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**RESEARCH ARTICLE**

## Financial Feasibility Study of Perum Damri Serang Branch Business Study on Transport Trajects of Tanjung Lesung and Sawarna National Tourism Strategic Areas

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**ABSTRACT**

Transportation refers to the act of relocating or transferring an object from one location to another, with the intention of enhancing its utility or enabling its application for specific purposes in the new destination. Public transportation refers to a form of mass transportation that provides passenger services through a collective travel system. This method of transportation is accessible to the general public, operates on predetermined routes, and requires payment for each individual journey. Public transportation operates on a rental or payment system. The primary function of public transportation is to cater to the mobility needs and interests of the community. Survey research encompasses the examination of both extensive and limited populations through the collection of data from representative samples. Its primary objective is to ascertain the relative prevalence, distribution, and interrelationship of variables. In summary, it may be concluded that both routes did not demonstrate financial feasibility within the initial two-year period, considering a discount rate of 12.5%. While the internal rate of return (IRR) study suggests the possibility of long-term profitability, it is crucial to thoroughly evaluate the short-term risks and losses that are brought to light by the benefit-cost ratio (BCR) and net present value (NPV) calculations. When making decisions on the operation of this route, it is necessary to carefully analyze several elements, such as market conditions, competition, and prevailing economic circumstances. Prior to proceeding with or ceasing route operations, it is imperative to conduct a comprehensive study and engage in strategic planning that aligns with DAMRI's commercial objectives.

**KEYWORDS**

Public transportation, Vehicle Operating Costs (BOK), Load Factor (LF)

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### 1. Introduction

The success of development, especially in the economic sector, will have an impact on the growth of new activity centers and the development of existing activity centers. This will result in increased mobility of people, goods and vehicles. A step to anticipate this increase in mobility needs to be supported by the existence of public transportation and adequate road conditions so that community activities can run smoothly, effectively and efficiently (Ramdhan, 2006).

The participation of adequate public transportation services is very necessary, especially in urban areas, especially for people who do not have private vehicles. Besides that, public transportation also plays a very important role in driving the economy and development in an area (Tambunan, 2009).

The concept of public transport service performance, which concerns effectiveness, is an assessment of the results (best choice) of the service system regarding reliability, capacity and quality (Alkheder, 2016). Efficiency assessment measures involving affordability, feasibility of operation/cost and income, availability, load factor and vehicle age are often carried out in the same study.

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For the level of service, one of the factors that must be considered is aesthetics (exterior appearance) and cleanliness (interior appearance). A vehicle that is properly maintained will be more reliable and will provide a longer service life. This will give the impression to public transport users that they will be transported safely and comfortably according to the passenger carrying capacity or capacity (Tambunan, 2009).

Government policies to make public transportation services reliable but affordable to the level of people's purchasing power are highly expected because people's dependence on public transportation needs is very high.

Tanjung Lesung and Sawarna, two strategic national tourism areas located in Indonesia, the importance of transportation is becoming increasingly prominent. This area has very high marine and beach-based tourism potential, as well as various other tourism clusters such as cultural, natural and artificial tourism. As tourism and the economy grow in this area, the mobility of people and tourists becomes increasingly important.

DAMRI serves the Rangkasbitung Station-Sawarna Beach route in Lebak Regency, Banten, as part of efforts to support the National Tourism Strategic Area (KSPN) in Indonesia and increase community accessibility. Damri from Soekarno Hatta Airport to Tanjung Lesung is a fleet to support tourism in the Special Economic Zone or KEK in Tanjung Lesung, Pandeglang Regency.

To meet the transportation needs of the national strategic tourism areas of Tanjung Lesung and Sawarna in order to support mobility and introduce the tourism areas of these two regions, KSPN transportation has been operated, which is managed by Perum DAMRI Serang Branch with a capacity of 14 passengers on the routes Tanjung Lesung-Soekarno Hatta Airport and Sawarna-Rangkasbitung Station. However, in practice, only one fleet operates per day using the PP system.

In terms of determining the number of vehicles needed to serve passengers, up to now, we have not referred to the basics of technical calculations, namely calculating load factors to determine the actual amount of demand. In determining the number of vehicles operating on one route is determined based solely on estimates; thus, the existing public transport service will become inefficient and will have an impact on the amount of operator income that is less than optimal, making it difficult for operators to carry out their business activities.

