



# Jurnal of Sport Recreation and Leisure Management

Journal homepage: <https://journal.uny.ac.id/publications/jsrlm/index>

e-ISSN: xxxx-xxxx



## JSRLM

Jurnal of Sport Recreation and Leisure Management

### EFFECTIVENESS OF DEVELOPING JLAMPRONG CAVE TOURISM OBJECT WITH COMPONENT 4A (ATTRACTION, AMENITY, ACCESSIBILITY, AND ANCILLARY) NGEPOSARI VILLAGE GUNUNGKIDUL

Safangatun Novia <sup>1\*</sup>, Sunaryo<sup>1</sup>

Fakultas Vokasi Universitas Negeri Yogyakarta, Jln Mandung, Wates, Kulon Progo, DIY, Indonesia. 555651  
Email: [safangatunnovia.2021@student.uny.ac.id](mailto:safangatunnovia.2021@student.uny.ac.id)

*Received: 1 Maret 2025; Revised: 1 April 2025; Accepted: 1 Mei 2025*

#### **Abstract:**

*This study aims to determine the effectiveness of the development that has been implemented by the Gua Jlamprong tourist attraction, including: Attraction, Amenity, Accessibility, and Ancillary. This study is a quantitative descriptive study through observation and questionnaire distribution. The population used for the study were all managers of the Gua Jlamprong tourist attraction. The sampling technique used saturated sampling totaling 50 people consisting of all internal and external parties to the management. The data collection technique used a questionnaire on 25 statements with a reliability value of 0.902. The data analysis technique used descriptive which will be made in the form of a percentage. Based on the results of the study, it is known that the development of the Gua Jlamprong tourist attraction in terms of the quality of the 4A components (Attraction, Amenity, Accessibility, and Ancillary) obtained a percentage value of 76.27% in the effective category, but there were still obstacles in several components that needed to be improved which indicated that it was not yet effective overall. The Attraction component is categorized as effective with a value of 76.80%, Accessibility is categorized as very effective with a value of 84.70%, Amenity is categorized as effective with a value of 69.86, and Ancillary is categorized as very effective with a value of 81.20%. Development can be realized with the collaboration of all parties who manage tourism with village officials and the Gunungkidul Regency Tourism Office, through technical guidance, monitoring, evaluation, and reporting.*

**Keywords:** 4A components, effectiveness, development

**How to Cite:** Novia, S & Sunaryo (2025). Effectiveness Of Developing Jlamprong Cave Tourism Object With Component 4a (Attraction, Amenity, Accessibility, and Ancillary) Ngeposari Village Gunungkidul. *Jurnal of Sport Recreation and Leisure Management*, 1(1), p. 12-24.

## INTRODUCTION

Tourism is one of the largest foreign exchange contributor sectors in Indonesia. Through this sector, it can provide job opportunities for people in Indonesia. In addition to providing job opportunities, it is also expected to provide sustainable benefits. Therefore, tourism contributes an

important role in economic development (Sari & Najmudin, 2021, p.50). All things related to tourism including management, business, and attractions. Tourism is emphasized for development planners because it plays an important role in the social, technological, and most importantly economic fields. (Bahiyah et al., 2018, p.95).

The tourism sector has experienced significant development. The many tourist attractions in Indonesia have a positive impact on the development of Indonesia and its people. Negative impacts are also felt by some people, because the increase in tourist attractions will increase quite high competitiveness. One of them is in Gunungkidul Regency which has various tourist attractions. Tourist attractions in Gunungkidul are famous for their many natural attractions such as beaches, caves, waterfalls, reservoirs, hills, lakes, and many more. Mojo tourist village in Ngeposari is one of the many tourist villages in Gunungkidul that offers its natural beauty such as reservoirs, caves and artificial creations in the form of limestone carvings or crafts that are very interesting. This tourist village is located in Semuluh Lor Hamlet, Ngeposari Village, Semanu District, Gunungkidul Regency. Ngeposari Village also has the potential for agricultural and cultural tourism. The existing potential has been well managed by most of the surrounding community. Such as the Jlamprong Cave which is managed by Pokdarwis (Tourism Awareness Group).

Based on data from the Central Statistics Agency (BPS) of Gunungkidul Regency, Semanu District is the largest district in Gunungkidul Regency, namely 108.39 square kilometers. Tourist visits to tourist attractions in Gunungkidul Regency in 2023 were recorded at 3,717,823 visitors. Where 3,713,143 are domestic tourists and 4,680 are foreign tourists. The many potentials of natural and cultural tourism in Gunungkidul require contributions from related parties in the form of promotion and innovation in the facilities provided for the development of tourist attractions (Chotimah, 2024, p.25). The many business competitions in the tourism sector require tourism actors to have a good development strategy to maintain the uniqueness of each tourist spot in order to increase the number of tourists. The tourist attraction that attracts tourists in Mojo Tourism Village is Jlamprong Cave. There are other caves that are developed there such as Gesing Cave and Sinden Cave. The Jlamprong Cave tourist attraction located in Mojo Hamlet, Ngeposari Village, Semanu District, Gunungkidul Regency was established in 2006 and officially opened in 2009.

