

Examination of Service Excellence Criteria and Viability of Investing in Damri Specialized Transportation for the Purabaya Terminal Path to Juanda Airport through the Fuzzy Servqual Method and Importance Performance Analysis (IPA)

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ABSTRACT

The Damri transport service operating between Terminal Purabaya and Juanda Airport is currently facing a situation of low usage of its fleet capacity. This scenario is reflected in the load factor, which stays under the ideal benchmark of 70% for public transportation, according to the Decree issued by the Director General of Land Transportation Number 687 of 2002. Such a situation highlights the necessity for enhancements in service quality and accompanying facilities. The purpose of this study is to pinpoint the existing gaps in service, establish priorities for service enhancement based on the significance and effectiveness of service characteristics, and evaluate the viability of creating waiting room facilities to aid in elevating service quality. The findings indicated that the most significant gap was identified in the disabled passengers' amenities, with a figure of (-1.74). Utilizing Importance Performance Analysis (IPA), four key factors were identified as top priorities for enhancement: information regarding security disturbances, service-related information, waiting area amenities, and accommodations for passengers with disabilities. The analysis of the viability related to the costs of constructing the Damri bus waiting area demonstrates that the endeavor is viable to proceed, exhibiting an IRR of 46%, a BCR greater than 1, and a positive NPV across all evaluated interest rates

INTRODUCTION

The transportation sector plays a vital role in supporting the daily activities of city residents and improving their quality of life (Teki Tjendani et al., 2025). To support this role, the function of terminals as transportation service centers is crucial in meeting the mobility needs of the community. Purabaya Terminal is one of the terminals with a strategic function, serving various types of public transportation, including Intra-Provincial Public Transportation (AKDP), Inter-Provincial Public Transportation (AKAP), Urban Transportation, Airport Buses, and Integrated Buses (BRT). Therefore, an integrated transportation system is expected to be created so that all activities at Purabaya Terminal can proceed in an orderly manner. During the 2026 Eid al-Fitr Transportation period, Purabaya Terminal experienced a significant surge in passenger numbers in line with increased public mobility during the homecoming and return flows. Based on data, the number of passengers at Purabaya Terminal increased compared to the previous period, reaching approximately 18,626 passengers and 974 vehicles (Detik Jatim, 2026). This situation confirms the important role of Purabaya Terminal as a land transportation hub that supports community movement during the Eid al-Fitr period. Law No. 22 of 2009 concerning Road Traffic and Transportation, Article 3, explains that road transportation is organized to create safe, fast, smooth, orderly, comfortable, efficient traffic and road transportation, and is able to integrate other modes of transportation (Indonesia, 2009). In this context, Purabaya Terminal functions as an important land transportation center in supporting community mobility services.

One of the facilities that supports this function is the Damri Transportation service, which is designed to meet the travel needs of the public, including access to the airport. Purabaya Terminal, as one of the main terminals in East Java, also offers a special Damri bus service for the airport, which contributes to improving public travel connectivity, especially for passengers departing to or returning from the airport (Antara News Jatim, 2015). Perusahaan Umum Djawatan Angkoetan Motor Repoeblik Indonesia (Perum Damri) is an entity operating in the transportation sector under the auspices of the government, and is known by the public for its affordable fares and numerous available routes, especially within the city. After transforming into a Public Company (Perum), Damri still maintains its identity as a State-Owned Enterprise (BUMN) brand. Currently, Damri remains committed to carrying out its function as a transportation service provider for passengers and goods with a fleet of buses and trucks. The purpose of providing this service is to ensure that passengers and customers of Damri feel safe and comfortable when using bus transportation services. To date, Damri has a service network that covers almost all of Indonesia, providing city transportation, intercity transportation, airport transportation, shuttle services, tourism transportation, logistics, pioneering transportation, and international transportation. This variety of services demonstrates Damri's crucial role as a public transportation provider that not only meets the mobility needs of the community but also supports interregional connectivity and socio-economic growth.

