



Economic development on Madura Island through halal tourism: A business feasibility study

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Abstract

The main objective of this research is to analyze the business feasibility of a halal tourism destination in Madura, exclusively Lon Malang Beach. The analysis includes technical, social economic, and financial feasibility study. The financial analytical method used in this study is Investment Feasibility Analysis includes Payback Period (PP), Net Present Value (NPV), and Benefit Cost Ratio (BCR). The investment feasibility analysis is used to determine the level of return-on-investment alternatives, assess investment alternatives, and determine priorities for investment, thus avoiding investments that only waste resources. The measurement results show that the Payback Period (PP) is in the 9th year, which means that in 9 years, this project will have a return on investment. NPV values greater than 0 and BCR of more than 2 indicate that the Lon Malang tourism development project is feasible. This research is the first research to bring ideas about a feasibility study in halal tourism sectors. This research enriches the knowledge and research on feasibility studies of halal tourism sectors. This research is said to bring important information in decision-making, especially to improve the business and guide the decision-making of investors and government parties, especially in Madura Regency.

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Introduction

Tourism positively affects long-term economic growth through various channels (Devi, 2022). Several studies stated that tourism expansion contributes positively to economic growth. First, tourism is a significant foreign exchange earner contributing to capital goods used in production so economic growth can grow positively. Increased foreign exchange earnings also maintain stability in economic growth, especially in developing countries (Lee, 2021). Second, tourism plays an essential role in pushing investment in three main factors of production: labor, physical capital, and technology (Mardhani et al., 2021). Labor, as a factor of production, also includes skills, professional education, training, etc. Physical capital includes many private and public infrastructures such as airports, harbors, highways, hotels, restaurants, and other major productivity and trade contributed to economic growth sustainably.

Technology investment supports the development of the tourism market because its promotion needs technological support that the domestic and international communities can find out. Third, increasing tourism spending may bring additional activity in the related industry. The overall variation associated with it will be greater than the initial injection in expenditure (Lisbet, 2020). If this effect is activated, one of the best ways to increase economic benefits is to integrate tourism into the national economy by building strong links between tourism and other economic sectors such as agriculture, fisheries, manufacturing, construction, and other service industries. The tourism sector, which takes advantage of the products and services generated in the local economy, could bring a multiplier effect because it provides additional income. Fourth, tourism contributes to generating employment and increasing income. International tourism spending could finance local businesses (Wu & Wu, 2019). Part of this income allocates to pay back the factors of production (i.e., wages, rent, and interest payments) and part of it becomes profit. This additional income activates new consumption, generating economic benefits and income among local economic actors.

The tourism sector has greatly contributed to promoting Indonesia's economic growth. The tourism Led Growth Hypothesis of Songling et al. (2019) said that economic growth can be generated by increasing the amount of labor and capital in the economy and expanding tourism sectors. In another study, Maneejuk et al. (2022) also confirm that tourism can indirectly contribute to economic growth. This fact also has been revealed by data from Organization for Economic Co-Operation and Development (OECD) in Tourism Trends and Policies Report 2020. The OECD (2020) stated that the tourism sector contributed 536,8 billion rupiah or 4,1% of the total GDP in 2017 and increased to 6,1% of the Indonesian GDP in 2019. Strategically, these sectors also provide many jobs, absorbing 12,7 million labors or 10.5% of national job opportunities. In Indonesia, the growing tourism business is led by halal tourism handled by Muslim or Islamic societies (Srisusilawati, 2020). One of the potential halal tourism destinations in East Java Indonesia is Madura island, that not only limited to its religious tourism, Islamic arts, and Islamic cultural sites but also its natural tourism, such as beaches, mountains, hills, caves, amusement rides, etc. (Adibah & Nasrulloh, 2021).

Most halal tourism in the Madura region can be rich by developing tourism objects in the village namely tourism village. Tourism villages are developed in rural areas with unique characteristics (Utama & Khomsatin, 2020), including pristine natural resources, the village's uniqueness, and the traditions and culture of the local community. In addition, the tourism village can indirectly encourage the local community of the Madura region to maintain and preserve the nature and culture in that village (Muhsin et al., 2020). Madura local community's role in developing tourist villages includes operating and controlling tourism village development. The benefits received by the local community are encouraging the welfare of the community's economy by maintaining and preserving cultural and natural values that can absorb local people's energy, create entrepreneurship, and create positive activities in the

agricultural sector (Doris & Anyu, 2019). Furthermore, tourists who visit tourism villages will provide opportunities for local communities to be more independent in their lives by providing services and selling products created from the various potentials in the village (Shih et al., 2020). Therefore, developing a halal economy with a tourist village can bring many benefits and advantages. Efforts to develop and utilize tourist villages in the Madura region can increase employment, community income, regional income and state income, and foreign exchange earnings (Bhuiyan et al., 2021). Support and active participation of the community must be carried out to develop tourism.

