Priority Scale Analysis Using Analytical Hierarchy Process (AHP) to Determine Traditional Market Development in Tulungagung District

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Abstract—*In 2018, the availability of funds in Tulungagung District, for the management of traditional market development, amounts to 12 billion rupiah. Meanwhile, the budget allocation for traditional market development programs decreased to only about 25% of the total expected budget. Thus, there are only about 3 billion rupiahs that can be certainly obtained. Therefore, it seems that the number of traditional markets that will be handled is not balanced with the available funds. This research is conducted to obtain the weight of aspects and criteria and to obtain the order of alternative ranking of traditional market development in Tulungagung District which is adjusted to the highest available budget. The data analysis method is Analytic Hierarchy Process (AHP) applied to the answers of the questionnaires distributed to 15 respondents of people who know and are involved in the allocation of traditional market development funds in Tulungagung District. Based on the research findings and data analysis, the order of the weight of the aspects used in determining the allocation of funds for traditional market development in Tulungagung District is the Technical Aspect (A) of 0.399, the Accessibility Aspect (B) of 0.157, the Cost Aspect (C) of 0.329, and the Area Development Aspect (D) of 0.115. Moreover, the weight of the criteria for A1 is 0.281, A2 is 0.718, B1 is 0.369, B2 is 0.166, B3 is 0.212, B4 is 0.253, C1 is 0.377, C2 is 0.367, C3 is 0.142, C4 is 0.113, D1 is 0.114, D2 is 0.202, D3 is 0.305, and D4 is 0.372. Next, the order of the alternative ranking of traditional market development in Tulungagung District is Bandung Market with a weight of 0.351, Ngunut Market with a weight of 0.267, Karangrejo Market with a weight of 0.165, Boyolangu Market with a weight of 0.101, Campurdarat Market with a weight of 0.074, and Wage Market with a weight of 0.042. The market that will be built according to the highest available budget is Bandung Market (E5), i.e. 3 billion rupiah. Future research can be developed using other application programs, such as web-based applications, so that the application can be quickly accessed and processed at anywhere by the stakeholders.*

Keywords— *AHP, Market, Priority, Traditional.*

I. INTRODUCTION

Infrastructure development, one of which is the market, plays an important role in driving the pace of economic growth. Infrastructure development of a country must be in line with the macroeconomic conditions of the country. The existence of adequate infrastructure is required; one of them is market infrastructure. Limited development of market infrastructure, especially traditional markets, has caused a slow rate of investment. In recent years, it has been alleged that Indonesia's economic development has been hampered, in addition to bureaucratic problems due to the lack of infrastructure in Indonesia [1]. In fact, if the infrastructure problem is resolved, Indonesia's economic growth will be even better than before.

In order to increase the acceleration and to sharpen of the priority of market infrastructure development, especially traditional markets, the support of partisanship and commitment from development policy makers is indispensable, both at the central and regional levels. Sharpening these priorities basically must be reflected in the right development and funding allocation in which the amount is in accordance with the planned needs. Thus, it can be considered that proper development and budget allocation reflect alignments and commitment of policy makers in advancing the market infrastructure sector in the regional area.

In the case of Tulungagung District, the development of a market that uses funds from the Regional Revenue and Expenditure Budget is the responsibility of the Department of Industry and Trade of the Tulungagung District; starting from the process of fund allocation, planning, implementation and supervision. As we all know that, funds are one of the most important parts of the success of construction projects in which without the right funds, a project is impossible to be implemented properly. As in other regions, the allocation of funds devoted to the development of construction projects in Tulungagung District, especially traditional market development projects, is still uncertain and very minimal in number every year.

This is one of the toughest challenges to the problem of infrastructure in Tulungagung District in which the budget needed for the development is quite large, but the available funds are very minimal. In 2018, the proposed fund in the management of traditional market development as a whole is 12 billion rupiah. Meanwhile, the budget allocation for traditional market development programs decreased to only

about 25% of the total expected budget. Thus, there are only about 3 billion rupiahs that can be certainly obtained. Therefore, it seems that the number of traditional markets that will be handled is not balanced with the available funds. Therefore, it is necessary to prioritize the selection or determination of traditional market development which will be carried out in advance in accordance with the available budget. This selection certainly requires the right criteria and methods so that the policies taken can be accounted for.

