

The Impact of High Foreign Flight Slot Time Requests on National Flights

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Abstract. Flights are one of the most effective and efficient modes of transportation to reach distant travel destinations. Slot time is the time specified for a flight to land or take off from an airport. The purpose of this study is to find out how changes in the number of foreign flight slots available in a country can affect the national aviation industry. This research was conducted by the method of literature study or literature review. The results suggest that an increase in foreign flight time slots will probably have a negative impact on national flights at the same airport, especially if there is not enough planning to manage congestion at those airports. If the time slot of foreign flights increases, then there may be more foreign flights that will land or take off from that airport, which can cause overcrowding at the airport and reduce the time slot available for national flights.

Keywords. Time Slot, Foreign Flight, National Aviation

I. INTRODUCTION

A. BackgroundBackground

Flights are one of the most effective and efficient modes of transportation to reach distant travel destinations and are widely used by people today, both for business and leisure purposes [1]. In addition, aviation is also one of the important factors in a country's economic growth, because it can increase the number of tourists coming to the country and increase income from the tourism sector. However, in the aviation industry, there is a difference between foreign flights and national flights. Foreign flights are flights that cross national borders, while national flights are flights that only take place within national borders.

Slot time is a scheduled departure and arrival time set by ATFM for aircraft movements at an airport [2]. The existence of increasing foreign flight slots is one of the phenomena that occurs in some countries, where the number of foreign flights available at a country's airport increases compared to national flights. This can happen because of the high demand from foreign nationals to travel to the country, or because of cooperation between foreign airlines and national airlines. However, the presence of increased foreign flight slots can also have an influence on national aviation, both positive and negative. The number of requests for flight slots is high, so a company will continue to increase the frequency of these flights [3].

B. Purpose

The purpose of research on the effect of increasing foreign flight slots on national aviation is to find out how changes in the number of foreign flight slots available in a country can affect the national aviation industry. The study also aims to identify factors influencing changes in foreign flight slots and how such changes may affect the national aviation industry.

C. Benefits

The benefits that can be obtained from this research are:

1. Provide information on the effect of increased foreign flight slots on national airlines, including competition, choices available to passengers, quality of service, company profits, and workload.
2. Provide recommendations for national airlines on how to deal with competition with foreign airlines and improve the quality of services provided to passengers.
3. Become a source of information for the government and regulators of the aviation industry about the effect

of increasing foreign flight slots on national aviation, as well as how to regulate this industry effectively.

4. Become a source of information for academics and other researchers interested in researching more about the aviation industry.
5. Can provide new insights for national airlines on how to deal with competition with foreign airlines and improve the quality of services provided to passengers.