One example of a developed tourist village is Lon Malang Beach in Bira Tengah Village, Sokobanah District, Sampang Regency. It is still the same area as the tourism object of Nepa Monkey Forest and Toroan Waterfall. This shows that ecotourism in natural tourism activities in pristine areas and compared to other tourism locations in Sampang Regency, Lon Malang Beach tourism can become a tourism area if it is properly developed. At the beginning of 2016, this beach was managed by the community. In the initial observations, the researchers found that this management was a resistance to the reality of social deviations. But then after Lon Malang Beach came into virality of social deviations, management and government tried to improve the destination to be better. So that in 2019, data from Government Tourism Office (2021) in Table 1, stated that Lon Beach Malang contributes 60% of tourist visitor in Sampang Regency.

Table 1. Tourist visit in Sampang Regency Tourism Destination 2019

Tourism Destination	Foreign Tourist	Domestic Tourist	Total
Camplong Beach	-	79.312	79.312
Sumber Oto' Swimming pool	-	1.269	1.269
Lebar Cave	-	6.411	6.411
Klampis Lake	-	4.679	4.679
Kera Nepa Forest	74	80.050	80.124
Toroan Waterfall	69	128.885	128.954
Ratu Ibu Site	-	9.233	9.233
Trunojoyo Site	-	1.103	1.103
Grave of Sayid Utsman	-	8.510	8.510
Grave and Well of Tujuh Panji Laras	-	7.065	7.065
Karang Laut Mandangin	-	1.976	1.976
Aji Gunung Fishing Pond	-	1.822	1.822
Lon Malang Beach	353	511.430	511.783
Total	496	841.745	842.241

Source: Department of Youth, Sports, Culture and Tourism, Sampang, Madura Regency (edited, 2022)

This fact shows a huge potential of Lon Malang Beach to develop. Seeing the potential of the beach, its management needs to involve some stakeholder supports including local government, association, funding sources (BUMDES), also surrounding community to participate in developing Lon Malang Beach tourism. (Rahayuningsih & Wibowo, 2022). And to scale up the tourism business surround Lon Malang Beach that could bring more social economic impacts, it needs open investment in a proper calculation. That is why this study come up with investment feasibility analysis of Lon Malang Beach. This is useful for new investors that it can be used as a guide in investing. This analysis aims to determine the level of return on investment alternatives, assess investment alternatives, and determine investment priorities that investments that waste resources can be avoided. The feasibility of this investment is analyzed from technical, social, economic, and financial aspects. For the community, investment in terms of the economic aspect will provide opportunities to increase their income. Furthermore, the

most important thing is there is someone who manages and regulates unspoiled natural resources. On the other hand, negative impacts will not be separated from economic aspects, such as excessive natural resource exploration, the entry of workers from outside the region which can reduce opportunities for the surrounding community (Soylu, 2020).

The social aspect is managing and regulating natural resources which still there is no human intervention. The social aspect has two sides. They are negative and positive sides. On the negative side, it can change demographics, culture, public health, lifestyle, customs and other social structures. On the positive side, the existence of transportation tools, electricity, water, and the availability of bridges can be useful for the surrounding community. This economic and social aspect needs to be considered because the impact that occurs when there is an error occurs is very large. It is hoped that this economic and social aspect will provide more benefits than losses if a business or project is established. Thus, in the economic and social aspects, it is necessary to examine whether the business or project which run will provide economic and social benefits to various parties or vice versa. Therefore, these economic and social aspects need to be considered, because many impacts will be caused in the future if the assessment is wrong.

The aspect of financial feasibility is to calculate the Payback Period, Net Present Value, Profitability Index, Average Rate of Return and Internal Rate of Return. The financial aspects of the business feasibility study are used to assess the company's finances, including: obtaining sources of funds, estimated income and types of investments along with costs incurred during the investment as well as projected financial statements consisting of income statements, balance sheets and cash flows.