During this time, the determination of the priority order for traditional market development in Tulungagung District was based on Law No. 25 of 2004 [2] concerning the National Development Planning System and community proposals through the mechanism of the Development Planning Consultation (Musrenbang) with Regional Development Planning Agency or through proposals submitted directly from each region; starting from the village level, the sub-district level, the regent level and related technical services, in this case the Department of Industry and Trade in Tulungagung District. It is carried out with the budget and technical criteria. Regarding to this, the criteria affect the order of priorities which have not gone through a method that can be accounted for scientifically. Thus, the order of priority for market development is still widely debated.

Broad debate is generally focused on alternatives that must be chosen. Since there are many stakeholders, an alternative is chosen and not on what aspects and what criteria determine the choice of an alternative, which from various aspects and criteria, certainly has a different importance. Therefore, it is important to determine the weight of aspects and criteria in accordance with the expectations of stakeholders. Furthermore, the determination of the weight of aspects and criteria that must exist in the alternative selection process is a process of inter-alternative assessment of all stakeholders on the aspects and criteria that are taken into consideration.

Therefore, a research is very important to be carried out to get the right way to make decisions in the development of traditional markets that can be accounted for and adjusted to existing funds. All aspects and criteria are treated fairly in accordance with their respective interests. In addition, among the existing methods, the Analytical Hierarchy Process (AHP) is estimated to be the most suitable method to be implemented considering that traditional markets are one of the facilities for public use.

This research is a manifestation of the dedication of the Civil Apparatus in the scope of the Government of Tulungagung District, with the hope that this will inspire policy makers in determining priorities in decision making. In addition, in the future, if the budgeting system uses e-planning and e-budgeting, the decisions/policies taken to plan these activities are the right decisions/policies.

II. RESEARCH METHOD

A. Research Objectives

This research aims to get the weight of aspects and criteria considered in determining the alternatives of traditional market development in Tulungagung District and determine the order in which the priority of traditional market development in Tulungagung District must be carried out. This research applies survey method by collecting opinions, experiences and attitudes of respondents who know the problems that have been experienced in the development of traditional markets in Tulungagung DIstrict, by taking primary data through a questionnaire. Based on the aspects and criteria that become the priority of traditional market development in Tulungagung DIstrict, it determines the Aspects, Criteria and Alternatives to be used as points of the questions which are then measured in the form of questionnaires. Furthermore, the results of the questionnaire will be processed using a tool in the form of Expert Choice software.

B. Research Setting

This research was conducted on the proposed traditional market development projects in Tulungagung District which are planned to be built in the fiscal year of 2018. The proposals for these projects are presented in the following Table I.

TABLE I. List of 2018 Market Development Project Plans

No	Name of Projects	Available Budgets
1	Wage Market Development	IDR 3,000,000,000
2	Boyolangu Market Development	IDR 1,000,000,000
3	Karangrejo Market Development	IDR 1,000,000,000
4	Ngunut Market Development	IDR 3,000,000,000
5	Bandung Market Development	IDR 3,000,000,000
6	Campurdarat Market Development	IDR 1,000,000,000
	Total	IDR 12,000,000,000

C. Population

The research population is the policy makers or decision makers who also know and are involved in the activities of traditional market development projects in Tulungagung District which are handled by the Department of Industry and Trade of Tulungagung District; as many as 16 people. In this research, the samples are taken randomly using disproportionate stratified random sampling [3]. The total number of samples to be taken is 15 respondents.

D. Data Processing and Data Analysis

The data obtained from the results of the survey (questionnaire) will later be processed to obtain information in the form of tables. The processed data results are used to answer the question in the research problems. The data processing should pay attention to the type of data collected by concentrating on the objectives to be achieved. The accuracy in the analysis technique greatly influences the accuracy of the research findings. The data analysis technique used is the AHP method with the help of Expert Choice software.

