

Potential Development of Halim Perdanakusuma Airport Waiting Facilities As a Commercial Airport

A C T F Putra^{1*}, S R Syaril², Alit Sodikin³, Abi Prasidi⁴

^{1,2,3,4} Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia

*Corresponding author: tamafergus30@gmail.com

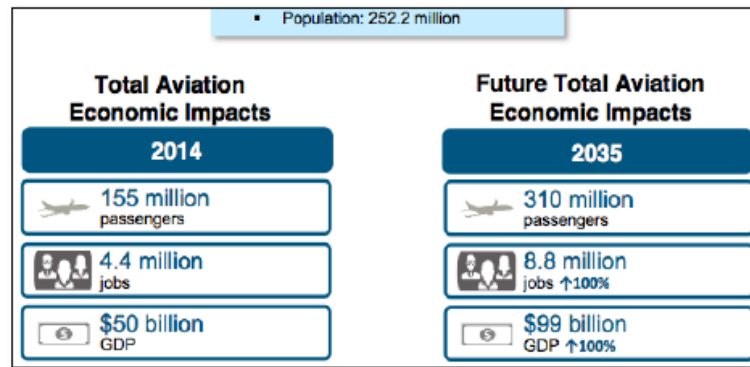
Abstract. Halim Perdanakusuma Airport currently has a role in facilitating commercial and military flight activities. In the commercial flight segment, the role of Halim Perdanakusuma airport is expected to reduce the burden on Soekarno-Hatta International Airport in serving increased flight volumes. The potential for development from the land and air side is based on the availability of space to meet passenger service standards and increase the capacity of Waiting Rooms, runways, and accommodate the number of takeoffs and landing activities of aircraft according to their type. This article analyzes the potential of Halim Perdanakusuma Airport in response to the increasing demand for commercial flights based on potential factors to develop the land and air side. Using Linear Regression analysis as the main method to analyze the suitability between potential capabilities in providing facilities based on existing minimum requirements. Data collection is done through literature studies, observations, and secondary data collection. The result of this research study is

Keywords: airport development, commercial airport, land side, air side

1. Introduction

The presence of airports is an important element in the provision of air transportation in Indonesia by looking at its geographical condition as an archipelago. As the main and largest airport in Indonesia, Soekarno-Hatta airport has brought a considerable burden of service. Initially, Soekarno-Hatta Airport was designed to accommodate 22 million passengers every year, but currently it has accommodated more than 50 million passengers per year (PT Angkasa Pura II Persero, 2015). Airport infrastructure development is very important in supporting the establishment of a safe, functional, and sufficient capacity and working with the airport authorities, in high aviation safety standards is an absolute necessity for flight attendants, the implementation of aviation safety needs to be implemented in all sector and refers to the international aviation standards body that regulates the regulation of airlines in the world. Proxied limited access to airport facilities with a measure of an airline's airport dominance, the percentage of passengers flying on one airline at an airport (Borenstein., 1989)[1] and this process is to "show airlines that there is sufficient demand, and appropriate airport facilities, to operate routes from the airport profitably" (Tretheway & Kincaid, 2010, p. 133)[2]. Like, IATA seeks to ensure that they provide flexible facilities to meet airline requirements cost-effectively. This phenomenon makes the government decide to reopen Halim Perdanakusuma Airport as a commercial airport to reduce Soekarno Hatta Airport passengers to 10-12%.

First it is part of the world's fastest-growing air passenger and air freight market (IATA, 1992)IATA (International Air Transportation Association), predicts the strength of the air transportation industry in Indonesia, with a population of more than 250 million people, in 2035 will reach more than 310 million passengers, and provide 8.8 million jobs, increasing Gross Domestic Product (GDP)) to US \$ 99 billion (InterVISTAS, 2015)



Gambar 1. Dampak Industri Transportasi Udara di Indonesia (tahun 2035)
(InterVISTAS, 2015)

At present, Halim Perdanakusuma Airport is managed by PT Angkasa Pura II. The airport is equipped with one runway, with geometric dimensions of 3000 x 45 meters, 8 taxiways (5 taxiways for commercial flights and 3 taxiways for military flights), 3 apron areas, and 1 unit of terminal buildings for commercial flights serving destinations to several cities in provinces / regencies in Indonesia such as: Makassar, Timika, Ambon, Aceh, Malang, Pekanbaru, Solo, Surabaya, Tarakan, Batam, Lombok, Yogyakarta, Jayapura, Palembang, Padang, Medan, Balikpapan, Kupang, Bengkulu, Semarang, Denpasar, Dumai, Cilacap, and Pangandaran by using the services of several commercial flight operators such as Airfast, Batik Air, Citilink, Susi Air, Trans Nusa, Pelita Air, and Travira Air. Because the Airport Development Special Committee was formed in early 1975 to conduct further feasibility studies on options. To quote Lee (2000) [3]. This can be seen in air transportation which plays an important role in facilitating increased access goals and paving the way for entirely new routes to operate (Graham et al., 2008; Koo et al., 2017) [2].

