
Performance Evaluation of Type A Terminal in Subang Regency

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Abstract

The development of urban areas is closely related to the effectiveness of their transportation systems, where terminals function as vital nodes that facilitate mobility and economic activity. The Subang Type A Terminal, as one of the largest terminals in Subang Regency, plays a strategic role in supporting intercity and interprovincial transportation. However, its utilization has not yet reached optimal levels, as many passengers prefer boarding and alighting outside the official terminal area. This study aims to evaluate the performance of the Subang Type A Terminal by analyzing the conditions of its facilities, compliance with service standards, and the factors influencing its underutilization. This research uses a mixed-method approach, combining quantitative and qualitative analysis. The quantitative component involved distributing questionnaires to 56 respondents consisting of passengers, drivers, and terminal users. Data were analyzed using the Importance Performance Analysis (IPA) method to identify the gap between user expectations and actual service performance, and the Simple Additive Weighting (SAW) method to determine service priorities based on weighted evaluations. The qualitative component included observations and in-depth interviews with terminal staff and users to obtain descriptive insights into operational management and user satisfaction. The results show that several terminal facilities do not yet meet the minimum service standards set by the Ministry of Transportation. Key weaknesses were found in accessibility, cleanliness, and waiting area comfort, while security and scheduling services were rated as satisfactory. The study concludes that improving the physical condition of facilities, enforcing regulations, and enhancing user-oriented services are crucial to maximizing the function of the Subang Type A Terminal. These improvements are expected to strengthen the terminal's role as an integrated transportation hub and as a driver of regional economic development.

Keywords: Terminal Performance, Transportation Infrastructure, Importance Performance Analysis (IPA), Simple Additive Weighting (SAW), Subang Type A Terminal

INTRODUCTION

The development of urban space is a process of change from one state to another over time. The focus of this change is usually based on different time periods but within the same spatial context. This process can occur naturally or artificially through human intervention that directs and regulates the pattern of change (Hendro, 2001).

Transportation development policies outlined in the National Long-Term Development Plan (RPJPN) and the National Medium-Term Development Plan (RPJMN) emphasize the importance of a reliable, effective, and efficient National Transportation System (SISTRANAS) to support the mobility of people, goods, and services. A well-organized transportation system not only reflects urban order but also plays a vital role in promoting economic growth and equitable regional development.

In practice, urban transportation consists of various components—ranging from service users, vehicles, and infrastructure such as roads and terminals, to management systems and operational policies. Terminals serve as crucial nodes in the transportation network, functioning as points for passenger pick-up and drop-off, intermodal transfer hubs, and centers of activity that influence the development of surrounding areas.

The Type A Subang Terminal is one of the largest terminals in Subang Regency and plays a strategic role in serving intercity and interprovincial transportation. However, its utilization has not been fully optimal. Many public transport users prefer to board or alight outside the official terminal, such as at bus company pools or along the main highway. This phenomenon raises various issues—from transportation management and terminal efficiency to its impact on the local economy around the terminal area.

Therefore, this study aims to evaluate the performance of the Type A Subang Terminal, focusing on facility conditions, service standard compliance, and the factors influencing its suboptimal use. The findings are expected to provide constructive input for local governments and related stakeholders to enhance the terminal's role as a transportation hub and a driver of regional economic development.

There are four main components of transportation: transportation users, transportation means (vehicles used for mobility or transport), transportation infrastructure such as highways, railways, airports, ports, and others, and operational systems in the form of government policies that ensure the proper functioning of transportation facilities and infrastructure (Kristiano & Suryana, 2019). Among these, the terminal receives particular attention, as it supports the smooth flow of people and goods and facilitates the integration of intra- and intermodal systems in an orderly manner. A terminal is a road transportation facility designed for loading and unloading passengers and/or goods and for regulating the arrival and departure of public transport vehicles, serving as a node within the transportation network (Tamin, 2000).

According to Lisa (2019), the need for terminals in a city is influenced by several factors, particularly the characteristics of the city's transportation system, which are affected by land use, movement systems, and road networks. As a transfer facility, a terminal's location must align with urban spatial planning to ensure an efficient city structure and meet user needs for optimal utilization. Furthermore, the presence of a terminal is expected to stimulate urban growth and regional development.

