

# **AIRPORT GOVERNANCE STRATEGY WITHIN AN URBAN CONTEXT**

Lessons from The United Kingdom and The United States Experiences  
for Indonesia

## **THESIS**

A thesis submitted in partial fulfillment of the requirements for  
The Master Degree from the University of Groningen and  
The Master Degree from the Institut of Technology Bandung

By:

**Dedes Kusumawati**

Supervisors:

**Dr. Ferry M.G. Van Kann**

(University of Groningen, the Netherlands)

**Dr. Heru Purboyo Hidayat Putro DEA**

(Institute of Technology Bandung, Indonesia)

## **DOUBLE MASTER DEGREE PROGRAMME**

**ENVIRONMENTAL AND INFRASTRUCTURE PLANNING  
FACULTY OF SPATIAL SCIENCES  
UNIVERSITY OF GRONINGEN**

**AND**

**TRANSPORTATION**

**SCHOOL OF ARCHITECTURE, PLANNING AND POLICY DEVELOPMENT  
INSTITUTE OF TECHNOLOGY BANDUNG**

**2015**



## ABSTRACT

In the 21<sup>st</sup> century, air transportation services have become the important needs of the country to support the connectivity within and between countries. To run the services, the role of the airport is really necessary. Nowadays, the airport is not just considered as an engineering aspect of transportation infrastructure in the city, but it is also considered as social-economic aspects of a city. The differences of airport activities depend on the airport governance strategy that is different from one country to another country. The purpose of this study was to understand a strategy of the airport governance in order to provide recommendations of the airport governance models to improve the airport services in Indonesia regarding to the urban context and experience from other countries. The study used the concepts like airport classification within an urban context, airport governance, airport reform strategy, and airport services. By simulating the different concepts, this study developed specific airport governance models (fully public, public majority, semi private, fully private) to analyze the airport governance strategy for all cases. This study was conducted by qualitative research strategy through literature review, case study, and comparative methods for three cases the United Kingdom, the United States, and Indonesia. The results of the study were that Indonesia can get lessons learned from the United Kingdom and the United States related to their different airport governance strategies through examining the combined issues such as the trend of the airline industry, the airport classification within an urban context in delivering benefits for the passengers and the city or even the country, and also the application of airport governance, including the actors and the different form of airport governance models. From both cases' experiences, the airport governance strategy will influenced by the airport development plan, such as airport as a transportation infrastructure, airport as an airport city, or airport as a fully business opportunity in getting highest profit. The principal conclusion was that the government of Indonesia should recognize firstly the external aspect like providing new interesting international and domestic routes, and also the internal aspect like following the characteristics of the airport city concept, before taking the airport reform strategy for applying a public majority model or a semi private model as new airport governance models which are required in Indonesia.

**Key words:** *air transportation, airport, governance, strategy, city, comparative, lesson learned*

## **PREFACE**

Indonesia as the archipelago country needs an air transportation to support the connectivity between the city and the rural. The problem is that airports in Indonesia cannot maximize their function in the urban context. According to the problem, the government of Indonesia plans to reform its airport governance by changing the models from public to private governance. This study aims to understand a strategy of the airport governance in order to provide recommendations of the airport governance models to improve the airport services in Indonesia regarding to the urban context and experiences from other countries. The study result is expected to gain better insight by getting lessons learned from the United Kingdom and the United States in order to be a contribution in planning practice, especially making the appropriate airport policies in Indonesia for improving the airport services.

Through this moment, first of all I would like to thank Allah Almighty for giving me an opportunity to study in the Netherland and blessing me for each step of my study here, including finishing this thesis. Secondly, I would like to express my gratitude to my supervisors: Dr. Ferry M.G. Van Kann and Dr. Heru Purboyo Hidayat Putro DEA, who always guide me in writing this thesis and keep my thesis on the right track. Then, I would like to express my appreciation to the Ministry of Transportation as my working institution for institutional and financial support. Furthermore, I also would like to show my gratitude to all my lectures in ITB and RuG, staff members in ITB and Rug, staff members of my office at Civil Aviation Development and Research Center, all friends of Transportation Major at ITB, all friends of Environmental and Infrastructure Planning Major at RuG, and all Indonesian friends in Groningen.

Big thanks to my family: Bapak and Ibu, Mamah and Niken, Mas Agung and Mbak Novi, Mas Bayu and Mbak Lia with trio krucils (Almira, Naila, Husna) for praying and supporting me. Finally, special thanks to my beloved husband, Intan Putra Perdana, for loving and being my motivation to struggle during my study in Bandung and Groningen.