Damri buses are the most popular public transportation choice for people in Surabaya City and Sidoarjo Regency as public transportation within the city, especially on the Purabaya Terminal - Juanda Airport route. Some reasons for using Damri buses include cheaper transportation fares, cost savings compared to using private vehicles or special rental vehicles, adequate facilities, free from environmental pollution, comfort, and faster travel times (Traveloka, 2025). Utilizing city transportation services can be one solution to reduce traffic congestion in urban areas, but this effort has not been fully effective because public awareness of using public transportation is still low, while most prefer to rely on private vehicles. With the operation of Damri buses on the Purabaya Terminal - Juanda Airport route and vice versa, public interest in using Damri buses as a means of transportation to the airport is quite high. Perum Damri really pays attention to customer comfort, starting from the number of buses, schedules, to the facilities provided. Facilities provided by Perum Damri include air-conditioned buses, TV and audio, inside luggage, first aid, reclining seats, and a capacity of 27 seats.

Furthermore, the presence of Damri buses on this route also provides a more economical and efficient transportation option compared to using private vehicles or other transportation services, thus helping to reduce congestion while providing a safe and comfortable mobility alternative for the public. A transportation system is categorized as good if the travel time is accurate and does not get stuck in traffic, the service frequency is adequate, safe without the risk of accidents, and the service conditions are comfortable (Prasetya, 2016). Damri bus services at Purabaya Terminal operate on a fixed schedule, with departure intervals every 30 minutes, starting from 05.00 WIB to 18.00 WIB so that it can support passenger mobility needs more regularly and efficiently (IDN Times Jatim, 2024). In order to optimally meet the mobility needs of the community, the availability of service time is a key element.

Based on data, in 2024, the number of passengers on the Purabaya Terminal to Juanda Airport route reached 392,862 with a load factor of 49.33%. Meanwhile, in 2025 (January to August), passengers reached 264,900 with a load factor slightly increasing to 49.83%. This indicates that although passengers in 2025 did not reach a full year, the fleet occupancy rate remained quite stable. On the other hand, for the route from Juanda Airport to Purabaya Terminal, the number of passengers in 2024 was recorded at 1,573 with a load factor of only 4.81%. However, in 2025 (January to August), passengers increased to 1,939, although the load factor decreased slightly to 4.77% (Perum Damri, 2025). This situation indicates that although the number of passengers has increased, the fleet occupancy rate is still relatively low and has not reached optimal levels. This is evident from the load factor value which remains below the ideal standard for public transportation, namely 70% in accordance with the Decree of the Director General of Land Transportation Number 687 of 2002 (D. Transportation, 2002). The phenomenon of minimal use of public transportation is in line with data from (Central Statistics Agency, 2025) which shows that every year, the number of private vehicles in East Java continues to increase, while the growth of public transportation such as buses tends to stagnate. This situation indicates that

people are starting to shift in choosing modes of transportation from public transportation to private vehicles.

The impact of this phenomenon is seen in the low use of public transportation, including Damri services on the Purabaya Terminal to Juanda Airport route. This is evident from the still-low load factor value, especially for the Juanda Airport to Purabaya Terminal route, which only reached 4.77% in 2025, indicating that the performance of these transportation services is not optimal. In addition to external issues, there are also internal issues that affect service quality. Based on observations conducted over six days from March 9 to March 14, 2026 at the Purabaya Terminal Damri stop using the direct observation method of operations, it turns out that the limited operating hours of Damri services result in passengers who need transportation at night or early morning not being able to be served properly. This is evident from the absence of services from 7:00 PM to 4:00 AM, which results in limited passenger access to transportation services to and from the airport. This situation indicates that the current service schedule is not fully able to meet the mobility needs of passengers, especially for those with flights scheduled outside of operational hours. As a result, some people are forced to turn to other modes of transportation that may not offer comparable comfort, safety, or prices. Another issue also arises in ticket sales. Unlike common issues such as ticket scalping on public transportation, the obstacle to Damri's service is more related to the lack of a ticket sales system at the official ticket counter at the Purabaya Terminal departure point.