Gunungkidul Regency Regional Regulation Number 8 of 2020 concerning Amendments to Regional Regulation Number 3 of 2014 concerning the Gunungkidul Regency Regional Tourism Development Master Plan for 2014-2025 (2020) states that Jlamprong Cave is a leading karst nature tourism attraction with adventure tourism as a supporter. The development of tourism themes in the form of developing attractions supported by the development of relaxation, conservation, family, education, adventure, mountain, and cultural tourism. Ngeposari Village is a tourist village with an area of 7445 hectares consisting of 19 hamlets with a northern boundary with Ngipak Village, Karangmojo District, the south borders Candirejo Village, Semanu District, and the east borders Sidorejo Village. The tourism office said that Ngeposari Village is a nature and culture-based tourist village that has natural, artificial, and cultural tourist attractions. These attractions include Jlamprong Cave, Jlamprong Reservoir, stone carving crafts, and kenduri as cultural tourist attractions.

Jlamprong Cave is one of the tourist attractions in Gunungkidul that offers natural tourism and is still preserved in its natural beauty. Jlamprong Cave is located in Mojo Tourism Village, Ngeposari, Semanu, Gunungkidul. According to one of the residents, Jlamprong comes from the name of one of the animals in the cave, namely the lion. Therefore, the cave is often called Jlamprong Cave. It is no longer strange when natural tourist attractions are associated with mystical things like Jlamprong Cave. However, the surrounding community did not let the potential of the karst natural wealth in the cave. The community formed a tourism management and Pokdarwis and held training or socialization that supported the development of tourism which then in 2009 Mojo Tourism Village was opened. According to Arif as the head of the tourism awareness group (Pokdarwis), although the Mojo Ngeposari tourist village has been opened since 2009, tourists are still very rare to visit this tourist attraction. The tourist village is more prominent in three caves, namely Gesing Cave, Jlamprong Cave, and Sinden Cave. The three caves have their own special features that are interesting to be used as an arena for 500-meter cave exploration. These three caves are often referred to as Jlamprong Cave.

In 2024, it can be seen from the aspect of the attractions provided in Mojo Tourism Village, which are already varied, equipped with caving, tracking, stone carving, kenduri activities, and many

more, the existing supporting facilities are considered adequate but have not been equipped with several special rooms to support tourism activities. Accessibility and facilities & infrastructure have begun to be repaired. The road that used to be only rocks can now be passed by two-wheeled and four-wheeled vehicles. However, there are still areas of the road that have not been repaired. In terms of facilities and infrastructure, it is still inadequate because the bathrooms and caving equipment rental places are still in residents' homes, while food stalls and halls are still not available in sufficient or adequate numbers for tourists. Therefore, tourists cannot get adequate service from the management. The constraints that can be seen from the explanation above are in the development. The development of this tourist attraction is still constrained by the 4A components (Attraction, Amenity, Accessibility, and Ancillary). One of the superior tourist attractions is Jlamprong Cave which is used for adventure sports activities in the form of caving and tracking. Through this adventure activity, it is hoped that the community can gain benefits of pleasure and knowledge.

Based on the observation results, it shows that in terms of security, the cave entry SOPs such as shoes, life jackets, and helmets have been used. Then, the cave guides have gone through a training stage held by the Gunungkidul Tourism Office in order to have competence in their fields and have cave guide and tourism guide certificates from BNSP. However, until now there has been no secretariat room or storage space for goods so that tools and equipment are still stored in residents' homes and hamlet halls. In addition, the absence of toilets is also a fairly crucial problem in tourist attractions. Four important tourism points that must be present in a tourist spot to attract their interest are usually abbreviated as 4A (Attraction, Accessibility, Amenities, and Ancillary). These four points are related to the attractiveness of tourist objects, facilities & infrastructure that support tourism activities, facilities that support tourist needs, and services provided such as Pokdarwis (Tourism Awareness Group). Therefore, if these needs are adequate, it is hoped that it will improve the quality of tourist objects and increase tourists' interest in visiting (Ningtiyas et al., 2021, p.84).