Groningen, August 2015

Dedes Kusumawati

## TABLE OF CONTENT

ABSTRACT .....	i
PREFACE.....	i
TABLE OF CONTENT .....	ii
TABLE AND FIGURE .....	vi
CHAPTER I INTRODUCTION .....	1
I.1 Background .....	1
I.2 Research Objectives .....	3
I.3 Research Questions .....	4
I.4 Research Framework .....	5
I.5 Research Structure.....	6
CHAPTER II THEORETICAL REVIEW .....	7
II.1 Airport Classification within an Urban Context .....	7
II.2 Institution of Airport Governance.....	14
II.3 Airport Governance Strategy .....	18
II.4 Overview of Airport Governance Models Over the World.....	24
II.5 Airport Services .....	27
II.6 Conceptual Framework .....	29
CHAPTER III METHODOLOGY .....	31
III.1 Research Strategy .....	31
III.2 Data Collection .....	34
III.2.1 Type of Data Required.....	34
III.2.2 Operationalization of Data Collection Methods .....	35
CHAPTER IV THE CONSEQUENCES OF AIRPORT CLASSIFICATION TOWARDS AIRPORT GOVERNANCE STRATEGY .....	37

IV.1 The United Kingdom.....	37
IV.1.1 Airport Classification in the Urban Context.....	37
IV.1.2 Overview of Airport Governance Strategy in the United Kingdom.....	38
IV.1.3 The Examples of Airport Governance Strategy in The United Kingdom.....	40
IV.1.4 Synthesis of Airport Governance Strategy in The United Kingdom Case .....	48
IV.2 The United States .....	51
IV.2.1 Airport Classification in the Urban Context.....	51
IV.2.2 Overview of Airport Governance Strategy in the United States .....	52
IV.2.3 The Examples of Airport Governance Strategy in The United States.....	54
IV.2.4 Synthesis of Airport Governance Strategy in The United States Case .....	63
CHAPTER V AIRPORT GOVERNANCE STRATEGY IN INDONESIA.....	67
V.1 The Existing of Airport Governance Strategy InIndonesia .....	67
V.1.1 The Existing Airport Governance Strategy at Soekarno Hatta International Airport.....	69
V.1.2 The Existing Airport Governance Strategy at New International Yogyakarta Airport.....	70
V.1.3 The Existing Airport Governance Strategy at Radin Inten Airport.....	72
V.2 Airport Governance Models in Indonesia.....	74
V.3 A Comparative Analysis of Airport Governance Strategy .....	75
V.4 Lessons from the United Kingdom and the United States .....	78
V.5 The Recommendations of Airport Governance Strategy for Indonesia.....	83
V.5.1 The Strategy Recommendations of Airport Reform for Soekarno Hatta International airport.....	83
V.5.2 The Strategy Recommendations of Airport Reform for new Yogyakarta International Airport.....	85
V.5.3 The Strategy Recommendations of Airport Reform for Radin Inten airport .....	86
CHAPTER VI CONCLUSION AND RECOMMENDATION .....	88

VI.1 Conclusion.....	88
VI.2 Recommendation.....	92
VI.3 Generalization and Reflection .....	94
VI.4 Contribution to the Planning Theory and Practice .....	94
References .....	97

## TABLE AND FIGURE

Table 2.1 Airport Area Planning Model Characteristics .....	10
Table 2.2 Implication Of Airport Area Planning Models On Sustainability Dimension.....	11
Table 2.3 Airport Classification .....	13
Table 2.4 Airport Governance Models .....	16
Table 2.5 Differences Of Airport Governance Models .....	23
Table 2.6 Airport Governance Models over the World.....	25
Table 3.1 Data Required and Operationalization of Data Collection Methods .....	36
Table 4.1 Strategy Of Barra Airport As Fully Public Governance Model In The United Kingdom.....	41
Table 4.2 Strategy of Manchester International Airport as Public Majority Governance Model In The United Kingdom .....	44
Table 4.3 Strategy Of Birmingham International Airport as Semi Private Governance Model In The United Kingdom .....	46
Table 4.4 Strategy of Heathrow International Airport as Fully Private Governance Model In The United Kingdom.....	48
Table 4.5 Strategy of Youngstown-Warren Regional Airport as Fully Public Governance Model in The United States.....	56
Table 4.6 Strategy of Atlanta International Airport as Public Majority Governance Model In The United States .....	58
Table 4.7 Strategy of Luis Munoz Marin International Airport as Semi Private Governance Model In The United States .....	61
Table 4.8 Strategy of Stewart International Airport as Fully Private Governance Model in The United States .....	63
Table 5.1 Strategy of Soekarno Hatta International Airport as A Public Majority Governance Model In Indonesia .....	70

Table 5.2 Strategy of Adisucipto International Airport in Yogyakarta that will be Replaced by a New International Airport in Kulonprogo, Yogyakarta with a Semi Private Governance Model.....	72
Table 5.3 Strategy of Radin Inten Airport that Planned to be Privatized Governance Model in Indonesia.....	73
Table 5.4 Airport Strategy In The United Kingdom, The United States, and Indonesia.....	76
Figure 1.1 Research Framework.....	5
Figure 2.1 Airport Area Planning Models according to Freestone and Baker .....	9
Figure 2.2 Implication Of Airport Area Planning Models On Sustainability Dimension .....	11
Figure 2.3 Characteristics of Airport City Concept on Airport Area Planning Models .....	13
Figure 2.4 Actors, Actor Coalitions and Institution .....	14
Figure 2.5 Main Models of Airport Governance .....	18
Figure 2.6 Modifications of Proposed Airport Governance Models .....	20
Figure 2.7 Models of Public-Private Partnerships.....	22
Figure 2.8 Airport Cluster Model.....	24
Figure 2.9 Airport Cluster for Seven Countries .....	26
Figure 2.10 Airport Governance Models for Seven Countries.....	26
Figure 2.11 Airport City Elements .....	28
Figure 2.12 Conceptual Framework .....	30
Figure 3.1 PPP Market Maturity Curve in the Global Economy.....	33
Figure 4.1 UK Airports with Scheduled Passenger Services .....	38
Figure 4.2 Governance Models of UK Airports in 1999.....	39
Figure 4.3 Highland and Islands Airports .....	41
Figure 4.4 Proportions of Shareholders of MAG .....	43
Figure 4.5 Airport Clusters Model in the United Kingdom.....	49
Figure 4.6 Airport Governance Models in the United Kingdom.....	49