Methodology

The research method used here is a business feasibility study. Feasibility study is research on whether or not a business is feasible (Raharjo, 2022). The results of the feasibility study are a report stating whether the project or investment plan is feasible or not to implement. In general, feasibility study provides three benefits, namely: 1) the economic benefits of the business project itself, meaning is the project profitable compared to the project risks, 2) project benefits for the project country implemented, and 3) the social benefits of the project for surrounding community (Husnan & Muhammad, 2014).

This study used a sample of Lon Malang Beach in Sampang Regency. This is because Lon Malang Beach is the most visited tourism by local and foreign tourist in Sampang Regency, Madura (Government Tourism Office: 2021). The opening of Lon Malang Beach is currently viral on the island of Madura. In addition, another reason is that the opening of Lon Malang Beach is full of controversy. When it opened Lon Malang beach in 2017, the crowds that came were not tourists, but protests and criticism barrage. Unmitigated, the critics are religious leaders in Sokobanah District, Sampang Regency. The virality of Lon Malang Beach then become potential that interest more tourist to visit the beach itself. Seeing the potential of this tourism site, this research inline the importance of doing feasibility study in Lon Malang Beach.

By using feasibility study in Lon Malang Beach, new investors will be helped in choosing a project or business. By conducting a feasibility study analysis, investors can minimize the risks that can occur, both controllable and uncontrollable risks. This study analyzes technical aspects, social and economic aspects, and financial aspects. The following is an explanation of these aspects:

Technical aspects

Technical aspects are important to a business feasibility study (Assaf & Josiassen, 2012). Technical analysis is needed to ensure that the selected idea or ideas are feasible. This can be

seen from the availability of locations, materials, tools, technology (methods), human resource skills, and funds. It is needed to support the smooth production process which can produce qualified products (Insani et al., 2019). In the economic and social aspects, the impact given by the investment is more emphasized on the community in particular and the government in general (Purnaya et al., 2019).

The important thing to review in this aspect is Location. In assessing a location there are several factors need to be considered. In manufacturing company, it is needed to observe the location of potential consumers or target markets; location of the main raw materials; source of labor; transportation facilities; supporting resources, such as water, electricity, air-condition, telephone; facilities for factories and facilities for employees; surrounding community environment; and government regulations. The stages to do location selection is first stage, seeing the possibility of which area will be used as a business location by considering government regulations, types of production processes or services that will determine business specifications related to labor, transportation, and so on. The second stage is paying attention to the experiences of other people's businesses or their own experiences, based on the type of goods produced and the production process because both will affect transportation facilities, markets, electricity, water, telephones, and other factors that are considered important. And the third stage is considering and assessing the social impact or support from the community around the location.

There are two main points in this technical aspect, development and operational plans. The development plan includes an implementation schedule, available infrastructure and facilities, such as facilities, machines, experts and labor, and various materials needed. While the operating plan includes raw materials, maintenance costs, working capital costs, and others. Technical assessment solely aims to find out whether the ideas that have been previously selected are feasible from the technical aspect. That is if the idea is to be realized or produced, is there the right location, there are machines and equipment needed with technology that is in accordance with market demands, raw and auxiliary materials are available in sufficient and continuous quantities, as well as skilled labor in large quantities. adequate and reasonable wage rates, as well as other costs that are still categorized as reasonable costs.

Social and economic aspects

Every business will have a positive and negative impact. These positive and negative impacts will be felt by various parties, both for the entrepreneurs themselves, the government or the wider community. In the economic and social aspects, the impact given by the investment is more emphasized on the community in particular and the government in general. For the community, investment in terms of the economic aspect will provide opportunities to increase their income. As for the government, the positive impact obtained is from the economic aspect of providing income for both the central government and local governments. Furthermore, the most important thing is that someone manages and regulates pristine natural resources. On the other hand, negative impacts will not be separated from economic aspects, such as excessive exploration of natural resources, influx of workers from outside the region that will reduce opportunities for the surrounding community. This economic and social aspect needs to be considered because the impact of an error is very large. It is hoped that this economic and social aspect will provide more benefits than losses if a business or project is established. Thus, in the economic and social aspects, it is necessary to examine whether if the business or project is carried out it will provide economic and social benefits to various parties or vice versa. Therefore, these economic and social aspects need to be considered, because the impact that will be caused later is very broad if the assessment is wrong.