E. Hierarchical Structure

Hierarchy is very helpful in bringing the system towards the desired goal. This research applies is functional hierarchy; the hierarchy that is formed by four levels. The first level is the goal and the second is the Aspect. There are four types of Aspects that include Technical Aspect (A), Accessibility Aspect (B), Cost Aspect (C), Regional Development Aspect (D). The third level is Criteria that include Difficulty Level of Market Development (A1), Number of Visitors that Shop to

Market (A.2), Neighborhood Population (B1), Neighborhood Population Characteristics (B2), Market Functional Classification (B3), Average Travel Time to Market (B4), Material Cost (C1), Amount of Cost Equipment (C2), Amount of Transportation Cost (C3) and Amount of Worker Cost (C4), Geographical Location (D1), Economic Activity (D2), Regional Area (D3) and Natural Resource (D4). Meanwhile, level four is an Alternative, which consists of Wage Market Development (E1), Boyolangu Market Development (E2), Karangrejo Market Development (E3), Ngunut Market Development (E4), Bandung Market Development (E5) and Campurdarat Market Development (E6) The complete hierarchy can be seen in the following Fig. 1.
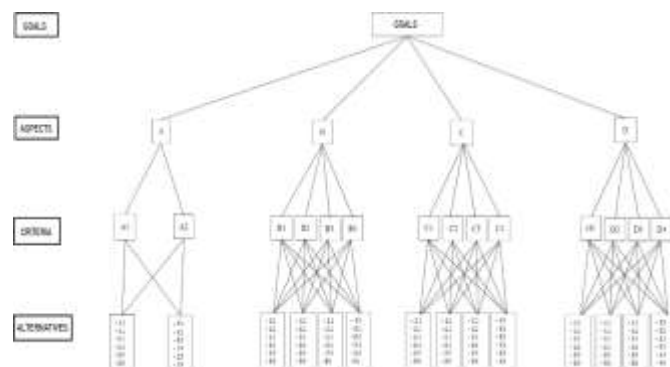

Fig. 1. Hierarchical structure [4].

F. Data Analysis Method Using AHP

AHP is used to determine the weight of each aspect, criterion, and alternative. This weighting process is carried out with the help of Expert Choice 2012 software. The following are the steps of analysis using AHP:

1. Arrange a hierarchical structure based on the results of the questionnaire and develop a hierarchical structure consisting of aspects, criteria and alternatives.
2. Collect pairwise comparison data for all aspects, criteria and alternatives using simple random sampling technique.
3. Compile pairwise comparison matrix for all aspects, criteria and alternatives.
4. Calculate the respondent's average geometric answer based on the equation for all aspects, criteria and alternatives.
5. Input all results of step 4 into the Expert Choice software.
6. Check the correlation test results in each paired comparison matrix.
   - Calculate CI based on the equation.
   - Calculate CR based on the equation; if CR = 0 for n = 2, CR ≤ 5% for n = 3, CR ≤ 8% for n = 4 and CR ≤ 10% for n = 5, then the matrix is consistent. If there is a pairwise comparison matrix that is inconsistent, pairwise comparisons are made. Then, change the aij the cause of inconsistency to be w_i/w_j based on the equation.
7. Make decision
   - Calculate alternative score tables in pairs with alternative aspects, criteria and scores.
   - The end result is a priority scale or rank that is sorted by the highest total score to the lowest.

G. Expert Choice

In this research, the Expert Choice is used to process and analyze the data of questionnaires from 15 respondents who knew and were involved in traditional market development project at the Department of Industry and Trade in Tulungagung District.

All work sequences of this research can be seen in the following Fig. 2.