Figure 4.7 Distribution of Airports in the year 2004.....	52
Figure 4.8 The Spread of Population in the year 2004.....	52
Figure 4.9 Youngstown-Warren Airport Locations with Its Flight Destination.....	55
Figure 4.10 Location Of Atlanta International Airport with Other Busiest Airports in the United States In 2014.....	57
Figure 4.11 Ten Airports of the Airport Privatization Pilot Program.....	59
Figure 4.12 Airport Clusters Model in the United States .....	64
Figure 4.13 Airport Governance Models in the United States .....	64
Figure 5.1 Map of the Indonesian Airports .....	68
Figure 5.2 Airport Clusters in Indonesia .....	74
Figure 5.3 Airport Governance Models in Indonesia .....	75
Figure 5.4 Airport Clusters in the United Kingdom, the United States and Indonesia .....	81
Figure 5.5 The Option of Airport Governance Models for Three Airports in Indonesia .....	82
Figure 6.1 Consequences of Airport Development Plan to the Airport Governance Model within Urban Context.....	95

## CHAPTER I

### INTRODUCTION

#### THE IMPORTANCE OF AIRPORT GOVERNANCE STRATEGY TO IMPROVE AIR TRANSPORTATION SERVICES

##### **I.1 Background**

Transportation is an essential sector in a country to support its national connectivity and for international purposes. Recently, one of transportation modes that have grown rapidly is air transportation. The main reason is because of a trend that are many airline companies offering cheaper ticket prices to many destinations. Comparing to the other modes, the advantage of air transportation mode is its ability to reach a far place in a thousand miles within a shorter time. The high demand of air transportation creates another demand to expand airports (Hooper, 2002).

To improve air transportation services, there is a need for airport development. Traditionally, the function of airports just served the passengers to take off and land the airplanes. Gradually, the function of airports is also related to the urban development context. Kasarda (2011) states airports are important in the urban context because they will describe a city development and an economic growth in the 21<sup>st</sup> century, following the highway did in the 20<sup>th</sup> century, train did in the 19<sup>th</sup> century and seaport did in the 18<sup>th</sup> century. Airports in many cities worldwide offer a mixed-use activities for offices, residential, commercials, retails, hotels, warehouses, shopping complexes and logistics facilities in order to be a challenge for the government to plan the airport that give added values (Guller and Guller, 2003).

One of airport policies is about its airport governance. Stevens et al. (2010) explain airport governance is decision making activities that conducted by the private and public sectors. The strategy of airport governance is different from one country to another country because of the different respond by the government to the current condition or the needs of the country or the city. For example, the airport governance strategy in United Kingdom was to reform its airport governance model through the privatization process for its seven major airports in 1987. The government of the United Kingdom has changed those airport

governance models from fully public to fully private. After that, countries like Australia follow a fully private governance model.

Nevertheless, countries like the United States in America and Indonesia in Asia are still reluctant to take a fully private for its airport governance model as their new airport governance strategy (Forsyth, 1997 and Hooper, 2002). For example, all airports in Indonesia are under public control, with major airports are operated by publicly owned companies (PT. Angkasa Pura I and PT. Angkasa Pura II companies) and the remaining airports are owned and managed by representatives of the Ministry of Transportation. The involvement of private sectors is still not in large portion. The first public-private model of airport governance in Indonesia is introduced in 2011 between a publicly owned company with investor from India in developing a new airport in Yogyakarta. Unfortunately, the output of this model has not yet been revealed because there is a social conflict to start the airport development.

In the year 2013, the government of Indonesia, specifically the Ministry of Transportation, has offered the airport management to private sectors for its 10 regional airports (Directorate General of Civil Aviation, 2013). The airports are Radin Inten (Lampung), Mutiara (Palu), Sultan Babullah (Ternate), Komodo (Labuhan Bajo), Sentani (Jayapura), Tjilik Riwut (Palangkaraya), Juwata (Tarakan), Fatmawati (Bengkulu), Hananjoeddin (Tanjung Pandan) and Matahora (Wakotobi). The current governance model for those airports is a fully public without gaining profit. Applying the new model as its airport governance strategy, the government of Indonesia hopes to improve the quality of services and facilities at the airports (bandaraonline, 2013). Until the year 2015, the privatization plan of 10 regional airports is still being a discourse. To support the privatization plan, the review study of the airport governance strategy is required.