In Economic point of view, the important components to be studied include: 1) Household economy (income level, livelihood pattern and double income pattern); 2) Economics of natural resources (land-use patterns, land value of natural resources and other resources); 3) Local and regional economy (providing added value, type and amount of non-formal economic activity, income distribution, economic dual effect, Gross Regional Domestic Product (GRDP), Regional Original Income (ROI), centers of economic growth, public facilities and social facilities, regional accessibility); and 4) Area development.

While the important social components to be studied include the following a) Demographic components, including population structure, population density level, population growth, and labor; 2) Cultural components, including culture (customs, values and cultural norms), social process, cultural heritage (archaeological sites, cultural heritage), attitudes and public perceptions of the planned business or activity; 3) Public health, including environmental parameters that are estimated to be affected by the development plan effect on health, process and potential for contamination, huge potential impact on disease incidence (illness and mortality), and environmental conditions that can exacerbate the process of spreading the disease.

Financial aspect

Payback Period (PP)

The formula used to calculate the Payback Period (PP) is as follows.

$$PP = n + \frac{a - b}{c - b} \times 1 \text{ year}$$

- n = the last year in which the amount of cash flow still cannot cover the initial investment
- a = Amount of initial investment
- b = Cumulative amount of cash flows in the year – n
- c = Cumulative amount of cash flows in the year n + 1

To calculate the Payback Period which has different yearly proceeds, the accumulated proceeds must be calculated first that the accumulated cash inflows (zero) are obtained. The eligibility criteria for investment acceptance using the Payback Period method is that a proposed investment is declared feasible if the Payback Period is shorter than the maximum payback period. On the other hand, if an investment's Payback Period (PP) is longer than the maximum payback period, then the investment is declared unfeasible.

IRR (Internal Rate of Return)

$$IRR = NCF_0 + \frac{NCF_1}{(1 + IRR)_1} + \frac{NCF_2}{(1 + IRR)_2} + \dots + \frac{NCF_n}{(1 + IRR)_n}$$

Information:

NCF = *Net Cash Flow*

IRR = *Internal Rate of Return*

n = last period of expected cash flow

Criteria:

$IRR \geq \text{rate of return}$ = Business feasible

$IRR \leq \text{rate of return}$ = business is not feasible

NPV (Net Present Value)

$$\text{Net Present Value (NPV)} = \sum_{t=0}^n \frac{A_t}{(1+k)^t}$$

Information:

k = *Discount rate* used

A_t = *Cash flow* in period t

n = the last period in which *cash flow* is expected

The eligibility criteria for investment acceptance using the *Net Present Value* (NPV) method is that a proposed investment which declared feasible if the *Net Present Value* (NPV) is greater than zero or positive. On the other hand, if the *Net Present Value* (NPV) of an investment is less than zero or has a negative value, then the investment is declared unfeasible. If there are several investment alternatives, the best alternative is chosen by determining the investment alternative with the largest *Net Present Value*.

Results and Discussion

Prospects of lon beach tourism village, Malang Sampang

Technical aspects

Madura consists of the main island and a small island which is divided into 4 (four) districts, namely Bangkalan Regency, Sampang Regency, Pamekasan Regency, and Sumenep Regency. The Madura archipelago consists of 126 small islands which are part of the Sumenep and Sampang Regency. Of the 126 small islands, 49 are inhabited and 77 are uninhabited. The morphology of Madura is the hills that dominate the island of Madura in the middle of the island that extends from the west-east, as well as lowlands covering the north to south around the island.

The dominant soil type on Madura Island is Mediterranean which spreads almost all over the island and other types such as gleisohal, grumusol and alluvial. This type of soil is very suitable for the designation of agricultural and plantation crops, such as sugar cane, rice, coconut, palm oil, coffee, cloves, rubber and other fruits. Madura Island has fairly varied mineral content. For example, the class C minerals found in Sumenep Regency consist of phosphate, limestone, calcite/star stone, gypsum, quartz sand, dolomite, slate stone and kaolin. Madura's land destruction is dominated by land for plantations and dry fields which account for about 58% of the total area of Madura Island.

The Lon Malang Beach area is a unique resource system, that it requires a special approach in planning and managing its development. Lon Malang Beach is quite clean and beautiful. It is not surprising that this beach is visited by many local and non-local tourists. Lon Beach Malang location is in Bire Tengah Village, Sokobanah District, Sampang Regency. This beach is also near to the Toroan waterfall. Lon Malang beach is directly opposite the Java Sea in the north of the island of Madura.

