

CONJOINE ANALYSIS TO MEASURE TOURIST PREFERENCES IN SA'DAN TO' BARANA TOURIST OBJECT, NORTH TORAJA REGENCY

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Abstract

The strategy for tourism development in Sa'dan To'Barana' was previously based on general assumptions without the support of quantitative data reflecting specific tourist preferences. This study aims to analyze tourists' preferences for the attributes of Sa'dan To'Barana' tourist attraction in North Toraja Regency using the conjoin analysis method. Quantitative methods were used in this study with surveys and questionnaires as the main tools whose results were statistically analyzed. The research population was tourists who visited Sa'dan To'Barana' tourist attraction between December 2024 and January 2025. The research sample consisted of people who had visited the tourist attraction. This study involves two variables: independent variables (tourist attraction attributes) and dependent variables (tourist preferences). The results show that accessibility and entrance fees are the two main factors that most influence tourists' preferences, both of which are more important than tourist facilities and management services. Correlation analysis showed a very strong relationship between observed and predicted preferences, with Pearson's R value of 0.947 and Kendall's tau of 0.768, both of which indicated significant positive correlations. These findings provide a basis for tourism managers to formulate more appropriate development strategies based on travelers' preferences.

INTRODUCTION

North Toraja is a district located in South Sulawesi Province, Indonesia. North Toraja Regency has a lot of extraordinary tourism potential, especially in the Sa'dan To'Barana'

destination. Sa'dan To'barana' is known for its natural beauty, traditional weaving crafts, and unique cultural richness. As one of the leading destinations, Sa'dan To'Barana' has a great opportunity to attract tourists, both domestic and foreign tourists. However, in efforts to develop this destination, there is one main challenge, namely understanding tourist preferences in depth to create a tourism experience that suits their expectations and needs. Until now, tourism development strategies in Sa'Dan To'Barana' s till tend to be based on general assumptions, without being supported by quantitative data that reflects specific tourist preferences. This is what can cause inaccuracies in determining priorities for facilities, services or activities offered to tourists. In fact, tourists have varying preferences for various tourism attributes, such as natural beauty, accessibility, ticket prices, supporting facilities, and cultural activities that can be participated in. Therefore, to answer this challenge, conjoint analysis is a relevant method for measuring tourist preferences quantitatively. Conjoint analysis allows tourism managers to understand what tourism attributes are most valued by tourists and the combination of attributes that can increase the attractiveness of Sa'dan To'Barana'. With this approach, managers can design development strategies that are data-based and more effective in meeting tourist expectations. Research regarding the application of conjoint analysis in Sa'dan To'Barana' is very important to provide concrete strategic recommendations. The results are not only useful in increasing tourist satisfaction but also in increasing the competitiveness of this destination in the midst of increasingly competitive tourism competition. Apart from that, it is hoped that this research will be able to support more sustainable tourism management and have a positive impact on local communities

LITERATURE REVIEW

Understanding Tourism Management

Tourism management is aligning economic growth and income with tourism services, environmental protection and conservation of cultural diversity (Dani & Mutaqin, 2023). Tourism management is an activity that is designing, managing and organizing tourism objects so that they can be used as tourist destinations by using every available resource such as human resources, natural resources, facilities and infrastructure, finance and other resources.

Understanding Preferences

Preference is a choice, inclination, interest or liking. It can indicate what an individual or group considers better, more attractive, or more appropriate based on their needs, values, or tastes. Preference is also defined as a person's choice of liking or disliking a product, good or service consumed (Dani & Mutaqin, 2023). Therefore, preferences can be interpreted as choices made regarding the products consumed

Understanding Conjoint Analysis

Conjoint is an analysis technique used in various fields such as linguistics, economics, or psychology, to understand preferences, choices, or behavior that consider several attributes together (Dani and Mutaqin, 2023).

In a linguistic context, kinjoin analysis can refer to the study of the use of conjunctions in a sentence and how they connect the elements in that sentence. However, the term conjoint analysis is often better known in the fields of economics and marketing. In this context, conjoint analysis is a statistical method used to identify how various attributes or services influence consumer decisions.

