

ANALYSIS OF SUPPORTING FACILITIES FOR PASSENGERS WITH DISABILITIES AND THE ELDERLY TO IMPROVE SERVICES AT THE AJI PANGERAN TUMENGGUNG PRANOTO AIRPORT SAMARINDA

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ABSTRACT

Aji Pangeran Tumenggung Pranoto Samarinda Airport, located in Samarinda, East Kalimantan, provides facilities such as wheelchairs, guiding blocks, special toilets, priority seats, elevators, and staff assistance for passengers with disabilities and the elderly. Services include guidance from terminal arrival, check-in, to boarding, aiming to meet passenger needs and ensure travel comfort. This study aims to identify challenges and strategies to improve such services. Using qualitative methods, data were collected through observation, interviews, documentation, and literature review. The focus was on facilities for passengers with disabilities and the elderly, involving the head of service and cooperation, the information management coordinator, and information officers. Findings revealed several issues: damaged guiding blocks, inactive arrival lifts, ramps not meeting slope standards, lack of designated parking, limited wheelchairs, and staff lacking sign language skills. Strategies include improving and maintaining facilities, training staff in sign language, and conducting regular monitoring and evaluation to ensure service quality.

Keywords: Supporting Facilities, Service, Persons with Disabilities, Elderly, Aji Pangeran Tumenggung Pranoto Airport Samarinda

1. INTRODUCTION

Air transportation has become one of the most widely used modes of transportation by the public. The need for transportation, both for long-distance and short-distance travel, continues to increase in line with population growth and population mobility. This trend is reflected in the increase in the number of domestic and international airline passengers. Air transportation plays a strategic role in facilitating the movement of people, supporting economic growth, and promoting the development of the tourism sector. The importance of this mode of transportation is also evident in the growing need for transportation services that can support human mobility and the distribution of goods quickly and efficiently.

According to Law No. 1 of 2009, an airport is an area used as a place for aircraft to land and take off, board and disembark passengers, load and unload goods, and transfer between modes of transportation, equipped with safety, security, and basic and supporting facilities. Activities at the

airport include passenger check-in, security checks, and baggage handling. Essential facilities typically available at the airport include check-in counters, X-ray machines, walk-through metal detectors, conveyor belts, central air conditioning, flight information display systems (FIDS), restrooms, and self-check-in machines. Meanwhile, supporting facilities include trolleys, special toilets, priority seats, smoking rooms, children's playrooms, charging stations, nursery rooms, assistance services, executive lounges, places of worship, and elevators.

Based on Minister of Transportation Regulation No. PM 98 of 2017, every airport, including Aji Pangeran Tumenggung Pranoto Airport in Samarinda, is required to provide supporting facilities for persons with disabilities and the elderly. These facilities include assistive devices for boarding and disembarking from transportation, safe and easily accessible doors, clear audio/visual information, special signage, priority seating, accessible restrooms, and safe and comfortable assistive facilities. The presence of

facilities such as wheelchairs, wide access doors, clear signage, and adequate seating areas can provide comfort for passengers with special needs, allowing them to enjoy air travel without significant obstacles.

Data from the Apron Movement Control (AMC) unit shows an increase in the number of passengers at Aji Pangeran Tumenggung Pranoto Airport in Samarinda during the 2023–2024 period. In 2023, there were a total of 752,212 passengers, while in 2024, this number increased to 846,252 passengers. This increase is not only seen among general passengers but also among passengers with disabilities and the elderly. The rise in the number of service users serves as an important indicator that the airport needs to prioritize service quality, including the provision of adequate accessibility facilities for all segments of the population.

In January 2025, there were 19 passengers with disabilities and elderly passengers who used wheelchair facilities at the airport. This number increased to 31 people in February 2025. This data indicates that wheelchair facilities and their supporting infrastructure are increasingly in demand, especially considering that the majority of users are elderly individuals and a significant portion are passengers with physical disabilities. This fact underscores the urgency to continue improving the availability and quality of supporting facilities at the airport.