Based on data from the initial survey and field observations conducted at the research location, it was revealed that, to date, ticket purchases for Damri's special transportation services are still made directly with bus drivers. This method indicates that the ticket sales system is not yet operating in a planned manner, which can result in various weaknesses, both in aspects of transaction accountability, service regularity, and professionalism in operations. This situation differs from the Damri service system at Juanda Airport, which is supported by official counters and a more systematic ticket purchase method, both online and offline. The existence of this organized ticket sales system makes it easier for passengers to obtain tickets, while also ensuring price certainty, transaction security, and comfort during the service process. Therefore, it is important to conduct a service quality analysis that can identify improvement priorities based on passenger needs and expectations.

Furthermore, in addition to issues related to operational and service quality, there are other challenges related to the feasibility of investments in transportation service development. Various service improvement efforts, particularly through increased comfort, better protected, air-conditioned waiting rooms and other supporting facilities, require significant investment and resource allocation to support user comfort and satisfaction. In transportation studies, all cost elements, including fleet investment, operational costs, and facilities, need to be analyzed in conjunction with the resulting benefits to ensure the service is feasible (Suwardo, 2011). However, to date, no research has comprehensively assessed whether investments in these service improvements

can deliver maximum economic returns. Although improvements in service quality have been shown to generate economic benefits such as increased passenger numbers and system efficiency, these are often not fully accounted for in transportation planning (Litman, 2008). This situation creates uncertainty in decision-making, particularly in formulating priorities for the most efficient and effective service development. Furthermore, the low level of fleet utilization on some routes suggests that service improvements should not only emphasize quality but also consider economic feasibility to avoid inefficiencies in the investment. Therefore, an investment feasibility analysis is needed that is able to evaluate and compare the costs incurred with the benefits obtained from each service improvement alternative (Astrawan & Ansusanto, 2024a).

This study focuses on identifying service omissions and establishing priority scales for improvement based on the significance and performance of service attributes using the fuzzy servqual approach and Importance Performance Analysis (IPA) and utilizing SPSS (Statistics Program and Service Solutions series 25). Furthermore, this study analyzes the cost feasibility of a Damri airport-specific waiting room using financial indicators such as NPV, IRR, and BCR. This fact is also reinforced by research (Wibisono & Putri, 2022) which emphasizes that evaluating the quality of public transportation services is not only important for determining user satisfaction levels but also for identifying service attributes that have gaps between expectations and actual performance. Furthermore, it is supported by research (Astrawan & Ansusanto, 2024a) which states the importance of assessing financial feasibility through investment criteria analysis to assess the sustainability and future development of services. It is hoped that the results of this study can provide solid and measurable policy recommendations for Perum Damri and the Surabaya City Government, in improving public services to better align with community expectations and needs.

THEORETICAL REVIEW

A study conducted by (Anisah et al., 2020) aimed to analyze the characteristics of LRT users and their level of satisfaction and importance regarding LRT services in Palembang City. The method used was Importance Performance Analysis (IPA), which involved collecting questionnaires from 100 respondents using accidental sampling techniques. Validity and reliability tests were also conducted to ensure data accuracy. The results showed that passenger satisfaction was quite satisfactory, while aspects that require attention include LRT wait times, availability of schedule information, and the speed of staff in responding to complaints.

A study conducted by (Sultan et al., 2020) aimed to determine the level of service provided by speedboats on the Tidore-Sofifi route during the COVID-19 pandemic. The survey method used collected primary and secondary data, which were then analyzed using Importance Performance Analysis (IPA) and the Customer Satisfaction Index (CSI) to assess user satisfaction. The results showed a 63.64% decrease in the number of speedboats operating, an 87.88% decrease in trips, and an 89.90% decrease in passenger numbers. The user satisfaction index

value of 54.87% is categorized as quite satisfied, so there is a need to improve the quality of service and safety in speedboat transportation during the pandemic.