Based on the research of [Avanitis & Estevez \(2018\)](#), technical feasibility detailing on how a good or service will be delivered, which includes access of transportation, business location, materials and staff. The discussion above shows that Lon Malang Beach has a potential on technical aspects. The technical aspects include business location that can be accessed by tourist, natural resources that attract tourist visits including waterfall near beach, and the existence of local community that can serve products and services needed by tourist. These are good combinations to build tourism destinations.

In technical aspect, Lon Malang Beach can be categorized as halal tourism because it is in accordance with the guidelines from Chanin et al (2015) about Halal tourism management in Muslim countries. They are a) The natural resources at the tourist attractions here as Lon Malang beach, has been preserved for their natural beauty, b) The tourism activities done in Lon Malang Beach are not against the Islamic obligations, c) Prayer rooms are provided for Muslim tourists as well as the direction signs to the local mosques, d) There are separate restrooms for men and women provided together with clean water. e) The Halal restaurants/food courts are provided in tourist attraction areas, and etc.

Social economy aspects

The socio-economic impact of tourism for the community is happening. Fishing communities consisting of fishermen and their families and local communities with small businesses that sell goods and services for a living. There are some social impacts of the existence of a tourism projects investment as like Lon Malang Beach development, including:

1. Population demographic changes surround Lon Malang beach, like population density caused by migration patterns that caused the population growth. Also there is a change on labor both the labor force participation rate and the unemployment rate.
2. The dynamic interaction around the tourism destination of Lon Malang Beach causes cultural changes. The changes happen in local customs, values, and cultural norms from the interaction between local communities, tourist, government, private sectors. This condition also changes social processes, like cooperation between government and local community. On the contrary, it also causes a social conflict between management and local community in the early building of Lon Malang beach. But then there is a process of acculturation, assimilation, and integration as well as other social processes to cooperate in developing Lon Malang Beach tourism. This phenomenon also builds changes in power and authority through formal and informal leadership to the informal leader of tourism site. The crowded activities in tourism destinations also will cause changes in ecological adaptation.
3. The interactions of local communities, tourist, and local government in daily life will impacts the public health changes. It could changes in environmental parameters that are estimated to be affected by the development plan and affect health. The tourism activities could cause water pollution for beach environments. The foreign tourist visits will increase the risk of disease for the specific characteristics, including local community providing services and products for tourist. But in positive sides, the development of tourism activities would increase the sanitation conditions of local community.

Economic impact

The impact of the economic aspect with the existence of a business or investment, for Lon Malang Beach as a tourism destination, includes:

1. Improve the surround's household economy through increased family income by becoming labor of tourism services or having small businesses providing many products and services surrounding Lon Malang Beach. This tourism destination could open job opportunities for the community and reduce unemployment. There is a change in livelihood patterns will be more intense to open SMEs around tourism destination and some will more concern to fishing processed products. So there are many income sources for coastal communities around Lon Malang Beach destinations.
2. Explore, manage, and use the natural resource economy through a regular ownership and control of natural resources, especially Lon Malang Beach, and increasing the added value of natural resources.

3. Improving the government's economy locally and regionally through increasing employment and business opportunities for the community. As the one of top tourism visits in Sampang, Madura, this Lon Malang Beach could increase the Gross Regional Domestic Product (GDP). Local government also could get income in the form of taxes from tourism sectors sources managed by the company, both from sales income and from other taxes. In addition, this tourism activity also could become centers of economic growth in certain areas. The centers of economic activity will lead to providing public facilities that are needed by the community. The availability of facilities and infrastructure with the opening of a project or business can also provide facilities for the wider community and the government such as the construction of tourism destination, entertainment facility, school, house of worship, hospital, shopping center, and so on.
4. Area development could be happened in tourism sectors development. It can be done by the increase the distribution of development and open social environment with the opening of an area.

Financial aspects

This part of the study provides a descriptive analysis of financial projections of Lon Malang Beach investment. A financial forecast is one of the keys of how a new project is selected. Net present value (NPV), cost-benefit calculations, and balance sheets are examples of how financial projections may be illustrated ([Avanitis & Estevez, 2018](#)).