Currently, the supporting facilities at Aji Pangeran Tumenggung Pranoto Samarinda Airport are considered adequate. Some of the available facilities include priority seats at Gate A, Gate B, and the check-in area; special toilets located at various points; wheelchairs provided by the airport and airlines, accompanied by staff assistance; two elevators in the departure and arrival areas; and guiding blocks to assist visually impaired passengers. These services are also supported by staff from both the airport and airlines, ensuring that passengers with special needs can enjoy convenience while at the airport.

However, observations made during the On-the-Job Training (OJT) program revealed that there are still several shortcomings. For example, the special markings for people with disabilities in the drop zone area are covered by paid VIP parking markings, the special elevator only functions in the departure area, the wheelchair-accessible path in the arrival area does not meet the standard width and slope requirements, there are insufficient signs on the ramp, the FIDS is difficult to see for the elderly and people with disabilities, and there is damage to the guiding blocks. These shortcomings can hinder the comfort of users with special needs and require immediate improvement.

In accordance with Law No. 8 of 2016, Articles 18 and 19, persons with disabilities have the right to accessible facilities in public spaces without discrimination. Therefore, supporting facilities at the airport must be standardized and adapted to the needs of all passengers, including the elderly and persons with disabilities. Adequate facilities not only enhance comfort but also reflect inclusive and dignified public service. Based on these findings, the author plans to conduct research titled “Analysis of Support Facilities for Passengers with Disabilities and the Elderly to Improve Services at Aji Pangeran Tumenggung Pranoto Airport in Samarinda.” The research questions to be discussed in this study include two main points: first, what are the obstacles faced in improving services for passengers with disabilities and the elderly in accordance with applicable regulations; and second, what are the strategic steps to improve services for passengers with disabilities and the elderly.

2. METHOD

2.1 Research Design

This study employs a qualitative descriptive approach aimed at gaining an in-depth understanding of the conditions and standardization efforts for supporting facilities for passengers with disabilities and elderly passengers to improve service quality at Aji Pangeran Tumenggung Pranoto Airport in Samarinda. This method is appropriate for providing a comprehensive depiction of social phenomena, particularly related to the experiences, needs, and perceptions of airport service users who fall within the special needs category. As explained by [1], qualitative research seeks to understand the meanings that individuals construct regarding their experiences, rather than merely measuring variables or testing statistical hypotheses, thus making it relevant for exploring airport staff and passenger perceptions of accessibility and the effectiveness of supporting facilities for passengers with disabilities and the elderly.

A qualitative descriptive research method was used to systematically describe the facts and characteristics of services for passengers with disabilities and the elderly at airports through two stages: planning and implementation. The planning stage included problem identification, problem formulation, and theoretical framework, while the implementation stage included observation, interviews, documentation, data processing, and conclusion formulation. The research design describes the sequence of research activities, starting from problem identification, development

of observation and interview instruments, data collection and validation, analysis of findings, to drawing conclusions and recommendations for facility improvements. Each stage is carried out in a structured and interrelated manner.

2.2 Population, Sample, and Research Object

The determination of the population, sample, and research object is carried out by considering time and resource limitations. The population is defined as the generalization area that has specific characteristics [2]. In qualitative research, the population size does not need to be large as the emphasis is on obtaining an in-depth understanding (Sugiyono, 2022). The population in this study consists of officials and staff managing information services at Aji Pangeran Tumenggung Pranoto Airport in Samarinda.

A sample is a portion of the population selected for research purposes [3]. In qualitative research, the sample size does not follow statistical formulas because the aim is to obtain deep insights, and a small number can suffice if data saturation is reached. The sample in this study consists of the Head of Service and Cooperation Section, the Coordinator of Information Management, and airport information management officers.

The research object refers to everything that becomes the focus of the research, whether individuals, groups, or items with specific characteristics [4]. In this study, the object is the supporting facilities for passengers with disabilities and elderly passengers, as well as efforts to improve services at Aji Pangeran Tumenggung Pranoto Airport in Samarinda.

2.3 Data Collection Techniques and Research Instruments

Data collection was conducted through interviews, observations, and documentation [5]. These methods help the researcher obtain a comprehensive overview, delve into respondents' perspectives, and understand phenomena naturally. In this study, data was collected to obtain detailed information regarding the condition, availability, and effectiveness of supporting facilities for passengers with disabilities and elderly passengers at the airport.

