**The Benefits and Economic Feasibility of Tourism Investment Klothok Beach, Wonogiri, Jawa Tengah, Indonesia: A Descriptive Quantitative Study**

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ABSTRACT

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| **Aims:** This study aims to, (1) identify the potential and attractions of Klothok Beach tourism, (2) identify the economic benefits for the community from the Klothok Beach tourist attraction, (3) analyze the economic feasibility of the Klothok Beach tourist attraction from 2023 - 2033.**Place and Duration of Study:** Klothok Beach, Wonogiri, Jawa Tengah, Indonesia. Duration year 2023 -2033.**Methodology:** This type of research is descriptive quantitative using primary and secondary data. This study uses investment feasibility analysis tools, namely the NPV, IRR, Net B/ C and payback period methods. This study uses a purposive sampling technique, selecting 68 visitors who qualify as the sample.**Results:** Klothok beach has several advantages compares to other destinations other tourist attractions in Wonogiri, especially in terms of natural beauty and peaceful atmosphere. Towering coral clifft and hills as well as sandy beaches combined with natural rocks creates a view that is rarely found in other beaches in the area. Klothok Beach is perceived to provide economic benefits to the local community surrounding the tourist area. These benefits include the creation of new jobs and business opportunities, etc. From the investment feasibility analysis, the NPV value is $393.317 > 0, IRR 26,016% > DF 9%, Net B/C 2.054 > 1 and a payback period of 4 years 4 month. **Conclusion:** Klothok Beach in Paranggupito, Wonogiri has great potential as leading tourist destinations with distinctive natural beauty, such as karst cliffs and stunning sea panaromas. The positive impact for the surrounding community is in the form of increased welfare by increasing income and employment in the form of entrepreneurship. The negative impact is poor waste management which causes environmental problems around the beach. This can be seen from the NPV value, IRR value, Net B/C value and payback period, which states that the results of all investment criteria carried out state that it isi feasible to run or implement. |

*Keywords: Potential, Attraction, Impact, Economic Feasibility Analysis*

1. INTRODUCTION

Indonesia is very rich in tourism potential. Indonesia’s tourism potential is very diverse, both cultural and natural locations that are very beautiful and recognized worldwide (Syamsu, 2018). One of the natural tourism found in Indonesia is in the form of beach tourism objects (Zakik et al., 2022). The condition of Indonesia’s landscape which has an area of water reaching 67% of its total area makes Indonesia the country with the second longest coastline in the world (Handoyo, et al., 2023). The main benefit of tourism in stimulating economic growth is represented by the increase in the number of jobs available in tourist destinations, both directly and indirectly, for industries that provide the necessary services fir tourists. The tourism sector is also one of the national strategic sectors that can contribute to foreign exchange, equitable development and improvement of people’s welfare (Bunghez, 2016; Banerjee et al., 2019).

Tourism creates a multiplier effect that can drive the industry and stimulate investors to invest in sectors that support tourism (Milijić et al., 2009). In addition to the economy, the development of the tourism sector will also have an impact on the social life of the community (Utama, 2012; Nesticò & Maselli, 2020). Tourist visits are important in the development of tourism, the size of tourist visits can determine the development of the tourism area itself. This will also have an impact on the level of welfare of the community around the tourism attraction. One of the interesting tourist destinations to be developed is Klothok Beach, located in Paranggupito Tourism Village, Wonogiri Regency. Klothok Beach was formerly an abandoned pier that served as a fish auction site, built in 2006.

The main uniqueness of Klothok Beach lies in the karst cliff landscape and the large waves of the southern sea that create an exotic view for tourists. The aspect of locality is also one of the attractions of Klothok Beach because the surrounding community still maintains coastal traditions and culture that are closely related to marine life such as the thousand horses kepang dance event and the Tumangkar and larung Ageng events. Klothok Beach can be a leading tourist spot that has great potential to be developed, this is stated in the 2021 – 2026 strategic plan.

The revitalization of Klothok Beach which has been carried out using the physical special allocation fund for tourism in 2023 is used to build amenity, and tourist attractions in an integrated manner as stated in the regulation of the chief minister of creative economy and tourism number 3 of 2022 concerning operational guidelines for the management of physical special allocation fund. In addition, the guideline in the revitalization process of Klothok Beach is the agreement letter Number: 002/PPK-KlothokDAK/VII/2023 capital expenditures for the development of Klothok Paranggupito Beach area (DAK).