Investment cost

Investment costs are costs required for the development of tourist areas. Investment costs are divided into fixed investment costs and working capital costs. Fixed investment costs include licensing fees, land and buildings, and supporting facilities. The total investment cost required for the development of the coastal area is IDR 40,000,000,000. This assumption of this cost is obtained from several references. The hotel rooms that will be built are 40 rooms with details of the investment cost per room is IDR 200,000,000. The total amount of funds needed for the construction of 40 rooms is 8 billion rupiah. Next, additional funds of 4 billion rupiah were used for the development of the hotel area starting from restaurants, swimming pools, etc. The total funds for the construction of this hotel are 12 billion rupiah. Furthermore, a funding investment of 28 billion rupiah is needed for the arrangement of the area, starting from improving access, clean water, children's playgrounds. Table 1 shows the estimated detailed investment costs for coastal area development.

Table 1. Details of investment costs

No	Development	Value (IDR)
1	Arrangement of the beach area	28,000,000,000
2	Hotel	12,000,000,000
Total Investment		40,000,000,000

Source: Research result (2021)

Estimated income

The assumption used in this income estimate is a moderate plus estimate, which is a medium estimate that tends to be optimistic. The estimated income comes from aggregate income of major businesses run in Lon Malang Beach, namely beach area, business place rental, and hotel. In hotel business, the average room occupancy rate per day is 30 rooms with an average nightly rental price of IDR 500,000 and does not consider other income such as parking, restaurants, etc. Daily visitors are assumed to be 273 people with annual visitors reaching 100,000

visitors. In addition, income is obtained from leasing a business place estimated to provide an income of IDR 270,000,000 per year.

Table 2. Income details

No	Area	Visitors	Tickets/rent (IDR)	Income (IDR)
1	Beach Area	100,000	25,000	2,500,000,000
2	Business place rental	30	9,000,000	270,000,000
3	Hotel	10,800	500,000	5,400,000,000
Total income				8,170,000,000

Source: Research result (2021)

Table 3. Total income for the first 20 years (IDR)

Year	Beach Area	Place of Business	Hotel	Total
1	2,500,000,000	270,000,000	5,400,000,000	8,170,000,000
2	2,625,000,000	283,500,000	5,670,000,000	8,578,500,000
3	3,018,750,000	326,025,000	6,520,500,000	9,865,275,000
4	3,471,562,500	374,928,750	7,498,575,000	11,345,066,250
5	3,992,296,875	431,168,063	8,623,361,250	13,046,826,188
6	4,591,141,406	495,843,272	9,916,865,438	15,003,850,116
7	5,279,812,617	570,219,763	11,404,395,253	17,254,427,633
8	6,071,784,510	655,752,727	13,115,054,541	19,842,591,778
9	6,982,552,186	754,115,636	15,082,312,722	22,818,980,545
10	8,029,935,014	867,232,982	17,344,659,631	26,241,827,626
11	9,234,425,266	997,317,929	19,946,358,575	30,178,101,770
12	10,619,589,056	1,146,915,618	22,938,312,361	34,704,817,036
13	12,212,527,415	1,318,952,961	26,379,059,216	39,910,539,591
14	14,044,406,527	1,516,795,905	30,335,918,098	45,897,120,530
15	16,151,067,506	1,744,315,291	34,886,305,813	52,781,688,609
16	18,573,727,632	2,005,962,584	40,119,251,685	60,698,941,901
17	21,359,786,777	2,306,856,972	46,137,139,437	69,803,783,186
18	24,563,754,793	2,652,885,518	53,057,710,353	80,274,350,664
19	28,248,318,012	3,050,818,345	61,016,366,906	92,315,503,263
20	32,485,565,714	3,508,441,097	70,168,821,942	106,162,828,753
Total Benefits				764,895,020,437

Source: Research result (2021)

Eligibility estimate

Based on the estimated development costs and revenues, the estimated cash flows for the first 20 years are prepared. The estimated cash flow comes from the total estimated income minus total estimated expenditure and depreciation. First, the estimated income will be delivering based on income details in each. Next, business feasibility is based on the value of NPV, BCR and PP. To measure the project's feasibility, the author used the free cash flow method to calculate the project NPV. If the project NPV is higher or greater than zero, the project can be considered financially viable and vice versa.