The difference between the research carried out by the author and previous researchers is that the Vehicle Operational Cost Analysis uses analysis in accordance with the latest regulations from the Ministry of Transportation, namely KP-DRJD Number 630 of 2022. Apart from that, this research has a different regional scope, namely the National Tourism Area, which, of course, has a different approach to public transport routes as it should.

## **2. Literature Review**

Basically, investment is the act of spending money with the aim of generating profits. Investment can take the form of various assets such as energy, time, gold, land, machinery, equipment, shares, mutual funds, and so on. The definition of investment is any form of capital expenditure or funds invested in various forms of assets with the hope of getting a return of funds in both the short and long term (Nino, 2016).

Investment is an aspect of financial planning that plays a role in making long-term decisions, with the aim of obtaining benefits in the future, both in the short and long term. According to Mulyadi (2001), investment is the use of resources in the long term with the aim of generating profits in the future. In essence, investment is the allocation of funds at this time with the hope of gaining profits in the future (Madania, 2009).

The research conducted by the author contained several things related to previous research as follows:

This research conducted on the performance of city transport services an overview of the current performance of city transport services in terms of the interests of service users and general problems of city transport services in terms of operator interests and to find out techniques for identifying public transport problems using the route costing method (Gajera et al., 2019).

This research is entitled "Estimation of Vehicle Operational Costs (BOK) for Gedangsari-Wonosari Rural Public Transport, Gunung Kidul Regency". This research was conducted in Gedangsari-Wonosari, Gunung Kidul Regency. This research was conducted to analyze the estimated vehicle operating costs (BOK), which could be one of the considerations in determining tariffs if the route will later be filled by transport entrepreneurs (Pristyawati, 2022)

This research is entitled "Public Transport Management Viewed from the Business Aspect (Case Study: Rural Transport on the Wonosari-Panggung Route) in Gunungkidul Regency" This research was conducted by discussing the number of fleets needed for

operating rural transport routes from the financial aspect, namely analyzing the feasibility of the transport business general which includes Vehicle Operating Cost Analysis (BOK), Net Present Value (NPV) and Net Benefit Cost Ratio (Net BC Ratio), as well as demand elasticity. Queue of public transport vehicles at the terminal during peak and off-peak hours on the Wonosari - Panggang route in Kab. Gunungkidul (Pristyawati, 2022).

This research provides an overview and information regarding business continuity for people or organizations and other business entities that invest capital in the field of public transportation by evaluating investments in the context of rejuvenating urban transportation in the city of Manado (Warokka et al., 2020)

### **3. Methodology**

According to Sugiyono (2017), survey research involves studies on large and small populations by taking data from samples that represent the population to determine the relative incidence, distribution and correlation between variables. Sugiyono (2017) explains that quantitative research methods can be interpreted as research methods that are based on the philosophy of positivism, used to research certain populations and samples, collecting data using research instruments, and quantitative/statistical data analysis, with the aim of testing predetermined hypotheses. In accordance with this understanding, it can be concluded that this research generally uses quantitative methods. Specifically, this research uses quantitative methods without experiments, specifically survey methods.

#### **3.1 Variable Operationalization**

The following is the operationalization of the variables in this research:

1. Vehicle Operating Costs
  1. In general, to calculate basic costs, a basic cost structure can be used for each type of vehicle and each type of transportation service. The difference is that the additional level of service can be calculated separately. The condition of the vehicle is a function of the maintenance that has been carried out. The BOK of public transportation facilities in urban areas is different for each vehicle, and it is not easy to compare one vehicle with another.
  2. The tourism potential in the Pandeglang and Rangkas Bitung Regency areas is very large with the existence of the Tanjung Lesung and Sawarna Tourism Areas; however, the limited means of transportation or public transport to these areas will cause a lack of interest for tourists.
  3. Public transportation services to and from tourist area locations are currently only served by one public transportation company, namely DAMRI; however, the provision of this service is still largely funded or sourced from subsidies provided by the Government of the Republic of Indonesia. This will, of course, cause problems in the future. If the subsidy is withdrawn by the Government, there is a need for a financial evaluation within the DAMRI Company so that the sustainability of this route is well maintained.
  4. Public transportation services to and from tourist areas currently only serve one return trip (PP), so at certain hours, there will be a vacancy in transportation facilities or public transportation, which will, of course, reduce people's interest in going to these tourist locations.