The Klothok Beach tourist attraction is managed by the Wonogiri Regency Government in collaboration with the Paranggupito Village government. Therefore, the Wonogiri Regency Government must ensure that the revitalization efforts, including the construction of public facilities etc. This, of course, requires an analysis of the tourist attraction's economic feasibility. This feasibility analysis is important because it provides a comprehensive picture of the fund for the development of Klothok Beach tourist attraction that will generate adequate economic benefits. In addition, this feasibility analysis can also see whether it is economically feasible and able to have a positive impact on the surrounding community. Feasibility study is preliminary study conducted to be able to formulate information about resources, cost, benefit and feasibility in accordance with expectations (Muhsin et al, 2020). The purpose of conducting a feasibility study is to avoid to much capital investment for activities that turn out to be unprofitable. The cost required to conduct this feasibility study are relatively small compared to the risk of failure of a large investment.

In conclusion, this studies aim to identify the potential and attractions, assess the economic benefits for the surrounding community, and analyze the economic feasibility of the Klothok Beach Tourist Object from 2023 to 2033.

2. material and methods

**2.1 Type of Research**

This research is quantitative research, which is research that collects quantitative data or other types of data that can be quantified and processed using statistical techniques (Yusuf, 2017). This research is also descriptive in nature which aims to accurately describe a condition regarding the facts that come from sources in the form of written and oral words.

**2.2 Data Type and Data Source**

In this study, the types of data and data sources used are as primary data and secondary data. Primary data sources used in this study were obtained through direct observation to the research location and interviews with respondents using a list of questions that had been prepared in accordance with the research objectives. In addition, also through questionnaires and interviews with visitors, management of Klothok Beach and traders or the community around Klothok Beach. Secondary data sources in this study were obtained documents related to cash flow from the management of Klothok Beach managent and documents from Public Works Office of Wonogiri Regency.

**2.3 Data Collection Technique**

The sample collection technique in this study is as observation, interview, questionnaire, while also using literature as a support. For first objective to identifying Klothok beach tourism potential, aouthor used this technique observation location, questionnaire werw conducted on visitors to Klothok Beach. With the questionnaire, it can be known what visitors like and dislike, including: The most interesting attractions, Inadequate facilities, Visitors' hopes or suggestions for improvement.

For the second purpose, namely to identify the economic benefits of Klothok Beach, the author uses interview techniques with the managers of Klothok Beach, traders and the community directly related to Klothok Beach. Through interviews, researchers can dig up information in depth and specifically because the managers and traders are the parties who directly feel the various impacts, especially in terms of economy, such as increased income, job opportunities. In addition, interviews also allow for the disclosure of possible social and environmental impacts, such as disruption of residents' peace, increased volume of waste, or changes in social interactions of the surrounding community.

To analyze the third objective, the author uses a documentation study technique, namely by collecting data from financial reports, visitor data, operational records, and other supporting documents related to the financial aspects of tourist attractions. This technique aims to assess the actual financial condition and projections of revenue and operational costs.

**2.4 Techniques for Determining the Number of Samples and Taking Samples**

In determining the number this study uses *purposive sampling* technique, namely someone who is chosen deliberately to provide important representative information (Firmansyah & Dede, 2022). So 68 visitors were randomly selected from the calculation using the Slovin formula with an average of 216 visitors per day. For traders and the community, they were selected as a whole because the population was small, so all were sampled, namely 18 traders and 5 people who were directly related to Klothok Beach and this research also conducted interviews with the management of Klothok Beach tourism management and Pokdarwis of Paranggupito Village.

**2.5 Analysis Tools**

In this study, the data processing technique that will be used to analyze the data obtained is to calculate the economic feasibility value based on the *Net Present Value* (NPV), *Internal Rate of Return* (IRR), Net *Benefit Cost Ratio* (Net B/C), and *Payback Period* (PBP) formulas.

1. Net Present Value (NPV)

*The Net Present Value* (NPV) method is a method carried out by comparing the present value of net cash inflows *(proceeds*) with the present value of the cost of spending an investment *(outlays).* Mathematically, the calculation of the *Net Present Value* (NPV) formula is as follows:

$NPV= \sum\_{t=1}^{n}\frac{B\_{t}- C\_{t}}{(1+i)^{t}}$**........................ 1.1**

Where, Bt stands for the benefit of year t, Ct for the costs in year t, i for the discount factor, and t for the project time.

