


Decision Support System for West Manggarai Tour Packages Using the SMART Method

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ARTICLE INFO	ABSTRACT
<p>Article history: Received Jun22, 2020 Revised Jul 02, 2020 Accepted Jul 15, 2020</p> <hr/> <p>Keywords: Decision Support System; MySql; Web Servers.</p>	<p>This Labuan Bajo Tourism Package Decision Support System is a decision support system created to assist tourists in determining the tour package that best fits the criteria based on the budget, length of trip and the weight of the destination desired by tourists. This Decision Support System uses the SMART (Simple Multi Attribute Rating Technique) method, the higher the weight of the criteria given, the greater the percentage of packages offered. This system has data on tourist attractions in Labuan Bajo which serves to support the decision-making process. The data entered in this system is in the form of the maximum package price and the desired length of the package trip. This system is built using ZK Framework scripting language with MySQL database and Apache web server.</p> <p><i>This is an open access article under the CC BY-NC license.</i></p> 

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1. INTRODUCTION

Visiting tourist attractions is one of the activities favored by tourists, both foreign and local, whether it's just to relieve stress from busy work with family by enjoying the beauty of nature and the tourist attractions themselves and many also do it for hobbies and for adventure. In Labuan Bajo, West Manggarai, there are many tourist attractions that offer natural beauty so that it attracts tourists to visit these tourist spots.

This can be seen by the number of foreign and local tourists who visit tourist attractions in Labuan Bajo. In April 2012 foreign tourist visits reached 40 thousand (Emmy Hafild to [kompas.com](#)). However, as written in the online newspaper KOMPAS, not all people are able to plan and finance travel well. For example, buying a plane ticket before departure, obviously the ticket price will be very expensive.

There are many industries and travel agents in Manggarai district which are service businesses in the form of individuals. In managing and serving industrial tourists and travel agents, they still do it manually. Tourists are required to come directly to Labuan Bajo and look for information about travel service bureaus then call the tour bureau or visit the travel agency to order a tour package. Sometimes when tourists visit the Labuan Bajo Tourism and Culture Office (Disbudpar) to get information about tourism, tourists can only get information in the form of addresses from tourist travel bureaus and tourist objects in Labuan Bajo.

With the development of internet technology that has spread, it is easy to communicate without limits of place and time. In obtaining tourist information, it is not possible to visit travel agents or the tourism industry one by one, to obtain information on tour packages offered by each travel agency. And with the Bajo Tour Package System, tourists can place orders and get information that can assist customers in determining tour bureaus and tour packages that suit the

tastes and budgets of customers, and make it easier for service providers to promote tour packages and other tourism industries. anytime and anywhere just by using the internet. Based on the above conditions, tourists can spend more time just to get information and order tour packages. This is considered less effective in helping tourists to make decisions, because tourists must first come to the tourism information service bureau and cannot order tour packages. and in accordance with the criteria desired by tourists.

2. METHOD

The method used to design a web-based support system for taking Labuan Bajo tour packages is done by:

1. Preparation

What is meant by this preparation is that it begins with the preparation of proposals and administering permits in research.

2. Data collection

In data collection consists of:

- a. Direct consultation with parties who are experts in the field, in this case the supervisors, parties from the tourism and culture office of Labuan Bajo, and also parties involved in this system.
- b. Observations were made by making direct observations with existing physical situations and conditions.
- c. Literature study to obtain existing literature, in the form of books, internet media and references related to this title.

3. Analysis

The analysis phase carried out is an analysis of the main problems faced. In this stage will produce a cause-and-effect analysis. The stage of collecting data on system requirements and analyzing it, data collection carried out includes interviews, observations and literature studies.

3. RESULTS AND DISCUSSIONS

The results of the respondents' answers are then processed to obtain the following picture:

1. Questionnaire Results Based on Respondents User Answers

a. Aspect of convenience

The system is easy to use.