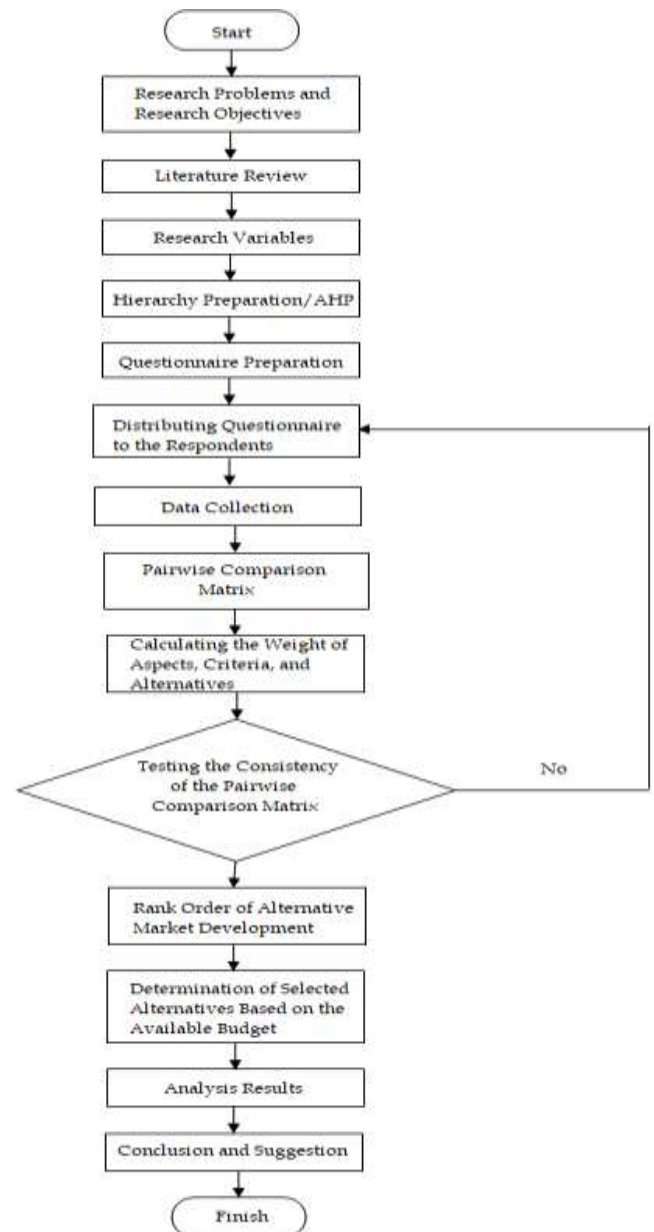Fig. 2. Research flow chart

III. ANALYSIS AND DISCUSSION

A. Hierarchical Structure (AHP)

Functional hierarchy is very helpful to bring the system towards the desired goal. This research uses functional hierarchy. This hierarchy consists of three levels consisting of:

1. The first level is the goal; the determination of the criteria for the determinants of traditional market development

2. The second level is criteria which has four aspects consisting of:
   A. Technical Aspect
   B. Accessibility Aspect
   C. Cost Aspect
   D. Regional Development Aspect

3. The third level is sub-criteria which has 14 kinds of criteria consisting of:
   A1. Difficulty Level of Market Development
   A2. Number of Visitors that Shop to Market
   B1. Neighborhood Population
   B2. Neighborhood Population Characteristics
   B3. Market Functional Classification
   B4. Average Travel Time to Market
   C1. Material Cost
   C2. Equipment Cost
   C3. Transportation Cost
   C4. Worker Cost
   D1. Geographical Location
   D2. Economic Activity
   D3. Regional Area
   D4. Natural Resource

4. The sixth level is the alternatives consisting of:
   E1. Wage Market Development
   E2. Boyolangu Market Development
   E3. Karangrejo Market Development
   E4. Ngunut Market Development
   E5. Bandung Market Development
   E6. Campudarat Market Development
   The complete hierarchy can be seen in Fig. 1