Following the operation of the Cipali Toll Road, Subang Terminal has increasingly served as a transit point for various modes of public transportation. Several transportation companies have opened long-distance (interprovincial and inter-island) service agents at the Subang Toll Exit in Cilameri, located 3.5 kilometers north of Subang Terminal, providing routes to Java, Bali, and Sumatra. However, some transport routes that previously passed through Subang now prefer the Cipali Toll Road to shorten travel time compared to the Sadang (Bungursari)–Subang–Kadipaten route.

The management authority of this terminal lies with the Directorate General of Land Transportation, Ministry of Transportation of the Republic of Indonesia. In 2017, Subang Terminal was recognized as a model for social engineering by the Ministry of Transportation. The terminal management was deemed consistent with the pilot project principles, continuously implementing existing regulations and creating a positive impression among public transport users.

The terminal's first bus departs at 01:30 AM and the last at 03:00 PM. On average, the terminal serves around 390 passengers per day for intercity buses within the province (AKDP), 1,160 passengers per day for passing AKDP buses, and 416 passengers per day for interprovincial buses (AKAP), most of whom are workers and daily traders. The terminal accommodates city transport, rural transport, public passenger cars (MPU), intercity (AKDP), and interprovincial (AKAP) buses.

These indicators suggest that the utilization of Subang Terminal remains suboptimal, posing challenges not only to the terminal's physical condition but also to the surrounding economic activities, which influence the regional development of Subang Regency. Therefore, this study examines the utilization of regional public transport terminals developed by the

Subang Regency Government by assessing service levels and identifying factors contributing to the terminal's underuse.

This study is important because the local government expects the terminal's existence to generate both social and economic benefits. From an economic perspective, the terminal is expected to serve as a source of regional revenue through fees and taxes. From a developmental and spatial perspective, the terminal is anticipated to stimulate economic growth and regional development in its surrounding areas.

RESEARCH METHODS

The research employed a mixed-method approach combining quantitative and qualitative methods to comprehensively evaluate the performance of the Type A Terminal in Subang Regency. The study was conducted over a period of two months, from June 1 to August 30, 2024, at the Subang Type A Terminal located on Jalan Darmodiharjo No. 01, Sukamelang Village, Subang District. The quantitative aspect involved data collection through questionnaires distributed to 56 respondents, consisting of terminal users such as passengers and drivers. The Importance Performance Analysis (IPA) method was used to measure the relationship between user perceptions of service importance and performance, identifying areas that require improvement based on the Cartesian diagram of priority mapping. In addition, the Simple Additive Weighting (SAW) method was utilized to provide a weighted evaluation of terminal performance by ranking various service attributes.

Meanwhile, the qualitative aspect included observations and in-depth interviews with key informants such as terminal staff, drivers, and passengers to gain insights into operational management, service satisfaction, and utilization challenges. Data were analyzed using descriptive techniques supported by statistical software (SPSS for Windows) to calculate mean scores, frequency distributions, and performance gaps. The validity and reliability of the research instruments were tested using the Cronbach Alpha coefficient to ensure data accuracy and consistency.

This methodological framework allowed for a comprehensive assessment of both quantitative performance indicators and qualitative perceptions of terminal users, providing a well-rounded basis for evaluating the effectiveness, service quality, and overall functionality of the Subang Type A Terminal as a key node in the regional transportation network.

RESULTS AND DISCUSSION

A. Average Assessment of Satisfaction and Importance

Based on the results of data collection and analysis referring to the Ministerial Regulation No. 132 of 2015 concerning Minimum Service Standards for Transportation Terminals, an evaluation was conducted to determine the performance of the Subang Type A Terminal. The evaluation covered three major categories of facilities: main facilities, supporting facilities, and general facilities. The study involved 56 respondents representing various terminal stakeholders passengers, drivers, service providers, and terminal management staff who assessed 51 items through a structured questionnaire.

