

# Optimization Of Terminal Facilities Management For Passenger Convenience At Radin Inten II Lampung International Airport

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## ABSTRACT

Airport is infrastructure used to provide air flight services is. Radin Inten II International Airport is an airport managed by PT Angkasa Pura II. This study aims to determine whether the terminal of Lampung Radin Inten II International Airport has been optimized and in accordance with applicable regulations. So from this description, the author took the title "Optimization of Terminal Facility Management for Passenger Comfort at Radin Inten II International Airport Lampung". The formulation of the problem in this study is what are the facilities in the Terminal that support passenger comfort and how to optimize the management of terminal facilities for passenger comfort at Radin Inten II Lampung International Airport. Research Methods are qualitative descriptive methods, making observations in the airport terminal area, interviews, distributing questionnaires and literature studies and documentation of research objects. In the results of the study, there are still problems that there are still some facilities that are not in accordance with applicable regulations and can be optimized again to improve passenger comfort at Radin Inten II Lampung International Airport. So that the conclusion that can be drawn in this study is the need to optimize the management of facilities in facilities that are not in accordance with the rules and facilities that can improve passenger comfort such as repairing facilities that are not in accordance with the rules, regulating temperature and ensuring the terminal area is clean.

**Keywords:** Terminals, facilities, comfort, passengers.

## INTRODUCTION

Aviation is a mode of air transportation that is quite attractive and is used to carry out activities of moving people or goods. With today's technology that is starting to develop, humans need transportation to facilitate work or activities quickly, effectively and efficiently. An airport or airport, also known as an airport, is a facility where aircraft such as airplanes and helicopters can take off and land [1].

An airport is defined as a specific place on land or water (including buildings, facilities, and equipment) that is intended entirely or in part for the arrival, departure, and movement of aircraft Annex 14 [2]. Flights to Lampung Province, Indonesia, depart from Radin Inten II Lampung International Airport. Based on the Decree of the Minister of Transportation of the Republic of Indonesia, the airport, which has a four-story parking lot building, was upgraded to an international airport status

and inaugurated as an international airport on March 8, 2019, by President of the Republic of Indonesia.

Airport facilities have been regulated in Law number 1 of 2009 concerning Aviation in article 219 paragraph 1 which contains "Every airport business entity or airport management unit is required to provide airport facilities that meet the requirements of aviation safety and security as well as services airports in accordance with the established service standards [3]. This airport service user service standard is a reference in providing airport services for airport business entities and airport operation units as stipulated and regulated [4]. Facilities at the airport are meant to give service users a sense of comfort, safety, and convenience. Facilities provide added value and comfort to travelers, demonstrating their importance in the service industry. According to previous research [5] Convenience is one of the important factors to measure the level of passenger satisfaction when using this mode of transportation.

Passenger terminal facilities with complete facilities will be able to provide comfort and satisfaction for airline service users, for example temperature and light conditioning, cleanliness, information services, toilets, parking lots, nurseries, smoking rooms, shopping facilities, restaurants and children's playrooms will provide added value also to the airport. Therefore, the available facilities must be maintained and managed as well as possible so that service users feel comfortable at the airport terminal. Facilities are all types of work equipment or other facility services that function as the main or additional tool in doing a job or anything that is used, placed, used, used, enjoyed by its use [6] [7] [8].

Radin Inten II Lampung International Airport has provided various facilities at the terminal, with various facilities at the terminal, especially convenience facilities. Of course, this requires good management so that the available facilities are maintained and maintained so that they can be used in the long term to support passenger comfort.

Passenger terminal facilities at airports are very important for passenger comfort and satisfaction. With good facilities, good service will be created, so that passengers will be impressed and will feel comfortable at the airport terminal. Based on the description above, the author intends to make a final project entitled Optimizing the management of terminal facilities for passenger comfort at Radin Inten II Lampung airport.

According to previous research [9] [10] The act of improving something, often known as the process of making something better or higher, is called optimization. Optimization is a result achieved as desired, is the achievement of results in accordance with expectations effectively and efficiently, an action to improve or optimize or make better, an effort to make something better in optimizing something [11] [12].