#### **3.2 Research Population and Sample**

The research population and sample used was transportation on the DAMRI company route, Serang Branch, Tanjung Lesung and Sawarna Tourism Area.

#### **3.3 Research Instrument**

1. Basic Costs / Production Costs
2. Freight Rates
3. Financial Analysis
4. Financial Aspect
5. Investment
6. Investment Analysis
7. Depreciation / Depreciation
8. Capital debt costs and interest installments
9. Risk
10. Retrofit
11. Loan interest
12. Deposit interest
13. Load Factor Break Even Point (Lf BEP)
14. Load Factor at 10% profit from BOK (Lf 10%)

**3.4 Data Analysis Techniques**

In this research, the data analysis technique that will be used involves two main aspects, namely Cost-Benefit Analysis (CBA) and Internal Rate of Return (IRR) Analysis. These techniques will help in evaluating the financial feasibility of DAMRI company operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes.

1. Cost-Benefit Analysis (CBA): This technique will allow researchers to conduct a comprehensive evaluation of a project or business operation. In this case, CBA will be used to calculate and compare the financial benefits obtained from DAMRI operations with the costs incurred to run the route. With the help of CBA, researchers will be able to assess whether the financial benefits of DAMRI operations outweigh the costs or not. The results of this analysis will provide a clear picture of the financial feasibility of the operation.
2. Internal Rate of Return (IRR) Analysis: The IRR technique is used to assess the profitability of an investment or operation. In the context of this research, IRR will help in determining the level of return that can be obtained from DAMRI operations on these routes. IRR is the rate of return that will make the present value of benefits equal costs. If the IRR is greater than the expected rate of return or the discount rate used, then the operation is considered profitable. Conversely, if the IRR is less than the expected rate of return, the operation may not be profitable.

**4. Results and Discussion**

**4.1 Result**

**4.1.1 Load Factor Analysis**

Load Factor, often called load factor, refers to the comparison between the actual number of passengers on a trip and the maximum seating capacity available in public transportation facilities. In the context of this research, the Load Factor is used to measure the efficiency of using seating capacity on the Damri bus route Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station.

**Table 1: Recapitulation of Load Factor for the Tanjung Lesung-Soekarno-Hatta Airport Route**

No.	Month	Number of Buses	Number of Rit	Capacity per month	Total passenger	Load Factor
1.	January	1	62	420	379	90,24%
2.	February	1	62	420	337	80,24%
3.	March	1	62	420	310	73,81%
4.	April	1	62	420	432	102,86%
5.	May	1	62	420	420	100%
6.	June	1	62	420	332	79,05%

Source: processed data

Based on the results of the Load Factor (%) analysis for the Tanjung Lesung-Soekarno-Hatta Airport route for certain months, we can observe trends in the use of Damri bus transportation on this route. In January, the Load Factor reached 90.24%, which indicates that the Damri buses operating on this route have been used quite efficiently, with 379 passengers out of the available capacity of 420. However, in February, the Load Factor fell to 80.24%, indicating a decrease in bus usage, with only 337 passengers from a capacity of 420. This may be due to seasonal factors or changes in passenger demand.

The month of March showed a Load Factor of 73.81%, indicating a further decline in usage with 310 passengers from a capacity of 420. This could be an area that needs attention in efforts to increase the efficiency of bus use on this route. In April, the Load Factor jumped to 102.86%, exceeding capacity by 432 passengers. This shows that in that month, Damri buses were highly utilized, even exceeding the available capacity. The month of May recorded a Load Factor of 100%, meaning all 420 capacity was fully utilized by 420 passengers. However, in June, the Load Factor fell again to 79.05%, indicating a decrease in the use of buses with 332 passengers from a capacity of 420.

Overall, the results of the Load Factor (%) analysis show fluctuations in the use of Damri buses on this route during certain months. These changes may be influenced by various factors such as seasonality, changes in passenger demand, or other factors. It is important for related parties to understand this trend and make efforts to maintain efficient use of buses according to passenger needs.