The analysis revealed that the average satisfaction score for main facilities was 4.30, while the average importance score was 4.41. For supporting facilities, the satisfaction score reached 4.14 with an importance level of 4.95, and for general facilities, the scores were 4.46 for satisfaction and 4.44 for importance. These results indicate that users generally perceive the facilities as "good" in terms of performance, yet they still expect further improvement in several aspects that they consider more essential. In other words, there is a perceptual gap between users'

satisfaction and their expectations, especially regarding the convenience, accessibility, and maintenance of terminal facilities.

From the results, it was found that several physical and service elements were rated highly important by respondents but scored relatively low in satisfaction. These include parking areas, passenger waiting rooms, ticketing counters, information centers, and facilities for people with disabilities and pregnant women. The discrepancy between importance and satisfaction suggests that although users highly value these components, they are not yet provided at an optimal level. For instance, the parking area was reported as insufficient in both capacity and spatial layout, causing congestion during peak hours. Similarly, information and complaint services were seen as less responsive and limited in accessibility, which affects users' overall perception of service quality.

To further understand the relationship between these two variables, a Cartesian diagram was constructed using the average satisfaction and importance values. In the diagram, the Y-axis represents the level of importance and the X-axis represents the level of satisfaction, dividing the data into four quadrants. The results of this mapping provided a clear visualization of priority areas for improvement:

1. Quadrant I (Concentrate Here) – High importance but low satisfaction. Facilities in this quadrant require immediate attention and improvement. This includes the parking area, environmental management, ticket counters, and facilities for persons with disabilities. These elements are critical for daily operations, and any inefficiency significantly affects user comfort and perception of service quality.
2. Quadrant II (Keep Up the Good Work) – High importance and high satisfaction. Facilities under this category are well-managed and should be maintained at their current performance level. These include safety and security facilities, baggage handling services, and information media. Users express a high level of trust and satisfaction toward these facilities, indicating that management practices in these areas are effective.
3. Quadrant III (Low Priority) – Low importance and low satisfaction. Facilities such as arrival lanes, evacuation routes, and passenger waiting shelters are placed in this quadrant. Although their satisfaction levels are relatively low, users do not consider them to be a top priority, suggesting that limited resources can be allocated elsewhere without major service disruption.
4. Quadrant IV (Possible Overkill) – Low importance but high satisfaction. Facilities like cleanliness, fire extinguishers, and rest areas received positive assessments, even though users do not view them as the most critical components of terminal services. This suggests that current maintenance and service standards in these areas already meet user expectations and can be sustained at their present level.

In addition to the Importance Performance Analysis (IPA), the study also employed the Simple Additive Weighting (SAW) method to rank facilities according to their weighted contribution to overall satisfaction. The findings indicate that main facilities contributed 32.6%, supporting facilities contributed 33.7%, and general facilities contributed 33.8% to the total satisfaction index. These percentages demonstrate a relatively balanced contribution among the three categories, suggesting that terminal users perceive performance across different facility types to be equally influential in shaping their overall satisfaction.

Despite generally good ratings, qualitative data collected through interviews and observations revealed that the Subang Type A Terminal still faces several challenges. Operationally, the enforcement of departure and arrival regulations is not yet optimal. Many intercity and interprovincial buses choose to load and unload passengers outside the terminal especially at bus pools and along the main road to save time and attract more passengers. This behavior reduces the effectiveness of the terminal as a transportation hub and undermines

revenue from retribution fees. The qualitative findings also point to a lack of coordination between terminal management and public transport operators, as well as limited public awareness about the importance of using official terminal facilities.

From an economic standpoint, the underutilization of the terminal has implications for local revenue and surrounding commercial activity. While the terminal was initially designed to be a catalyst for regional development, its current level of use does not yet reflect that goal. The presence of informal vendors, irregular public transport stops, and uneven passenger flows demonstrate that the integration between transport management and urban planning remains weak. Therefore, improving both infrastructure and regulatory enforcement is necessary to maximize the terminal's economic potential.

Finally, the hypothesis testing conducted in this study shows that the terminal's physical and operational conditions do not significantly affect the bus operational system, especially in terms of boarding and alighting patterns. Most transport operators still follow their own schedules, often based on bus company management policies rather than terminal regulations. Thus, the null hypothesis (H_0) stating that the terminal's condition does not influence bus operational patterns was accepted.

