

SUPPORTING MODELS FOR DETERMINING RELIGIOUS TOURISM LOCATION THROUGH THE AHP (ANALYTICAL HIERARCHY PROCESS) METHOD

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Abstract

This study aims to determine the categories in the priority selection of religious tourism sites and determine the decision support model for determining religious tourism locations in Lampung Province. This study uses the AHP (Analytical Hierarchy Process) method with data processing using statistical calculations. The criteria in this study include reputation, site information, and site transactions. In this study, the criterion of tourists having visited the three religious tourism sites was involved, namely; Tomb of Sheikh Tubagus Yahya, Tomb of Raden Intan II, Tomb of Al Habib Ali Bin Alwi Al Idrus. The results of the study concluded that based on communal considerations (all criteria) the AHP method was sequential; Ayekh Tubagus Yahya Tomb (50.5%), Raden Intan II Tomb (30.9%), and Al Habib Ali bin Al Wialidrus Tomb (18.6%). Site Transactions from the three destinations get the lowest score of the three indicators. This shows that site transactions have not been a priority in selecting religious tourism destinations.

Keywords: Religious Tourism, Lampung, Tourism.

Introduction

Indonesia has a historical legacy and traditions inseparable from the religious aspects and practices of the people. Different races, ethnicities, languages, traditions, and cultural and religious legacies can potentially develop tourism (Jaelani, 2017). In particular, Muslims, as the majority of Indonesia's population, have unique national characteristics, from culinary to tourism destinations, such as palaces, mosques, heirlooms, and tombs.

It is noteworthy that one of the largest contributors to state revenue is the tourism sector. Besides playing a role in economic growth, the

tourism sector helps the country distribute regional revenues, absorb a large number of workers, and create job opportunities. Lampung Province is one of the provinces with potential in the tourism sector. Lampung's tourism potential comprises natural, cultural, artificial, and entertainment and shopping tourism objects. The government maximizes tourism potential development in Lampung Province by appointing Lampung Province as the 18th Tourism Destination Region by providing tourism-supporting facilities and infrastructure. It is supported by Law Number 10 of 2009 on Tourism. The essence of such a law is that tourism object identification in a region will improve people's standard of living. This improvement is based on increasing local revenue (PAD) and expanding employment opportunities, reducing poverty and unemployment. According to the data of the Tourism Office of Lampung Province in 2015, tourist visits increased by 10-15% annually. The visits were from domestic and international tourists. In the last five years, domestic tourist visits to Lampung reached 3.3 million, while international tourists amounted to approximately 75 thousand. This number of visits is concluded to have a 10% increment distributed in various tourism objects.

One of the tourism in Lampung with promising prospects is religious tourism. It is developed based on Islamic values and religious beliefs, marked by ease of service, the feasibility of worship facilities, guarantees of various halal food, sharia accommodation, and other technical aspects regarding religious tourism (Abdullah & Lui, 2018). The religious tourism in question specifies pilgrimage tours. It is a visit to the living and the dead (Arifandi, 2019). Religious tourism aims to pray and improve faith. There are messages and lessons to embody a more civilized life in implementing religious tourism activities (Adiyati et al., 2019). At the same time, Indonesia has various religious tourism activities, such as visiting religious and historical relics or holy places or visiting the graves of religious leaders (ulama, kyai) or religious leaders.

Religious tourism in Lampung is not optimally managed, and thus unknown to many visitors are the tombs of Sheikh Tubagus Yahya, Raden Intan II, and Al Habib Ali bin Alwi Al Idrus. Adiyati et al., (2019) disclosed that the government needs to manage tourism in Bandar Lampung City optimally. The need for coordination between local governments, society, and private parties in tourism management proves it. Tourism development still relies on the top-down model, i.e., relying on the strength of the government and investors. The role of local people is unoptimized, leading to a lack of support. Therefore, it leads to the need for more awareness of tourism potential. The considerable tourism potential is also hindered by inter-ethnic conflicts often occurring in Lampung. Such conflicts often occur in the South Lampung region, e.g., an event occurring in 2012 involving Balinese and Lampung people (Nurdin, 2016). The conflict took many death tolls, causing a decrease in tourists and investors. Furthermore, land conflicts

also often take place. Tourism development is often obstructed due to customary land conflicts. Another area for improvement is the sufficient service quality aspect. It comes from insufficient facilities and poor human resource quality in offering services to visitors.