NPV is obtained from the calculation with a rate of return of 8%, it is because the interest rate obtained is 8%, the investment proposal can produce a present value of the proceeds that is greater than the PV present value of the capital, so that the Net Present Value (NPV) is positive, then the investment proposal is acceptable. The payback period (PP) is in its 9th year. It means that in 9 years this project will have a return on investment. NPV values greater than

0 and BCR more than 2 indicate that the Lon Malang beach tourism development project in Sampang Regency is feasible.

Table 4. Expenditures and depreciation during the first 20 years (IDR)

Year of	Investment	Employee Salary	Endless Ingredients	Maintenance	Total
0	40,000,000,000				
1		1,250,000,000	1,500,000,000	100,000,000	2,850,000,000
2		1,375,000,000	1,650,000,000	110,000,000	3,135,000,000
3		1,512,500,000	1,815,000,000	121,000,000	3,448,500,000
4		1,663,750,000	1,996,500,000	133,100,000	3,793,350,000
5		1,830,125,000	2,196,150,000	146,410,000	4,172,685,000
6		2,013,137,500	2,415,765,000	161,051,000	4,589,953,500
7		2,214,451,250	2,657,341,500	177,156,100	5,048,948,850
8		2,435,896,375	2,923,075,650	194,871,710	5,553,843,735
9		2,679,486,013	3,215,383,215	214,358,881	6,109,228,109
10		2,947,434,614	3,536,921,537	235,794,769	6,720,150,920
11		3,242,178,075	3,890,613,690	259,374,246	7,392,166,011
12		3,566,395,883	4,279,675,059	285,311,670	8,131,382,612
13		3,923,035,471	4,707,642,565	313,842,837	8,944,520,873
14		4,315,339,018	5,178,406,822	345,227,121	9,838,972,961
15		4,746,872,920	5,696,247,504	379,749,833	10,822,870,257
16		5,221,560,212	6,265,872,254	417,724,816	11,905,157,282
17		5,743,716,233	6,892,459,480	459,497,298	13,095,673,011
18		6,318,087,856	7,581,705,427	505,447,028	14,405,240,311
19		6,949,896,642	8,339,875,970	555,991,731	15,845,764,343
20		7,644,886,306	9,173,863,567	611,590,904	17,430,340,777
Total					123,233,748,552

Source: Research result (2021)

Table 5. Cash Flow During the First 20 Years (IDR)

Year-	Benefits (B)	Cost (C)	B-C	PV DF 8%	PV accumulation	PP
0	0	40,000,000,000	-40,000,000,000			
1	8,170,000,000	2,850,000,000	5,320,000,000	2,005,052,049	2,005,052,049	0.05
2	8,578,500,000	3,135,000,000	5,443,500,000	2,154,177,795	4,159,229,844	0.10
3	9,865,275,000	3,448,500,000	6,416,775,000	2,666,302,550	6,825,532,394	0.17
4	11,345,066,250	3,793,350,000	7,551,716,250	3,294,788,786	10,120,321,180	0.25
5	13,046,826,188	4,172,685,000	8,874,141,188	4,065,346,326	14,185,667,505	0.35
6	15,003,850,116	4,589,953,500	10,413,896,616	5,009,262,330	19,194,929,835	0.48
7	17,254,427,633	5,048,948,850	12,205,478,783	6,164,596,184	25,359,526,020	0.63
8	19,842,591,778	5,553,843,735	14,288,748,043	7,577,628,161	32,937,154,181	0.82
9	22,818,980,545	6,109,228,109	16,709,752,436	9,304,615,405	42,241,769,586	1.06
10	26,241,827,626	6,720,150,919	19,521,676,707	11,413,920,059	53,655,689,644	1.34
11	30,178,101,770	7,392,166,011	22,785,935,759	13,988,587,957	67,644,277,601	1.69
12	34,704,817,036	8,131,382,612	26,573,434,423	17,129,472,764	84,773,750,365	2.12
13	39,910,539,591	8,944,520,874	30,966,018,717	20,959,020,353	105,732,770,718	2.64
14	45,897,120,530	9,838,972,961	36,058,147,569	25,625,852,276	131,358,622,995	3.28