METHODOLOGY

Transportation is an activity that involves moving individuals or goods from one location to another using specific means (vehicles) and infrastructure (roads, rail, ports, airports, etc.) to reach a specific destination. Overall, transportation plays a crucial role in meeting human mobility needs and distributing goods, which in turn supports economic, social, and regional development activities. The following are definitions of transportation according to experts:

- a. Transportation serves as a link between humans and land use activity systems. The function of transportation as a development supporter includes providing services for various development sectors such as agriculture, plantations, fisheries, health, trade, industry, and tourism (Nur et al., 2021).
- b. Transportation can be defined as the process of moving, transporting, or transferring an object from one place to another, where the new location provides benefits or uses for a specific purpose (Karim et al., 2023).

Transportation demand reflects the mobility needs of society in various aspects, from daily travel and goods logistics to inter-regional movement. In the context of regional development, transportation demand projections also serve as a strategic tool to prevent congestion, reduce travel costs, and reduce emissions that can impact environmental damage (Arruan et al., 2025).

Based on Law Number 22 of 2009 concerning Traffic and Road Transportation, it is explained that public transportation is provided to meet the need for safe, comfortable, and affordable transportation. Article 143 explains that public motorized vehicle services operating on routes must meet several criteria, namely:

- a. Have a fixed and regular route;
- b. Have a clear schedule, including start and end times, and passenger pick-up and drop-off points at terminals for intercity and cross-country transportation;
- c. Pick-up and drop-off passengers at designated locations for urban and rural transportation.

Referring to Ministerial Regulation Number 19 of 2019 concerning Public Passenger Transportation Services in National Strategic Areas, it is stated that public passenger transportation in national strategic areas receives subsidies from the central government. National Strategic Areas include tourist areas and transportation hubs. These transportation hubs consist of:

- a. Airports;
- b. Seaports;
- c. Train stations; and
- d. Terminals.

Article 4 also explains that the provision of services must be carried out by public transportation companies that meet at least the following requirements:

- a. Have a permit to operate passenger transportation;

- b. Have at least 100 (one hundred) vehicles, including small, medium, or large buses, as evidenced by a Vehicle Registration Certificate;
- c. Have an office, vehicle storage area, and workshop near the transportation operation area, as evidenced by proof of ownership or a land use permit;
- d. Employ technicians with at least a vocational high school education or equivalent and hold a mechanic's certificate issued by the brand holder; and
- e. Implement an e-ticketing system.

Article 23 of the Minister of Transportation Decree No. 35 of 2003 concerning the Provision of Passenger Transportation on Roads Using Public Vehicles (Ministry of Transportation, 2003) stipulates that intermodal transportation falls into the category of special services on certain routes. Article 27 outlines several characteristics of intermodal transportation services, as follows:

1. Intermodal transportation services are intended to transport passengers to and/or from terminals, train stations, ports, and airports, except between terminals.
2. Intermodal transportation services have the following characteristics:
 - a. Specifically designed to facilitate the movement of passengers from one mode of transportation to another;
 - b. Maintain a fixed schedule;
 - c. Use buses and/or passenger cars; and
 - d. Have license plates with a yellow background and black lettering.
3. Vehicles used for intermodal transportation must meet the following requirements:
 - a. Display a route board on the vehicle in operation;
 - b. Equipped with stickers indicating the type of service according to the route permit, which are placed on the left and right sides of the vehicle;
 - c. Have a company logo and name displayed on the vehicle dashboard and issued by each transportation provider; and
 - d. Have adequate luggage space as needed.

Article 45 concerning terminal service zones in Minister of Transportation Regulation Number 24 of 2024 (Minister of Transportation, 2024) states that there are four passenger terminal service zones:

- a. Ticketed passenger zone (Zone I);
- b. Unticketed passenger zone (Zone II);
- c. Transfer zone; and
- d. Deposition zone.