1. *Internal Rate of Return* (IRR)

The *Internal Rate of Return* (IRR) method is one method of finding interest rates when NPV = 0. The information generated in this IRR method is related to the level of *cash flow* capability in returning investment capital which is explained in the form of percent (%) of the time period and how large the obligations that must be met. IRR can be found by using the following formula:

$IRR= i\_{1}+ \frac{NPV\_{1}}{NPV\_{1}+ NPV\_{2}} (i\_{2}-i\_{1})$**.............1.2**

Where, i1 stands for the interest rate on positive NPV, i2 for the interest rate on negative NPV, NPV1 for the Net Present Valuepositive, and NPV2 for the Net Present Value negative.

1. Benefit Cost Ratio (Net B/C)

Net B/C is the ratio between the NPV of total net *benefits* to total net costs. Net B/C is used as a measure of efficiency in the use of capital in an investment. Mathematically, the calculation of the Net B/C formula is as follows:

$Net\frac{B}{C}= \frac{\sum\_{t=1}^{n}N\overbar{B}\_{i} (+)}{\sum\_{t=1}^{n}N\overbar{B}\_{i} (-)}$**..................1.3**

Where, $N\overbar{B}\_{i} (+)$stands for the total net benefits, $N\overbar{B}\_{i} (-)$for total net cost, i for the discount factor, and t for the project time.

1. *Payback Period* (PBP)

*Payback Period* is the period of time needed to return all costs that have been used in a project investment. PBP (*Payback Period*) is often used as a benchmark to determine which project should be chosen, it is seen from which project returns the investment costs the fastest. Mathematically, the PBP formula is described as follows:

$PBP= T\_{p-1}+ \frac{\sum\_{i=1}^{n}I\_{i}-\sum\_{i=1}^{n}B\_{icp-1}}{B\_{p}}$**...............1.4**

Where, $T\_{p-1}$stands for the year before PBP, $I\_{i}$for the discounted investment amount, $B\_{icp-1} $for the number of benefits that have been discounted before PBP, and $B\_{p}$ for the number of benefits at PBP.

The operational definitions of the variables used in this study are as follows: tourism attraction is all the beauty that has uniqueness, beauty and value in the form of diversity of natural wealth, culture, and man-made products that become the target or destination of tourist visits. Tourism potential is everything that is found in tourist destinations that can attract tourists to visit which includes the uniqueness, beauty and value of a location. Economic benefits are benefits or positive impacts obtained by individuals, groups or communities from an economic activity, policy or investment. Economic feasibility is a review of investment from the point of view of investors and the people who benefit from it. The purpose of economic feasibility analysis is the economic efficiency of the project to be built which is expected to provide maximum benefits to the community.

The costs referred to here include investment costs, operational costs, maintenance costs, and other costs. The costs used in this study are assumed to increase by 3% per year starting from year 3. The benefits intended here consist of visitor admission revenue, parking revenue, toilet revenue and other income felt by the surrounding community. The benefits used in this study are assumed to increase by 3% per year starting from year 2. In determining the economic life, this research uses an economic life of 10 years starting from 2023 to the next 10 years. Based these considerations, the *discount factor* determined in this study is 9%.

3. results and discussion

**3.1 Overview of Klothok Beach Tourism Objects**

Klothok Beach tourist attraction is located in Paranggupito Tourism Village, Paranggupito District, Wonogiri Regency. This tourist location is about 60km from the center of Wonogiri City and can be taken in about 1.5 hours. Klothok Beach tourist attraction was developed or revitalized through the Special Allocation Fund for physical tourism in the 2023 budget year. At a ticket with a price that is still affordable can be used to visit 2 beaches at once, namely Klothok Beach and Sembukan Beach, because the two beaches are next door.

Klothok Beach offers a unique view that is suitable for taking pictures with the background of hills and the sea. The tourists can also use this beach for camping or just enjoying the night with the sound of the waves. In addition, for tourists who have a hobby of fishing, there are several points around the beach that can be used as a place to catch fish. As part of the revitalization, vendor stalls have been established, ensuring that visitors are accommodated with food and beverage options provided by local vendors.

**3.2 Potential and Attractiveness of Klothok Beach Tourism Objects**

1. Potential Natural Beauty

The natural beauty of the Klothok Beach Tourism Area is quite beautiful. Entering this tourist area will be greeted with a view of the vast southern sea surrounded by cliffs and hills. The cool breeze will make the atmosphere more relaxe and calm. Klothok Beach is also an ideal location to enjoy sunrise and sunset for photography lovers and tourists who are looking for tranquility.