B. Determining Priorities Using Expert Choice Software

1. Weight Determination and Consistency Test

Comparison of pairs in the aspects of the initial stage of data processing is to enter data from the results of the questionnaire in comparison to aspects obtained from 15 respondents with the weight of the assessment obtained after the calculation of the comparison is carried out. After that, the Consistency Ratio is calculated by comparing the Consistency Index and the Random Consistency Index with the condition that it cannot exceed the predetermined threshold. After all the data are stated to be consistent then it will get a geometric average of $\overline{X}_g$ for each pair of aspects, then we will calculate the aspect weighting. In weighting the aspects, there are four aspects that are taken into consideration in allocating funds to develop market improvements, which include: Technical Aspect, Accessibility Aspect, Cost Aspect and Regional Development Aspect. Based on the research data, the criteria weight for each aspect and criteria is calculated. By using the Expert Choice software, the results of the weight of each aspect are as follows:

TABLE II. Weight and Consistency Ratio Value for Pairwise Matrix Comparison of the Aspects

Criteria	Weight
Technical Aspect (A)	0.399
Accessibility Aspect (B)	0.157
Cost Aspect (C)	0.329
Regional Development Aspect (D)	0.115
CR (Consistency Ratio)	**0.01**

Based on Table II, it is found that based on the results of the AHP analysis, CR weight and consistency ratio values for pairwise comparison matrix between aspects obtained CR is 0.01, meaning that the matrix of the aspect is considered to be consistent, because the CR value is < 10%. On the other hand, it is also found that the Technical Aspect has the largest weight of 0.399 or 39.9%. The second position is Cost Aspect with the weight of 0.329 (32.9%). The third position is Accessibility Aspects with the weight of 0.157 (15.7%). The last is the Regional Development Aspect with the weight of 0.115 (11.5%).

Comparison of criteria pairs in the next aspect is by entering data from the results of the questionnaire on the comparison of criteria in aspects obtained from 15 respondents with the weighting of the assessment. After the comparison calculation is carried out, then the Consistency Ratio is calculated by comparing the Consistency Index with the Random Consistency Index with the condition that it cannot exceed the specified threshold. After all the data are considered to be consistent then a geometric average of $\overline{X}_g$ will be obtained for each pair of the aspects.

2. Criteria Weighting

Technical Aspect

There are two criteria found in the Technical Aspect. Both of these criteria are factors that influence which market selection requires funding allocation. These two items are the Difficulty Level of Market Development (A1) and the Number of Visitors that Shop to the Market (A2). Next, the weight of each criterion is calculated which then produces the following weights:

TABLE III. Weight and Consistency Ratio Value for Criteria Based on Technical Aspect

Criteria	Weight
Difficulty Level of Market Development (A1)	0.282
Number of Visitors that Shop to the Market (A2)	0.718
CR (Consistency Ratio)	**0.000**

Based on Table III, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the pairwise comparison matrix between criteria based on the Technical Aspect get CR value of 0.000. It means that the matrix of the criteria is considered to be consistent because the CR value is < 10%. In addition, the criteria for the Number of Visitors that Shop to the Market (A2) has a weight of 0.718 (71.8%) which is greater than the other criteria.

Accessibility Aspect

There are four criteria found in the Accessibility Aspect. These four criteria are factors that influence the selection decision of which market requires funding allocation. The four items are Total Population (B1), Population Characteristic (B2), Market Functional Classification (B3) and Average Travel Time to Market (B4). Furthermore, the weight of each criterion is calculated which results in the following weights:

Based on Table IV, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the pairwise comparison matrix between criteria based on the

Accessibility Aspect get CR value of CR 0.04. It means that the matrix of the criteria is considered to be consistent because the CR value is < 10%. Total Population Criterion has the highest weight compared to the other three criteria, which is 0.369 (36.9%).