As the earlier steps, Indonesia can learn from other countries that have implemented different airport governance strategy. For instance, the United Kingdom can be a selected case in reforming its airports into a fully private airport governance model. Meanwhile, the United States can be an example for still using the public airport governance model for its major airports. The different airport governance strategy among countries is influenced by many factors, such as the airport classification in urban planning context and social-economic

condition in the country. The government should plan the airport comprehensively by considering the aspects that relate to the airport governance strategy, particularly in selecting the required airport governance models.

This study analyzes the strategy of airport governance in Indonesia relating to the airport's classification within an urban planning context. Then, this study compares the strategy of airport governance in other countries. The last, this study recommends the airport governance models which are required in Indonesia to improve its airport services regarding to the urban planning context and other countries' experiences as lessons learned.

## **I.2 Research Objectives**

All airports in Indonesia are owned by the Ministry of Transportation as central government. Excluding international airports, regional and local airports have not yet coordinated with private in managing the airport. Having limited experiences in having coordination with private in airport management, the government should learn the experiences from other countries in order to achieve the successful implementation of airport governance strategy related to the urban context, especially getting the appropriateness of the airport governance model.

The main objective of this research is to understand a strategy of the airport governance and based on that understanding provides recommendations of the airport governance models to improve the airport services in Indonesia regarding to the urban context and experiences from other countries. The specific objectives are described as follows:

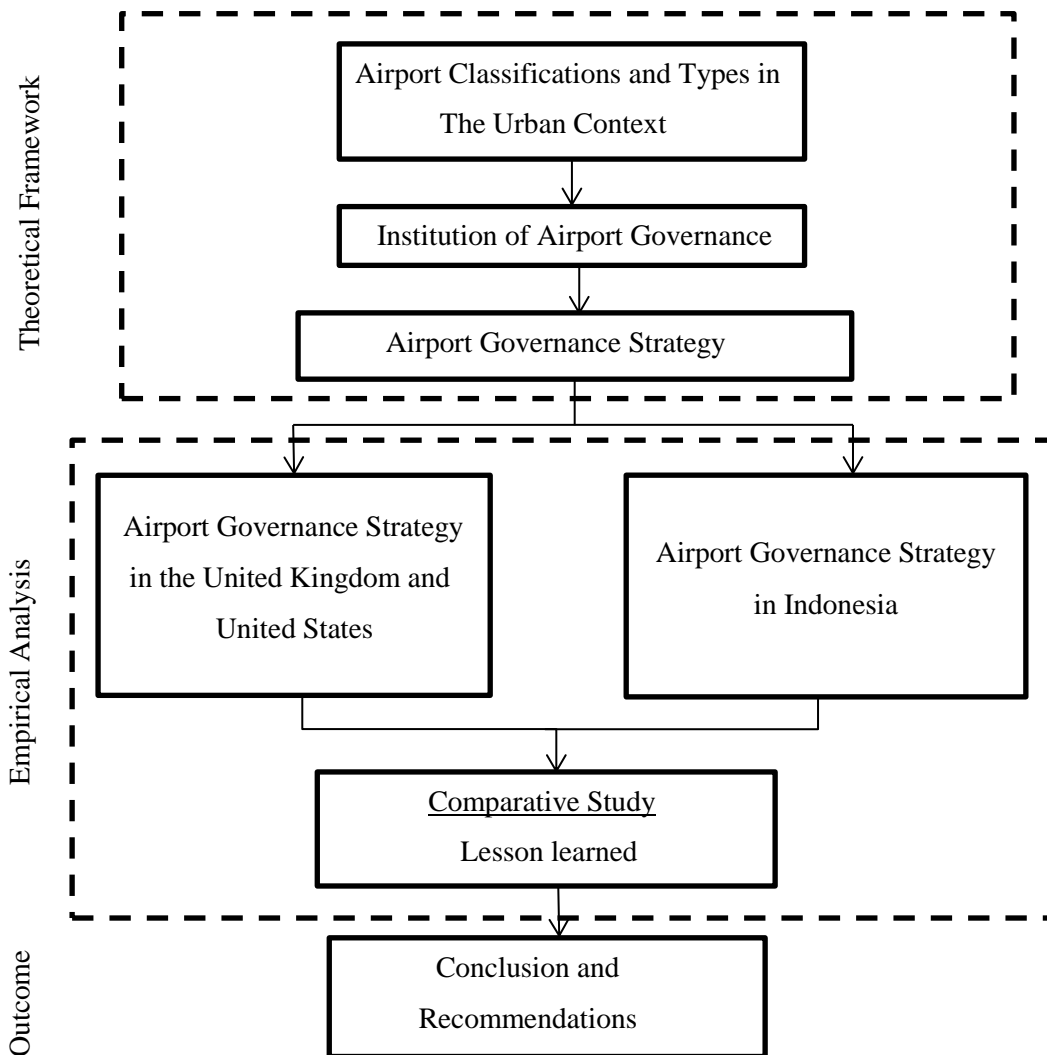
1. To understand the airport classification in the urban context.
2. To describe the importance of airport governance.
3. To compare the strategy of airport governance in the United States and United Kingdom as a lesson learned for its possibility conditions to be implemented in Indonesia.
4. To analyze the strategy of airport governance in Indonesia including the government plan of airport reform.
5. To recommend the appropriateness of the airport governance model in Indonesia.