Conjoint analysis is a technique for measuring popularized preferences. Conjoint is a method used to determine consumer preferences by evaluating various product attributes simultaneously (Saputra and Murni, 2019).

RESEARCH METHODS

Types of research

The type of research used in this research is research using quantitative methods. This method aims to collect data from samples that represent the population to describe certain opinions, attitudes or characteristics. This method uses standard tools, such as surveys and questionnaires, then the results are analyzed statistically.

Data Type

The types of data used include:

- a) Primary data, obtained directly from respondents through a questionnaire prepared specifically for this research. The questionnaire contains questions designed to measuring tourists' preferences for five main attributes that influence their decision to visit the Sa'Dan To'Barana' tourist attraction.

b) Secondary data, in the form of previously existing information collected from relevant sources to support research.

Data source

The types of data sources used include:

- a) Survey respondents come from tourists who have visited or are planning to visit the Sa'Dan To'Barana' tourist attraction in North Toraja Regency
- b) Reports and related documents, in the form of tourism management documents containing information about the Sa'Dan To'Barana' tourist attraction, number of visitors and available facilities.

Population

Population refers to a group of people or objects that have similarities in one or several things that form the main visitors in a study. In this research, the population that will be used is tourists who visited the Sa'dan To'barana tourist attraction from December 2024 to January 2025.

Sample

The sample that will be used in this research are people who have visited the Sa'dan To'barana tourist attraction

research variables and operational definitions

The variables in this study are divided into two, namely:

a) Independent Variables (Tourist Object Attributes) Independent variables consist of various tourist object attributes that influence tourist decisions. These attributes include:

- Accessibility (X_1)
- Entrance Fee (X_2)
- Tourist Facilities (X_3)
- Management Services (X_4)

b) Dependent Variables (Tourist Preferences), the dependent variable in this study is tourist preferences (Y), which describes tourists' choices of attribute combinations in tourist objects.

Operational Definition of Variables

Table 1
Research Variables and Operational Definitions

Variable Type	Definition	Indicator
Tourist Preferences (Y)	Tourist preferences refer to the tendency or choice of tourists in determining certain destinations, activities, facilities, or tourism elements that suit their needs, interests, and expectations when traveling. These preferences are influenced by important factors, such as ease of access, unique attractions of the destination, ticket prices, service quality, and comfort of facilities. By understanding tourist preferences, tourism managers can design more effective strategies to meet visitor desires and increase their satisfaction during their travels (Kotler & Keller, 2021)	a. Ease of Access b. Destination Attraction
Accessibility (X_1)	Accessibility refers to the ease for tourists to reach a destination or facility, either through transportation or existing infrastructure.	a. Road Conditions b. Distance and Travel Time

	Factors that influence accessibility include road conditions, availability of transportation, travel time, and travel costs. Good accessibility will increase tourist comfort and attract more visitors to a destination (Dani & Mutaqin, 2023).	
Entry Fee (X ₂)	Entrance Fee is money paid by visitors to enter a tourist attraction. This fee is used to support the operation and maintenance of tourist facilities, as well as to regulate the number of visitors (Syahnas et al., 2020)	a. Availability of Discounts or Promotions b. Comparative Prices
Tourist Facilities (X ₃)	Tourism facilities refer to various facilities provided to support the comfort and needs of tourists, such as accommodation, restaurants, toilets, parking, transportation routes, and recreation areas. Adequate facilities can improve the experience and satisfaction of tourists during their visit to a destination (Koranti & Lestiyono, 2017).	a. Signs and Information Boards b. Parking Area
Management services (X ₄)	Management Services are the quality of services provided by tourism attraction managers to ensure visitor comfort and satisfaction. This includes providing information, tour guides, responding to complaints, and other assistance facilities that	a. Tour Guide Services b. Response to complaints

	support the tourist experience (Saputra & Murni, 2019).	
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Source: Processed data (2025)

Data collection techniques

The data will be collected using a survey method that relies on questionnaires to measure tourist preferences for predetermined attributes. No data is collected through in-depth interviews. This study also does not include interviews with the managers of tourist attractions, so the managers' perspectives will not be analyzed in this study.