Management is a process, method, or act that contributes to the formulation of organizational policies and goals or offers oversight of a situation including the application of policies and the accomplishment of objectives through the influence of others [13]. Management is understood as a process of discriminating over planning, organizing, mobilizing and supervising by utilizing both science and art in order to complete the goals that have been set [14].

Facilities are everything, both goods and services that accompany the services provided by service companies, trading companies and industries. Facilities are all types of equipment, work equipment or other facility services that function as the main or supporting tool in carrying out a job or anything that is used, placed, used, used, enjoyed by its use [15].

Airport is an area on land and/or waters with certain boundaries which is used as a place for airplanes to land and take off, take off passengers, load and unload goods, and place for intra and inter-modal transfers of transportation, which is equipped with safety and security facilities. flights, as well as basic facilities and other supporting facilities [3].

According to previous research [16] [17] Convenience is one of the important factors to measure the level of passenger satisfaction when using this mode of transportation. Comfort is a state of meeting basic human needs that are individual and causes a feeling of relief.

Comfort and feeling comfortable are a comprehensive assessment of a person's environment. Humans judge environmental conditions based on stimuli that enter into themselves through the six senses through nerves and are digested by the brain to be assessed. In this case, not only physical, biological, but also emotional problems are involved. Sound, light, smell, temperature, etc. stimuli are captured at once, then processed by the brain. Then the brain will give a relative assessment of whether the condition is comfortable or not [18].

Passengers are users of transportation services in the flight business from departure to destination, which requires special attention because it concerns flight safety and security [19]. Passenger is a person who travels by plane and is not registered as the crew member concerned [20] [21].

The airport as the main support in the air transportation sub-sector in its implementation is a place for air transportation services, arranged sequentially which is useful for realizing airport provision services in the airport setting [22].

Based on the background above, the formulation of the problem in this study is:

1. What are the facilities at the Terminal that support passenger comfort at Radin Inten II Lampung International Airport?
2. How to optimize the management of terminal facilities for passenger comfort at the Radin Inten II Lampung International airport?

## METHODS

The data collection method used by the author aims to make it easier for the writer in terms of collecting data regarding optimizing the management of terminal facilities for passenger comfort [23] the author uses the following method. This research method consists of research design, research instruments, population and sample, research objects, data collection methods and data analysis methods. [24] The use of data collection is

useful for facilitating data collection and obtaining valid data to be able to support the author's research on optimizing terminal management.

Descriptive research method is one method in a study to produce a description or picture of a data. A descriptive method is a method used to describe or analyze a research result but is not used to make broader conclusions [24]. Qualitative research method is the process of describing or describing a data that reveals a fact, state and phenomenon [25].

### Population and Sample

In this study, the research object took the population of passengers operating at Radin Inten II Lampung International Airport as many as 150 passengers. The sampling technique used by the author is to use the Taro Yamane formula [26], namely taking a sample of 35 passengers from airlines operating at Radin Inten II Lampung International Airport.

### Data Collection Methods

#### 1. Observation

Observation is usually interpreted as systematic observation and conversation of the symptoms that appear in the object of study, observation is made on objects at the place where the event occurred or took place, so that observation with the object under investigation [27]. Observations were made at Radin Inten II Lampung International Airport during On the Job Training (OJT).

#### 2. Questionnaire

Questionnaires are carried out by giving statements or questions directly to respondents to get answers to a problem in the form of opinions about the object under study. Then the results can be in the form of data to be collected. The author uses a questionnaire to collect data, the author distributes questionnaires containing a list of questions related to facilities at the airport terminal to passengers at Radin Inten II International Airport Lampung.

#### 3. Library Studies

Literature study is an important step where after a researcher determines the research topic, the next step is to conduct theoretical studies and references related to the research carried out [27]. Literature study conducted by the author includes regulations and requirements to be reviewed as well as understanding references contained in the discussion of the problem.

#### 4. Documentation

Documentation is a way to obtain information and data in the form of books, archives, documents, written numbers and pictures in the form of reports and information that can support a study [27]. In this study, the authors took documentation to become a source of

data that can be used to answer the problem formulation in this study.