Observation is a structured act of watching for a specific purpose [6]. Observations in this study were conducted at the airport between January and February 2025 to assess the implementation and effectiveness of supporting facilities based on the indicators outlined in PM 98 of 2017, such as

guiding blocks, visual/audio information, drop-off/pick-up zones, ramps, multi-story building access, accessible toilets, special ticket counters, priority seating, special parking spaces, and wheelchair availability.

An interview is a meeting to exchange information through direct question-and-answer sessions [7]. This study used structured interviews with prepared question guidelines. Triangulation techniques were applied to enhance data validity by varying the informants, timing, and questions. The three informants consisted of the Head of Service and Cooperation Section, the Coordinator of Information Management, and airport information management officers.

A literature study involves collecting data from library sources such as books, literature, notes, and relevant reports. This serves as the foundation for comparing theory with field practice and supports the analysis of the suitability of facilities and services with applicable standards on the research topic.

2.4 Data Analysis Technique

Data analysis is the process of searching for and organizing data from interviews, observations, and documentation into certain categories, processing them, and arranging them into patterns that make it easier to draw conclusions. Before going into the field, the researcher analyzed documents, books, and other written sources related to aviation regulations and service standards. Once in the field, data analysis was conducted in three stages [8]: data reduction, data presentation, and drawing conclusions based on valid and consistent evidence.

2.5 Research Location and Time

The research was conducted at Aji Pangeran Tumenggung Pranoto Airport in Samarinda from January 6 to February 28, 2025, during the On The Job Training (OJT) period. The research location was focused on the passenger terminal area, chosen due to the existing issues with supporting facilities and to facilitate the collection of data and information by the researcher.

3. RESULT AND DISCUSSION

3.1 Observation

Based on observations conducted by the author at Aji Pangeran Tumenggung Pranoto Airport, Samarinda, it was found that there were discrepancies between the existing conditions in the field and the provisions stated in PM 98 of 2017 concerning the Provision of Accessibility in Public

Transportation Services for Special Needs Users, particularly in Article 4. In terms of guiding blocks, these are indeed available in the terminal area, but their condition is far from optimal. Several sections were found damaged and not fully connected to key facilities such as toilets and check-in counters. This contradicts Article 4 of PM 98 of 2017, which requires guiding blocks to be complete, functional, and connected to main service facilities. Regarding elevators, they are available in both the departure and arrival areas, but only the one in the departure area is operational, while the arrival elevator is out of service. PM 98 of 2017 stipulates that accessible means, such as elevators, must be available for vertical circulation in multi-storey buildings.

For visual and audio information facilities, flight information monitors are available, but the font size and screen display are relatively small and have inadequate color contrast. This does not comply with Article 3 of PM 98 of 2017, which mandates that audio/visual travel information must be easily accessible to persons with disabilities and the elderly through clear and easily understood media. The ramp facility at the airport is available; however, observations revealed that it is rather steep and does not meet the maximum slope standard of 20 degrees as regulated in PM 41 of 2023.

With regard to special parking facilities, the author did not find designated parking areas for persons with disabilities and the elderly, indicating non-compliance with PM 98 of 2017, which requires airports to provide parking spaces for passengers with special needs. Although wheelchairs are provided, their number is limited and often insufficient. A drop zone area for passengers with disabilities and the elderly is available; however, the special marking is painted in red, making it unclear and giving the impression that no such area is provided. According to PM 98 of 2017, both wheelchairs and drop zones must be available and easily accessible. On the positive side, special toilets and check-in counters are already available and accessible, in line with PM 98 of 2017.

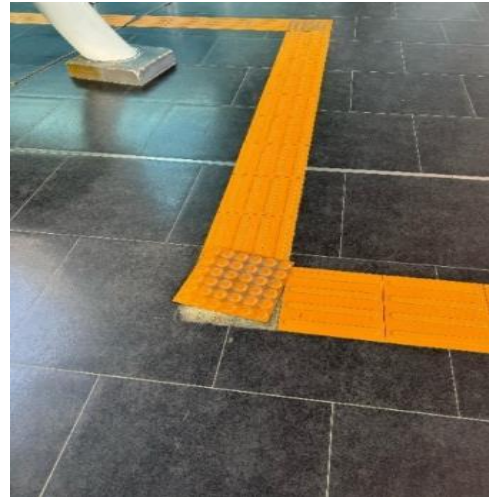


Figure 1. Damaged Guiding Block in the Arrival Area

The use of elevators is one of the most vital facilities in supporting vertical mobility for persons with disabilities and the elderly. At Aji Pangeran Tumenggung Pranoto Airport, elevators are available in both departure and arrival areas. However, field data shows that the arrival elevator is not operational due to budget efficiency policies. As a result, arriving passengers with disabilities and the elderly must use the departure area elevator temporarily, as the arrival elevator is deactivated. This reflects a lack of budget prioritization for maintaining sustainable inclusive facilities.