**Table 2: Recapitulation of Load Factors for the Sawarna-Rangkasbitung Station Route**

No.	Month	Number of Buses	Number of Rit	Capacity per month	Total passenger	Load Factor
1.	January	1	62	420	459	109,29%
2.	February	1	62	420	409	97,62%
3.	March	1	62	420	434	103,33%
4.	April	1	62	420	344	81,90%
5.	May	1	62	420	166	39,52%
6.	June	1	62	420	484	115,24%

Source: processed data

The results of the Load Factor (%) analysis for the Sawarna-Rangkasbitung Station route over several months show quite significant variations in bus utilization on this route. Load Factor (%) is an indicator that describes the extent to which bus capacity is utilized by passengers. In January, it can be seen that the Load Factor reached 109.29%. This indicates that this month, buses on the Sawarna-Rangkasbitung Station route were used very well, even exceeding their capacity. There seem to be quite a lot of passengers in January, so the buses are running almost at maximum capacity. The load Factor in February was 97.62%, which is still relatively high and indicates efficient use of buses. Even though there is a slight decrease compared to the previous month, this route is still quite popular with passengers. March shows a Load Factor of around 103.33%. This indicates that bus usage this month remains strong, and passengers are still actively using this service.

In April, the Load Factor dropped to 81.90%. Even though it is still above 80%, there is a significant decline in bus utilization. This could be due to seasonal factors or changes in passenger demand. Load Factor reached 39.52% in May. This figure is well below bus capacity, indicating that this month, the use of bus services was very low. This could be a period of lower demand or another reason that results in a drastic drop. The month of June showed a recovery in bus utilization with a Load Factor of around 115.24%. This indicates that this month, the number of passengers increased sharply, even exceeding bus capacity.

These results describe the level of bus utilization on that route during certain months. Load Factor above 100% indicates bus usage exceeds capacity, while below 100% indicates usage below capacity. There are significant fluctuations in Load Factor over several months, which can be the basis for further analysis and planning more efficient bus use. These changes may be influenced by various factors such as seasonality, changes in passenger demand, or other factors.

## 4.2 Discussion

### 4.2.1 Results of financial analysis carried out for the Tanjung Lesung-Soekarno-Hatta Airport route

Based on the results of the financial analysis that has been carried out for the Tanjung Lesung-Soekarno-Hatta Airport route, there are several important points that need to be discussed. First of all, the revenue calculation for this route is calculated by multiplying the fare per passenger by the number of passengers per day. In this case, the tariff applied is Rp. 55,000.00 per passenger, and the number of passengers expected to board per day is 16 people. Thus, the daily income from this route is around Rp. 880,000.00.

Then, in calculating expenditure, the vehicle operating costs (BOK) per kilometer, which have been calculated previously, are used. This cost is multiplied by the daily mileage of the route, which is 390 kilometers, and the number of fleets in operation, which in this case is 1 fleet. Thus, the daily expenditure on this route is around Rp. 3,173,878.50.

Next, to evaluate financial feasibility, the Benefit Cost Ratio (BCR) method is used. BCR is calculated by dividing income by expenses. In this context, the BCR value is obtained as follows:

$$\text{BCR} = \text{Income} / \text{Expenditures} = (\text{Rp. } 880,000.00) / (\text{Rp. } 3,173,878.50) = 0.28$$

The BCR calculation result of 0.28 shows that the BCR value is much smaller than 1. In this method, if the BCR value is less than 1, then the business or route is considered unfit to run. Therefore, these results indicate that the Tanjung Lesung-Soekarno-Hatta Airport route is not financially feasible to run.

However, it is important to remember that apart from BCR, there are still other factors that need to be considered in making business decisions, such as risk, strategic objectives, and social or environmental impacts. This conclusion is only based on financial analysis using the BCR method and may change if assumptions or other factors change in real conditions. Therefore, wise business decisions must consider all relevant aspects.

### 4.2.2 Results of financial analysis carried out for the Sawarna-Rangkasbitung Station route

Based on the results of the financial analysis that has been carried out for the Sawarna-Rangkasbitung Station route, there are several important points that need to be discussed. First of all, the revenue calculation for this route is calculated by multiplying

the fare per passenger by the number of passengers per day. In this case, the tariff applied is Rp. 60,000.00 per passenger, and the number of passengers expected to board per day is 15 people. Thus, the daily income from this route is around Rp. 900,000.00.

Then, in calculating expenditure, the vehicle operating costs (BOK) per kilometer, which have been calculated previously, are used. This cost is multiplied by the daily mileage of the route, which is 282 kilometers, and the number of fleets in operation, which in this case is 1 fleet. Thus, the daily expenditure on this route is around Rp. 2,860,055.28.