The theory above shows that 4A (Attraction, Amenity, Accessibility, and Ancillary) tourism components are needed to develop the Jlamprong Cave tourist attraction. This 4A component requires all tourism actors, especially Pokdarwis (Tourism Awareness Group), managers, and the surrounding community who must take part in developing existing potential so that it can increase economic development. The problems in developing tourism quality are seen from the 4A components (Attraction, Amenity, Accessibility, and Ancillary), namely starting from inadequate facilities, and several inadequate facilities & infrastructure such as the secretariat, toilets, and caving equipment storage rooms that are still in residents' homes, including the 4A components in development that are still hampered. Apart from the physical form of tourist attractions, human resources also have an important role in the development of tourism. However, based on the opinion of the head of Pokdarwis in the tourist village, they are still reluctant to focus on tourism management which has an impact on the development of tourism which is still hampered. Based on the background described above, the author is interested in compiling a thesis entitled "Effectiveness of Developing the Jlamprong Cave Tourism Object with Components 4A (Attraction, Amenity, Accessibility, and Ancillary) Ngeposari Village, Gunungkidul".

## **METHODS**

### **TYPES OF RESEARCH**

This research is a quantitative descriptive research. The methods used in this study are observation and questionnaires. The aim is to find out and obtain information related to facts or phenomena in certain areas. The use of this method is expected to provide an overview of the effectiveness of the development of the Jlamprong Cave tourist attraction with the 4A components (Attraction, Amenity, Accessibility, and Ancillary) in Ngeposari Village, Gunungkidul. The type of research used is descriptive research with a quantitative approach. Descriptive research is used to find out phenomena without comparing two variables or independent variables. Therefore, it is hoped that it can provide an overview and describe the actual situation without any data falsification.

### **TIME AND PLACE**

This research was conducted at the Jlamprong Cave tourist attraction located in Semuluh Lor Hamlet, Ngeposari Village, Semanu District, Gunungkidul Regency, Special Region of Yogyakarta 55893. The research was conducted for approximately 5 months from September 1 to January 31, 2025.

## POPULATION AND SAMPLE

The population of this study is all parties involved in the management of Mojo Tourism Village. Sampling using saturated sampling, namely making all populations as research samples. The sample in this study uses saturated sampling because the sample is taken from the total population to obtain accurate results regarding the development of the Jlamprong Cave tourist attraction. (Amin et al., 2023, p.23). Therefore, 50 respondents were taken. The targets needed in this study are all parties involved in the management of Mojo Tourism Village such as managers, Pokdarwis (Tourism Awareness Group), homestay owners, caving guides, village officials (dukuh), youth organizations, and traders.

## OPERATIONAL DEFINITION OF VARIABLES

The variables in this study are the effectiveness of the development of the Jlamprong Cave tourist attraction with the 4A components (Attraction, Amenity, Accessibility, & Ancillary) in Ngeposari Village, Gunungkidul, namely:

### *Attraction*

Tourist attractions are something that tourists can see and do in a particular place. Tourist attractions are used to increase tourist visits. Jlamprong Cave offers recreational sports such as caving and tracking. Tourists can enjoy the sensation of walking in a natural cave and get information about Jlamprong Cave tourism..

### *Amenity*

Amenities are supporting facilities that support the needs of tourists in tourist attractions. Mojo Tourism Village offers various types of tourist attractions such as Jlamprong Cave which is equipped with several gazebos and food stalls. Based on observations conducted with Arif as the head of Pokdarwis, it was revealed that other facilities such as bathrooms, caving equipment storage rooms, and lodging are still borrowed from residents' homes.

### *Accessibility*

Accessibility is the facilities and infrastructure that will be passed during the journey to the tourist attraction to be visited. The road to the Jlamprong Cave tourist attraction can be said to be good, but there are still shortcomings in the maintenance and repair of the road that has not been maximized. Pokdarwis which also manages the tourist attraction is still constrained by the quantity factor.

## DATA COLLECTION TECHNIQUES AND INSTRUMENTS

Data collection techniques using questionnaires with statements that can be answered by respondents. The assessment category uses a Likert scale to measure respondents' opinions. Thus, research data is obtained to be analyzed.

## DATA ANALYSIS TECHNIQUES

The data analysis technique that will be used is quantitative descriptive. The data analysis process is carried out with a descriptive analysis stage that is made in the form of frequency distribution, mode, median, mean, and standard deviation which are searched using the IBM SPSS Statistics 27 for Windows application. and through the analysis requirements test to see the continuation of data analysis with normality tests, homogeneity tests, and percentage calculations.

## RESULT & DISCUSSION

### RESULTS

#### DESCRIPTION OF RESEARCH RESULTS

This study discusses the effectiveness of the development of the Jlamprong Cave tourist attraction as seen from the quality of the 4A components (Attraction, Amenity, Accessibility, and Ancillary) in Ngeposari Village, Gunungkidul.