According to PT Angkasa Pura II, the composition of commercial flights was 73.9% of domestic flights and 14.63% of international flights, while the composition of passengers was 93.68% of domestic passengers and 6.32% of international passengers. While surveyed airline passengers rated the importance of lounges very low (Business Travel World, 2004) [4]. Despite airline travelers' reluctance to delineate their expectations for lounge facilities, lounges have become an expected prerequisite from purchasing airline products (Business Travel World, 2004) [1].

The evolution of the air transportation industry has grown, strong global interest among scholars and managers to understand the role played not only by airline service providers but also airport authorities (Ostrowski et al., 1993; Jarach, 2001; Fodness and Murray, 2007; Martin and Esteban, 2007) [5]. Fodness and Murray (2007). Therefore One of the objectives with the opening of Halim Perdanakusuma Airport as a commercial airport is to accommodate a high passenger surge from Soekarno-Hatta Airport to Halim Perdanakusuma Airport. Another factor that will affect the passenger project of Halim Perdanakusuma airport is the construction of a new airport such as West Java International Airport which will be operated as a new commercial airport. because the problem with the quality of passenger service has only just beginning to emerge. Childs and Adam - Smith (1997) [6]. This will affect the number of passengers at Halim Perdanakusuma Airport in the future and Airport demand traffic is expected to more than double within the next 10–20 yr (Eurocontrol 2004) [7]. However, this study considers that flights facilitated by other airports only serve unique and different flight rules from the flight routes found at Halim Perdanakusuma Airport. Therefore, this article uses the assumption that the development of this airport is only influenced by internal factors of Halim Perdanakusuma Airport because the distance required by a passenger to walk at the airport to reach his departure gate, the baggage claim area, or the connecting area is an

important consideration in the effective use of the aircraft gate at the airport terminal (Mangoubi and Mathaisel, 1985)[7]. As stated by the Deputy Executive General Manager of PT Angkasa Pura II, Halim Perdanakusuma Airport Branch, Surahmat, the terminal capacity is only 8,767 passengers per day or 3.2 million passengers per year. Furthermore, airport efficiency is very important for sustainability in supporting the government's progress. Gillen and Lall (1997)[8]. These contracts stipulate terms and conditions governing airport used by the airline and describe the rules for calculating compensation for airlines having to pay for airport facilities and services, and identifying airline rights and privileges (Lim, 1980)[9]. Airports operate in a dynamic business environment. then the obligation to move people and cargo on airplanes is equivalent to other industries in transportation. One possible strategy is to reduce demand by expanding business activities that are fully dependent on the scope of aviation[10]. Many important officials are involved in the construction of routes such as regional economic development, tourism destinations and ministries and chambers of commerce or others [2]. So that airports remain commercially viable, they are required to go directly with the airlines and targeted marketing from their airports and destinations[11]. The solution according to international analysis involving the growth of limited high-density hub airports raises important questions about system scalability and demand flow in some regions (MAR) and which are separate in ordinary air transportation systems[12].

But the fact is that there are 21,000 to 22,000 passengers per day. In 2017, this airport serves 6.9 million passengers. Whereas in 2018 this is targeted at 7.2 million passengers. Thus, there is an increase in the number of 300,000 passengers. As is known, starting January 10, 2014 Halim Perdanakusuma Airport serving regular flights along with the issuance of Minister of Transportation Regulation No. 369/2013 supersedes the Decree of the Minister of Transportation No. 32/2003. But at the end of 2018 and the beginning of 2019 Halim Perdanakusuma Airport experienced a decrease of 18% of passengers, and the number of passengers at Halim Perdanakusuma Airport in January 2019 was 511,791 people. This figure is lower than the previous year which reached 677,026 passengers. This decrease was caused by an increase in prices on airplane tickets at the end of 2018 resulting in a buildup Competition in the airport industry takes a complex form, exerting its main effects on three different levels (Graham, 2013)[13] and it shows that the cost of time and cost of arrival at the airport is affected by the choice of passengers. Some other studies measure airport accessibility in a space scale perspective (eg, Pels et al., 2003; Hess and Polak, 2005; Zhang and Xie, 2005) [14].