### **I.3 Research Questions**

This research aims at addressing the main question “Which airport governance models are required as the part of the airport governance strategy to improve the airport services in Indonesia regarding to the urban planning context and experiences from other countries”. The main question is derived into sub-questions as follows:

1. How is the airport classification in the urban context?
2. How is the importance of airport governance?
3. How is the strategy of airport governance in the United States and United Kingdom?
4. How is the strategy of the airport governance in Indonesia, including the government plan of airport reform?
5. What are the recommendations related to the appropriateness of airport governance models which are required in Indonesia?

## 1.4 Research Framework



**Figure 1.1 Research Framework**

## **I.5 Research Structure**

This study consists of six chapters. The content of this study can be described as follows:

- Chapter I: Introduction  
This chapter consists of background, research objectives, research questions, research methodology, research framework and research structure.
- Chapter II: Theoretical Review  
This chapter provides theoretical reviews which are underlying this study.
- Chapter III: Methodology  
This chapter describes about the research methodology used in the study. It will explain the way to collect, present, analyze the data as the input for analysis.
- Chapter IV: The Consequences Of Airport Classification Towards Airport Governance Strategy  
This chapter provides the description of airport governance in the United Kingdom and in the United States. This chapter explains the comparison of the airport governance models and lesson learned from those countries.
- Chapter V: Airport Governance Strategy in Indonesia  
This chapter explains the existing condition of airport governance in Indonesia including its airport reform plan. This chapter also analyzes the lesson learned of airport governance models from the United States and United Kingdom to implement into Indonesian context.
- Chapter VI: Conclusion and Recommendation  
This chapter will propose research findings and recommendations.

**CHAPTER II**  
**THEORETICAL REVIEW ON**  
**DEVELOPING AIRPORT GOVERNANCE STRATEGY**

This chapter discusses the theoretical background, develops specific airport governance models, and illustrates a conceptual framework that is related to the research analysis. The used concepts are an airport classification within an urban context, an institution of airport governance, an airport governance strategy, airport services, and an overview of the airport governance strategy among countries. The combination of the used theories and the new developed models will be foundations to analyze the implementation of the airport governance models and the strategy of airport reform in the United States, the United Kingdom, and Indonesia.

**II.1 Airport Classification within an Urban Context**

Within an urban context, the airport can be classified regarding to its function in a city. The position of the airport can be a magnet for business in the city-region. Wijk (2007) states the location of the airport is strategic to develop city economic growth. Because of the important function of the airport, the government should plan the airport development comprehensively by connecting between city growth and the airport needs such as its scale and facility (Schaafsma et al., 2008; Kasarda, 2011). Since the airport serves a city, the airport development should adjust to a number of populations in the city in improving airport services. Besides that, there are criteria that should be considered to develop the airport. The criteria can be used as the type of airport classification (Adikariwattage et al., 2012). For example, Adikariwatage et al. (2012) made a following list of airport classification based on criteria, that is:

1. Air traffic, in terms of passenger and cargo volume per year (European Union, 2005; US Federal Aviation Administration, 2010)
2. Functional role, such as international hub, regional, leisure destinations (Graham, 1998; Malighetti et al., 2009)
3. Geographical location, such as in the national or regional capital (transport Canada, 2010)
4. Airport competition, such as the different charges and services among airports (Air Transport Group, 2002).

