10 | 1.07 | 1.27 | 1.00 |
| Total Value of Columns | 3.91 | 4.01 | 4.57 | 3.63 |

Source: Processed primary data

The above data had not been normalized yet. Therefore, it could not be examined whether the data was consistent or not. The data consistency is measured by Consistency Ratio (CR) that needs the value of Eigen Vector Mean (EVM) to be measured. The EVM values are determined by dividing the total normalized values of every line with the amount of the

lines. The normalized values of each column are resulted by dividing the value of each column with the total value of columns. This test of data consistency is required in Analytical Hierarchy Process (AHP) to guarantee the trustworthiness of the obtained data[13]. The table below shows the result of data normalization with its EVM value.

Table 4. Normalized mean values of Criteria Pair-wise Matrix and EVM Values

| | Creating Job Opportunity | Boosting Labor Skill and competence | Increasing Access and information | Developing Work ethics and motivation | EVM Value |
|---------------------------------------|--------------------------|-------------------------------------|-----------------------------------|---------------------------------------|------------------|
| Creating Job Opportunity | 0.2555 | 0.2802 | 0.2367 | 0.2508 | 0.256 |
| Boosting Labor Skill and competence | 0.2280 | 0.2501 | 0.2667 | 0.2567 | 0.250 |
| Increasing Access and information | 0.2358 | 0.2048 | 0.2184 | 0.2158 | 0.219 |
| Developing Work ethics and motivation | 0.2799 | 0.2677 | 0.2781 | 0.2748 | 0.275 |
| Total Value of Columns | 3.91 | 4.01 | 4.57 | 3.63 | 1.00 |

Source: Processed primary data

The EVM values are not only necessary to conduct the test of data consistency, it also shows the value of relative importance of every criteria based on the opinion of Expert respondents[13]. As it simplest, those EVM values could be displayed as follows:

Table 5.relative importance and Ranking of criteria

| Criteria | Percentage of priority (Based on the previous EVM table) | Ranking |
|---------------------------------------|--|---------|
| Creating Job Opportunity | 25.6% | 2 |
| Boosting Labor Skill and competence | 25.0% | 3 |
| Increasing Access and information | 21.7% | 4 |
| Developing Work ethics and motivation | 27.7% | 1 |

Source: Processed primary data

The above table 5 shows that developing work ethics and motivation is the most important criteria of programs that targeted to reduce unemployment in Sumbawa. Therefore, every policy and program created in the region to overcome the unemployment problem needs to consider whether the program would able to increase work ethicand motivation. Many literatures were published to support the view of that work ethic has significantly associated with wellbeing and employment status. Sage [14] suggested that the most effective way to deal with deleterious effect of unemployment is to develop unemployed persons work ethics.

Moreover, despite of not being the most important criteria, the other criteria given in this study earned significant value of importance. It means that all criteria are considered relatively equally important. Therefore, all policies and programs that created to reduce the unemployment rate in Sumbawa should able to not only develop work ethics, but also create more job opportunity, increase skill and competence, and provide inclusive access and information for all.

In order to guarantee the quality of the above early conclusion, it needs to be examined by finding the value of Consistency Ratio (CR) using the following equation:

$$CR = \frac{\text{Consistency Index (CI)}}{\text{Ratio Index (RI)}}$$

$$CI = \frac{\lambda \text{ maximum} - n}{n - 1}$$

The value of RI is given by Saaty[15]. Its value depends on the number of elements included in the analyses. RI value for 4 elements (in this case are criteria) is 0.9.

λ is resulted from the total value of multiplied *total value of column* and the *EVM value* of all criteria in table 4.

$\lambda \text{ maximum} = (\text{total value of column for Criteria A} \times \text{EVM value of Criteria A}) + \dots + (\text{total value of column for Criteria D} \times \text{EVM value of Criteria D})$

$$= (3.91 \times 0.256) + (4.01 \times 0.250) + (4.58 \times 0.219) + (3.63 \times 0.275) = 4.005$$

$$CI = \frac{4.005 - 4}{4 - 1} = 0.002$$

$$CR = \frac{0.002}{0.9} = 0.002$$

The data is considered to be consistent if it meets the Saaty acceptance value of less than 10% (0.1)[15]. The CR value for criteria in this study is 0.002 which is less than 0.1 (CR < 0.1). Therefore, it is clear that the data obtained in this study (for weighting criteria) and its analyses results are consistent, valid, and trusted.