The estimated passenger growth at Halim Perdanakusuma Airport is done by extrapolating passenger data at Halim Perdanakusuma Airport when the airport becomes a commercial airport. However, since the airport became commercial in 2014, the available data is 2014 data. For the sake of projection, the passenger growth rate of Halim Perdanakusuma Airport is estimated by the growth rate of passengers at Soekarno-Hatta Airport on domestic flights because Soekarno-Hatta Airport is assumed to have similar characteristics to Halim Perdanakusuma Airport, namely, the two airports are in the same area, which is considered to have the same socio-economic character but in service settings that involve consumption of hedonists are different, for example in travel, restaurants, hotels, and arts (Holbrook & Hirschman, 1982)[15] . This socio-economic similarity is assumed to imply a relatively similar level of demand for domestic and international flights, National Standardization Agency Number: SNI 03-7046- 2004, Airport Passenger Terminal.

Since Halim Perdanakusuma Airport was officially opened as a commercial airport, the number of passengers flying to and from this airport has increased. As a consequence, all flight support facilities must be developed to accommodate the increasing number of passengers, Director General of Civil Aviation Regulation No: SKEP / 77 / VI / 2005, Technical Requirement of the Operational of Airport Technical Facilities Therefore, a study needs to be conducted to analyze the potential development of Halim Perdanakusuma Airport to accommodate the increase in commercial flight activities. During analysis, two sides must be

considered, namely the land side (passenger terminal) and the airside (runway capacity). So, the purpose of this article is:

- a. To identify the capacity of the waiting room at the Halim Perdanakusuma Airport passenger Terminal.
- b. To identify potential waiting rooms in developing the Halim Perdanakusuma airport landline
- c. To identify the capability of the air side based on airport runway capacity in accommodating the number of passengers
- d. Formulate development recommendations that can be made to the passenger terminal to accommodate commercial flights at Halim Perdanakusuma Airport.

2. Literature review

2.1 Airport Development

This relationship between infrastructure provision and economic growth has been the subject of expanded discussion over the past decade. With a few exceptions, the public sector still has some level of participation in infrastructure development, management, financing and / or operations, and in Europe, the co-existence of the private and public sectors is common.

In addition, airport efficiency is very important for continuing government support. Grillen and Lall (1997) Gillen, D., Lall, A., 1997. Develop measures of airport productivity and performance: application of data inclusion analysis. *Transportation Research –E* 33, 261– 27

Research is also carried out in developing countries, especially for general reference for planning airport infrastructure. In this regulation, Fernandes and Pacheco (2002)

2.2 Boarding Lounge

Under this model, many airlines have invested in terminals, developed facilities made specifically for their needs, and built long relationships with airports, which can also be achieved, indirectly, through vertical contracts (Barbot, 2009). Barbot, C., 2009. Vertical contracts between airports and airlines: is there an exchange between welfare and competitiveness

Market changes and regulations have led to the definition of airport management and administration. Basically the role of airport managers is now often seen as running a business with a focus on commercial orientations that are better than airport operations and their facilities (Hooper, 2002; Carney and Mew, 2003)

2.3 Airport Commercial Identity

Over the past two decades, commercial income has grown faster than aeronautical income; as a result, they have become the main source of income for many airports. At medium to large US airports, for example, commercial businesses represent 75–80% of total airport revenues (Doganis, 1992)

While aeronautical operations are subject to various forms of regulation - both explicitly and implicitly - commercial operations are usually not regulated. One consequence of this difference in profits is that profits generated from commercial activities can be used to subsidize cross-flight operations, thereby eliminating the need for government assistance (see for example, Zhang and Zhang, 1997, 2003)

3. Research method

The methodology used in this article is using questionnaires, Linear Regression analysis, and Bivariate Pearson analysis. The 5-point Likert type scale starting from 1 (strongly disagree) to 5 (strongly agree) is used to assess the questionnaire items. A total of 165 questionnaires

were distributed to passengers and visitors at Halim Perdanakusuma Airport. This approach is used to analyze the suitability of potential capabilities in providing facilities based on existing minimum needs standards and to conduct a descriptive analysis of airport development that can be carried out by Halim Perdanakusuma Airport.