TABLE IV. Weight and Consistency Ratio Values for Criteria Based on Accessibility Aspect

Criteria	Weight
Total Population (B1)	0.369
Population Characteristic (B2)	0.166
Market Functional Classification (B3)	0.212
Average Travel Time to Market (B4)	0.253
CR (Consistency Ratio)	**0.04**

Cost Aspect

There are four criteria contained in the Cost Aspect. These four criteria are factors that influence which market selection requires funding allocation. The four items are Material Cost (C1), Equipment Cost (C2), Transportation Cost (C3) and Worker Cost (C4). Then the weight of each criterion is calculated and the following weights are generated:

TABLE V. Weight and Consistency Ratio Values for Criteria Based on Cost Aspect

Criteria	Weight
Material Cost (C.1)	0.377
Equipment Cost (C.2)	0.367
Transportation Cost (C.3)	0.142
Worker Cost (C.4)	0.113
CR (Consistency Ratio)	**0.00**

Source: The Analysis Results

Based on Table V, From the results of the AHP analysis, the CR value of the weight and consistency ratio value for the pairwise comparison matrix between criteria based on the Cost Aspect get CR value of 0.000. It means that the matrix of the criteria is considered to be consistent because the CR value is < 10%. In addition, the largest weight is the Material Cost that amounts to 0.377 (37.7%) which is greater than the other criteria.

Regional Development Aspect

There are four criteria contained in the Regional Development Aspect. These four criteria are factors that influence which market selection requires funding allocation. The four items are Geographical Location (D1), Economic Activity (D2), Regional Area (D3) and Natural Resource (D4). Then the weight of each criterion is calculated and the following weights are generated:

TABLE VI. Weight and Consistency Ratio Values for Criteria Based on Regional Development Aspect

Criteria	Weight
Geographical Location (D1)	0.120
Economic Activity (D2)	0.202
Regional Area (D3)	0.305
Natural Resource (D4)	0.372
CR (Consistency Ratio)	**0.01**

Based on Table VI, From the results of the AHP analysis, the CR value of the weight and consistency ratio value for the pairwise comparison matrix between criteria based on the

Regional Development Aspect get CR value of 0.01. It means that the matrix of the criteria is considered to be consistent because the CR value is < 10%. Table 6 also shows that the criterion of Natural Resource has the highest weight of 0.372 (37.2%).

3. Alternative Weighted Scores Based on Criteria
Alternative Comparison in each Criteria

Next is to enter data from the results of the questionnaire on alternative comparisons of the criteria in aspects that are obtained from 15 respondents. After calculating the comparison, then the Consistency Ratio is calculated by comparing the Consistency Index with the Random Consistency Index with the condition that it cannot exceed the predetermined threshold. After all data is declared consistent, then the geometric mean value of $\overline{X}_g$ are obtained for each pair of aspects, which then will calculate the aspects of weight as follows.

Criteria of Technical Aspect

Comparison between alternatives based on criteria there are 2 pairwise comparison matrices. The following presents the alternative weights for each criterion.

TABLE VII. Alternative Priorities by Observing Criteria of the Technical Aspect (A)

Markets	A.1	A.2
Wage Market (E1)	0.041	0.040
Boyolangu Market (E2)	0.105	0.091
Karangrejo Market (E3)	0.178	0.167
Ngunut Market (E4)	0.268	0.283
Bandung Market (E5)	**0.341**	**0.341**
Campurdarat Market (E6)	0.068	0.078
CR	**0.01**	**0.01**

Based on Table VII, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the two criteria is 0.01 respectively. It means that the matrix of the two criteria is considered to be consistent because the CR value is < 10%. In addition, it is found that the market priorities that must be corrected according to each of the A1 and A2 criteria are to prioritize the Bandung Market which requires improvement first.