Data Analysis Techniques

Research Results Data analysis in this study used the conjoint analysis method which aims to measure and identify tourist preferences for the attributes of the Sa'dan To' Barana tourist attraction. This conjoint analysis allows to identify the combination of attributes that most influence tourist decisions about tourist attractions. The statistical methods used in this study include the calculation of partial utilities for each attribute, which shows how much influence each attribute has on tourist preferences. For this analysis, basic and multivariate statistical data were processed with SPSS for more specific conjoint analysis, such as calculating utility values and market segmentation. This study will try to find which elements have the most impact on tourist preferences for the Sa'dan To' Barana tourist attraction in North Toraja Regency using this method.

RESULTS AND DISCUSSION

Test Results

1. Conjoint Analysis

Table 2
Results of Conjoint Analysis (Utilities)

		Utilities	
		Utility Estimate	Std. Error
Accessibility	Strongly Disagree	1,055	0.389
	Disagree	-0.745	0.389
	Neutral	0.059	0.389
	Agree	-0.501	0.389
	Strongly Agree	0.131	0.389
Entrance Fee	Strongly Disagree	0.303	0.389
	Disagree	-0.037	0.389
	Neutral	-0.989	0.389
	Agree	-0.013	0.389
	Strongly Agree	0.735	0.389
Tourist Facilities	Strongly Disagree	0.611	0.389
	Disagree	-0.269	0.389
	Neutral	0.275	0.389
	Agree	0.171	0.389
	Strongly Agree	-0.789	0.389

Management Services	Strongly Disagree	-0.693	0.389
	Disagree	0.911	0.389
	Neutral	-0.213	0.389
	Agree	-0.121	0.389
Tourist Preferences	Strongly Agree	0.115	0.389
	Strongly Disagree	0.295	0.389
	Disagree	0.375	0.389
	Neutral	-0.209	0.389
Agree	-0.161	0.389	
Strongly Agree	-0.301	0.389	
(Constant)	3.001	0.194	

Source: Processed data (SPSS, 2025)

Overall, accessibility and cost factors had the greatest influence on respondents' preferences.

Table 3
Results of Conjoint Analysis (Important Value)

Importance Values	Average Importance Score
Accessibility	24,811
Entrance Fee	22,781
Tourist Facilities	19,373
Management Services	21,254
Tourist Preferences	11,782

Source: Processed data (SPSS, 2025)

Overall, this data provides a snapshot of the factors that most influence travelers' decisions, with accessibility and cost being the two most important elements.

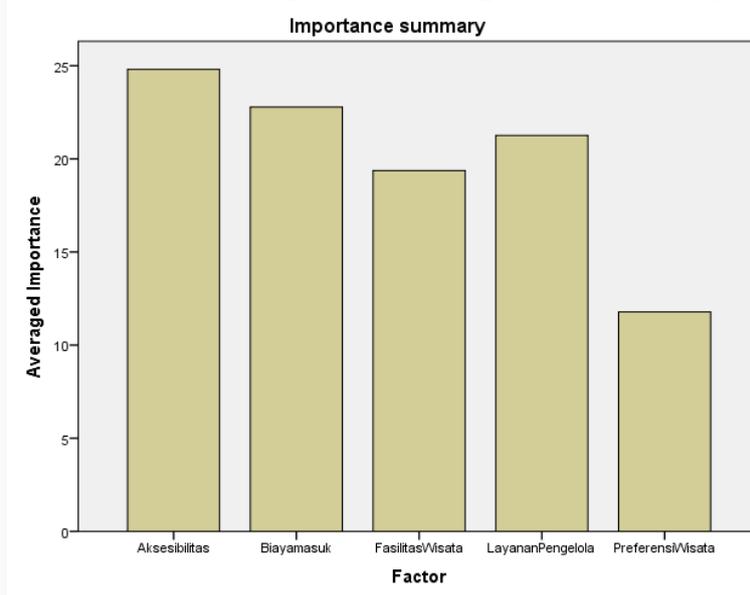


Figure 1 Importance Summary

1. Correlation Test

Table 4
Correlation Analysis Results

Correlation		
	Value	Sig.
Pearson's R	0.947	0.000
Kendall's know	0.768	0.000

a. Correlations between observed and estimated preferences

Source: Processed data (SPSS, 2025)

The results of the correlation analysis in Table 4.15 show a very strong relationship between observed and predicted preferences. Pearson's R of 0.947 with a significance value of 0.000 indicates a very strong and significant positive correlation between the two variables. This means that the higher the observed preference value, the higher the predicted preference, and vice versa.