1. Potential Tourist Attractions

Klothok Beach provides a place to fish in the sea but it is not recommended to swim in this beach because of the large waves of southern sea. Klothok Beach has games such as *ATV Offroad* that can be rented out to tourists. If tourists want to do *camping* activities on this beach, don't worry because Klothok Beach also rents *out camping* facilities*.* Klothok Beach is often used for *outbound* activities*,* because the beach manager also offers *outbound* activity packages*.* addition, Klothok Beach still maintains its local culture as it often holds festivals featuring Kupa Kepang Dance and Tumangkar and Larung Ageng Festivals. Klothok Beach sometimes also features karawitan and reog arts which have their own characteristics because they are performed with pronosewadono mask equipment etc.

1. Tourist Attraction

Klothok Beach tourist attraction has a beautiful view which is a special attraction that is rarely found on other beaches in this area, namely the combination of blue color and the vastness of the ocean surrounded by karst cliffs and hills. The vast view of the ocean combined with Karst cliffs and hills at sunrise and sunset are also an attraction of this beach for tourists.

Variations of activities at Klothok Beach are fishing, *camping, outbound, ATV Offroad.* Variations of activities in the Klothok Beach environment can enjoy nature and scenery by relaxing in the gazebos provided. Tourists can also enjoy performances if the time of travel is right there are art performances such as karawitan and reog art, or the Tumangkar or Larung Ageng festival activities. The variety of activities at Klothok Beach has not been developed much.

1. Accessibility

The tourist location of Klothok Beach is very easy to access using both 2- wheeled vehicles and 4-wheeled vehicles. For asphalt road conditions, it is still quite good with a distance from the center of Wonogiri City of about 60km and a travel time of about 1.5 hours. Klothok Beach Tourism provides convenience and comfort to visit because it is located close to other beaches such as Sembukan beach.

1. Conditions Surrounding the Area

The spatial layout of the Klothok Beach tourist attraction was contributed by the Wonogiri Regency Regional Government and the Paranggupito Village government. For the livelihoods of residents around the Klothok Beach area, the majority are farmers and odd-job laborers.

1. Accommodation

Around Klothok Beach, there are *homestays* managed by Bumdes Paranggupito. Tourists who want to stay overnight can confirm in advance with the *homestay* manager, which is about 2km from the Klothok Beach tour.

1. Supporting Facilities and Infrastructure

Facilities at Klothok Beach are prayer rooms, parking lots, places to eat, toilets, and gazebos and places for *camping.* Supporting infrastructure available at Klothok Beach Tourism, namely electricity and clean water networks and internet networks.

1. Clean Water Availability

The availability of clean water at Klothok Beach Tourism is still classified as suitable for consumption. Because the BUMDes Paranggupito provides PDAM which is a business owned by the village of Paranggupito. This is to support daily community activities in water needs.

Klothok Beach's tourist facilities are complete after this revitalization. After being revitalized, the pedestrian path has also been lined with wood which adds to the natural impression. Not only that, the beach plaza area also has a park bench for visitors to enjoy the beauty of Klothok beach from above. Entertainment rides can vary which can be developed at Klothok Beach Tourism such as tour boats to get around the beach or along the karst cliffs from the sea, providing a special area for fishing with fishing rod rental facilities and guide services. Entertainment rides can also provide children's play areas with simple games. Other entertainment such as organizing an event or festival held in this tour. Adding more interesting and permanent amusement rides environmentally friendly, Klothok Beach can be more developed and more attractive visiting tourists.

The environmental sustainability of Klothok Beach is one of the factors in maintaining tourist attractiveness and ecosystem sustainability. Klothok Beach tourism is very sustainable from the point of view of visitors. This is due to the revitalization of this beach tour which improves the existing infrastructure without damaging the existing ecosystem. Not only that, cleanliness in the beach area is also very well maintained. Many trash bins are available in the beach area so that visitors do not worry about disposing of garbage. In addition, the Paranggupito Village Pokdarwis and DLHK Wonogiri Regency also play a role in maintaining the cleanliness and ecosystem of the beach by cleaning the beach regularly.