Criteria of Accessibility Aspect

Comparison between alternatives based on Criteria of Accessibility Aspect includes 4 pairwise comparison matrices. The following presents the alternative weights for each criterion:

TABLE VIII. Alternative Priorities by Observing Criteria of Accessibility Aspect (B)

Markets	B.1	B.2	B.3	B.4
Wage Market (E1)	0.041	0.040	0.042	0.044
Boyolangu Market (E2)	0.105	0.101	0.092	0.113
Karangrejo Market (E3)	0.178	0.164	0.159	0.157
Ngunut Market (E4)	0.268	0.248	0.270	0.255
Bandung Market (E5)	**0.341**	**0.386**	**0.365**	**0.359**
Campurdarat Market (E6)	0.068	0.062	0.072	0.072
CR	**0.01**	**0.01**	**0.01**	**0.01**

Source: The Analysis Results

Based on Table VIII, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the four criteria is 0.01 respectively. It means that the matrix of the four criteria is considered to be consistent because the CR value is < 10%. Other results indicate that market priorities that must be corrected according to criteria B1, B2, B3 and B4 are prioritizing the Bandung Market which requires improvement first.

Criteria of Cost Aspect

Comparison between alternatives based on the Criteria of the Technical Aspect has 4 pairwise comparison matrices. The following presents the alternative weights for each criterion.

TABLE IX. Alternative Priorities by Observing Criteria of Cost Aspect (C)

Markets	C.1	C.2	C.3	C.4
Wage Market (E1)	0.043	0.043	0.039	0.041
Boyolangu Market (E2)	0.103	0.108	0.103	0.112
Karangrejo Market (E3)	0.160	0.164	0.172	0.151
Ngunut Market (E4)	0.271	0.263	0.265	0.258
Bandung Market (E5)	**0.350**	**0.357**	**0.339**	**0.361**
Campurdarat Market (E6)	0.074	0.066	0.081	0.077
CR	0.01	0.01	0.01	0.01

Based on Table IX, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the four criteria is 0.01 respectively. It means that the matrix of the four criteria is considered to be consistent because the CR value is < 10%. Other results indicate that market priorities that must be corrected according to criteria C1, C2, C3 and C4 are prioritizing the Bandung Market which requires improvement first.

Criteria of Regional Development Aspect

Comparison between alternatives based on the criteria of the Regional Development Aspect has 4 pairwise comparison matrices. The following presents the alternative weights for each criterion:

TABLE X. Alternative Priorities by Observing Criteria of Regional Development Aspect (D)

Markets	D.1	D.2	D.3	D.4
Wage Market (E1)	0.039	0.041	0.046	0.045
Boyolangu Market (E2)	0.106	0.107	0.102	0.093
Karangrejo Market (E3)	0.149	0.178	0.161	0.155
Ngunut Market (E4)	0.265	0.257	0.256	0.278
Bandung Market (E5)	**0.366**	**0.354**	**0.358**	**0.356**
Campurdarat Market (E6)	0.075	0.063	0.078	0.074
CR	0.01	0.01	0.01	0.00

Based on Table X, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the four criteria is 0.01 and 0.00 respectively. It means that the matrix of the four criteria is considered to be consistent because the CR value is < 10%. Other results indicate that market priorities that must be corrected according to criteria D1, D2, D3 and D4 are prioritizing the Bandung Market which requires improvement first.

4. Alternative Weighted Scores Based on Aspects

Comparison between alternatives based on aspects has 5 pairwise comparison matrices. The following presents the alternative weighting criteria:

TABLE XI. Alternative Priority Tables Based on the Aspects

Markets	A	B	C	D
Wage Market (E1)	0.040	0.042	0.042	0.044
Boyolangu Market (E2)	0.096	0.104	0.106	0.100
Karangrejo Market (E3)	0.168	0.166	0.162	0.161
Ngunut Market (E4)	0.271	0.262	0.266	0.265
Bandung Market (E5)	**0.346**	**0.357**	**0.352**	**0.357**
Campurdarat Market (E6)	0.078	0.069	0.072	0.073
CR	0.01	0.01	0.01	0.01

Based on Table XI, from the results of the AHP analysis, the CR value of the weight and consistency ratio value for the four criteria is 0.01 respectively. It means that the matrix of the four criteria is considered to be consistent because the CR value is < 10%. Moreover, it is found that market priorities that must be corrected according to all criteria (A, B, C, and D) are prioritizing the Bandung Market which requires improvement first.