In addition, Kendall's tau of 0.768 with a significant value of 0.000 also shows a strong and significant relationship, although slightly lower than Pearson's R. Both of these results indicate that the preference estimation model used has a very good match with the actual preferences observed from respondents.

Discussion

The results of the conjoint analysis show that accessibility (24,811) and entrance fees (22,781) are the most influential factors on tourist decisions. This confirms the demand-supply theory where affordable prices and easy access are dominant factors in attracting tourists. Other factors such as management services (21,254) and tourist facilities (19,373) also have a significant influence, although not as large as accessibility and entrance fees (Jaimun et al., 2020). This finding is consistent with a study stating that infrastructure and service factors greatly determine the success of a tourist destination in the long term (Rahardjo, 2018)

From the correlation analysis, it was found that observed and estimated tourist preferences had a very strong relationship (Pearson's R = 0.947; $p < 0.001$). This means that the model used in this study is quite accurate in predicting tourist decisions. This supports the behavioral economics approach in tourism which emphasizes the importance of understanding tourist preferences in developing tourist destination management strategies. (Coca-Stefaniak et al., 2024)

Based on the results of this study, several recommendations can be given to the managers of the Sa'dan To'barana' tourist attraction, namely:

1. Improving accessibility, especially in terms of road infrastructure and transportation to tourist locations. This is important considering that accessibility is a major factor in tourist decisions.
 2. Adjusting ticket prices with the facilities provided, so that they remain affordable but can provide a more satisfying experience for visitors.
 3. Improving tourist facilities, especially in providing better toilets, restaurants, and parking, considering that these facilities have not been the main choice of respondents.
 4. Developing more diverse tourist attractions, such as introducing more culture-based or adventure activities to attract a wider segment of tourists.
 5. Improving the quality of management services, especially in providing a more professional and friendly tourist experience for visitors.
- By implementing these recommendations, Sa'dan To'barana' has the potential to become a more competitive tourist destination and attract more tourists in the future.

CONCLUSION

Based on the research results, it can be concluded as follows regarding the relationship between accessibility variables, entrance fees, tourist facilities, management services, and tourist preferences at the Sa'dan To'barana' tourist attraction:

1. Accessibility has the highest importance value (24.811), which indicates that the accessibility factor is considered the most influential in influencing tourist decisions. This means that the easier access to the tourist attraction, the more likely tourists are to choose to visit.
 2. Entrance fees also have a fairly high importance value (22,781), which indicates that entrance fees are the main consideration for many tourists in choosing a tourist destination. This indicates that affordable costs will increase the attractiveness of tourists to visit.
 3. Management services are ranked third with an importance value of 21.254, which indicates that the quality of service from the manager also influences tourist decisions. Good and responsive management can improve the tourist experience at the destination.
 4. Tourist facilities have a lower importance value (19,373) compared to accessibility and costs, but still influence tourist decisions. The facility factor influences visitor comfort, although it is not the main factor in choosing a tourist destination.
 5. Tourist preferences have the lowest average score (11,782), indicating that geographical location or characteristics of the tourist area have the least influence compared to other factors in determining tourist visit decisions.
6. Overall, the results of the analysis show that accessibility and entrance fees are the two factors that most influence tourist preferences. Both have higher importance values compared to tourist facilities and management services. However, tourist facilities and management services still have an important role in shaping the tourist experience. The correlation analysis shows a very strong relationship between observed and predicted preferences, with Pearson's R value of 0.947 and Kendall's tau of 0.768, both of which indicate a significant positive correlation between these variables.

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