Based on this problem, an effective strategy is required to develop tourism potential in Lampung. It is portrayed as a tactical step to improve the tourism sector in Lampung. Therefore, arranging a strategic plan with a patterned development concept is necessary to optimize such potentials by determining a priority scale for developing tourism. Through this priority scale, the development of tourism potential will be focused on and maximized. Referring to such an interest, the researcher utilized the AHP (Analytical Hierarchy Process) method to identify the most beneficial potential from three religious tourism destinations, i.e., Tomb of Syekh Tubagus Yahya, Tomb of Raden Intan II, and Tomb of Al Habib Ali bin Alwi Al Idrus to have further development.

1.1 Religious Tourism

Tourism is derived from the VIS Sanskrit, a place to live and sit in. This word develops into Vicata, which means tourism or traveling in ancient Javanese Kawi. Tourism then develops meaning as a trip or part of a trip carried out voluntarily and temporarily to enjoy tourist objects and attractions (Ramaini, 1992).

The religious tourism in question leads to pilgrimage tours. Etymologically, pilgrimage is derived from Arabic, i.e., *zaaru*, *yazuuru*, and *Ziyarotan* (Widagdo and Rokhlinasari, 2017). Pilgrimage means a visit to the alive and dead. The pilgrimage practice has been existing before Islam. However, it was exaggerated, and thus, the Prophet forbade it. This tradition came back alive, and some were even encouraged to remember death.

Islamic theologists formulate two kinds of pilgrimage: a) Sharia pilgrimage, i.e., pilgrimage to pray for the dead and take lessons (*i'tibar*) from when they were alive. The person is dead, buried, becomes one with earth, and has discovered their deeds in the world, good and bad. B) *Bid'iyah* (*syirkiyah*) pilgrimage, i.e., pilgrimage to beg the corpse to fulfill one's interest, ask for prayers from them, or pray near their grave believing that the prayer will be easier to be accepted. Religious tourism is defined as a tourism activity to places with specific meanings, such as:

1. Mosque as a religious center, where a mosque is used to pray, *i'tikaf*, *adzan* (call to prayer), and *iqomah*.
2. Tomb, which has sacredness in Javanese tradition. In Javanese, the tomb is called *pesarean*, a noun derived from *sare* (sleep).
3. From a traditional viewpoint, a tomb is a resting place. Temple is an element in ancient times, where its place was then taken by a tomb.

1.2 General Illustration of Religious Tourism in Lampung

a. Tomb of Syekh Tubagus Yahya

The tomb of Syekh Tubagus Yahya is integrated as a part of the Al Anwar Great Mosque. This mosque was famous as An-Nur Mosque, established in 1970. During the first mosque construction, there was a well with a 4-meter depth. The well is unique because the water discharge never decreases despite the dry season. The current mosque size is 40x40 m, while the previous size only occupied a 20x20 m area. With this size, the mosque can accommodate up to 1,500 people (Khoirul, 2022).

The greatness of the Al-Anwar Great Mosque as a historical visitation site brings great potential as a choice of religious tourism in Lampung City. The tomb of Syekh Tubagus Yahya potentially attracts tourists wishing to conduct religious visits; hence, special attention is needed from the government. Government measures in actualizing such a goal have not been maximized to date. Observed by the tourists, those visiting Tomb of Syekh Tubagus Yahya are from various regions in Indonesia, such as Java, Sumatra, Jakarta, Bogor, Aceh, and others. This religious tourism popularity goes international to Malaysia, Singapore, and other countries. Besides being a religious tourism destination, visitors can access scientific research and studies from ancient holy books as references at the Al-Anwar Mosque.

b. Tomb of Raden Intan II

c. Raden Intan II is a national hero fighting against Dutch colonialism in Lampung that was born in 1834. Since he was 15 years old, he persistently fought against the Dutch until his death in 1854 at 24 years old (Aditya, 2020). He is a descendant of the Queen of the White Blood, a leader in the Lampung region. In his youth, Raden Intan II was popular as a fearless figure with his burning fighting spirit. His action against the colonial continued to the 19th century. It was said that Raden Intan II dedicated all of his life to eradicating Dutch colonialism in the Lampung region (Arifin & Afwan, 2022).

d. Tomb of Al Habib Ali bin Alwi Al Idrus

Tomb of Al Habib Ali bin Alwi Al-Idrus is located in Ketapang District, South Lampung Regency, and is integrated with Nurul Huda Mosque. This tomb is sacred by the Lampung people as the tomb of the 35th descendant of Prophet SAW, who preached to spread Islam in Palembang City. Al Habib Ali bin Alwi Al-Idrus then moved to South Lampung to preach about Islam for years (Dimas, 2021).