Figure 2. Elevator in the Arrival Area That Cannot Be Used

Ramps are essential for wheelchair users and elderly passengers who have difficulty using stairs. Although ramps are available in the arrival area, observations revealed that their width and slope are

not up to standard for wheelchair use. Moreover, the handrail size is too large, which can increase the risk of slipping or make it difficult to maneuver a wheelchair. According to PM 41 of 2023, ramps should have a maximum slope of 20 degrees.



Figure 3. Ramp Not Meeting Standards

Special needs toilets are available in both departure and arrival areas, located in five points: departure lounge area, check-in area, arrival area, gate A, and gate B. With these facilities, passengers with special needs not only feel more accommodated, but also receive guaranteed inclusive and equal service. As for wheelchairs, although they are available, sometimes there are not enough of them, which makes the borrowing process ineffective when large numbers are needed or in emergency situations.



Figure 4. Special Needs Toilet



Figure 5. Wheelchair Belonging to the Information Unit

The Flight Information Display System (FIDS) plays a critical role in conveying departure and arrival schedules. At Aji Pangeran Tumenggung Pranoto Airport, FIDS is available at several points in both departure and arrival areas. However, observations and documentation indicate that the font size and screen dimensions are small and lack contrast, making it difficult for elderly passengers to read the information clearly. As a result, many elderly passengers must ask airport staff for clarification because they cannot read the FIDS properly. This situation shows that the visual information system still fails to fully consider the needs of elderly passengers, whose vision naturally declines with age.



Figure 6. Flight Information Display System in the Arrival Area

The drop zone and pick-up zone have special markings for passengers with disabilities and the elderly. However, documentation shows that these markings are obscured by red paint used to

designate paid VIP parking. This overlap causes confusion and often leads to the area being used by general vehicles, neglecting its intended purpose for special needs passengers. This indicates inconsistent management of priority zones and a tendency to prioritize commercial aspects over inclusive service.



Figure 7. Special Marking Covered by Red Paint

Priority seating is available in the departure waiting area, check-in area, and boarding gates. However, based on direct observation and documentation, these seats are often occupied by passengers without special needs due to the lack of strict supervision. Meanwhile, special check-in counters are available and accessible for passengers with disabilities and the elderly. Lastly, no designated parking spaces for persons with disabilities and the elderly were found in the vehicle parking area, despite their importance for ensuring easy access to and from the terminal.

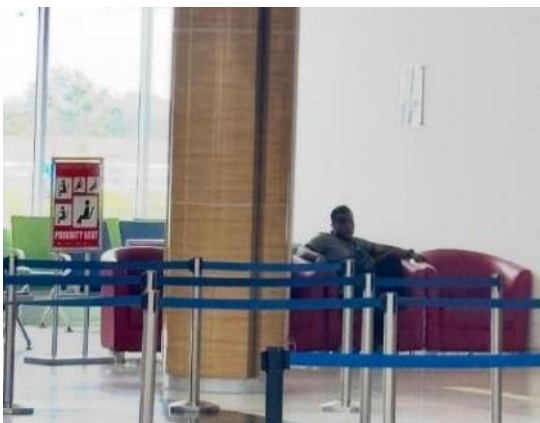


Figure 8. Misuse of Priority Seats by General Passengers



Figure 9. Special Needs Check-in Counter

From direct observations, the author concludes that, in general, supporting facilities for passengers with disabilities and the elderly at Aji Pangeran Tumenggung Pranoto Airport have not fully met accessibility service standards as regulated in PM 98 of 2017. While several facilities are already available, there remain significant limitations in terms of quantity, functionality, and overall accessibility.