Next, to evaluate financial feasibility, the Benefit Cost Ratio (BCR) method is used. BCR is calculated by dividing income by expenses. In this context, the BCR value is obtained as follows:

$$\text{BCR} = \text{Income} / \text{Expenditures} = (\text{Rp. } 900,000.00) / (\text{Rp. } 2,860,055.28) = 0.32$$

The BCR calculation result of 0.32 shows that the BCR value is much smaller than 1. In this method, if the BCR value is less than 1, then the business or route is considered unfit to run. Therefore, these results indicate that the Sawarna-Rangkasbitung Station route is not financially feasible to run.

However, it is important to remember that apart from BCR, there are still other factors that need to be considered in making business decisions, such as risk, strategic objectives, and social or environmental impacts. This conclusion is only based on financial analysis using the BCR method and may change if assumptions or other factors change in real conditions. Therefore, wise business decisions must consider all relevant aspects.

#### **4.2.3 Financial analysis results using the Net Present Value (NPV) method**

The results of financial analysis using the Net Present Value (NPV) method for the two Damri bus routes in KSPN, namely the Tanjung Lesung-Soekarno-Hatta Airport route and the Sawarna-Rangkasbitung Station route, have provided a fairly clear picture of the financial feasibility of the two routes. First of all, the NPV calculation is carried out by comparing the cash inflow (revenue) and cash outflow (cost) from the project for two years, namely 2021 and 2022. In 2021, revenue from the two routes will reach IDR. 7,417,025,693, while the total costs incurred were around Rp. 9,313,879,320. This results in a negative net cash flow (CF) of -Rp 1,896,853,627.00.

Furthermore, the discount rate ( $r$ ) used in the calculation is 12.5%. By using the NPV formula, the net cash flow is converted into present value (Present Value) for 2021, and it is found that the NPV for 2021 is -Rp 1,685,218,536.89. These results show that the project in 2021 generated a loss of that size with a discount rate of 12.5%.

Then, the analysis continues for 2022. Revenue in 2022 is around Rp. 10,136,656,082, while the costs reached Rp. 10,215,799,634. This results in a negative net cash flow (CF) of -Rp 79,143,552.00. With the same discount rate, the NPV in 2022 is -Rp 70,416,284.44. The total Net Present Value (NPV) for both years is -Rp 1,755,634,821.33. This negative NPV value indicates that the project or investment on these two routes is expected to generate losses in the first two years, with a discount rate of 12.5%.

In conclusion, based on NPV calculations, the two Damri bus routes in KSPN, namely the Tanjung Lesung-Soekarno-Hatta Airport route and the Sawarna-Rangkasbitung Station route, did not show financial viability in the first two years with a discount rate of 12.5%. A negative NPV value indicates that the project may need to be reconsidered or even rejected. However, wise business decisions must consider all relevant aspects, including risks, strategic objectives, and social or environmental impacts.

#### **4.2.4 Financial analysis results using the Internal Rate of Return (IRR) method**

Internal Rate of Return (IRR) is a very important method in financial analysis which is used to assess the profitability of a project or investment. IRR is the expected internal rate of return of the project. In this case, we have calculated the IRR using two different discount rates, namely the lowest (12.5%) and the highest (15%), and have known the NPV values for 2021 and 2022.

The calculation results show that the IRR is around 13.68%. This indicates that the internal rate of return of the project or investment is above the discount rate used in the analysis, namely 12.5%. In other words, this project has the potential to generate profitable returns. Therefore, financially, this project is feasible. However, it is important to remember that business decisions are not based on financial analysis alone. Other factors, such as risks, strategic objectives, and social or environmental impacts, must also be considered thoroughly before making a final decision regarding this investment or project.

From the results of the analysis of the three methods above, it can be explained as follows:

1. *Benefit Cost Ratio* (BCR):
  - a. BCR is a method used to assess the financial feasibility of a project or investment. If the BCR value is greater than 1, then the business is considered feasible to run.

