

New Research Approach on Air Transportation Systems in Indonesia



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APEN Conference on
Asia-Africa Aerial and Optical Silk Road
Bandung, 11-12 November 2015
Tanri Abeng University



Indonesia Archipelago



History

The Indonesian archipelago has been an important trade region since at least the 7th century, when Srivijaya and Majapahit traded with China and India.

Local rulers gradually absorbed foreign cultural, religious and political models from the early centuries.

Indonesian history has been influenced by foreign powers drawn to its natural resources.

Muslim traders brought Islam, and European powers brought Christianity and fought one another to monopolize trade in the Spice Islands of Maluku during the Age of Discovery.

Following three and a half centuries of Dutch colonialism, Indonesia secured its independence after World War II.

Indonesia's history has since been turbulent, with challenges posed by natural disasters, corruption, separatism, a democratization process, and periods of rapid economic change.

Indonesia

A republic, capital city is Jakarta consists of 6000 islands inhabitant with 36 provinces

250 million people the world's fourth most populous country

The country shares land borders with Malaysia, East Timor and Papua New Guinea and sea borders with Singapore, Philippines, Australia, and the Indian territory of the Andaman and Nicobar islands

A founding member of ASEAN and a member of the G-20 major economies

The Indonesian economy is the world's sixteenth largest by nominal GDP and fifteenth largest by purchasing power parity

Air Transportation System



Air Transportation System

Air transportation in Indonesia serves as a critical means of connecting the thousands of islands throughout the archipelago. Jakarta's International Airport serves as the country's main air transportation hub

However safety issues continue to be problematic. Several recent accidents have helped make Indonesia's air transport system one of the least safe in the world

In 2011, number of airline passengers in Indonesia stood at 66 million with domestic and international passengers stood at 58.8 million and 7.2 million respectively or a 15-percent increase on 2010s figure

Airports

Indonesia has more than 676 airports, which 185 with paved runways and 491 with unpaved runways, most of them operated by Transportation Ministry technical operation units and state-owned companies

Based on the 2009 Aviation Law, the government had to transfer air navigation service management from airport operators to a non-profit institution by January 2012 to improve Air Traffic Services (ATS).

Airlines

- There are two types of Aircraft Operator Certificate (AOC) in Indonesia, AOC 121 and AOC 135.
- AOC 121 is for commercial scheduled airlines with more than 30 passengers are 22 airlines.
- AOC 135 is for commercial scheduled airlines with 30 or less passengers and chartered airlines are 32 airlines.
- By January 12, 2012 all Indonesian scheduled airlines have to operate with at least 10 aircraft where minimum 5 aircraft should be owned.
- Ministry of Transport will withdraw their operating certificate in case they do not comply with this regulation. The application of the regulation has been postponed for one year, while in the postponed time the airlines should give a business plan and a contract letter for the leasing aircraft for at least one year ahead.
- So far only 17 airlines are active from 22 scheduled airlines which holding AOC 121, and only 20 out of 32 of AOC 135 holder.
- Meaning too many airlines in a country but with less aircraft to be operated. The dominant players in Indonesian Low Cost Carrier (LCC) business are Lion Air, Air Asia and Citilink a subsidiary of Garuda Indonesia