### *Attraction*

The Jlamprong Cave tourist attraction offers a special interest attraction inside the cave, namely adventure tourism in the form of caving. In addition to inside the cave, there is an attraction outside the cave area, namely tracking that can be enjoyed by tourists. In addition to natural tourism, there is a cultural tourism attraction, namely kenduri, which tourists can do to get to know Javanese culture better and become familiar with the surrounding community.

### *Amenity*

The Gua Jlamprong tourist attraction has supporting facilities such as toilets, parking lots, homestays, places of worship, culinary stands, and others. In addition, the cooperative relationship with the health center is well established to anticipate bad things that might happen at the tourist attraction. However, through the data collection process that has been carried out, it shows that there are several negative findings related to the amenity components (supporting facilities) at the Gua Jlamprong tourist attraction, namely limited toilets, no insurance available, lack of caving equipment storage,

### *Accessibility*

Overall, road access to tourist attractions can be reached by two-wheeled and four-wheeled vehicles, therefore tourists can feel comfortable going to tourist attractions. The road to the Jlamprong Cave tourist attraction is adequate and can be accessed safely by tourists. According to Arif as the head of Pokdarwis, the road to Jlamprong Cave still maintains the traditional value of a tourist village, therefore access to the object is still white rocks.

### *Ancillary*

Institutions in Mojo Tourism Village such as Pokdarwis & tourism village managers have been actively managing tourist attractions, but in terms of marketing, they still use minimal social media for promotional purposes. The social media that is actively used is Instagram as an effort to promote tourist attractions. Therefore, managers can provide clear information services for tourists. In addition, the Tourism Office is also involved in providing services in the form of basic guiding training and competency standards for tour guides in Jlamprong Cave.

## **SOLUTIONS FOR THE DEVELOPMENT OF THE JLAMPRONG CAVE TOURISM OBJECT**

The development of the Jlamprong Cave tourist attraction requires continuous collaboration with various parties such as the local government, village apparatus, local communities, and the Tourism Office. The existence of Pokdarwis in Mojo Tourism Village, Ngeposari, Gunungkidul, provides a separate space for tourism drivers in the area. The results of the data description analysis are as follows.

**Table 1.** Statistical data on the development of the Jlamprong Cave tourist attraction

<b>Statistics</b>		
Development of the Jlamprong Cave tourist attraction		
N	Valid	50
	Missing	0
Mean		95.34
Std. Error of Mean		.830
Median		95.00
Mode		91
Std. Deviation		5.868
Variance		34.433
Skewness		.473
Std. Error of Skewness		.337
Kurtosis		1.051
Std. Error of Kurtosis		.662
Range		32
Minimum		80
Maximum		112
Sum		4767

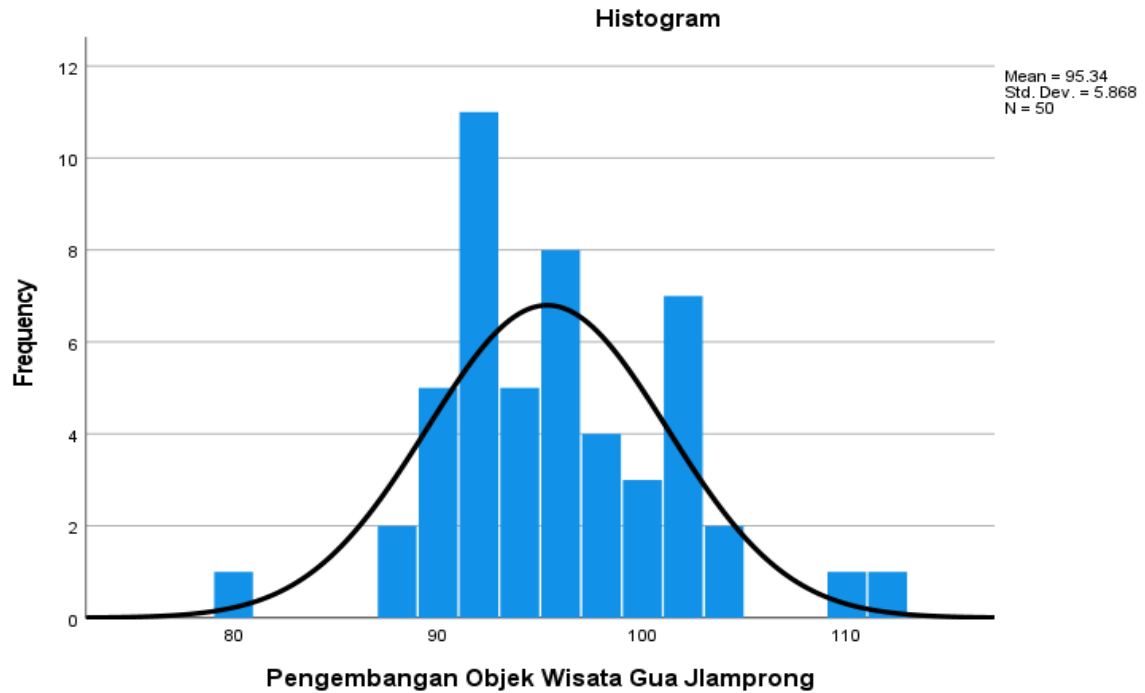
Based on the statistical data above, it shows that the variable score is between 80 and 112 with a mean of 95.34, a median of 95.00, a mode of 91, and a standard deviation of 5,868. Skewness and Kurtosis to determine the size of the data is normally distributed or not. Based on the results of the data,