II. LITERATURE REVIEW

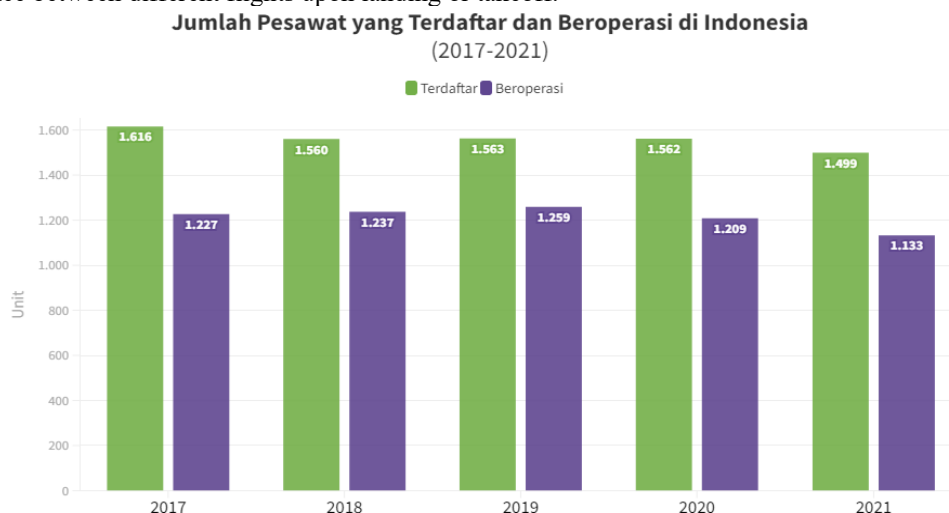
A. Flight Slots

Slot time is the time given to an aircraft to fly to an airport or destination city starting from the departure time and arrival time determined by AFTM (Air Traffic Flow Management) and the organizer, PT. Angkasa Pura at a bound airport [4]. Time slots are awarded by the aviation regulatory agency in a particular country or region, usually by the national aviation regulatory agency or airport regulatory agency. Time slots are given to regulate the flow of flight traffic and ensure that there is no congestion or congestion at the airport. Time slots can also be used to set flight times according to aircraft operational needs, such as optimal flight times to save fuel or avoid bad weather.

Time slots are also part of the system *slot allocation*, which is a system used to regulate the flow of flight traffic at the airport by allotting time slots to each flight that will land or take off from the airport and become a reference for airlines [5]. This system aims to optimize airport usage and ensure that flights can operate safely and efficiently and slot time at every airport in Indonesia must be a centralized concern [6].

Airlines wishing to operate in a country must register with the government. In chart 1 there are several airlines registered and operating in the territory of Indonesia. Every aircraft must have a time slot to fly to an airport. If the aircraft does not have a suitable time slot, it is not allowed to fly to that airport. Time slots are usually given at specific intervals, for example every 15 or 30 minutes. Time slots can be assigned to an aircraft for a one-time flight or for a specific set of flights. Time slots are also interchangeable between different airlines. If an airline has a time slot to fly to an airport at a specific time, it can sell or exchange that time slot with another airline that wants to fly to that airport at the same time.

Time slots are usually awarded by air traffic regulatory agencies after considering various factors, such as airport capacity, flight traffic density, and weather conditions. Every flight must have the right time slot in order to land or take off from the airport. [7] If a flight is unable to meet the specified time slot, it may have to wait until the available time slot is available again or may have to cancel the flight. This may cause significant delays to the flight and may affect the schedules of other related flights. By having time slots, the airport can manage flights more efficiently and minimize congestion at the airport. It also helps ensure flight safety by maintaining a safe distance between different flights upon landing or takeoff.



Sumber: Kementerian Perhubungan

Graph 1 Number of Aircraft Registered and Operating in Indonesia

B. Foreign Flights

Foreign flights are known as flights made to other countries. This is different from national flights, which are only carried out within the borders of the same country. Foreign flights can be carried out using airplanes or

helicopters that are used for various purposes, such as leisure, business, or other purposes. The airlines used by foreign flights are large or small flights, depending on the route and destination of the flight.

Foreign flights usually require higher security requirements compared to national flights. Flight safety is paramount in the world of aviation that is structured with reference to flight plans that are free from *distraction* [8]. This includes stricter identity verification and more detailed baggage checks. Foreign flights must also meet visa and immigration requirements set by the destination country. Each State has the right to issue a law originating or going to that State [9]. There are several foreign airlines operating in Indonesia with permits from the government. Foreign flight prices vary depending on factors such as flight destination, flight time, and flight congestion level. Foreign flights are usually more expensive than national flights, especially when compared to long-haul flights. However, foreign flight prices may vary depending on factors such as demand levels, airfares, and other costs.

Table 1 Foreign Airlines Operating in Indonesia

Foreign Airlines	Route
Air Asia	Kuala Lumpur - Jakarta
Eva Air	Taipei - Jakarta
Emirates	Dubai- Jakarta
Jetstar Airways	Perth - Jakarta
KLM Royal Dutch	Singapore - Jakarta
Korean Air	Incheon - Jakarta
Malaysia Airlines	Kuala Lumpur - Jakarta
Philippine Airlines	Manila - Jakarta
Qatar Airways	Doha - Jakarta
Qantas Airways	Sydney - Jakarta
Singapore Airlines	Singapore - Jakarta
Tiger Air	Singapore - Jakarta
Vietjet Air	Ho Chi Minh - Jakarta
Virgin Australian	Melbourne - Jakarta

C. National Aviation

National flights are flights carried out within the territory of a country. These flights are usually operated by airlines registered in that country or by foreign airlines that are licensed to fly within the territory of that country. A national flight is a flight conducted within the borders of the same country. National flights can be carried out between cities within the same country, or can also serve international routes that cross national borders. National airlines almost all use logos with elements of statehood [10]. National flights usually use small or medium-sized aircraft, depending on the number of passengers and the distance to be traveled.