- b. In the BCR analysis of the Tanjung Lesung-Soekarno-Hatta Airport route, it was found that the BCR value was 0.28. This means that this business is not feasible to run according to the BCR method because the BCR value is less than 1. This means that expenses exceed income in this scenario.
2. *Net Present Value (NPV)*:
    - a. NPV is a method that measures the difference between the present value of cash inflows (income) and cash outflows (costs) of a project or investment. Positive NPV indicates profitability, while negative NPV indicates losses.
    - b. In the NPV analysis of the Tanjung Lesung-Soekarno-Hatta Airport route, it was found that the NPV in 2021 was -Rp 1,685,218,536.89 and the NPV in 2022 was -Rp 70,416,284.44. Both NPV values are negative, which indicates that this project produced losses in the first two years with a discount rate of 12.5%.
3. *Internal Rate of Return (IRR)*:
    - a. IRR is the internal rate of return that measures the profitability of a project. IRR is calculated by combining the lowest (12.5%) and highest (15%) discount rates to see if the project is profitable.
    - b. In the IRR analysis of the Tanjung Lesung-Soekarno-Hatta Airport route, it was found that the IRR was around 13.68%. This indicates that the project's internal rate of return is above the discount rate used (12.5%). In other words, this project has the potential to generate profitable returns.

The conclusions from these three analyses are as follows:

- a. Based on the BCR, the Tanjung Lesung-Soekarno-Hatta Airport route is considered unfit because the BCR value is less than 1.
- b. Based on NPV, this project does not show financial viability in the first two years at a discount rate of 12.5% because the NPV is negative.
- c. However, based on IRR, this project has the potential to generate profitable returns, with an internal rate of return of around 13.68%.

The final conclusion will depend on the priorities and business objectives of Perum Damri Serang branch. If short-term profitability is critical, Perum Damri Serang branch may consider continuing this project based on IRR. However, Perum Damri Serang branch also needs to consider the risks and long-term impacts of this decision before making a final decision. Although IRR indicates potential long-term profits, BCR and NPV analysis indicate short-term risks and losses that need to be considered. In addition, other factors, such as competition in the market, regulatory changes, and economic conditions, can also influence business decisions.

Therefore, before continuing or stopping this route, it is important to carry out a more in-depth analysis, consider the risks and benefits thoroughly, and plan a strategy that is in line with the business objectives of Perum Damri Serang branch. The final conclusion will depend on the business priorities and long-term strategy of Perum Damri Serang branch.

#### **4.2.5 Financial feasibility of DAMRI company operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes**

The financial feasibility of DAMRI company operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes can be explained as follows:

1. Tanjung Lesung-Soekarno-Hatta Airport route:
  - a. Benefit Cost Ratio (BCR): BCR analysis shows that this route is not feasible to operate with a BCR value of 0.28, which is less than 1. This indicates that the expenditure required to operate this route exceeds the income that can be obtained. In this case, the business cannot generate the expected profitability.
  - b. Net Present Value (NPV): NPV analysis shows that this route does not demonstrate financial viability in the first two years at a discount rate of 12.5% because the NPV is negative. In the short term, this project is expected to generate losses.
  - c. Internal Rate of Return (IRR): IRR analysis shows that this project has the potential to generate profitable returns in the long term, with an internal rate of return of around 13.68%.
2. Sawarna-Rangkasbitung Station route:
  - a. Benefit Cost Ratio (BCR): BCR analysis also shows that this route is not feasible to run with a BCR value of 0.32, which is less than 1. Expenditures exceed income, indicating the unprofitability of this business.

- b. Net Present Value (NPV): The NPV analysis also shows financial unfeasibility in the first two years at a discount rate of 12.5%, as the NPV is negative. This project is expected to generate losses in the short term.
- c. Internal Rate of Return (IRR): Although BCR and NPV indicate short-term risks and losses, IRR analysis shows that this project has the potential to generate profitable returns in the long term, with an internal rate of return of around 13.68%.

In conclusion, the two routes did not show financial viability in the first two years, with a discount rate of 12.5%. Although IRR analysis indicates potential profitability in the long term, the short-term risks and losses revealed by BCR and NPV need to be considered carefully. Decisions regarding the operation of this route must be considered, taking into account all factors, including market conditions, competition and current economic conditions. Before continuing or stopping route operations, it is necessary to carry out a more in-depth analysis and strategic planning in accordance with DAMRI's business objectives.