Year-	Benefits (B)	Cost (C)	B-C	PV DF 8%	PV accumulation	PP
15	52,781,688,609	10,822,870,257	41,958,818,352	31,310,316,279	162,668,939,274	4.07
16	60,698,941,901	11,905,157,283	48,793,784,618	38,231,207,009	200,900,146,283	5.02
17	69,803,783,186	13,095,673,011	56,708,110,175	46,653,902,581	247,554,048,864	6.19
18	80,274,350,664	14,405,240,312	65,869,110,351	56,900,214,103	304,454,262,967	7.61
19	92,315,503,263	15,845,764,343	76,469,738,920	69,360,307,410	373,814,570,378	9.35
20	106,162,828,753	17,430,340,778	88,732,487,975	84,507,131,405	458,321,701,782	11.46
Total	764,895,020,437	203,233,748,556	561,661,271,881	458,321,701,782		
NPV				458,321,701,782		
BCR				2.058327934		

Source: Research result (2021)

Based on (Oprea, 2010), a financial feasibility analysis is used to determine a project's financial feasibility and profitability. Brealey & Myers (1991), stated that Net Present Value (NPV) rule is one of the equivalent decision rules for capital investment. The result found that the NPV of Lon Beach Malang development projects is positive. The positive result of NPV implies that this project is feasible and profitable to be invested in and develop. The result of an investment project's payback period (PP) tells us the years required to recover the initial cash investment (Raharjo, 2022). According to the analysis, it needs nine years to get a return on investment. This period should be discussed with the local government and related investors. Because, tourism projects are currently being carried out by the local government and private investors Mafudi et al. (2021). If the investor accepts this period, the proposal can be accepted, but if it takes too long, the investor might think twice about investing in it. We see that a feasibility study's function is immediately from the opportunity recognition (Linder et al., 2019), and it is still a first step in the entrepreneurial process (Baron, 2006). It still needs further full-scale feasibility studies as stated by Oprea (2010). The full-scale feasibility study aims to avoid the following investment disadvantages and reduce risks: illiquidity, management, depreciation of value, government controls, real estate cycles, and legal complexity.

This feasibility of the development project in Lon Malang Beach is supported by the great demand of halal tourism in Madura. As discussed before, Lon Malang Beach is in accordance with the criteria of Halal tourism created by Chanin et al (2015). The increased number of Muslim tourists by years indicates an increase in demand of Halal services. This condition brings an opportunity and challenge for the tourism sector to develop a Halal tourism destination (Setyawan & Adwiyah: 2019). Through this potential and readiness of Loan Malang Beach, the demand of Halal tourism for Muslim and other tourist be answered by Halal tourism destination in Madura. Besides that, tourism destination development has substantial social and economic impacts. The development of Lon Malang Beach could bring positive multiplier effects to the social and economic condition of the local community surrounding tourism destinations. The development will improve households surrounding Lon Malang Beach by opening new community job opportunities and reducing unemployment. Then it would increase family income by becoming a labor of tourism services or having small businesses providing many products and services surrounding Lon Malang Beach.

Conclusion

This research analyzed the potential and business feasibility study in Lon Malang Beach. The feasibility study is divided into three parts: technical, social economic, and financial. In technical aspects, the Lon Malang Beach area is a unique resource system that can interest many local and foreign tourists. In social aspects, predictably, there is a population growth for local

communities that can build small business surround tourism destinations area. Besides that, there is an opportunity of labor force participation rate and slow of unemployment rate. This opportunity and social changes impact appreciation of household income, both from the participation in tourism industry or small business built. This will impact on improving the government's economy locally and regionally through increasing employment and business opportunities for the community. Based on the economic perspective, Lon Malang Beach bring a contribution to the GRDP of Sampang Regency. In financial aspects, the Payback Period (PP) is in the 9th year. It means that in 9 years this project will have a return on investment. NPV values greater than 0 and BCR more than 2 indicate that the Lon Malang beach tourism development project in Sampang Regency is feasible and prospective. Even though this research only focus in Lon Malang Beach as a halal tourism destination in Madura. But, this feasibility study could bring any inputs for local government of Madura, management parties, also local community surround that would like to improve the tourism area in Lon Beach Malang. Knowing the potential and the well multiplier effects for local communities this research suggest to local government to develop this halal tourism destination in Madura.

Author's Contribution

Zakik : Finding research idea, calculating and analyzing data

Ahmad Kamil: Writing research proposal, doing survey and observation (data collection)

Alvin Sugeng Prasetyo: Writing research analysis, calculating data

Muhamad Nafik Hadi Ryandono: Managing and reviewing the research

Ida Wijayanti: Finishing the final article, writing, and submitting revision

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Declaration of Competing Interest

We declare that we have no conflict of interest.

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