1.3 AHP (Analytical Hierarchy Process)

1.4 Analytical Hierarchy Process (AHP) integrates various criteria in decision-making principles by systematically combining knowledge, feeling, logic, and experiences. The AHP method is implemented when

the problem to be solved is complex, unstructured, and belongs to specific categories. The complexity of the problem is then mapped into a hierarchy as numerical values representing human perceptions containing relativity elements. The analysis result is expressed in a hypothesis regarding elements with the highest priorities. Problem-solving in AHP follows this procedure (Tanjung, 2017).

1. Determine the problem definition and objective. Alternatives must be developed when there are several priorities set.
2. Arrange a hierarchy structure from a complex problem to appear detailed and measured.
3. Determine the hierarchy of each element based on pre-assigned priorities. In this case, it is necessary to prepare a pairwise comparison matrix in each level of the same hierarchy.
4. Conduct consistency test in the comparison between elements determined in the comparison matrix. The following is the formula for calculating the consistency index between elements.

Note:

CI = Consistency Index (Consistency Deviation Ratio)

= highest eigenvalue from matrix of order n

n = the number of elements compared

If a standard defines CI as a consistent matrix, CL is zero. The matrix resulting from a random comparison will produce an inconsistent matrix. Random Index (RI) values will be acquired based on the CI values. The comparison between CI and RI will generate Consistency Ratio (CR) values following this formula.

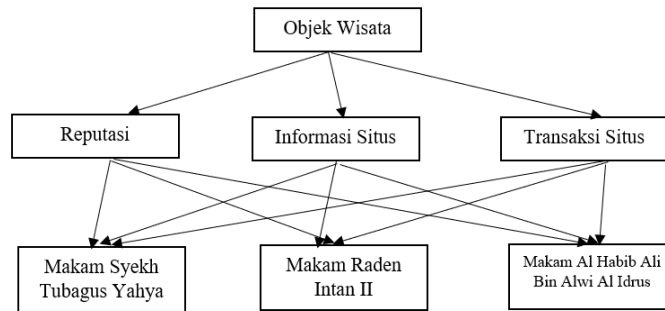
$CR = CI/RI$

Note:

CR = Consistency Ratio

RI = Random Index

In determining hierarchy using the AHP method, the complex problem is divided into supporting elements to be easily understood. Hierarchy determination in decision-making is carried out by compiling a scale or weighting consisting of goals, criteria, and alternatives (sub-criteria) with the following description.



Compiling a scale depicting preference levels uses the Saaty scale reference. In the Saaty scale, objects with relevance or similarities are categorized as similar objects. The subsequent step is determining the relationship level between such objects following the predetermined criteria. The following is the Saaty scale range.

Table 1. Saaty Scale

Value	Description
1	Criteria A is as important as criteria B
2	Undecided between two adjacent values
3	A is slightly more important than B
4	Undecided between two adjacent values
5	A is definitely more important than B

METHOD

This qualitative study used the AHP (Analytical Hierarchy Process) statistical method in processing data. The AHP (Analytical Hierarchy Process) method is used for complex multi-criteria decision-making problems to determine the relative importance between criteria groups (Shameem et al., 2020). Fundamentally, the AHP method is used in a complex situations with minimal to no statistical data. Available data only exists in perception, intuition, or experiences, making the problem unstructured. AHP method utilization applies a preference scale from various alternatives to provide, direct, and give predictive information. Such information aims to facilitate policymakers in making appropriate decisions.

The study involved tourists visiting three religious tourism destinations, i.e., the Tomb of Syekh Tubagus Yahya, the Tomb of Raden Intan II, and the Tomb of Al Habib Ali Bin Alwi Al Idrus. Based on their visits, the location criteria were set with reputation indicators, site information,

and site transaction. The availability of each location criteria indicator was compared to one another to acquire variable synthesis with the highest priority. The strategic steps in AHP model implementation in this study include identifying problems, determining solutions, and determining criteria and subcriteria priorities by creating pairwise comparison matrices, criteria value matrices, summation matrices for each row, and consistency ratio calculations. The following are the predetermined criteria and subcriteria.

No	Criteria/Subcriteria Code	Note
1	X1	Reputation
2	X2	Site information
3	X3	Site transaction
4	Y1	Tomb of Syekh Tubagus Yahya
5	Y2	Tomb of Raden Intan II
6	Y3	Tomb of Al Habib Ali bin Al Idrus

Data translated into the pairwise comparison matrix with the Saaty scale was then normalized by dividing each value on each alternative by the sum of each criterion or subcriterion. Normalized data on each criterion was calculated for its average. The next step was calculating the principal eigenvalue post-normalization by determining the multiplication result of the amount contained in the interpretation column with the average value per row. Subsequently, Consistency Index (CI), Consistency Ratio (CR), and Random Index (RI) values were calculated. The eigenvector value is declared valid if $CR < 0.10$. If CR exceeds the threshold, it shows that the eigenvector value is invalid and requires recalculation (Mahendra & Aryanto, 2019).