## **5. Conclusion**

The conclusions from the financial feasibility analysis and supporting and inhibiting factors in DAMRI company operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes are as follows:

1. Financial Feasibility: Based on the Benefit Cost Ratio (BCR) analysis, the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes are considered unfit to run. Net Present Value (NPV) analysis shows that this project is unprofitable in the first two years with a discount rate of 12.5%. However, the Internal Rate of Return (IRR) shows that this project has the potential to generate profitable returns, with an internal rate of return of around 13.68%.
2. Supporting Factors: Adequate infrastructure, cooperation with local governments, tourism promotion, use of technology, and fleet quality are supporting factors in operating this route.
3. Inhibiting Factors: Traffic congestion, poor road conditions, unsupportive policies and regulations, competition with other transportation service providers, and changes in demand are inhibiting factors that need to be managed.

To maintain the continuity of operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes, the DAMRI company can take the following strategic steps:

1. Carry out regular maintenance and upkeep on the bus fleet to minimize damage due to poor road conditions.
2. Use technology for real-time bus tracking, online booking, and fast problem reporting.
3. Build good relationships with local governments to understand applicable policies and regulations and collaborate on infrastructure improvement projects.
4. Conduct regular evaluations of route performance, service and customer satisfaction to identify necessary improvements.
5. Be flexible in responding to changes in demand and market conditions.

By managing these factors effectively, the DAMRI company can improve service quality, increase customer satisfaction, and maintain operational sustainability on both routes.

The following are several suggestions for improving the performance and sustainability of DAMRI company operations on the Tanjung Lesung-Soekarno-Hatta Airport and Sawarna-Rangkasbitung Station routes:

1. Increase Trip Frequency: Add more bus trips on days with high demand, such as weekends or holiday seasons. For example, add an extra weekend trip to Tanjung Lesung during the holiday season.
2. Service Quality: Improve bus crew training in customer service. Teach them how to interact with passengers in a friendly and polite manner. For example, provide training on handling customer complaints.
3. Promotion of Tour Packages: Offer attractive tour packages, such as a one-day trip to a famous tourist attraction in Tanjung Lesung, including entry tickets and a return trip. This may attract tourists who want a more comfortable trip.
4. Improved Security: Improve security on buses and at terminals. Install CCTV on the bus to make sure passengers feel safe. At the terminal, ensure there is adequate security and lighting.
5. Cooperation Agreement: Look for opportunities to collaborate with hotels or accommodations in Tanjung Lesung or Sawarna. For example, offer discounts to passengers who stay at hotels that have partnered with DAMRI.
6. Priority Lane: Strive for DAMRI buses to have priority lane access on the highway to avoid traffic jams. Collaborate with local governments to support this initiative.
7. Digital Marketing: Leverage social media and websites for promotion. Create a website with complete information about routes, itineraries and special offers. Use social media to interact with customers and get feedback.



8. Vehicle Evaluation: Conduct regular evaluations of fleet condition. Replace vehicles that are old or require major repairs. A comfortable and well-maintained vehicle will attract more passengers.
9. Diversify Services: Consider providing additional services, such as shuttle service from the accommodation to the terminal or bus rental services for special events such as weddings.
10. Environmental Assessment: In addition to improving services, also consider environmental impacts. Use environmentally friendly vehicles or invite passengers to participate in tree planting initiatives in the destination area.

By implementing these suggestions, DAMRI can increase its competitiveness, attract more customers, and ensure the continuity of operations on both routes.

### 6- Study Limitations and Future Suggestions

The following are several suggestions for improving the performance and sustainability of DAMRI company operations on the Tanjung Lesung–Soekarno–Hatta Airport and Sawarna–Rangkasbitung Station routes:

1. Increase Trip Frequency: Add more bus trips on days with high demand, such as weekends or holiday seasons. For example, add an extra weekend trip to Tanjung Lesung during the holiday season.
2. Service Quality: Improve bus crew training in customer service. Teach them how to interact with passengers in a friendly and polite manner. For example, provide training on handling customer complaints.
3. Tour Package Promotion: Offer attractive tour packages, such as a one-day trip to a famous tourist attraction in Tanjung Lesung, including entry tickets and a return trip. This may attract tourists who want a more comfortable trip.
4. Improved Security: Improve security on buses and at terminals. Install CCTV on the bus to make sure passengers feel safe. At the terminal, ensure there is adequate security and lighting.
5. Cooperation Agreement: Look for opportunities to collaborate with hotels or accommodations in Tanjung Lesung or Sawarna. For example, offer discounts to passengers who stay at hotels that have partnered with DAMRI.

Academic advice for further research is that this research is only limited to working capital turnover, which is related to the financial performance of a business and can be processed using various other literacies.

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