### 5. Interview

The interview is a list of questions arranged systematically which will be asked directly to the object to be studied. The questions that the author conveys will later be used to become data that can be studied so that they can be used to conclude opinions and answer the problems that the author has conveyed in the previous chapter.

### Research Variables

In collecting this data the authors use the independent variable (variable X) and the dependent variable (variable Y). [24]. In this study, the research variables can be described in the figure below :

Based on the picture above, it can be seen:

6. Independent variable (Variable X) is a variable whose value affects other variables. This X variable is Management of terminal facilities.
7. A dependent variable is one that depends on the values of other variables (Variable Y). The variable Y is passenger comfort.

## RESULTS AND DISCUSSION

In this section, the author describes the results of the research and examines the data that the author obtained. This research is a qualitative research so that the data obtained will be described and elaborated to provide views and solve problems.

### Airport Conditions

This airport service user service standard is a reference in providing airport services for airport business entities and airport operation units as stipulated and regulated [4]:

**Table 1.** Problem Conditions

No.	Actual Conditions	Desired Conditions
1	<i>Flight Progress Display</i> (FIDS) some have not been installed, causing passengers difficulty getting information	Information Services in the form of <i>Flight Progress Display</i> (FIDS) available and easy to find. Information in the form of audio, visual, and counters placed in strategic places, easily visible, clearly legible, audible, and informative
2	Ceilings in hallways and smoking rooms	The cleanliness condition in the

	leak so that they require immediate repair and reporting to the unit responsible for repairing facilities, this can cause water to reminisce when it rains and reduce hygiene conditions.	terminal area is 100% clean and there are cleaners on duty regularly so that cleaning facilities are maintained and available at the airport.
3	The temperature in the waiting room during the day is still not in accordance with the specified standard, which is $\geq 25^{\circ}\text{C}$ .	Temperature conditioning at the airport terminal is in accordance with the specified standard of $\leq 25^{\circ}\text{C}$ .
4.	Waiting areas for users with special needs are still not available at the airport terminal.	Special needs user facilities are available to assist passengers with special needs such as a special waiting area in the departure lounge.

### Observation

Observation is usually interpreted as systematic observation and conversation of the symptoms that appear in the object of study, observation is made on objects at the place where the event occurred or took place, so that observation with the object under investigation.

After the authors made observations at the airport terminal, several facilities were found whose management was still not optimal and needed to be further optimized in accordance with the rules, as follows:

- Some Flight Progress Displays (FIDS) have not been installed, this is not in accordance with the regulations [4] at No. 2 Convenience point 2.5 Information services in form, audio, visual, and counter placed in strategic places, easily visible, clearly legible, audible, and informative.
- The ceiling in the hallway and smoking room is leaking so it requires immediate repair and reporting to the unit responsible for repairing facilities, this can cause water to pool when it rains and cause the area to look less clean.
- The temperature in the waiting room during the day is still not in accordance with the specified standard, namely according to the temperature standard  $\leq 25^{\circ}\text{C}$ .

- The waiting area for users with special needs is still not available at the airport terminal so that it is not in accordance with the rules it is explained that the availability of a special waiting area in the departure waiting room, this facility is to help passengers with special needs.

### Documentation

Documentation is carried out by the author to obtain data by documenting data obtained from various sources, one of which is a photo. From the documentation in the form of photos, the author still found several facilities that were not in accordance with the rules.

It was found that the Flight Progress Display (FIDS) had not been installed in the Airport Terminal area.



**Figure 3.** FIDS is not installed yet

The ceiling in the hallway and smoking room is leaking so it requires immediate repair and reporting to the unit responsible for repairing the facility.



**Figure 4.** Ceiling on the Leaking Hallway

The waiting area for users with special needs is still not available at the airport terminal.



**Figure 5.** Waiting Room Area

## Literature Study

Based on the findings of the author's literature relevant. the rules for reviewing those considered to be not in accordance with the rules as a guideline for the results of the discussion, including the elaboration of the title and the completion of the problem formulation accompanied by the opinions of experts from various sources. This discussion refers [4].

## Interview

In this study, interviews were conducted directly to the resource persons, namely passengers at Lampung Radin Inten II International Airport. This interview was conducted to strengthen the results of the discussion on the issues discussed.