**3.3 Economic Benefit for the Community Around Klothok Beach Tourism**

The following are the economic benefits caused by activities at Klothok Beach Tourism Object on the social conditions of the community around the tour:

1. Creating new job or business opportunities such as tourism managers (janitors, parking attendants, TPR officers), opening businesses. Based on the results of interviews, many local people have become entrepreneurs to side their previous jobs. Information obtained from the Pokdarwis, people who open businesses are quite numerous, but only trade on certain days, for example on holidays. For business actors with entities that sell almost every day, there are 18 traders.
2. Improving the standard of living and income of the community around tourism. Based on the results of interviews from 18 traders and 5 local communities, the increase in their income ranges on average from $1,87 - $17,92 in one day.
3. The shift in the profession of housewives in the surrounding community who switch professions from being housewives to having a side job to become entrepreneurs so that mothers around Klothok Beach tourism get income. From the results of observations, there are 4 housewives who become traders on the side, consisting of 3 people selling food and drinks and 1 person selling children's toys and wind chirps made by her own husband.
4. The development of this beach tourism, regional income through admission fees will increase, this of course can be used for regional development of Wonogiri Regency. Based on information from the Wonogiri Regency Tourism Office, the income of this beach retribution in 2023 before the revitalization was completed only received $14.128, while in 2024 when the revitalization was completed the entrance ticket retribution received $57.284.
5. Communities around tourism are becoming more aware of the importance of maintaining cleanliness and environmental sustainability.
6. BUMDes Paranggupito obtained $ 3.491 in revenue from tourism managed by BUMDes Paranggupito. These include Sembukan Beach, Klothok Beach, Njojogan Beach, and Dhadapan Beach. In addition to tourism, Paranggupito Village sometimes organizes the Gelaran Festival, which features the dance of a thousand braided horses and the Tumangkar and Larung Ageng festivals.
7. Infrastructure such as roads, electricity and clean water tend to be improved to support Klothok Beach tourism. This will also benefit the community around the tour to carry out daily activities such as buying and selling agricultural products or others will be faster or other economic activities. This is evident from the improvement of the road to this tour which is budgeted at $211.352 by the Wonogiri Regency Public Works Office.

In addition to the economic benefits felt by the community, the activities of Klothok Beach tourism also have a negative impact felt by the surrounding community. The negative impacts felt by the community are as follows:

1. An increase in the number of visitors can lead to an increase in plastic waste and other waste if not managed properly. Based on interviews with the management, the waste generated by the presence of Klothok Beach tourism is transported by DLHK Kab. Wonogiri but not taken every day.
2. The increase in garbage and not being picked up every day by DLHK, can cause inconvenience to the surrounding community caused by the unpleasant smell of garbage. In addition, this accumulation of garbage can also cause disease.
3. Competition in the tourism business sometimes causes economic inequality between residents who are directly involved in Klothok Beach tourism activities. Based on interviews with Pokdarwis, sometimes there are disputes arising from this business competition, for example, there are traders whose income is greater and there are those whose income is less than the turnover. Things like that become economic and social inequality.
4. The increase in vehicle density only occurs seasonally, sometimes hampering the activities of residents around Klothok Beach. An example of an increase in vehicle density is during the 2024 New Year holiday and on the Eid holiday.

**3.4 Economic Feasibility Analysis of Klothok Beach Tourism**

* + 1. **Cost**
			1. Investment Costs

Based on data obtained from the Klothok Beach Tourism manager, the revitalization carried out in 2023 used a budget derived from the Special Allocation Fund for Tourism. It can be seen from table 1 Investment cost of Klothok Beach below:

**Table 1 Investment Costs of Klothok Beach in 2023**

|  |  |  |
| --- | --- | --- |
| **No** | **Description** | **Total** |
| 1. | Visitors Plaza Cost | $57.947 |
| 2. | Park Bench Cost | $2.016 |
| 3. | Gazebo Cost | $24.925 |
| 4. | Parking lot Cost | $72.319 |
| 5. | Toilet and equipment costs | $17.212 |
| 6. | Pedestrian cost | $108.053 |
| 7. | Support cost | $12.939 |
| **Total** | **$295.411** |

*Sourcer: Disporapar Kab. Wonogiri, 2023*

In 2024, the management of Klothok Beach plans to pave the road to Klothok Beach tourism with a budget realization of $211.352 which comes from the Wonogiri Regency.