Domestic network of Garuda Indonesia based on Hub and Spoke

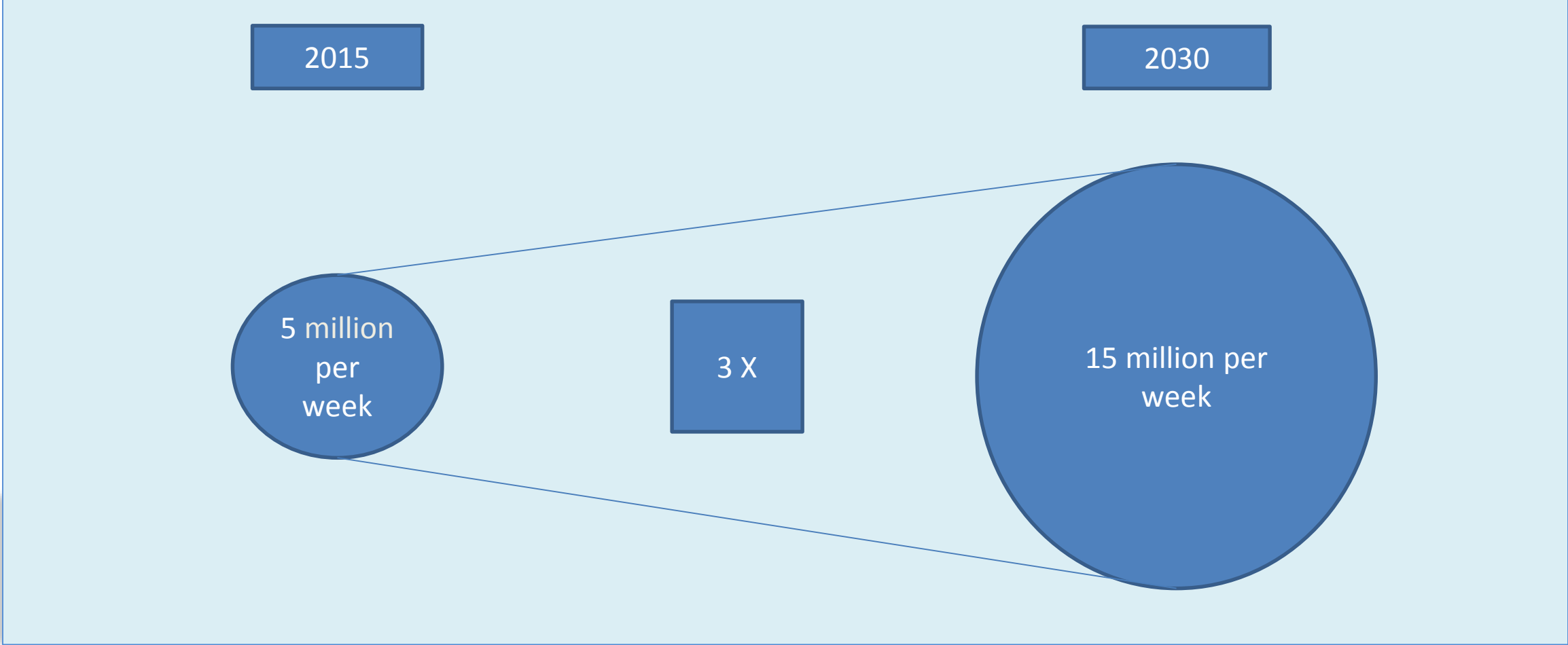


Top 10 ranking of passengers by cities in South East Asia

Thousands seat / week

- Jakarta 650
- Bangkok 600
- Singapore 500
- Kuala Lumpur 480
- Manila 420
- Ho Chi Minh City 210
- Denpasar 180
- Surabaya 150
- Hanoi 120
- Ujung Pandang 110

Potential Market



Challenges

Large Potential of Indonesian Market

Huge potential demands are carried out by gravity model analysis

Region to Region Networks are huge market potential

Bottleneck against the growth network

Jakarta Airport is currently the bottleneck

Soekarno Hatta Airport

Has reached more than twice of the designed capacity (18 million passengers per year)

Hourly take off and landing reached 80 slots during peak hours (compare to 60 slots designed take of and landing)

Capacity and functions of Jakarta airport is one of the significant bottlenecks of Indonesian market

Concept for Solution Development

1st solution Jakarta Bypass

- Reconfigure networks
- Expansion of airport

2nd solution Path Finding with Regional Jet/Turboprop

- Develop with “thin” and “high frequent” service
- Increasing international network by “higher yield more profit”

Reconfigure Network

Develop Medan Hub

- Passengers increase 6,3 millions/year
- Revenue increase 625 millions US \$

Develop Ujung Pandang Hub

- Passengers increase 3,6 millions/year
- Revenue increase 355 millions US \$

Path Finder (Domestic/ Regional to Regional)

Composition of potential demands of around 5,000 thousand passengers/week in year 2020 consists of :

- 1,500 thousands will use regional jet and turboprop (33%)
- 3,500 thousands will use single aisle and wide body (67%)

Regional Jet/Turboprop develop new market as a pathfinder

- High performance/efficiency aircrafts can cultivate more thin network to large

Path Finder (International/Destination to Jakarta)

Expand regional network from Jakarta and services in Indonesia and South East Asia region

- Market analysis forecast
- Route analysis forecast
- Customer development

Benefits

Medan airport revenue increase 625 millions US \$/year

Costs (airport expansion)

- Soekarno Hatta airport expansion plan (budget 1,75 billion US \$)
 - Third passenger terminal expansion
 - Third runway
 - New fourth passenger terminal
 - Apron, taxiway and other facilities
- Budget scale of regional hub airport expansion is 200-500 million US \$

Summary : provide cost-effective solutions

- Additional revenue
 - 625 millions US \$/year (around 6 billions US \$ in 10 years)
- Airport expansion cost
 - 200-500 millions US \$ (Soekarno Hatta around 1,75 billions US \$)

Propose Measures to Capitalize the Potential Market

Airport expansion

- Developing new hub near Jakarta
- Developing new hub for transit and regional service

Strategic financing/budgeting

- Find strategic partners for investment

Business and operational supports

Human resources development

High efficiency/performance aircraft

- RA-80 turboprop or Mitsubishi RJ-80

Actions to be taken

Promote civil airport development

Finance package

Training package

Develop new market

Expand regional network

Strengthen service quality

Cost saving program

MRO/product support package

Enforce safe and secure operation

Environment friendly operation



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APEN Silkroad Conference
Bandung, 12 November 2015

THANK YOU