In conclusion, the results of this study highlight that while the Subang Type A Terminal performs adequately in several service aspects, it still requires strategic improvements in infrastructure quality, service responsiveness, and policy enforcement to function as an effective transportation node. Strengthening coordination between government authorities, transport operators, and users will be essential to enhancing the overall performance and sustainability of terminal operations.

DISCUSSION

The Subang Type A Terminal is located within the intercity and interprovincial transport network in Subang Regency, situated along a Class I road with a total area of approximately five hectares and an access road of around 100 meters. The nearest terminal is Pagaden, located about 25 kilometers away. Field observations show that the terminal facilities such as parking areas, waiting rooms, ticket counters, prayer rooms, and restrooms are mostly functional but poorly maintained. The terminal appears underutilized, with low passenger activity and limited operational services, including only one active ticket counter operated by DAMRI for the Subang–Bandung route. Many passengers prefer to board buses outside the terminal, particularly at bus company pools or along the main road, due to convenience and accessibility reasons.

Further analysis of supporting transportation revealed that local and urban transport systems, including rural transport and city minibuses (angkot), are not yet well-organized and tend to “wait for passengers” (ngetem), resulting in inefficiency. Interviews with 56 respondents consisting of drivers, conductors, terminal employees, traders, mechanics, and passengers indicated that most users prefer boarding buses at company pools, such as Rosalia Indah, rather than the terminal. The reasons include the inability to choose seats at the terminal, the long walking distance between the entrance and departure areas, and delays caused by connecting public transport. These findings point to weaknesses in the terminal's operational management and integration with other transport modes, discouraging passengers from using official facilities.

Observation and mapping data further support this issue. Although the Subang Terminal is only four kilometers from the Rosalia Indah pool and five kilometers from the Widia pool, passengers still favor the latter due to more convenient access to online-based transport and better perceived safety, especially at night. In contrast, the terminal's surrounding area is relatively quiet, with limited connectivity and minimal activity after dark. This indicates that location and accessibility are not the main problems; rather, it is the quality of service, convenience, and safety perception that influence user preference. Therefore, improving last-mile transport connections,

ensuring better lighting and security, and integrating digital-based transport services are essential to attract more passengers to use the terminal.

According to the analysis based on Ministerial Regulation No. 132 of 2015, nine main facilities, two supporting facilities, and eight general facilities do not meet the minimum service standards. The Importance Performance Analysis (IPA) results show fourteen priority facilities that require improvement, including parking areas, ticketing rooms, disability access, ramp check, passenger transit spaces, rest areas, light repair facilities, safety features, complaint media, ATMs, and internet access. Meanwhile, the Simple Additive Weighting (SAW) analysis indicates that user satisfaction and importance perceptions were generally rated as “good” to “very good.” However, qualitative findings revealed a bias in respondent attitudes, where many felt hesitant to rate the terminal poorly. Overall, while numerical assessments seem positive, the reality on-site confirms the IPA results showing that terminal facilities remain underutilized and in need of revitalization to ensure optimal performance and user satisfaction.

CONCLUSION

Based on the results of the study, the following conclusions can be drawn:

1. The location, accessibility, and connecting transportation to and from the Subang Type A Terminal need to be further improved to enhance user convenience and integration with other modes of transport.
2. The operational system of buses, particularly regarding passenger boarding and alighting, should be reorganized and strictly regulated so that buses load and unload passengers only within the terminal area.
3. The overall condition and facilities of the terminal generally meet the existing requirements; however, according to user feedback, there are several aspects that still need improvement:
 - a. Based on the Importance Performance Analysis (IPA) method, there is a clear discrepancy between perceived performance and user expectations. The IPA method identified a total of 14 facilities requiring priority enhancement, as they fall above the iso-rating line. These consist of five (5) main facilities, three (3) supporting facilities, and six (6) general facilities that need to be prioritized for development.
 - b. Based on the Simple Additive Weighting (SAW) method, the terminal facilities can generally be classified as being in good condition. The analysis using SAW shows that approximately 64% of the 56 respondents rated the terminal facilities as *very good*, while the remaining 36% rated them as *good*. These results indicate a general tendency among respondents to provide positive assessments—likely influenced by a sense of hesitation or reluctance to give lower scores, even though the researcher had assured confidentiality.

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