RESULTS AND DISCUSSION

Lampung is well known for its various natural potentials. Besides its abundant natural resources, Lampung is popular for its cultural resources comparable to other provinces on Sumatra Island. The total area of Lampung is 34,623.80 km². East Lampung Regency is the largest district compared to 14 other districts/cities, taking 15.38 percent of the total area of Lampung Province.

As a province in Indonesia, Lampung has natural and cultural potential to be developed as a tourism object. These potentials include mesmerizing landscapes and cool breezes surrounded by green hills and mountains overgrown with various flowers and trees. It has numerous

unique cultures and traditions. With these conditions, Lampung can be used as a link in the chain of tourist objects. Some of Lampung's natural and cultural beauties are well presented, demonstrating that this place is used as a tourist destination (Noviarita et al., 2021). However, Lampung tourism could be more optimized compared to the existing potential. Many potentials and cultures in Lampung should be addressed. Moreover, Lampung's natural and cultural potential needs to be taken more seriously (Meiridho et al., 2018). Lampung is a strategic city for tourists to visit various tourist objects. This city can be reached within 1.5 hours from Bakauheni and 30 minutes from Radin Intan Airport. Beaches, cultural tourism objects, mountains, forests, rivers, and diving and fishing sites are accessible from this city (Rostiyati, 2013). One object and another are adjacent. Hence one is ensured that visits or tourist trips will be varied and the experience will be diverse since there are many places to see.

One of the potential tourism attractions to be developed in Lampung Province is religious tourism (Noviarita et al., 2021). Religious tourism has been a regular phenomenon in religious history and refers to a tourism form having religious association (Kim et al., 2019). Religious site existence is trendy in society. Thus, religious sites are more than just visited to pray. Along with times, these religious sites can provide other economic values as a medium for preaching and commerce.

Religious tourism includes traveling activities to achieve enjoyment, satisfaction, and knowledge. Individuals or groups mostly carry out religious tourism to holy places, tombs of great people or exalted leaders, sacred hills or mountains, and tombs of figures or leaders considered miraculous human beings full of legends (Vianto & Dwihantoro, 2022). Religious tourism destinations can be a guideline to deliver Islamic messages worldwide as a lesson in remembering the oneness of Allah. It invites and guides people to avoid shirk, leading them into disbelief (Luz, 2020).

Religious tourism appeals to tourists with spiritual and tolerant values between religions that can be a guide in life. The beauty of these tourism attractions is the diversity of Indonesian natural beauty combined with spiritual values. Indonesia has enormous potential for religious tourism. It is because Indonesia is popular as a religious country, having many historical buildings or places with particular meanings for tourists (Asih & Andrianingsih, 2021). Furthermore, the number of religious people in Indonesia is a potential for religious tourism development in Lampung.

The development of religious tourism objects has a broad economic driving force not merely to increase tourist visits but, more importantly, to build national spirit, appreciation of the richness of national artistic cultures, and inter-religious tolerance. To date, the development of religious tourism objects in Indonesia needs to be optimized, although

this aspect highly affects the society, particularly for locally-generated revenue (Rawis et al., 2015).

The study was conducted in Lampung Province, focusing on interviews with several Lampung people to generate five data on popular religious tourism objects in Lampung:

1. Al Anwar Mosque
2. Tomb of Syekh Tubagus Yahya
3. Tomb of Raden Intan II
4. Tomb of Al Habib Ali bin Al Wialidrus
5. Tomb of Syekh Aminullah

These five tourism objects are located in Lampung Province, not exclusively in Bandar Lampung. The historical values were also observed to further study the decision support model for determining the location of religious tourism in Lampung Province. After creating a priority scale, only three tourism objects were included in the data processing. These tourist sites are the Tomb of Syekh Tubagus Yahya (Y1), the Tomb of Raden Intan II (Y2), and the Tomb of Al Habib Ali bin Al Wialidrus (Y3).