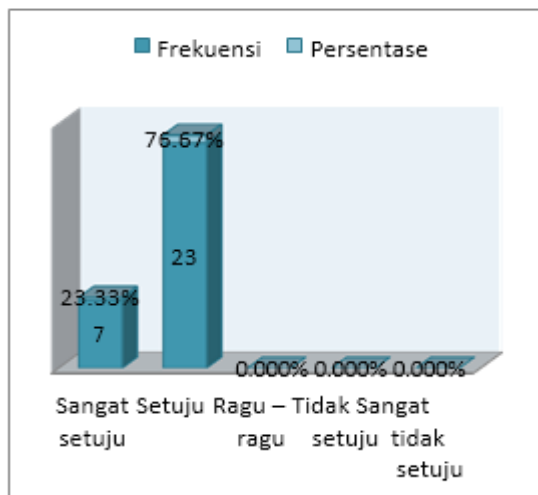
Table 1.

The results of the questionnaire respondents using the convenience aspect

	Frequency	Percentage
Strongly agree	7	23.33%
Agree	23	76.67%
Doubtful	0	0%
Do not agree	0	0%
Strongly disagree	0	0%

From the calculation results in Table 1, it can be concluded that the system is easy to use.

The graph of the calculation results can be seen in Figure 1 below:



b. Speed aspect

Respondents' answers to the statement:

The system helps speed up the process of searching for tour packages.

Table 2.

The results of the questionnaire respondents using the speed aspect

	Frequency	Percentage
Strongly agree	20	66.67%
Agree	9	30.00%
Doubtful	1	3.33%
Do not agree	0	0%
Strongly disagree	0	0%

From the results of the calculations in Table 2, it can be concluded that the system helps tourist search

c. Usability aspect

Respondents' answers to the statement:

The system helps provide package recommendations that match the entry criteria

Table 3.

The results of the questionnaire respondents use aspects of usability

	Frequency	Percentage
Strongly agree	20	66.67%
Agree	8	26.67%
Doubtful	2	6.67%
Do not agree	0	0%
Strongly disagree	0	0%

From the calculation results, it can be concluded that the system helps provide package recommendations that match the input criteria. The graph of the calculation results can be seen in Figure 2 below:

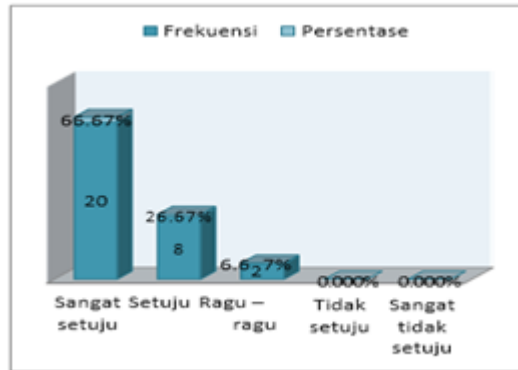


Figure 2. Usability aspect

- d. Beauty aspect
 Respondents' answers to the statement:
 Attractive system display.

Table 4.

The results of the questionnaire respondents using the beauty aspect

	Frequency	Percentage
Strongly agree	5	16.67%
Agree	25	83.33%
Doubtful	0	0%
Do not agree	0	0%
Strongly disagree	0	0%

From the calculation results in Table 4 it can be concluded that the system display is attractive. The graph of the calculation results can be seen in Figure 3 below:

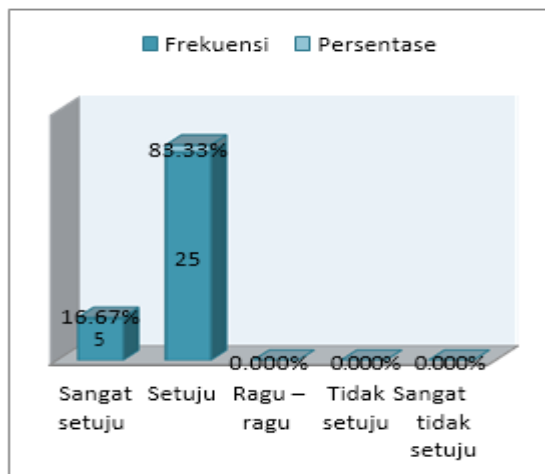


Figure 3. Attractive system display.

4. CONCLUSION

The Bajo Tour Package Decision Support System was successfully built using the Simple Multi Attribute Rating Technique (SMART) method, the Java programming language and MySQL as the database. only because the system is web-based and can be accessed anywhere. Admins and members can add, edit or delete data easily and as needed. From the results of the

questionnaire, it can be concluded that the system display is attractive and easy to use. The system can help provide tour package recommendations according to the input criteria. The system helps speed up the process of searching for tour packages.

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