Table.1 Questionnaire item

Variable	Indicator
Airport Development	• Departure gate facilities • Fasilitas area Parkir • Toilet facilities. • Variety and number of cafes and restaurants. • Banking facilities/ATM cash machines. • Internet/Wi-Fi availability. • Shopping facilities within the terminal.
Boarding Lounge	• Seating facilities. • Entertainment facilities. • Directions and signage. • Flight information screen • Announcements. • Airport information and customer service counters. • Politeness. • Willingness to help customers.
Commercial Airport Identity	• Problem solving attitude • Providing sufficient APRON facilities for airlines. • Periodic maintenance / maintenance of Halim Perdanakusuma Airport facilities.

4. Finding and Result

4.1 Respondent Profile

Summarize the profile of the respondent. The respondents were divided equally between men (59.3%) and women (40.7%). Most of the respondents were in the 20-30 year age group (46.1%), followed by respondents from the 30-40 year age group (26.3%) and the age group > 50 years (27.5%).

Table. 2 Respondent's profile

Category		N	Percent (%)
Gender	Male	100	59.3%
	Female	68	40.7%
Age	20-30	78	46.1%
	30-40	44	26.3%
	50 ke atas	46	27.5%
Occupation	Government employee jobs	5	3%
	state-owned corporation.		
	(BUMN)	41	24.4%
	entrepreneur	32	19%
	Student / college student	46	27.4%
Visit frequency	Others	44	26.2%
	Rerely	74	44%
	Often enough	82	48.8%
	Often	6	3.6%
	Very often	6	3.6%

4.2 Reliability and Validity Test

As provided in Table 5, the result showed that the values of Cronbach's alphas for all the three variables ranged from 0.855 to 0.936

Variabel	Number of Item	Cronbach's alphas
Fasilitas ruang tunggu	8	.936
Pengembangan	5	.855
Commercial Airport	5	.872

4.3 Bivariate analysis

Based on Significance Value sig. (2-tailed): From the output table above, the Sig. (2-tailed) Motivation data (X1) with achievement (Y) is $0.002 < 0.05$, which means there is a significant correlation between Motivation Variables and Performance Variables. Furthermore, the relationship between interests (X2) and achievement (Y) has a sig value. (2-tailed) of $0.000 < 0.05$, which means that there is a significant correlation between the variables of the Development of Waiting Room Facilities and Commercial Airport Variables.

Based on person correlations: It is known that the value of r count for relationship motivation (X1) With presentation (Y) is equal to $0.683 > r$ table 0.1519 , it can be concluded that there is a relationship or correlation between Facilities Development Waiting Room with Airport variables Commercial. Furthermore, the value of r calculated for the relationship of Waiting Room Facilities (X2) with Commercial Airport (Y) is $0.841 > r$ table 0.1519 , and $X1X2$ with Y equal to $0.825 > r$ table 0.1519 , it can be concluded that there is a relationship or correlation between variable development of waiting room facilities with variable Y commercial airports. Because the r count or Pearson correlations in this analysis is positive, it means that the relationship between the two variables is positive or in other words, the increase in motivation and interest will also increase customer satisfaction and comfort towards the airport Halim Perdana Kusuma.

5. Conclusion

From the results above, it can be concluded that Halim Perdanakusuma Airport has the potential to develop and improve its facilities to respond to the increasing demand for commercial flights, both from the land and the airside. Because both parties cannot be separated in determining the limitations of airport development in the future. The most critical determinants of the development of Halim Perdanakusuma Airport are airside factors because, from a landside perspective, the potential of Halim Perdanakusuma Airport Development can accommodate 2,750,369 passengers per year while from the airside perspective it can accommodate 8,640,280 passengers per year.

Halim Perdanakusuma Airport still meets the minimum standards of capacity needed for commercial and military flights. However, because there are regulations issued by the Air Force regarding the priority of the use of the runway which states that if there are urgent military activities or routine agendas of the Air Force, flights for commercial operations are stopped until the activity is completed. Therefore, the foregoing is one of the factors causing Halim Perdanakusuma Airport to be used as a commercial airport. But with the aim and policy of the government to open Halim Perdanakusuma Airport for commercial flights, it is nothing but to reduce the burden of Soekarno-Hatta Airport to 10-12% of total passengers, so Angkasa Pura II must be able to develop and improve land and airside facilities. to accommodate the high level of passenger users of air transportation service.

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