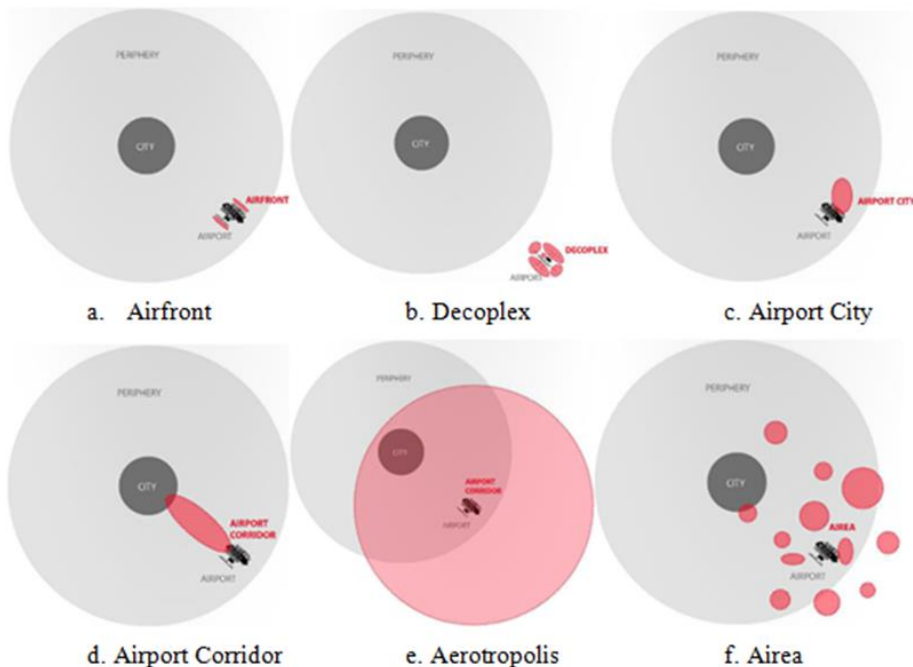


Furthermore, a study from Cranfield University (Air Transport Group, 2002) about airport competition classifies airport into five different criteria that are size (i.e. number of passengers, the volume of cargo); geographical position (i.e. the proximity of airport location to the capital), role (i.e. international, local hub); ownership (i.e. private or public) and a specific network (i.e. European airport network). The classification of airports can use the combination of two or more criteria as variables for clustering airports (Adikariwattage et al., 2012). For example, Malighetti et al. (2009) cluster the airports regarding to their similar criteria such as performance, activities, and roles within geographical context. In this study, airports will be clustered by classifying criteria through the combination of two criteria, including functional role criterion and airport area planning. The selected criteria relate to the airport function within an urban context. By using the criteria, it shows the relationship between the airport and the city by understanding the airport function in the city development.

The first classification criterion relates to the airport roles within an urban context for different purposes. Graham (1998) uses this criterion to classify airports by a regional function that comprises of intercontinental hubs, airports serving metropolitan regions, major regional airports, airports serving peripheral core cities, airports serving leisure destinations, secondary regional airports, and local airports. This study develops four functional roles of the airport within an urban context as main international, international, regional, and local airports. The main international airport can be defined as a main gate to and from a country that serves the most international route services in the country. International airport also serves international route services as an alternative to travel abroad in major cities within a country. Regional airport focuses on domestic route services, but still serves a limited number of international route services. The last, local airport just serves a few domestic flights for a particular goal of a community. These functional roles of the airport show implicitly how the attractive a city to be visited as well as the people's demand to travel from and to the city where the airport is located.

The second criterion is airport area planning models regarding to a study from Freestone and Baker (2011). The purpose of airport area planning models is understanding the airport position within an urban context. Freestone and Baker (2011) classify airports into six

models, namely airfront, decoplex, airport city, airport corridor, aerotropolis, and airea. Airfront refers to the development of airport area to improve economic district, without considering the development of the whole region (Blanton, 2004). Meanwhile, decoplex is a model of airport communities to serve a particular purpose such as leisure or industry (Conway, 1980). Then, airport city connects an airport planning with regional economic growth by combining between aeronautical and non-aeronautical activities like shopping malls, commercial offices, air cargo facilities, tourism, leisure, residential area, and health facilities (Guller and Guller, 2003). Airport corridor develops a link between the airport and central city through providing integrated road/or rail infrastructure and property development (Schaafsma et al., 2008). The trending concept today is Aerotropolis that posits the airport as the gate of the city. In other words, the airport is the city itself as well as a metropolitan concept which consists of the airport city concept with various activities and interconnected by multimode transportation (Kasarda and Lindsay, 2011). The last is airea, the concept is a quite similar with the aerotropolis through connecting the airport and the spread islands within the wider metropolitan area (Schlaack, 2010). Figure 2.1 illustrates the position of the airport within an urban context according to the models.



**Figure 2.1 Airport Area Planning Models according to Freestone and Baker**

Source: Fecioru, 2014

The airport classification that uses airport area planning models came from the transformation idea of airports from a transportation node to urban centers (Freestone and Baker, 2011). Hartwing (2000) cited by Wijk (2007) states for the last 40 years, the airport has developed from the traditional to the modern place that can be seen from the function as an air-station (1960s), shopping center (1970s), business center (1980s) and an entertainment-leisure center (1990s). Airports have proven increasingly influential in shaping urban form and structure (Stevens, et.al, 2010). The idea of airport area planning models especially for airport city, airport corridor, aerotropolis, and airea shows the comprehensive plan between airport planning and city planning which should support each other. These concepts cannot be implemented successfully if the airport manager just focuses on the airport itself without considering urban development. For this reason, airport manager should coordinate with the city manager. Also, applying the airport city concepts needs collaborative planning not just between airport manager and city manager, but also privates to invest in commercial activities.

As noted by Freestone and Baker (2011), they also argue each of airport area planning models has different characteristics for its location and lead actors (summarized in Table 2.1). Moreover, each model responds to the sustainability dimensions (economic, environmental, social, governance) in different ways. For instance, a model like Aerotropolis need public-private coordination on its governance, but another model like airfront only needs government role in its governance to plan an airport district. Table 2.2 shows the implication of airport area planning models on sustainability dimension.

**Table 2.1 Airport Area Planning Model Characteristics**

	Definition	Location	Lead Actors	Key Text	Exemplar
Airfront	Airport-related commercial zone	Airport fringe	Local community; private-public partnerships	Blanton (2004)	Metropolitan airports
Decoplex	New airport community in regional setting	Regional setting	Master developer	Conway (1993)	Large-scale fly in communities
Airport city	Planned mixed-use development of airport site	Airport land	Airport owner-lessee	Güller and Güller (2003)	Schiphol
Airport corridor	Coordinated provision of infrastructure and commercial development	Airport-CBD axis	Private developers; public infrastructure authorities	Schaafsma, Amkreutz, and Güller (2008)	Zurich
Aerotropolis	Time-sensitive metropolitan scatter of airport-oriented uses	Airport-centered metro	Private market	Kasarda (2000a)	Dallas-Fort Worth
Airea	Discrete spatial clusters of airport-related development	Metropolitan subregion	Private market	Schlaak (2010)	Denver