Based on observations conducted at Aji Pangeran Tumenggung Pranoto Airport Samarinda, it was found that accessibility facilities for passengers with disabilities and the elderly are available but have not yet fully met the standards stipulated in Minister of Transportation Regulation No. PM 98 of 2017 and PM 41 of 2023. In general, some facilities are not functioning optimally, while others are not designed or maintained in accordance with user needs. This reflects a gap between regulatory requirements and actual field implementation, indicating that the goal of universal accessibility has not yet been fully achieved.

Guiding blocks have been installed in the terminal area however, the available pathways only lead to the information desk and do not connect to other essential facilities such as toilets, check-in counters, waiting areas, or departure gates. In addition, several sections of the guiding blocks were found damaged, detached, or disconnected, which can confuse visually impaired users. This condition does not comply with Article 4 of PM 98 of 2017, which mandates that guiding blocks must be complete, fully functional, and directly connected to all main service facilities in the terminal. The damage and limited routes directly reduce the independence of special-needs passengers in navigating the airport.

Ramps are available in the arrival area; however, measurements and observations revealed

that their slope tends to be steep, exceeding the maximum 20-degree gradient stipulated in PM 41 of 2023. The width is also insufficient for wheelchair users, and the installed handrails are too large, making them difficult to grip comfortably. This not only reduces user comfort but also poses potential safety risks, such as slipping or difficulty maneuvering wheelchairs, especially for elderly passengers with limited physical strength.

Elevators are one of the most vital facilities for vertical mobility in multi-story buildings. At APT Pranoto Airport, elevators are available in both departure and arrival areas, but only the one in the departure area is operational. The arrival area elevator has been deactivated due to budget efficiency policies, forcing passengers with disabilities or elderly travelers who arrive to use the departure elevator instead, assisted by staff. This policy clearly contradicts the principle of sustainable accessibility, as it reduces the availability of vertical transportation facilities that should always remain functional.

Information facilities at the airport, such as the Flight Information Display System (FIDS), are available in several locations, but the font size and screen dimensions are relatively small, with insufficient color contrast for elderly passengers or those with visual impairments. As a result, many elderly passengers must approach staff for clarification. In addition, sign language services for deaf passengers are not widely available, and staff training in sign language is not conducted regularly. These shortcomings indicate that inclusive information delivery is not yet a top priority.

Special toilets for passengers with disabilities are available at five strategic locations, including the departure hall, check-in area, arrival hall, and Gates A and B. These toilets are spacious and equipped with handrails, making them relatively safe for wheelchair users. However, the drop zone area, which should serve as a designated drop-off point for passengers with disabilities and the elderly, is not functioning optimally because its special markings are covered with red paint used for VIP parking spaces. This condition prevents many users from realizing that the area is intended for special-needs passengers.

Priority seating is provided in the departure waiting area, check-in area, and boarding gates, but the color and signage are not prominent, so they are often occupied by general passengers. Wheelchair availability is also limited, so during peak demand, the airport must borrow from airlines or the Port Health Office. Furthermore, no special parking spaces for passengers with disabilities or the elderly were found near the terminal entrance,

reducing mobility convenience from the moment users arrive at the airport.

Overall, these findings indicate that facilities at APT Pranoto Airport have not yet fully complied with accessibility standards as stipulated in PM 98 of 2017, PM 41 of 2023, and Law No. 8 of 2016. Although some facilities are in place, their quality, quantity, and connectivity still require improvement. Strategic measures are needed, such as repairing damaged physical facilities, adding missing infrastructure, conducting routine maintenance, enforcing supervision of priority facility usage, and providing continuous staff training. With such improvements, the airport could deliver services that are truly inclusive, safe, and equitable for all passengers.

3.2 Interview

Based on interviews with the head of service and cooperation, Mr. Roslan, and the information management coordinator, Ms. Andriani, along with the information management officer, Ms. Nurul Khomariah, at Aji Pangeran Tumenggung Pranoto Airport in Samarinda, the author obtained data indicating that facilities and services for passengers with disabilities and the elderly have been provided, but overall they are still not optimal.