* + - 1. Operating and Non-Operating Expenses

Based on data obtained from the Wonogiri Regency Tourism Office, the costs used in the operation of this tour are employee salaries, electricity & water costs. addition, there are also costs for tourist equipment consisting of the cost of cleaning tools, costs for worship tools. Can be seen in table 2 Klothok Beach operational costs as follows:

**Table 2 Operational and Non-Operational Costs of Klothok Beach**

|  |  |  |
| --- | --- | --- |
| **No.** | **Description** | **Total** |
| 1. | Cleaning Tools | $504 |
| 2. | Worship Tools | $120 |
| 4. | Employee Salary | $2.151 |
| 5. | Electricity & Water | $359 |
| **Total** | **$3.134** |

However, Klothok Beach tourism is not only managed by the Tourism Office but also managed by BUMdes Paranggupito. In the management of Bumdes Paranggupito, the operational costs incurred include transportation costs, labor, machine services, water and data credit costs, MMT, ATK, Fc and other costs, Bumdes management incentive costs, souvenir and gift costs, costs for meeting consumption, equipment and machinery costs, other costs The details of the costs can be seen in Table 3 Operational Costs of BUMDes Paranggupito as follows:

**Table 3 Operational Costs of BUMDes Paranggupito**

|  |  |  |
| --- | --- | --- |
| **No.** | **Description** | **Total** |
| 1. | Transport, labor, machine servicing | $2.995 |
| 2. | Souvenirs and gifts | $49 |
| 4. | Water and data pulses | $1.442 |
| 5. | Meeting consumption | $319 |
| 6. | Equipment and Machinery | $746 |
| 7. | MMT, ATK , FC and others | $82 |
| 8. | Bumdes management incentives | $757 |
| 9. | Debt and interest | $192 |
| 10. | Police & military revenue sharing | $87 |
| **Total** | **$6.669** |

The total costs for the revitalizition and operation of Klothok Beach touristm, both those incurred by the Wonogiri Regency Tourism Office and from the BUMdes Paranggupito starting in 2023 to 2033, where the total costs in years 3 and onwards have increased 3% from the previous total costs, can be seen in table 4 Projected Costs of Klothok Beach Tourism as follows:

**Table 4 Projected Costs of Klothok Beach Tourism**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **N** | **Year** | **Investment** | **BUMDes Operational Costs** | **Disporapar Operating Expenses Wonogiri district** | **Total** |
| 0 | 2023 | $295.411 |  |  | $295.411 |
| 1 | 2024 | $211.352 | $6.669 | $3.134 | $221.155 |
| 2 | 2025 |  | $6.669 | $3.134 | $9.803 |
| 3 | 2026 |  | $6.870 | $3.228 | $10.098 |
| 4 | 2027 |  | $7.076 | $3.325 | $10.401 |
| 5 | 2028 |  | $7.288 | $3.425 | $10.713 |
| 6 | 2029 |  | $7.507 | $3.528 | $11.035 |
| 7 | 2030 |  | $7.732 | $3.634 | $11.366 |
| 8 | 2031 |  | $7.964 | $3.743 | $11.707 |
| 9 | 2032 |  | $8.202 | $3.855 | $12.057 |
| 10 | 2033 |  | $8.448 | $3.971 | $12.419 |

*Source: Data processed, 2025*

* + 1. **Revenue (Benefit)**

Based on data obtained from the management of Klothok Beach, the benefits or income obtained include entrance ticket fees, revenue from vehicle parking, toilet revenue and stall rental income for traders. In addition, the existence of this beach tourism also has an impact on the surrounding community with an increase in the income of traders and people directly related to this beach. Klothok Beach tourism provides benefits or income starting from 2024. Klothok Beach tourism revenue, in the column of the amount starting from year 2, is increased by 3% from the previous year's total revenue and applies in subsequent years. The details of income from Klothok Beach tourism can be seen in table 5 Projection of Klothok Beach Tourism Revenue as follows:

**Table 5 Projection of Klothok Beach Tourism Revenue (Rupiah)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **N** | **Year** | **Entrance Ticket Retribution** | **Toilet****Revenue** | **Parking****Revenue** | **Increased Community Income** | **BUMDes tourism revenue** | **Total** |
| 1 | 2024 | $57.720 | $259 | $1.046 | $69.989 | $3.491 | $129.014 |
| 2 | 2025 | $59.452 | $267 | $1.077 | $72.089 | $3.595 | $136.480 |
| 3 | 2026 | $61.236 | $275 | $1.109 | $74.252 | $3.702 | $140.574 |
| 4 | 2027 | $63.073 | $283 | $1.142 | $76.479 | $3.813 | $144.790 |
| 5 | 2028 | $64.965 | $291 | $1.176 | $78.773 | $3.927 | $149.132 |
| 6 | 2029 | $66.914 | $299 | $1.211 | $81.136 | $4.044 | $153.604 |
| 7 | 2030 | $68.921 | $307 | $1.247 | $83.570 | $4.165 | $158.201 |
| 8 | 2031 | $70.989 | $315 | $1.284 | $86.077 | $4.290 | $162.955 |
| 9 | 2032 | $73.117 | $323 | $1.322 | $88.659 | $4.418 | $167.839 |
| 10 | 2033 | $75.311 | $331 | $1.361 | $91.318 | $4.550 | $172.871 |