The third step in this study is identifying alternatives of policies and program that aimed to tackle unemployment in Sumbawa. The alternatives are identified through in depth interview with experts that resulted the following list of alternatives:

Table 6. List of Alternatives in this study

| Code | Policy and Program Names |
|------|---|
| P1 | Competency based training program |
| P2 | Labor intensive and community empowerment program |
| P3 | Entrepreneurship coaching and training program |
| P4 | Providing capital or business loan for small entrepreneurs |
| P5 | Connecting supply and demand in the labor market through job fairs, virtual offering, etc. |
| P6 | Improving the quality of investment bureaucracy to increase the easiness of doing business and the easiness to have investment permits. |

Source: Processed primary data

The fourth step in AHP is to weight the alternatives in order to find program priorities[15]. The process of weighting the alternatives is similar to the process of weighting criteria by expert respondents. However, the alternative priorities are determined by the opinion of non-expert respondents (program beneficiaries) which are the unemployed persons. Every respondent was asked to compare which alternative is more important compare to other alternatives for every single criteria.

By conducting the same processes as explained in the criteria’s weighting process, the matrix of normalized mean values and its EVM values could be seen in the following tables:

Table 7. Normalized mean value and EVM value of alternatives for the criteria of creating job opportunity

| Alternatives | P1 | P2 | P3 | P4 | P5 | P6 | EVM |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| P1 | 0.15 | 0.12 | 1.26 | 0.16 | 0.16 | 0.14 | 0.14 |
| P2 | 0.18 | 0.14 | 1.11 | 0.11 | 0.14 | 0.15 | 0.14 |
| P3 | 0.16 | 0.16 | 1.31 | 0.15 | 0.18 | 0.21 | 0.17 |
| P4 | 0.19 | 0.27 | 1.85 | 0.21 | 0.18 | 0.19 | 0.21 |
| P5 | 0.15 | 0.16 | 1.16 | 0.19 | 0.16 | 0.16 | 0.16 |
| P6 | 0.17 | 0.15 | 1.00 | 0.18 | 0.16 | 0.16 | 0.15 |
| Total Value of Columns | 6.67 | 7.17 | 5.87 | 4.74 | 6.10 | 6.31 | 1.00 |

Source: Processed primary data

Table 8. Normalized mean value and EVM value of alternatives for the criteria of boosting labor skills and competence

| Alternatives | P1 | P2 | P3 | P4 | P5 | P6 | EVM |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| P1 | 0.14 | 0.16 | 0.15 | 0.13 | 0.12 | 0.16 | 0.14 |
| P2 | 0.14 | 0.15 | 0.15 | 0.18 | 0.17 | 0.12 | 0.15 |
| P3 | 0.15 | 0.16 | 0.15 | 0.13 | 0.17 | 0.21 | 0.16 |
| P4 | 0.29 | 0.23 | 0.32 | 0.27 | 0.27 | 0.23 | 0.26 |
| P5 | 0.17 | 0.13 | 0.13 | 0.15 | 0.15 | 0.15 | 0.14 |
| P6 | 0.12 | 0.17 | 0.09 | 0.15 | 0.13 | 0.13 | 0.13 |
| Total Value of Columns | 7.03 | 6.51 | 6.53 | 3.76 | 6.88 | 7.62 | 1.00 |

Source: Processed primary data

Table 9. Normalized mean value and EVM value of alternatives for the criteria of increasing access and information

| Alternatives | P1 | P2 | P3 | P4 | P5 | P6 | EVM |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| P1 | 0.15 | 0.17 | 0.14 | 0.13 | 0.15 | 0.19 | 0.15 |
| P2 | 0.15 | 0.17 | 0.22 | 0.18 | 0.17 | 0.14 | 0.17 |
| P3 | 0.14 | 0.10 | 0.13 | 0.14 | 0.15 | 0.15 | 0.13 |
| P4 | 0.28 | 0.23 | 0.24 | 0.24 | 0.24 | 0.23 | 0.24 |
| P5 | 0.16 | 0.15 | 0.14 | 0.16 | 0.16 | 0.16 | 0.15 |
| P6 | 0.11 | 0.17 | 0.12 | 0.15 | 0.14 | 0.14 | 0.13 |
| Total Value of Columns | 6.54 | 5.91 | 7.44 | 4.10 | 6.38 | 7.26 | 1.00 |