Source: Freestone and Baker, 2011

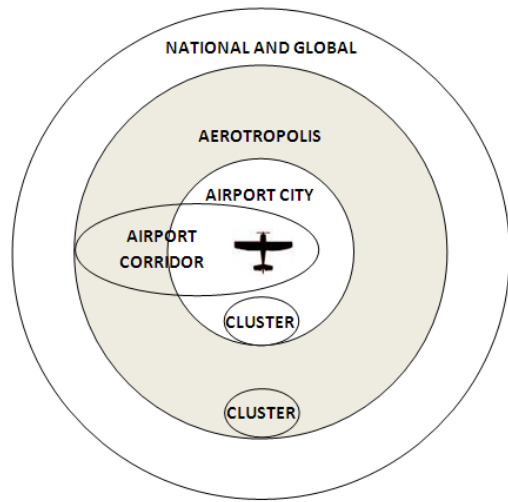
**Table 2.2 Implication Of Airport Area Planning Models On Sustainability Dimension**

	Economic	Environmental	Social	Governance
Airfront	Business district model	Mitigation and amelioration	Benefits from improvement districting	Special planning district
Decoplex	Regional industrial-leisure complex	Ideal of resource self-containment	Community stakeholders	Master planned community
Airport city	Mixed use centers with non-aeronautical development	Higher density compact development	Airport orientation	Airport authority
Airport corridor	Mutual airport-city development strategies	Mix of densities suited to location	Potential welfare strategies	Public-private coordination
Aerotropolis	Building competitive advantage into urban form	Low density spread city	Business orientation	Mixed jurisdictional for planned versus unplanned
Airea	Multiplicity of economic development and marketing nodes	Polycentric urban form	Business orientation	Regional planning

Source: Freestone and Baker, 2011

According to the table 2.2, most of the models such as airport city, airport corridor and aerotropolis are airport centered planning models which are promoted by business sectors like entrepreneurs and airport operators (Gonzales, 2013). Regarding to the urban development, airfront and decoplex are the simple models since they just consider about the airport basic function for the community’s purposes within an airport location area. Different from those models, the other fourth models (airport city, airport corridor, aerotropolis, and airea) consider another airport function as a non-aeronautical service provider in order to support urban development instead of airport area development. As a result, airport area planning models will impact on different main actor on different airport governance models.

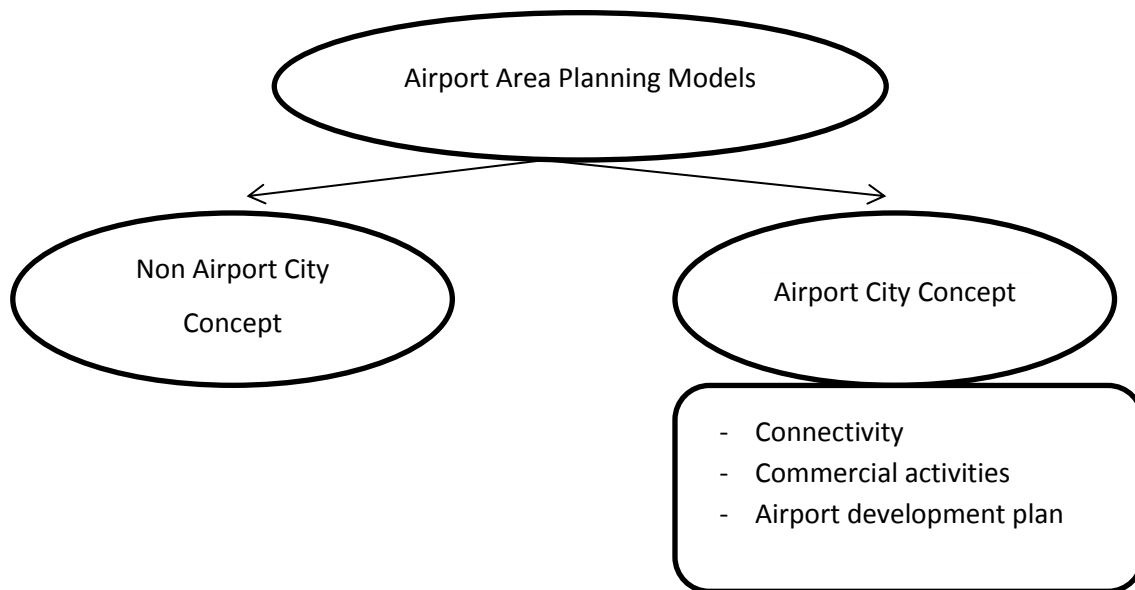
In this study, the application of airport area planning models within an urban context is divided into two main groups. The first group is a non-airport city concept, including airfront and decoplex; and the other group is an airport city concept, including airport city, airport corridor, aerotropolis and airea. The division into two concepts is inspired by a study from Paneda et al. (2010) who illustrate the new airport business models such as airport city, airport corridor and aerotropolis have a similar function in gaining infrastructure’s maturity, the commercial activities, and integration in the local and regional networks. Besides that, different literatures put a different label for the same airport, for example Schiphol International airport is known as airport city (Freestone and Baker, 2011), airport corridor (Schlaack, 2010), and aerotropolis (Kasarda, 2008). Figure 2.2 illustrates the airport position for each model within an urban context.