Article 47 paragraph 1 states that the ticketed passenger zone (Zone I) includes waiting rooms, which can be executive lounges and/or non-executive lounges (non-lounge). Meanwhile, Article 47 paragraph 2 states that the unticketed passenger zone (Zone II) includes:

- a. Single online ticketing outlet;
- b. Health facility space;
- c. Commercial space (trade and shopping facilities);
- d. Security facilities;

- e. Passenger transit area;
- f. Children's area;
- g. Passenger arrival lane;
- h. Waiting room;
- i. Shared ticket purchase area;
- j. Terminal user services from the bus company (customer service);
- k. Information center;
- l. Facilities for people with disabilities or the elderly;
- m. Toilets;
- n. Room for pregnant or breastfeeding mothers;
- o. Prayer room;
- p. Health facilities;
- q. Signage in the terminal;
- r. Baggage services;
- s. Environmental management facilities;
- t. Telecommunication facilities and/or areas with internet access;
- u. Luggage storage area;
- v. Parking area;
- w. Terminal yard;
- x. Smoking area; and
- y. cleaning facilities.

In providing passenger terminal services, the existence of a waiting room is essential to ensure passenger comfort while waiting for the bus to depart. Providing a waiting room in the form of a lounge is one effort to create a more comfortable, safe, and organized service environment. This is in line with the provisions of Ministerial Regulation No. 40 of 2015 (M. Transportation, 2015) regarding comfort aspects, in Type A Terminals the waiting room must have seating available, a 100% clean area, cool and odor-free from the terminal area. Therefore, the waiting room does not only function as a place to wait, but also as an important element in improving the quality of service that is oriented towards passenger comfort and satisfaction.

Fuzzy Servqual Method Analysis

To assess service quality based on customer perspectives and expectations, processing using the Fuzzy Servqual method is necessary. Furthermore, to obtain more precise and realistic results regarding the uncertainty in human judgment, a fuzzy logic approach is used. In surveys about service quality, participants typically provide responses with terms such as "good," "fairly good," or "very good." However, each individual's perception of these terms often varies. Therefore, fuzzy logic can accommodate this uncertainty by converting the terms into numerical ranges. Another example is when a respondent indicates agreement but actually tends toward relative agreement or even strong agreement. This leads to differences in assessment levels. To address this subjectivity among respondents, the Fuzzy Servqual method is applied. The calculation process in Fuzzy Servqual involves fuzzification and defuzzification. Fuzzification is the stage in which qualitative data or definite values are converted into Trinular Fuzzy Numbers (TFNs) to capture the uncertainty in

respondents' assessments. In contrast, defuzzification is the process of converting a fuzzy number (TFN) into a single value (crisp value) so that it can be understood realistically. A Trinular Fuzzy Number (TFN) is a range of values determined based on the weight of respondents' choices. A TFN consists of three boundary values: a lower boundary (a), a middle boundary (b), and an upper boundary (c). Each option is assigned a range of values, which are calculated using a formula to select the TFN.

Importance Performance Analysis (IPA) Method Analysis

The Importance and Performance Analysis (IPA) method is used to analyze the comparison between how important a service attribute is and how well it performs, from the user's or customer's perspective. The purpose of the IPA method is to determine which attributes have met user expectations and which still need improvement to improve service. In its use, the IPA method relies on two main dimensions: importance and performance. Data for both dimensions are collected through a questionnaire using a five-level Likert scale: very important, quite important, less important, and not important.