National flights are usually cheaper than international flights, but may not be as extensive as they are. National flight prices may vary depending on factors such as flight destination, flight time, and flight congestion level. National flights can also be a more practical option for people traveling to smaller towns that are not connected by international flights. Indirectly, national flights can be used for various purposes, such as leisure, business, or other purposes. National flights can be carried out using large or small airlines, depending on the route and destination of the flight.

National flights can also be a safer option than international flights, as they are usually limited to smaller, more controlled areas of the country. However, like international flights, national airlines must also meet strict safety standards to ensure the safety of passengers and crew. This is different from international flights, which involve flights to other countries. National flights can be carried out using airplanes or helicopters. National flights usually have lower safety requirements compared to international flights. However, there are still some security requirements that must be met, such as identity verification and baggage checks.

There are several airlines on national airlines operating in the country, especially in Indonesia. Airlines that operate have their own advantages according to the public. The government has a role in terms of increasing the competitiveness of the national aviation world [11].

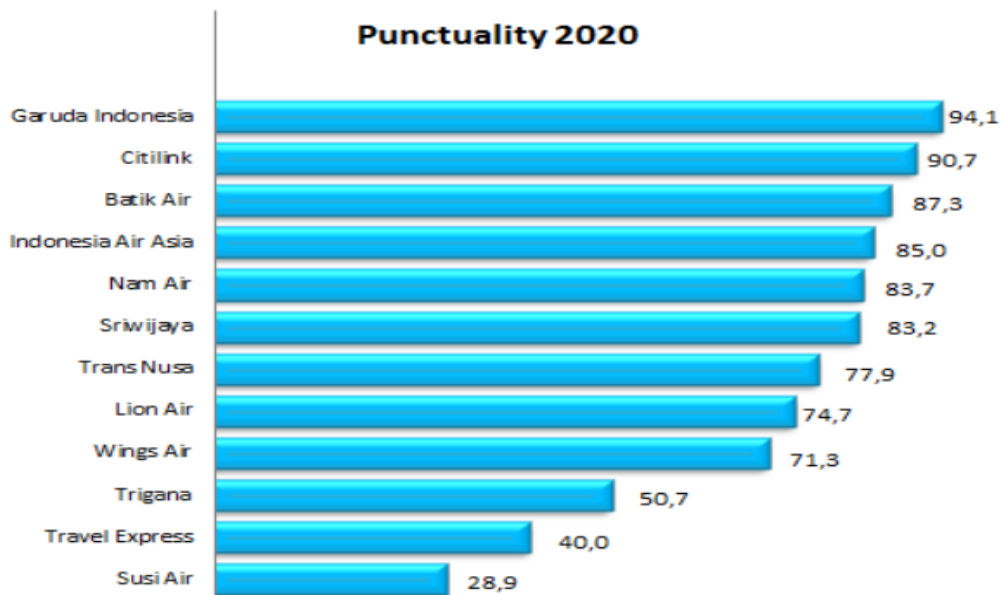


Chart 2 Indonesia's Favorite Airlines

Table 2 Percentage of Indonesian People's Favorite Airlines

No	Maskapai	2016	2017	2018	2019	2020	2019>2020
1	Garuda Indonesia	89,5	88,5	88,8	91,4	94,1	2,7
2	Citilink	84,8	88,3	86,2	92,4	90,7	(1,7)
3	Batik Air	93,7	88,7	88,8	88,7	87,3	(1,4)
4	Indonesia Air Asia	74,5	75,9	82,0	85,3	85,0	(0,3)
5	Nam Air	93,9	92,6	88,8	81,4	83,7	2,3
6	Sriwijaya	86,8	88,8	84,6	82,8	83,2	0,5
7	Trans Nusa	80,1	71,4	91,8	82,5	77,9	(4,6)
8	Indonesia Air Asia X	n/a	n/a	78,4	*)	*)	
9	Lion Air	78,9	71,3	67,1	77,9	74,7	(3,2)
10	Wings Air	75,1	65,5	65,4	71,9	71,3	(0,6)
11	Trigana	43,6	42,5	52,8	65,5	50,7	(14,8)
12	Travel Express	55,7	74,4	63,6	56,9	40,0	(16,9)
13	Susi Air	71,0	72,7	61,1	54,5	28,9	(25,6)
	Total	82,7	80,1	78,6	82,6	81,8	(0,8)