The guiding blocks intended to assist visually impaired individuals are only connected to the information unit and do not extend to other important areas such as the disabled toilet. Additionally, some sections of the guiding blocks were found to be damaged or detached. Visual information uses fonts and color contrasts that are sufficiently adequate. However, there are still no large-sized signage boards that are more senior-friendly. Additionally, sign language training has been provided to information staff, though it remains very limited and thus unable to fully assist deaf passengers optimally.

Drop-off and pick-up zones have special markings, but these are obscured by red VIP parking paint, making them difficult to see. Ramps are equipped with handrails, but their size is too large, and the ramp slope is too steep, making it unsuitable. The elevator only functions in the departure area, while it is deactivated in the arrival area. Priority seats have been marked, but they are often misused due to insufficient supervision. Special parking spaces for people with disabilities and the elderly are not yet available, although plans for their provision have been proposed. The availability of wheelchairs is still insufficient, although escort staff have been provided. Meanwhile, toilets for people with disabilities and the elderly are available in the departure lobby

area, check-in area, arrival area, Gate A, and Gate B. There is one ticket counter specifically for people with disabilities and the elderly, which is easily accessible as it is assisted by staff from the information unit.

4. CONCLUSION

Based on the research findings related to the topic and problems described in the previous chapter, it can be concluded that the main obstacles in improving services for passengers with disabilities and the elderly at Aji Pangeran Tumenggung Pranoto Airport Samarinda lie in the limited availability and non-compliance of facilities with applicable accessibility standards. Several facilities, such as guiding blocks, are damaged and not connected to main service points; the elevator in the arrival area is not in operation due to budget efficiency policies; and special pathways or ramps have slopes that do not meet the required standard and handrails that are too large for comfortable use.

Furthermore, special markings in the drop zone or pick-up area are obscured by VIP parking markings, wheelchair availability is limited, and the Flight Information Display System (FIDS) is difficult to read for passengers with sensory disabilities and elderly travelers. On the service side, there is still a lack of staff training on how to serve passengers with disabilities and the elderly, minimal public education for service users, and weak supervision over the use of priority facilities. These factors show that the services provided have not yet fully met the requirements stated in Minister of Transportation Regulation No. PM 98 of 2017 and Law No. 8 of 2016.

The strategies that can be applied to improve services for passengers with disabilities and the elderly at Aji Pangeran Tumenggung Pranoto Airport Samarinda can be grouped into two main aspects: physical facility improvement and service quality enhancement. Improving physical facilities involves repairing accessibility infrastructure such as guiding blocks, ramps, and elevators, as well as adding more wheelchairs. In addition, optimizing information facilities such as FIDS so that they are more accessible for passengers with sensory disabilities and elderly passengers is also a key priority.

From a service perspective, strategies include increasing staff competency through regular training sessions on how to serve passengers with disabilities and elderly travelers. Strengthening monitoring and supervision of the use of priority facilities is equally important, as is providing regular socialization or awareness campaigns to service users to ensure that these facilities are used

as intended. This combination of training and supervision would help create a service environment that is both inclusive and orderly.

The implementation of these strategies requires strong commitment from airport management, including budget allocation for maintenance and facility improvement, policy adjustments to prioritize inclusive access, and collaboration with relevant stakeholders such as disability organizations and elderly care institutions. With such cooperation, improvements can be carried out more efficiently and in accordance with the actual needs of users.

With the consistent and sustainable application of these strategies, it is expected that services at the airport will operate more effectively, equitably, and in line with established service standards for all passengers, including those with disabilities and the elderly. This would not only fulfill legal requirements but also improve the overall passenger experience, positioning the airport as a model for inclusive and accessible public transportation services in the region.

Based on the findings of the study, several recommendations can be made, including that Aji Pangeran Tumenggung Pranoto Airport in Samarinda should immediately conduct a comprehensive evaluation and make improvements to supporting facilities that do not meet standards, such as damaged guiding blocks, ramps that are too steep, and elevators that are not functioning in the arrival area. Additionally, it is important to add wheelchair-accessible facilities and designated parking spaces, as well as clarify drop-off/pick-up zone markings to make them easier to identify and use for people with disabilities and the elderly.

For airport management needs to improve their insight and knowledge by organizing regular and ongoing training focused on serving passengers with hearing impairments. This training is intended for information management officers acting as assistants, with material covering communication skills using sign language.

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