*Source: Data Processed, 2025*

* + 1. **Economic Feasibility Assesment of Klothok Beach Tourism**
			1. **Net Present Value (NPV)**

**Table 6 NPV Calculation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **N** | **Year** | ***Present Value Total Cost*** | ***Present Value Total Benefit*** | ***Net Present Value*** |
| 0 | 2023 | $295.411 | $0 | * $295.411
 |
| 1 | 2024 | $202.894 | $118.361 | * $84.533
 |
| 2 | 2025 | $8.251 | $114.872 | $106.621 |
| 3 | 2026 | $7.797 | $108.548 | $100.751 |
| 4 | 2027 | $7.386 | $102.572 | $95.186 |
| 5 | 2028 | $6.963 | $96.925 | $89.962 |
| 6 | 2029 | $6.580 | $91.589 | $85.009 |
| 7 | 2030 | $6.217 | $86.541 | $80.324 |
| 8 | 2031 | $5.875 | $81.781 | $75.906 |
| 9 | 2032 | $5.551 | $77.277 | $71.726 |
| 10 | 2033 | $5.246 | $73.022 | $67.776 |
| **NPV** | **$393.317** |

*Source: Data processed, 2025*

Based on table 6 of the NPV calculation, it can be seen that the NPV value is. $393.317 which is obtained from the sum of all subtraction values between *Present Value Total Benefit* and *Present Value Total Cost* in each year. This can be interpreted that the Klothok Beach tourism revitalization project economically feasible because the NPV value is 0 and can provide benefits of $393.317 during its 10-year economic life.

* + - 1. **Internal Rate of Return (IRR)**

The following data can be found:

i1 = 9%

NPV1 = $393.317

i2 = 27%

NPV2 = - $12.550

Can be calculated using the IRR formula as follows:

$$IRR= 9\%+ \frac{\$393.317}{\$393.317-(-\$12.550)} (27\%-9\%)$$

$$IRR= 9\%+ \frac{\$393.317}{\$405.867} (18\%)$$

$$IRR= 9\%+ 0.945\left(18\%\right)$$

$$IRR= 0.09+ 0.170$$

$IRR= 0.260$ **= 26.016%**

From the results of the IRR calculation above, the IRR value is 26.016%. This concludes that the IRR value is greater than the *discount factor* (26.016%. > 9%), meaning that the project of revitalizing Klothok Beach is feasible to implement. This means that if the interest rate (*discount factor)* increases to the limit of 26.016%, then the investment in the Klothok Beach revitalization project is still economically feasible. This can also mean that the NPV value is zero (0) when the interest rate per year is higher of 26.016%.

**c. Net Benefit Cost Ratio (Net B/C)**

*Net B/C* can be obtained from the comparison between the positive *net present value* (as the numerator) and the negative *net present* value (as the denominator). The calculation of the *Net B/C* value is as follows:

* Total *net present* value that is positive = $773.261
* Total *net present* value that is negative = $379.944

Can be calculated using the Net B/C formula as follows:

$Net\frac{B}{C} $= $\frac{773.261}{379.944}$ = 2,054

Based on the above calculations, the Net B/C value is 2.054 (>1). This can be interpreted that the investment in revitalizing Klothok Beach tourism is profitable and feasible to run because the Net B/C value is higher than the Net B/C value. Then it can be concluded that every $ 1 costs incurred will provide a profit or benefit of $1, 054.. Judging from the results of the Net B / C calculation, the revitalization of Klothok Beach is feasible because the benefits obtained are greater than the costs incurred. The benefits obtained from Klothok Beach are through admission fees, parking, toilets, and rental of stalls for traders which are divided into two management, namely from the Wonogiri Regency Tourism Office and BUMDes Paranggupito. In addition, the benefits are also not only felt by the management, but also by the traders and the surrounding community through increasing their income.