Note: *) Digabung dengan Indonesia AirAsia

Source: INACA Annual Report 2020

III. RESEARCH METHODS

The method that can be used in this research is a literature study or literature review. Reviewing the existing literature on the effect of increased foreign flight slots on national flights. Research conducted by collecting and analyzing data contained in scientific literature, such as books, journals, and articles. This research is carried out by identifying the problem to be researched, searching for literature relevant to the problem, collecting data from the literature, and analyzing the data to obtain research results.

This research is descriptive, which describes the circumstances or phenomena that occurred at the time the research was conducted. This research is useful for knowing the current condition or state, identifying problems that occur, finding solutions to these problems, and can also be used as a basis for field research to be carried out

IV. RESULTS AND DISCUSSION

A. Research Results

The results showed that If the time slot of foreign flights increases as in table 3, this means that there are more foreign flights allowed to land or take off at the same time. This can lead to overcrowding at higher airports and reduce the time slots available for national flights. This may result in delays or cancellations of the associated

nationwide flights. However, it should be remembered that time slots are not only affected by foreign flights, but also by other factors such as airport density, weather, and other operational conditions. So, it cannot provide exact information on how the increase in foreign flight time slots will directly affect national flights.

In addition, the increase in foreign flight time slots can also affect the availability of parking spaces at airports. If there are more foreign flights that will land or take off from the airport, then there will probably be fewer parking spaces available for national flights. This can cause difficulties for national airlines to find enough parking space for their aircraft. Therefore, an increase in foreign flight time slots will probably have a negative impact on national flights at the same airport, especially if there is not enough planning to manage congestion at those airports.

Table 3 Comparison of National Aviation and Foreign Flights

Keterangan	2016	2017	2018	2019	2020
Rute Sesuai Ijin	118	129	153	170	157
Kapasitas Sesuai Ijin	46.137.156	54.924.792	57.875.948	57.145.244	45.037.060
Penumpang	27.460.950	31.556.179	36.337.912	37.278.343	7.187.439
Kota Terhubung Dalam Negeri	19	19	22	23	26
Kota Terhubung Luar Negeri	51	59	68	66	66
Maskapai Nasional (Pax) yang Beroperasi	8	9	10	9	8
Maskapai Asing (MPA) yang Beroperasi	45	46	50	53	48

Source: INACA Annual Report 2020

B. Discussion

The existence of increasing foreign flight slots is one of the phenomena that occurs in some countries, where the number of foreign flights available at a country's airport increases compared to national flights. This can happen because of the high demand from foreign nationals to travel to the country, or because of cooperation between foreign airlines and national airlines.

However, the presence of increased foreign flight slots can also have an influence on national aviation, both positive and negative. The increased number of foreign flight slots can affect national aviation in different ways. The following are some possible influences:

1. Increased competition: An increase in foreign flight slots can increase competition in the aviation industry. This is especially true if there are foreign airlines that enter the national market and offer cheaper prices than national airlines.
2. Increased choice: Increased foreign flight slots can provide more choice for passengers. They can choose to fly with foreign airlines that offer the desired route, or with more well-known national airlines.
3. Improved service quality: The existence of increased foreign flight slots can improve the quality of service in the aviation industry. This is especially the case if there are foreign airlines that bring the latest technology and offer better services to passengers.
4. Increased profits: The increased number of foreign flight slots can increase profits for national airlines. This is especially true if national airlines can take advantage of those slots to increase passenger numbers and increase revenue.

V. CONCLUSION

Based on the results of the research that has been done, it can be concluded that an increase in foreign flight time slots will probably have a negative impact on national flights at the same airport. If the time slot of foreign flights increases, then there may be more foreign flights that will land or take off from the airport. This can lead to overcrowding at airports and reduce the time slots available for national flights. This can lead to nationwide flight delays or even flight cancellations if there are no time slots available.

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