it shows that the values are normally distributed. The Skewness value of 0.473 is close to zero and the Kurtosis value is 1.051 which means it is close to the ideal condition 3. Therefore, it can be concluded that the data on the development of the Jlamprong Cave tourist attraction is normally distributed.

**Table 2.** Variable Score Distribution

Development of the Jlamprong Cave tourist attraction					Development of the Jlamprong Cave tourist attraction
		Frequency	Percent	Valid Percent	CumulativePercent
Valid	80	1	2.0	2.0	2.0
	87	2	4.0	4.0	6.0
	89	1	2.0	2.0	8.0
	90	4	8.0	8.0	16.0
	91	7	14.0	14.0	30.0
	92	4	8.0	8.0	38.0
	93	2	4.0	4.0	42.0
	94	3	6.0	6.0	48.0
	95	4	8.0	8.0	56.0
	96	4	8.0	8.0	64.0
	97	2	4.0	4.0	68.0
	98	2	4.0	4.0	72.0
	99	3	6.0	6.0	78.0
	101	4	8.0	8.0	86.0
	102	3	6.0	6.0	92.0
	104	2	4.0	4.0	96.0
	110	1	2.0	2.0	98.0
	112	1	2.0	2.0	100.0
Total		50	100.0	100.0	

This variable diagram is also shown in the histogram as follows.



**Picture 1.** Histogram Result Data

Based on the histogram results above, it can be seen that the mean value is 95.34 and the standard deviation is 5,868 with 50 respondents. Based on the histogram above, it shows that the data distribution is centered in the middle and does not lean to the right or to the left. Therefore, it can be concluded as normal data with an even distribution.

## DATA ANALYSIS REQUIREMENTS TESTING

### Normality Test

Normality test can be done to determine the normality of data with the consistency level of the Kolmogorov-Smirnov test from a sample size of 20-70 being the same, namely 66.67%, not better than using a sample of 50 or more or less. Therefore, the Kolmogorov-Smirnov test will get the same results both in sample sizes of 50 and less than 50.(Oktaviani & Notobroto, 2023, p.134).

**Table 3.** Normality Test Results

Development of the Jlamprong Cave tourist attraction		
N		50
Normal Parameters <sup>a,b</sup>	Mean	95.34
	Std. Deviation	5.868
Most Extreme Differences	Absolute	.101
	Positive	.095
	Negative	-.101
Test Statistic		.101
Asymp. Sig. (2-tailed) <sup>c</sup>		.200

Based on the normality test conducted, it shows that the significance value of the Jlamprong Cave tourist attraction development variable is  $0.200 > 0.05$  and the data can be concluded to be normally distributed at a significance level of  $\alpha = 5\%$ .

## Homogeneity Test

**Table 4.** Homogeneity Test Results

<b>Tests of Homogeneity of Variances</b>				
Development of the Jlamprong Cave tourist attraction				
Levene Statistic	df1	df2	Sig.	
1.535	1	48	.221	

Based on the results of the homogeneity test above, it shows that the homogeneity value of the Jlamprong Cave Tourism Object Development variable is  $0.221 > 0.05$ . The data can be concluded to be homogeneously distributed. The homogeneity test is very important to be carried out in order to ensure the similarity of variance between groups.

### Persentase

Based on research conducted at the Gua Jlamprong tourist attraction targeting internal parties such as managers, Pokdarwis, homestay owners, caving guides, and village officials (dukuh) as well as external parties such as youth organizations and traders in Ngeposari Village, an analysis will be carried out using percentages. A total of 25 questionnaire statements were given to respondents with alternative answers STS (Strongly Disagree) with a score of 1, TS (Disagree) with a score of 2, N (Neutral) with a score of 3, S (Agree) with a score of 4, and SS (Strongly Agree) with a score of 5. The statements given to respondents will be used to determine the effectiveness of the development of the Gua Jlamprong tourist attraction with the 4A components (Attraction, Amenity, Accessibility, and Ancillary). The data obtained will be processed and analyzed using percentage calculations.