**d. Payback Period (PBP)**

The following data can be found:

Tp-1 = 4 years

Ii = $506.763

Bicp-1 = $444.353

Bp = $96.925

Can be calculated using the IRR formula as follows:

$$PBP=4+ \frac{\$506.763-\$444.353}{\$96.925}$$

$$PBP=4+ \frac{\$62.410}{\$96.410}$$

$$PBP=4+ 0,4$$

$$PBP=4.4$$

Based on the above calculations, it can be seen that the return on investment in Klothok Beach tourism is 4 years and 4 months with an investment value of $506.763 and a *discount factor of* 9%. The investment return time in Klothok Beach tourism is still relatively fast because the investment return value is still below the economic age (10 years). It can be concluded that the revitalization of this tour is feasible and economically profitable.

**3.5 Discussion of Tourism Potential & Attraction, Economic Benefits and Economic Feasibility Analysis of Klothok Beach Tourism**

In the tourism industry, the development of a destination does not only depend on the beauty of nature or local culture, but also on the aspects economy and investment. Tourism potential and tourist attraction are the main factors that determine whether an area is worth developing into a tourist destination. However, the success of this development also depends on investment analysis using various criteria such as Net Present Value (NPV), Internal Rate of Return (IRR), Net Benefit-Cost Ratio (Net B/C), and Payback Period.If tourism potential is well managed, its attractiveness will increase and have a positive impact on the economic and investment sectors, and vice versa. Based on the discussion of the potential owned by Klothok Beach tourism, it still has potential that needs to be developed again. If this potential is well managed and developed, it will certainly increase the attractiveness of this beach tour which will attract more visitors.

High tourism potential and attractiveness will attract more tourists which can increase tourism revenue and will increase NPV. A destination that has great tourism potential but is not developed, the NPV can become negative because the cost of investment is not equal to the income. Tourism destinations that have high attractiveness will tend to have a higher IRR. This is due to more tourists and higher revenues. Conversely, if the IRR is lower than the interest rate, then investors will tend not to be interested in investing. This also shows that in this study which has an IRR of 26.016%, which is greater than the interest rate (discount factor). High tourist attractiveness that causes the number of tourists to increase and greater income will also affect the Net B / C which will be greater. In addition, tourism that has a high attraction will have a faster *payback period* because the income earned will be greater. Tourism potential and tourism attractiveness are the foundation for tourism development. Investment criteria are used to ensure that investments in tourism development provide optimal and sustainable economic returns, while considering positive and negative impacts on the environment and society.

* + 1. conclusion

Klothok Beach in Paranggupito, Wonogiri, has great potential as a leading tourist destination with distinctive natural beauty, such as karst cliffs and stunning sea panoramas. addition, the beach offers various tourist attractions, such as fishing*, camping, outbound*, and local cultural arts performances such as Reog and Tumangkar Festival. Accessibility to Klothok Beach is now getting better after the revitalization of road infrastructure in 2024. In addition, the area around the beach has also been supported by accommodation facilities such as homestays, as well as supporting facilities and infrastructure, including prayer rooms, toilets, parking lots, electricity networks, and the internet. Although revitalization has improved comfort and accessibility, there are still some aspects that need to be developed, such as additional amusement rides, boat rentals, children's play areas, and more complete fishing facilities. With good management, including environmental preservation, Klothok Beach has a great opportunity to develop as a sustainable tourist destination that attracts more tourists.

The revitalization of Klothok Beach tourist attraction creates economic benefits for the community around the tour, both positive and negative impacts. The positive impact for the surrounding community is in the form of increased welfare by increasing income and employment in the form of entrepreneurship. In addition, Klothok Beach also contributes to the original income of BUMDes Paranggupito and the entrance ticket retribution revenue managed by BUMDes Paranggupito and Wonogiri Regency Disporapar. However, in addition to the positive impact there is also a negative impact, namely poor waste management which causes environmental problems around the beach.

The revitalization of Klothok Beach is feasible to implement and provide benefits or profits. This can be seen from the NPV value, IRR value, Net B/C value and *payback period*, which states that the results of all investment criteria carried out state that it is feasible to run or implement.

Therefore, for further research, it can add analysis from other aspects so that the results are better. addition, it can also add sensitivity analysis so that results obtained are better and with analysis methods that are not only NPV, IRR, Net B / C and PBP. For the Wonogiri Regency government to further improve services and promotions so that Klothok Beach can attract more visitors. addition, BUMDes Paranggupito can record more detailed cash flows regarding Klothok Beach tourism activities.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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