Source: Processed primary data

Table 10. Normalized mean value and EVM value of alternatives for the criteria of developing work ethics and motivation

| Alternatives | P1 | P2 | P3 | P4 | P5 | P6 | EVM |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| P1 | 0.16 | 0.19 | 0.17 | 0.16 | 0.14 | 0.14 | 0.16 |
| P2 | 0.13 | 0.15 | 0.19 | 0.12 | 0.20 | 0.18 | 0.16 |
| P3 | 0.13 | 0.11 | 0.14 | 0.14 | 0.17 | 0.14 | 0.13 |
| P4 | 0.25 | 0.32 | 0.24 | 0.25 | 0.21 | 0.25 | 0.25 |
| P5 | 0.18 | 0.12 | 0.13 | 0.20 | 0.16 | 0.17 | 0.15 |
| P6 | 0.14 | 0.11 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 |
| Total Value of Columns | 6.18 | 6.46 | 7.22 | 3.98 | 6.24 | 8.02 | 1.00 |

Source: Processed primary data

In order to make sure that the data were consistent and qualified, it is important to measure the value of Consistency Ratio (CR) for all weighted value of alternatives for every criteria[15]. CR is the result of Consistency Index (CI) divided to Ratio Index (RI). RI value is given based on the number of elements used in the AHP. The values of CR for the weighted alternatives in every criteria are as follows:

Table 11. Consistency Ratio of weighted alternatives for each criteria

| Weighted alternatives for the Criteria of | Consistency Index (CI) Value | Ratio Index (RI) for 6 elements | Consistency Ratio (CR) = CI / RI |
|---|------------------------------|---------------------------------|----------------------------------|
| Creating job opportunity | 0.008 | 1.24 | 0.006 |
| Boosting labor skills and competence | 0.011 | 1.24 | 0.009 |
| Increasing access and information | 0.007 | 1.24 | 0.006 |
| developing work ethics and motivation | 0.010 | 1.24 | 0.008 |

Source: Processed primary data

The data is considered to be consistent if it meets the requirement of Saaty Acceptance value, which is 10% (CR < 0.1)[15]. The described data in table 11 is clearly shown that the CR value of weighted alternatives in all criteria is less than 0.1. Therefore, it is clear that the analyses results were consistent and valid.

The final step of this AHP procedure is to decide which alternatives should be prioritize to implement by the government of Sumbawa Regency in order to accelerate the unemployment declining progress in the region. To do so, it requires further analyses by summarizing the total of multiplied weighted alternative and weighted criteria[15]. Detail process could be learned in the following tables:

Table 12. Total Eigen Vector value for alternative P1 – competency based training program

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.14 | 0.036 |
| Boosting labor skills and competence | 0.250 | 0.14 | 0.035 |
| Increasing access and information | 0.219 | 0.15 | 0.033 |
| developing work ethics and motivation | 0.275 | 0.16 | 0.044 |
| Total Eigen Vector Alternative P1 | | | 0.148 |

Source: Processed primary data

Table 13. Total Eigen Vector value for alternative P2 – Labor Intensive and Community Empowerment Program

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.14 | 0.036 |
| Boosting labor skills and competence | 0.250 | 0.15 | 0.038 |
| Increasing access and information | 0.219 | 0.17 | 0.037 |
| developing work ethics and motivation | 0.275 | 0.16 | 0.044 |
| Total Eigen Vector Alternative P1 | | | 0.155 |

Source: Processed primary data

Table 14. Total Eigen Vector value for alternative P3 – entrepreneurship coaching and training

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.17 | 0.044 |
| Boosting labor skills and competence | 0.250 | 0.16 | 0.040 |
| Increasing access and information | 0.219 | 0.13 | 0.029 |
| developing work ethics and motivation | 0.275 | 0.13 | 0.036 |
| Total Eigen Vector Alternative P1 | | | 0.149 |

Source: Processed primary data

Table 15. Total Eigen Vector value for alternative P4 – Providing capital or business loan for small entrepreneurs

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.21 | 0.054 |
| Boosting labor skills and competence | 0.250 | 0.26 | 0.065 |
| Increasing access and information | 0.219 | 0.24 | 0.053 |
| developing work ethics and motivation | 0.275 | 0.25 | 0.069 |
| Total Eigen Vector Alternative P1 | | | 0.242 |

Source: Processed primary data

Table 16. Total Eigen Vector value for alternative P5 – Connecting supply and demand in the labor market through job fairs, virtual offering, etc.