**Table 5.** Respondent Data

NO.		RESPONDENT	L	P	AMOUNT
1	Internal	Manager	8	1	9
2		Pokdarwis	10	1	11
3		Homestay Owner	2	2	4
4		Caving Guide	9	-	9
5		Village Apparatus (Dukuh)	1	-	1
6	Eksternal	Youth organization	6	6	12
7		Trader	2	2	4
			TOTAL		50

Data tabulation can be done by percentage testing. (Risda, 2021, p.50). After a recapitulation of all the data from the questionnaire, the frequency values of the variables in the development of the Jlamprong Cave tourist attraction with the 4A components (Attraction, Amenity, Accessibility, and Ancillary) were obtained as follows.

**Table 6.** Results of the Overall Recapitulation of Data Frequency of Variable Values

Score (S)	Frequency (F)	(S) x (F)
5	320	1.600
4	604	2.416
3	138	414
2	149	298
1	39	39
<b>AMOUNT</b>	<b>1.250</b>	<b>4.767</b>

Based on the table above, it shows that the total score for the research variable for the development of the Jlamprong Cave tourist attraction with the 4A components (Attraction, Amenity, Accessibility and Ancillary) is 4,767.

The categories based on the ideal score range are as follows.

The maximum total score is obtained from:

5 (highest score) x statement item x number of respondents

$5 \times 25 \times 50 = 6,250$



The minimum total score is obtained from:

1 (lowest score) x number of statements x number of respondents

$1 \times 25 \times 50 = 1.250$

The score ranges are:

$(\text{maximum score} - \text{minimum score})/5$

$(6.250 - 1.250)/5 = 1.000$

Based on the results of the study with 50 respondents, it showed that the score of the Jlamprong Cave tourist attraction development variable with the 4A components (Attraction, Amenity, Accessibility, and Ancillary) was 4,767 with the following percentages:

$$\text{Percentage} = \frac{\text{Research score}}{\text{Maximum Score}} \times 100\%$$

$$\text{Overall percentage} = \frac{4.767}{6.250} \times 100\% = 76.27\%$$

The percentage results show that the overall value of the indicators in the development of the Jlamprong Cave tourist attraction is 76.27%, the interpretation of which is in the range of 61% - 80% with an effective category. Each component has a different percentage calculation result. This is because not all components support the development of the Jlamprong Cave tourist attraction. The percentage calculation is as follows.

$$\text{Attraction Percentage} = \frac{1,536}{2,000} \times 100\% = 76,80\% \quad (\text{Effective})$$

$$\text{Accessibility Percentage} = \frac{847}{1,000} \times 100\% = 84,70\% \quad (\text{Very Effective})$$

$$\text{Amenity Percentage} = \frac{1,572}{2,250} \times 100\% = 69,86\% \quad (\text{Effective})$$

$$\text{Ancillary Percentage} = \frac{812}{1,000} \times 100\% = 81,20\% \quad (\text{Very Effective})$$

The percentage results show that each component is in a different category. The results show that the amenity component is in the lowest value category, which means that there are still shortcomings in the component that hinder the development of the Jlamprong Cave tourist attraction. Therefore, overall tourism development can be said to be effective but with some shortcomings.

## DISCUSSION

### Development of the Jlamprong Cave tourist attraction

Tourist attractions in Gunungkidul are destinations for local and regional tourists. Jlamprong Cave is one of the natural tourist destinations that has the potential to be developed as a sustainable tourist attraction. The development of the Jlamprong Cave tourist attraction in an effort to maximize the potential of natural tourism to become an attraction that is in demand by tourists has been carried out well through the 4A approach consisting of Attraction, Amenity, Accessibility, and Ancillary (supporting services). Starting from improving infrastructure, managing natural and cultural resources, empowering local communities, building facilities, marketing processes, to providing tourist safety services. These efforts are expected to be able to make the Jlamprong Cave tourist attraction a tourist destination that can provide recreational benefits and knowledge of nature and culture to tourists. The analysis of the development of the Jlamprong Cave tourist attraction was carried out using the 4A component approach as follows.

#### Attraction

The percentage results show that the value of the attraction indicator is 76.80% with an effective category. Tourist attractions are the main component that attracts tourists to visit tourist destinations. Based on the results of the study, Jlamprong Cave has natural tourist attractions such as beautiful natural scenery, tracking paths, and cave exploration or caving that offers the beauty of natural karst rocks. In addition, the Jlamprong Cave tourist attraction also offers kenduri cultural tourism that tourists can do when visiting this tourist attraction. Stone carving educational tourism is also introduced to tourists to provide an interesting experience in making works of limestone.