Based on data analysis results using the Analytical Hierarchy Process method, the criteria are explained as follows:

1. Criteria in decision-making:
 - a. Reputation (X1)
 - b. Site information (X2)
 - c. Site transaction (X3)
2. Alternative destinations:
 - a. Tomb of Syekh Tubagus Yahya (Y1)
 - b. Tomb of Raden Intan II (Y2)
 - c. Tomb of Al Habib Ali bin Al-Wialidrus (Y3)

The illustration of this model implementation is explained in steps in the Analytical Hierarchy Process method. The steps carried out were as follows:

Table 1. Paired comparison of each criterion

	X1	X2	X3	Normalizatio	X1	X2	X3	Σ	EigenVector
X1	2,500	4,000	6,000		0,521	0,688	0,538	1,747	0,420
X2	1,000	2,000	3,000		0,207	0,135	0,331	0,673	0,311

X3	1,000	2,000	3,000		0,203	0,018	0,154	0,375	0,269
Σ	4,500	8,000	12,000						

Table 2. Paired comparison for the reputation criteria

	Y1	Y2	Y3	Normalization	Y1	Y2	Y3	Σ	EigenVector
Y1	1,000	2,000	2,000		0,429	0,522	0,286	1.237	0.498
Y2	0,500	1,000	2,000		0,214	0,261	0,286	0.761	0.306
Y3	0,500	0,500	1,000		0,214	0,130	0,143	0.487	0.196
Σ	2,000	3,500	5,000						

Source: Data processed, 2022

Table 3. Paired comparison for the information criteria

	Y1	Y2	Y3	Normalization	Y1	Y2	Y3	Σ	EigenVector
Y1	1,000	4,000	2,000		0,263	0,267	0,308	0.838	0.539
Y2	0,250	1,000	0,333		0,105	0,067	0,077	0.249	0.160
Y3	0,500	3,000	1,000		0,105	0,133	0,231	0.469	0.301
Σ	1,750	8,000	3,333						

Table 4. Paired comparison for the ease of transaction criteria

	Y1	Y2	Y3	Normalization	Y1	Y2	Y3	Σ	EigenVector
Y1	1,000	2,000	3,000		0,130	0,146	0,240	0.516	0.505
Y2	0,500	1,000	3,000		0,130	0,073	0,120	0.323	0.316
Y3	0,333	0,333	1,000		0,093	0,049	0,040	0.182	0.178
Σ	1,833	3,333	7,000						

Table 5. Relationship matrix of alternatives and criteria

	Eigen Vector		
	Site Reputation	Site Information	Site Transaction
Y1	0.498	0.539	0.505
Y2	0.306	0.160	0.316
Y3	0.196	0.301	0.178

Table 6. Weight matrix for each criterion

	Eigen Vector			Total
	Site Reputation	Site Information	Site Transaction	
Y1	0,095	0,240	0,170	0,505
Y2	0,111	0,059	0,016	0,186
Y3	0,076	0,023	0,016	0,309

The priority order of religious tourism sites was based on communal consideration (all criteria) using the AHP method: Tomb of Syekh Tubagus Yahya (50,5%), Tomb of Raden Intan II (30,9%), and Tomb of Al Habib Ali bin Al Wialidrus (18,6%) (Table 6).

Ease of site transaction of all three destinations acquired the lowest score from the three indicators. It shows that tourism site transactions are not prioritized in selecting religious tourism destinations. The site transaction quality is highly related to human resource (HR) quality, where humans become mind products in service products. Human resource plays a vital role in developing tourism.

One of the aspects with an essential role in developing the tourism sector is tourism human resource because tourism is something technology cannot replace due to the need to have direct interactions with humans. Tourism HR is defined as all human aspects supporting tangible and intangible tourism activities to fulfill the needs and actualize tourists' satisfaction. The tourism sector emphasizes service. Therefore, the human resource aspect is the key to creating satisfaction and enjoyment for the service users. Furthermore, it positively affects the economy, well-being, and preservation of environments and culture in the tourism area. Therefore, human resource quality improvement is fundamental to improving the quality of religious tourism destinations in Lampung Province.

CONCLUSION AND SUGGESTION

Based on the communal consideration (all criteria) using the AHP method, the study results conclude this order: Tomb of Syekh Tubagus Yahya (50,5%), Tomb of Raden Intan II (30,9%), and Tomb of Al Habib Ali bin Al Wialidrus (18,6%). The site transaction from three destinations acquired the lowest score of the three indicators. It demonstrates that site transaction is not prioritized in selecting religious tourism destinations.

Site transaction quality is highly related to human resource (HR) quality, where humans become mind products in service products. Tourism HR is

all human aspects supporting tangible and intangible tourism activities to fulfill the needs, actualize tourists' satisfaction, and positively affect the economy, well-being, and preservation of environments and cultures in the tourism area. Human resource quality improvement is fundamental in improving tourism destination quality, particularly religious tourism.

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