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.16 | 0.041 |
| Boosting labor skills and competence | 0.250 | 0.14 | 0.035 |
| Increasing access and information | 0.219 | 0.15 | 0.037 |
| developing work ethics and motivation | 0.275 | 0.15 | 0.041 |
| Total Eigen Vector Alternative P1 | | | 0.154 |

Source: Processed primary data

Table 17. Total Eigen Vector value for alternative P6 – Improving the quality of investment bureaucracy to increase the easiness of doing business and the easiness to have investment permits

| Criteria | EVM Value of each Criteria | EVM Value of Alternative P1 in each criteria | Eigen Vector Alternative P1 |
|--|----------------------------|--|-----------------------------|
| Creating job opportunity | 0.256 | 0.15 | 0.038 |
| Boosting labor skills and competence | 0.250 | 0.13 | 0.033 |
| Increasing access and information | 0.219 | 0.13 | 0.029 |
| developing work ethics and motivation | 0.275 | 0.12 | 0.033 |
| Total Eigen Vector Alternative P1 | | | 0.134 |

Source: Processed primary data

The above data provides Eigen Vector value for each alternative in this study. This value is then used to decide which alternatives are to be prioritized. The result is summarized in the following table:

Table 18. Ranking of Alternatives (Policy and Program Priorities to accelerate the progress of reducing unemployment

| Alternatives code | Alternatives (Policy and Program that aimed to Reduce Unemployment) | Eigen Vector Value | Priority / Ranking |
|---------------------------------|--|--------------------|--------------------|
| P1 | Competency based training program | 0.148 | 5 |
| P2 | Labor Intensive and Community Empowerment Program | 0.155 | 2 |
| P3 | Entrepreneurship coaching and training | 0.149 | 4 |
| P4 | Providing capital or business loan for small entrepreneurs | 0.242 | 1 |
| P5 | Connecting supply and demand in the labor market through job fairs, virtual offering, etc. | 0.154 | 3 |
| P6 | Improving the quality of investment bureaucracy to increase the easiness of doing business and the easiness to have investment permits | 0.134 | 6 |
| Total Eigen Vector Value | | 1.000 | |

Source: Processed primary data

Table 18 clearly showed that the first priority of policy or program that would be able to accelerate the progress of reducing unemployment is alternative P4, that is Providing capital or business loan for small entrepreneurs. This result has proved that many unemployed persons in Sumbawa are interested to be entrepreneur instead of being salaryman. This result is a good news for Sumbawa since it has been proven in many researches that entrepreneur is the driving wheel of economy in a country or a region [16].

On the other hand, despite of that huge interest to be entrepreneur, the respondents were mostly not aware of legal aspects of their business. It could be seen by the very low value of Eigen Vector for alternative P6, the bureaucratic process of getting business permits. It means that most of the respondents that wanted to be entrepreneur are only planned to be an informal entrepreneur self-employed worker which is very common in Indonesian economy. Dahles and Prabawa[17] described these informal entrepreneurs as necessity-driven and survivalist businesses that are mostly unskilled and lack of capital. The condition that had been believed to be the cause of poverty in Indonesia [18]. However, Laura et al [19] on their study in Indonesia revealed that many entrepreneurs that started their businesses recently are more driven to formalized their business,

especially for women entrepreneurs that are older, married, and rural based.

CONCLUSION

To conclude, every policy and program that aimed to reduce unemployment rate in Sumbawa should consider the criteria of developing work ethic and motivation as a criteria's first priority. However, the other criteria are also significant and substantial to be considered as it has significant value of Eigen Vector Mean (EVM).

Moreover, considering all of the criteria, the policy and program to reduce unemployment that should be prioritized by the local government of Sumbawa is providing capital and business loan for small entrepreneurs that earned 24.2% relative value compared to other criteria. The second program priority that resulted in this study is enhancing labor intensive and community empowerment program that earned 15.5% relative value. Lastly, the very least priority of program that had been believed to be less important in reducing unemployment in Sumbawa is improving the quality of investment bureaucracy in order to increase the easiness of doing business and the easiness of having investment permits. The program had only 13.4% relative value to other program alternatives provided in this study.

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