Based on the results of the study on service quality and importance, calculations were obtained to demonstrate the extent to which service performance aligns with public transportation user expectations. This alignment value is derived from comparing the performance and importance scores for each quality aspect within each assessment indicator. In this study, there are two types of variables: variable X and variable Y, which explain:

Variable X = service performance (satisfaction)

Variable Y = expectations/importance

To calculate the average performance and importance scores for service attributes, the following formula can be used:

$X_i = (\text{Total performance assessment score}) / (\text{Total respondents})$

$Y_i = (\text{Total importance assessment score}) / (\text{Total respondents})$

In the IPA approach, the main calculation is the level of suitability (T_{ki}), with the following formula:

$T_{ki} = X_i / Y_i \times 100\%$

Explanation:

T_{ki} = Respondent Suitability Level (%)

X_i = Average service performance score

Y_i = Average importance score

Once the suitability level value is obtained, it can be categorized as follows:

0 to 50% = low category

51 to 75% = medium category

76 s. d 100% = high category

Based on the average obtained from the respondents' assessments, service users' views on the quality of the service provided can be determined. The assessment criteria are divided into three categories:

- a. If the performance indicator score is between 1.00 and 2.50, then the service user has a negative attitude towards that aspect of the service. This

means that the performance on this indicator is considered unsatisfactory or poor by the user.

- b. If the performance indicator score is between 2.51 and 3.50, then the service user has a neutral attitude towards the indicator. This indicates that the service performance is considered adequate, but not yet completely satisfactory.
- c. If the performance indicator score is between 3.51 and 5.00, then the service user has a positive attitude towards the indicator being evaluated. This means that the service performance is good and meets user expectations.

The intersection of the average importance score and the average performance score will divide the graph into four quadrants, each representing a specific evaluation category for a service element. The following is an explanation of each quadrant:

1. Quadrant I (Top Priority/Concentrate Here)

Elements in this quadrant have a high level of importance but low performance. This means that this aspect is highly regarded by users, but its implementation is inadequate. Therefore, elements in this quadrant need to be the primary focus for improvement.

2. Quadrant II (Maintain the Good Work)

Elements in this quadrant have a high level of importance and high performance. This indicates that these elements have successfully met user expectations and are a strength that needs to be maintained.

3. Quadrant III (Low Priority)

Elements in this quadrant have low importance and low performance. Users do not place much importance on these attributes, so improving these elements does not need to be a top priority.

4. Quadrant IV (Excessive/Possible Overkill)

Elements in this quadrant are of low importance but high performance. This indicates that resources may be over-allocated to less significant areas, allowing some to be reallocated to other, more important aspects.

Cost Feasibility Method Analysis

Investment cost feasibility analysis methods that focus on cost aspects include several calculations, such as Net Present Value (NPV) and Internal Rate of Return (IRR). To determine whether a project is feasible, it is important to conduct an evaluation by calculating the required cost-benefit ratios. This allows calculations to determine the value and feasibility criteria. The methods used to assess project feasibility are as follows (Fanani, 2021):

1. Net Present Value (NPV)

NPV is an investment feasibility analysis method used to evaluate the profitability of a project by considering the time value of money, where money available today is considered more valuable than money available in the future. NPV is calculated as the difference between the present value of all cash inflows (benefits) and the present value of all cash outflows (costs) during the project period. In this analysis, if the NPV is greater than 0, the project is considered feasible because it can generate net profits after all costs are accounted for. Conversely, if the NPV is equal to 0, the project is at the break-even point,

meaning the benefits obtained are only sufficient to cover costs without generating profits. Meanwhile, if the NPV value is lower than 0, then the project is not worth continuing.

$$NPV = \sum_{t=1}^n \frac{B_t - C_t}{(1+i)^t} - I_0$$

Description:

n = economic life of the project (number of years)

t = years (1,2,3...n)

i = interest rate

B_t = benefit (project benefit) in year t

C_t = cost (project cost) in year t

I₀ = initial investment

Internal Rate of Return (IRR)

The internal rate of return (IRR) is the rate of return that results in the NPV of cash inflows equal to the NPV of cash outflows. This can be seen in the following formula 2.11 (Mahendra et al., 2017):

$$IRR = i_1 + \frac{NPV_1}{(NPV_1 - NPV_2)} \times (i_2)$$

Where:

i₁ = discount rate that results in NPV₁

i₂ = discount rate that results in NPV₂

Financial feasibility assessment based on IRR: if the IRR > interest rate, the project proposal is accepted. If the IRR < interest rate, the project proposal is rejected.