5. Determining Overall Alternative Priorities

The determination of alternative priorities as a whole is the final conclusion of some of the main priorities obtained based on Aspects and Criteria. The weighting results for local and global priorities as a whole are presented in Table XII as follows:

TABLE XII. Local and Global Priorities and Overall Priorities

Alternatives	Weight
Wage Market (E1)	0.042
Boyolangu Market (E2)	0.101
Karangrejo Market (E3)	0.165
Ngunut Market (E4)	0.267
Bandung Market (E5)	0.351
Campurdarat Market (E6)	0.074

Based on Table XII, it can be seen that the alternative of Wage Market (E1) has an overall weight of 0.042, the alternative of Boyolangu Market (E2) has an overall weight of 0.101, the alternative of Karangrejo Market (E3) has an overall weight of 0.165, the alternative of Ngunut Market (E4) has an overall weight of 0.267, the alternative of Bandung Market (E5) has an overall weight of 0.351 and the alternative of Campurdarat Market (E6) has an overall weight of 0.074. Thus, separately the priority scale of overall alternatives can be presented in the following Table XIII:

TABLE XIII. Overall Alternative of Priority Scale

Alternative	Weight	Rank
Bandung Market (E5)	0.351	1
Ngunut Market (E4)	0.267	2
Karangrejo Market (E3)	0.165	3
Boyolangu Market (E2)	0.101	4
Campurdarat Market (E6)	0.074	5
Wage Market (E1)	0.042	6

Source: The Analysis Results

Based on Table XIII, it can be seen that the overall fifth alternative (E5), namely the improvement of the Bandung Market, has the largest overall weight of 35.1%. Therefore, it can be considered that the Bandung Market is prioritized for allocating funds first.

6. Determination of Priority Alternatives Based on the Available Budget

Determination of priorities in the allocation of development funds for the markets that are going to be corrected based on the available budget which can be seen in the Table XIV.

TABLE XIV. Overall Alternative of Priority Scale

Rank No	Alternatives	Cost	Cumulative Costs
1	Bandung Market	IDR 3,000,000,000	IDR 3,000,000,000
2	Ngunut Market	IDR 3,000,000,000	IDR 6,000,000,000
3	Karangrejo Market	IDR 1,000,000,000	IDR 7,000,000,000
4	Boyolangu Market	IDR 1,000,000,000	IDR 8,000,000,000
5	Campurdarat Market	IDR 1,000,000,000	IDR 9,000,000,000
6	Wage Market	IDR 3,000,000,000	IDR 12,000,000,000

The above table shows the order of alternative priorities and the cumulative costs required. Therefore, with a budget ceiling of only 25% or 3 billion rupiah, the market that gets full handling is the market in the first rank. Meanwhile, the rest cannot get the improvement because of limited funds. So, they can be allocated in the next fiscal year.

IV. CONCLUSIONS

The order of the weighted aspects used in determining the allocation of funds for traditional market development in Tulungagung District is the Technical Aspect (A) of 0.399, Accessibility Aspect (B) of 0.157, Cost Aspect (C) of 0.329, and Regional Development Aspect (D) of 0.115. Meanwhile, the weight of the criteria for A1 is 0.281, A2 is 0.718, B1 is 0.369, B2 is 0.166, B3 is 0.212, B4 is 0.253, C1 is 0.377, C2 is 0.367, C3 is 0.142, C4 is 0.113, D1 is 0.120, D2 is 0.202, D3 is 0.305 and D4 is 0.372.

The rank order of alternative traditional market development in Tulungagung District starts from Bandung Market with a weight of 0.351, Ngunut Market with a weight of 0.267, Karangrejo Market with a weight of 0.165, Boyolangu Market with a weight of 0.101, Campurdarat Market with a weight of 0.074, and Wage Market with a weight of 0.042.

The priority of determining the market that gets the development opportunity adjusted to the available budget is the Bandung Market (E5) that amounts to 3 billion rupiah. Meanwhile, if the available budget does not meet the budget needs, then the development will be carried out in stages with the principles of development.

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