Based on the interview above, it can be concluded as a whole that the terminal facilities at Radin Inten II Lampung International Airport are in accordance regulations, however, there are still several facilities that need to be managed further. For facilities that can increase passenger comfort, namely good room temperature, clean and complete toilets, information services, WiFi and a restaurant in the terminal. The questions that the author conveys will later be used to become data that can be studied so that they can be used to conclude opinions and answer the problems that the author has conveyed in the previous chapter.

## Questionnaire

The distribution of this questionnaire was carried out via a google form aimed at airline passengers at Radin Inten II Lampung International Airport. For sampling this questionnaire was distributed to 35 passengers and then the data was collected using a Likert scale.

The following is data regarding the value of variable X (management of terminal facilities) and variable Y (passenger comfort) obtained from calculations using a Likert scale.

**Table 2.** Score Summary

Variable X	95	97	93	91	96
Variable Y	97	98	90	91	94

Next, you must first look for the rank correlation by making it as in the table:

**Table 3.** Correlation rank

X	Y	Rank X	Rank Y	d	Dn <sup>2</sup>
95	97	3	2	1	1
97	98	1	1	0	0
93	90	4	5	-1	1
91	91	5	4	1	1
96	94	2	3	-1	1
Total					4

The above calculation yielded a correlation coefficient score of 0.8, indicating a high and significant connection between variables X and Y.

Based on the results of calculations using the Likert scale instrument, it is known that from all respondents, totaling 35 people consisting of airline passengers at Radin Inten II Lampung International Airport, produced a variable score X (95,97,93,91,96) : 5 = 94.4 score 94.4 stated that respondents strongly agree that the management of terminal facilities needs to be optimized. In variable Y (97,98,90,91,94) : 5 = 94 or score 94 which states that respondents strongly agree that more optimized management of terminal facilities will increase passenger comfort. So it can be concluded that optimizing terminal facilities is very influential in increasing passenger comfort at Radin Inten II Lampung International Airport.

## Research Results

Based on the research results for the facilities at the Terminal that support passenger comfort at Radin Inten II Lampung International Airport, namely the temperature in the room according to standards, namely  $\leq 25^{\circ}\text{C}$ , clean toilets with complete facilities, information services, WiFi and restaurants in the terminal.

1. Terminal Inspection Service officers must immediately report damage to the unit responsible for repairing these facilities in accordance with the Standard Operating Procedures for Terminal Inspection Service at Radin Inten II Lampung International Airport and the need for immediate repair of damaged terminal facilities.
2. Ensuring that the terminal area and toilets are clean and all facilities in the toilets function properly to increase passenger comfort in accordance with the completeness of toilet facilities according to standards and the toilet area is clean, odorless and no standing water.
3. Installing priority seat stickers on seats near the gate to increase passenger comfort based for users with special needs are available in the special waiting room area in the departure lounge to help passengers with special needs.

$$\begin{aligned}
 R_S &= 1 - \frac{6 \sum d^2}{n(n^2-1)} \\
 &= 1 - \frac{6 \cdot 4}{5(5^2-1)} \\
 &= 1 - \frac{24}{120} \\
 &= 1 - 0,2 \\
 &= 0,8 \text{ (High and strong correlation)}
 \end{aligned}$$

## 4. CONCLUSION

After performing research pertaining to the title and issues that were written about and addressed in the preceding chapter, it can be stated that passenger comfort is significantly impacted by airport terminal amenities that are compliant with the rules. This shows that the better the management of airport terminal facilities will increase passenger comfort at Radin Inten II Lampung International Airport.

1. Facilities at the Radin Inten II Lampung International airport terminal that support passenger comfort are standard room temperature  $\leq 25\text{ }^{\circ}\text{C}$ , clean toilets with complete facilities, information services, WiFi and a restaurant in the terminal.
2. To optimize the management of terminal facilities at Radin Inten II Lampung International Airport by immediately reporting damage to the unit responsible for repairing facilities, cleaning the terminal area, adjusting room temperature, and placing priority seat stickers on seats near the gate.

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