Benefit Cost Ratio (BCR)

The Benefit-to-Cost Ratio (BCR) is the ratio between the benefits and costs of a project. A project is feasible if the BCR is equal to or greater than the formula (Dadimesa et al., 2020):

$$BCR = \frac{\text{Benefit}}{\text{Cost}} > 1$$

Where BCR > 1 indicates that the investment is feasible. BCR < 1 indicates that the investment is less profitable. BCR = 1 indicates that the investment is marginal (incurring no losses or profits).

RESULTS AND DISCUSSION

The evaluation results of passenger perceptions and expectations using the fuzzy servqual method show that there are 5 criteria with the highest difference values, namely the variable of facilities for people with disabilities (difabel) of (-1.74), service information of (-1.63), waiting room facilities of (-1.63), areas with internet connections of (-1.57), and information regarding security disturbances of (-1.53). These values indicate that the quality of service received

by passengers is still far from their expectations. On the other hand, the lowest difference value is found in the condition or suitability of the vehicle variable with a value of (-0.17), which indicates that the service in this category is quite close to passenger expectations when compared to other variables. Analysis of Damri transportation performance specifically for airports in accordance with the Minimum Service Standards (SPM) using the Importance Performance Analysis (IPA) method found 4 indicators that are still included in Quadrant I, namely B1 Information about security disturbances (Security), C5 Service information (schedules, routes, fares, maps) (Reliability/Regularity), D1 Waiting facilities (Comfort), and F1 Facilities for the disabled/disabled (Equality).

The results of the study on the feasibility of the construction of a Damri bus waiting area specifically intended for the airport indicate that this project is very suitable for implementation. The success of this project is based on two main indicators, namely the Net Present Value (NPV) and the Internal Rate of Return (IRR). From the calculations carried out, the IRR value was obtained at 46%. This figure is much higher than the interest rate or discount used in the analysis. This indicates that the rate of return on investment from this project can exceed the cost of capital incurred, so that the construction of the waiting area is declared feasible and profitable to implement. Meanwhile, the Net Present Value (NPV) calculation produces a positive number at all interest rates tested, namely from 8%, 10%, 15%, 20%, to 25%. At the lowest discount rate, namely 8%, the NPV obtained was Rp 91,980,000. Meanwhile, at the highest discount rate, 25%, the project's NPV value still shows a positive number of Rp 162,720,000. Furthermore, the Benefit-Cost Ratio (BCR) calculation showed a value of 2.49, which is greater than 1, indicating that the benefits significantly outweigh the costs. Therefore, the construction of a Damri waiting room for the Purabaya Terminal-Juanda Airport route is deemed feasible.

CONCLUSION AND RECOMMENDATION

The analysis revealed that the highest gap was found in the facility attribute for people with disabilities, with a score of -1.74. Furthermore, an analysis of attributes requiring improvement revealed four indicators that should be prioritized: security information, service information, waiting room facilities, and facilities for people with disabilities.

The assessment indicated that the investment in building a dedicated Damri airport waiting room at Purabaya Terminal is highly feasible. This is due to the positive NPV, the IRR exceeding the applicable interest rate, and the BCR exceeding 1.

Future research is recommended to enhance the analysis of service quality by combining or comparing the results of this study with other methods, such as the Customer Satisfaction Index (CSI), the Kano Model, or Structural Equation Modeling (SEM), to gain a more comprehensive understanding of service quality and user satisfaction.

Future research is expected to develop investment feasibility studies that consider technical, social, environmental, and institutional aspects to

complement the financial analysis results, thus providing a more comprehensive picture of the feasibility of developing waiting room facilities.

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