### *Accessibility*

The percentage results show that the value of the accessibility indicator is 84.70% with a very effective category. Accessibility is the ease of tourists to get to tourist attractions from their place of origin. Several indicators in the accessibility component at the Gua Jlamprong tourist attraction can be said to be good in terms of the condition of the road that has been paved, the presence of road signs that are already available at several points, the availability of tourist circulation routes that are still minimal in several routes, and the distance from the center of Wonosari City which is quite close to the location of the Gua Jlamprong tourist attraction.

### *Amenity*

The percentage results show that the value of the amenity indicator (supporting facilities) is 69.86% with an effective category at the lower level. Amenities are various facilities that support the needs and comfort of tourists while at tourist attractions. Based on the results of the study, it shows that the condition of the facilities in Jlamprong Cave is adequate with the availability of parking lots, homestays, places of worship, and food stalls that are easily accessible to tourists, but have several obstacles in several indicators whose quality and quantity do not meet the standards of tourist comfort. Some of them are the limited number of public toilets that can be accessed by tourists, maintenance of facilities that still need to be improved by providing a special place to store caving equipment, and the absence of insurance services for every activity in Jlamprong Cave.

### *Ancillary*

The percentage results show that the value of the ancillary indicator (additional services) is 81.20% with a very effective category. Supporting services are institutions that facilitate tourism activities. The Jlamprong Cave tourist attraction has formed a Pokdarwis (Tourism Awareness Group) institution that manages tourism. However, the capacity of the HR (Human Resources) of the manager is still limited, thus affecting the marketing and promotion process that has not been integrated. Policy and regulatory support has been carried out comprehensively between the Tourism Office and Pokdarwis of Mojo Tourism Village.

The results of this study reveal that the effectiveness of developing tourist attractions through the 4A components (Attraction, Amenity, Accessibility, & Ancillary) can be said to be effective. This is in line with research conducted by Joko Triyono in 2023 entitled (Implementation of the 4A Method Through the Development of Bangsring Beach Tourism Destinations, Banyuwangi) that Bangsring Beach has implemented the 4A method which can be said to be quite effective in attracting tourist interest. (Triyono, 2023, p.420).

Overall, the development of Jlamprong Cave tourism has been going well with efforts to develop nature tourism, cultural tourism, and educational tourism. Therefore, tourists will get interesting tourist attractions if they visit Mojo Tourism Village, Ngeposari. Tourists can take cultural tourism packages and very interesting caving adventure tours. The purpose of tourism development put forward by Arif as the head of Pokdarwis, that development can increase local community income to overcome economic problems in Ngeposari Village. In this effort, the Tourism Office must participate in monitoring tourism activities in Jlamprong Cave to maintain the sustainability of the existing nature and ensure that there are no activities that damage the environment. The Tourism Office also provides regular training to related guides to improve their tour guiding skills. So that tourists will get good service and get an interesting tour experience and useful knowledge.

### **Effectiveness of developing the Jlamprong Cave tourist attraction**

After conducting research on the development of the Jlamprong Cave tourist attraction on the quality of the 4A components (Attraction, Amenity, Accessibility, and Ancillary) it can be categorized as effective with a percentage value of 76.27%. This is proven by the results of the percentage test conducted through a questionnaire on 25 statement items which indicate that the development of the Jlamprong Cave tourist attraction has been effective.

The development of the Jlamprong Cave tourist attraction, especially from the 4A components (Attraction, Amenity, Accessibility, and Ancillary) as a whole can be said to be effective. However, in some components it has not been as expected. Where it is known that tourist attractions require adequate supporting facilities, tourism insurance, and extensive marketing through branding that is known to many people. In reality, the development has not gone as it should and still requires improvements or

additional infrastructure, development of a digital tourism information system to strengthen destination branding, strengthen the capacity of Pokdarwis and create special insurance services to ensure the safety of tourists. Collaboration between managers and the Gunungkidul Regency Tourism Office must be aligned to realize sustainable tourism.

Attraction conditions related to maintenance and development must be followed up with infrastructure improvements to meet tourist needs and strengthen educational tourism that benefits tourists. Furthermore, related to amenities or additional services must be considered in terms of cleanliness and procurement that must be carried out periodically. Accessibility components must also be considered for improving road quality and information services must be developed by developing a digital tourism information system to strengthen destination branding. Then, ancillary components in tourist attractions must strengthen the capacity of Pokdarwis and develop partnerships. In this case, efforts are needed to realize sustainable tourism institutions with village governments to work together to realize the quality of effective 4A components that are very effective by paying attention to environmental, social, cultural, and economic sustainability.

The management has difficulty in procuring supporting facilities, tourism insurance, and marketing tourist attractions, so that development has not gone well. Therefore, the existing potential must be maximized with the existence of HR (Human Resources) and SDA (Natural Resources) in Mojo Tourism Village. This requires a new policy made by the management with the Gunungkidul Regency Tourism Office and other related parties to overcome existing problems. Collaboration that synergizes with related parties is expected to increase efforts to develop the Jlamprong Cave tourist attraction. Existing human resources must also be given tasks according to the job description to organize and manage all aspects of tourism management such as publication or marketing, destination development, management of facilities and infrastructure, and the creative economy sector. The implementation of tourism development must be carried out with technical guidance, monitoring, evaluation, and reporting that is structured and periodic within a specified period. However, tourism development must pay attention to environmental sustainability, communication, and socio-cultural values, and in accordance with applicable procedures and provisions.

### **CONCLUSION**

The percentage results show that from all indicators in the development of the Jlamprong Cave tourist attraction with the 4A components (Attraction, Amenity, Accessibility, and Ancillary) are categorized as effective with a percentage value of 76.27%. The Attraction component is categorized as effective with a percentage value of 76.80%, Accessibility is categorized as very effective with a percentage value of 84.70%, Amenity is categorized as effective with a percentage value of 69.86, and Ancillary is categorized as very effective with a percentage value of 81.20%.

The research conducted found that the development has been running according to the expected procedures. However, there are some shortcomings in the amenity components and additional services. The lack of awareness from Pokdarwis and the surrounding community in Ngeposari Village regarding the importance of developing and promoting tourist attractions has resulted in the slow pace of tourism development. Therefore, collaboration with related parties and stakeholders must be carried out to overcome existing problems.

### **ACKNOWLEDGMENT**

The author would like to express his gratitude to all parties who played an important role in the implementation of this research, for the advice, guidance, and support that have been given. In particular, the author would like to thank the management of Mojo Tourism Village, Karang Taruna, and the Ngeposari village apparatus. In addition, to the Gunungkidul Regency Tourism Office who helped implement this research.

### **REFERENSI**

- Amin, F. N., Sabaruddin, G., & Kamaluddin, A. (2023). Buku Ajar Statistika Dasar. *Konsep Umum Populasi Dan Sampel Dalam Penelitian*, 14(1), 15–31. <https://doi.org/10.21070/2017/978-979-3401-73-7>
- Sari, W., & Najmudin, M. (2021). Pengaruh Media Sosial, Kualitas Layanan Dan Pengalaman Wisatawan Terhadap Minat Berkunjung Kembali Di Objek Wisata Pulepayung Kabupaten

- Kulon Progo. *EFEKTIF Jurnal Bisnis Dan Ekonomi*, 12(1), 49–58.
- Bahiyah, C., & Hidayat, W. R. (2018). Strategi Pengembangan Potensi Pariwisata Di Pantai Duta Kabupaten Probolinggo. *Jurnal Ilmu Ekonomi*, 2, 95–103.
- Chotimah, K. (2024). Statistik Daerah Kabupaten Gunungkidul 2024. In *Badan Pusat Statistika Kabupaten Gunungkidul* (Vol. 12).
- Ningtiyas, E. A., & Alvianna, S. (2021). Analisis Pengaruh Attraction, Accessibility, Amenity, Ancillary terhadap Minat Berkunjung Wisatawan melalui Loyalitas Wisatawan sebagai Variabel Mediasi. *Media Wisata*, 19(1), 83–96. <https://doi.org/10.36276/mws.v19i1.69>
- Oktaviani, M. A., & Notobroto, H. B. (2023). Perbandingan Tingkat Konsistensi Normalitas Distribusi Metode Kolmogorov-Smirnov, Lilliefors, Shapiro-Wilk, dan Skewness-Kurtosis. *Jurnal Biometrika Dan Kependudukan*, 3(2), 127–135.
- Gunungkidul. (2020). *Peraturan Daerah Kabupaten Gunungkidul Nomor 8 Tahun 2020 Tentang Perubahan Atas Peraturan Daerah Nomor 3 Tahun 2014 Tentang Rencana Induk Pembangunan Kepariwisata Daerah Kabupaten Gunungkidul Tahun 2014-2025*.
- Risda. (2021). *Efektivitas Pembelajaran Jarak Jauh ( Pjj ) Pada Pendidikan Agama Islam Di Sekolah Menengah Atas Negeri 1 Sidrap*. Institut Agama Islam Negeri Parepare.
- Triyono, J. (2023). Implementasi Metode 4A Melalui Pengembangan Destinasi Wisata Pantai Bangsring Banyuwangi. *Ganaya: Jurnal Ilmu Sosial Dan Humaniora*, 6, 412–422.