**Figure 2.2 Airport-Centered Urban Development Concepts**

Source: Paneda et al., 2010

Paneda (2010) lists four main characteristics of the airport city development that are connectivity, commercial attitude of the airport operator, economic potential of the hinterland, and sustainable development context. This study just uses three characteristics of the airport city concept that should be considered by the airport manager: connectivity, commercial activities, and the airport development plan (Figure 2.3). Connectivity includes the good availability of intermodality public transportation from the airport to the city center and vice versa. Commercial activities offer non aeronautical activities that deliver higher revenue, such as retail, business, hotel, and real estate. The airport development plan provides the comprehensive plan between airport planning and city/region planning which see the airport as not about transportation infrastructure, but also as a city engine and a business center.



**Figure 2.3 Characteristics of Airport City Concept on Airport Area Planning Models**

Source: Modified from Paneda (2010)

Finally, this study will analyze the airport clusters pattern by combining different functional roles and airport area planning models towards the appropriateness of airport governance models which shows how the importance of public and private involvement in managing the airport. Table 2.3 illustrates the clusters to identify a pattern of airport governance strategy among countries by relating 2 (two) criteria of airport classification (functional roles and airport area planning models) within an urban context. A pattern in a country can be different to other countries.

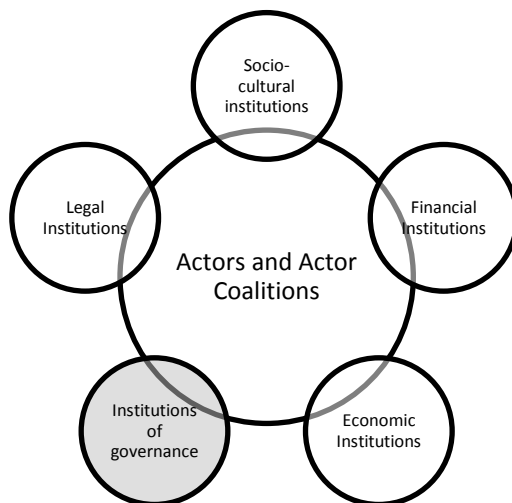
**Table 2.3 Airport Classification**

Functional Roles	Clusters		
Main international			
International	Non-airport city or airport city concept		
Regional			
Local			
<b>Governance</b>	Public	Public-Private	Private

By clustering the airports as the table 2.3, it results a pattern of airport governance strategy for each country. For example, it shows which airports that have the same characteristics such as implementing the same governance model and the airport city concept. It is also useful to pick up countries that are used as the examples in this study.

## II.2 Institution of Airport Governance

The development of the airport needs institution as providing the rules of the game on how and to what actors and organizations are dependent on each other in order to have interaction as a collective action in solving a problem (Wijk, 2007). In Figure 2.4, Wijk (2007) illustrates the institution of the airport encompasses social-cultural institutions, financial institutions, economic institutions, institutions of governance, and legal institutions. Socio-cultural institutions are derived from the local cultural characteristics that should be considered in the airport development. Financial institutions produce the financial policies such as subsidies and taxes from the government for the airport sector. Economic institutions are the conditions when private actors invest in airport development by making cooperation with the government. Institutions of governance regard to multilevel government organization, and increasingly to cooperation between private actors that co-determine policies. The legal institutions are the legal rules that should be followed by actors in the form of plans, legal procedure and others. Although the focus of this study is the institutions of governance, it sometimes also discusses other institutions since they all are relevant for each other.



**Figure 2.4 Actors, Actor Coalitions and Institution** (Source: Modified from Wijk, 2007)

Basically, governance is a form of actors relation in a planning process to make decisions (Kooiman, 2003). Koppenjan and Klijn (2004) define governance as the activities coordination to solve problems within mutually dependent actors. Here, the main points of governance are actors and their coordination. This understanding will be a basis for understanding airport governance practically.

Lafferty (2004) states governance is an important aspect to realize the airport-centric development strategy besides economic, environmental and social aspects. Governance on the European perspective is the shared responsibility of both airport operators and public authorities (Guller and Guller, 2003). Stevens et. al (2010) also explain governance covers all aspects of airport services which are the result of decision-making by both the private actors and administering authorities (public) including airport ownership; the commercialization and privatization of airports; consultative procedures and conflicts; airport and air transport security; legislation and policy; institutional arrangements and public private partnerships. In short, airport governance is about actor coordination to make decisions in airport planning for internal purposes like developing airport terminal or runways, and for external purposes like developing integration between the airport and the city.

Then, there are different airport governance models that are usually used by countries over the world. In a fact, different authors use the classification of airport governance with different models. For example, DeNeufville (1999) divides into four models: fully government, shared control, regulated control and full private. Additionally, other authors like Oum et al. (2006) divide into six models: government agency or department operating an airport directly, mixed private-government ownership with a private majority, mixed government-private ownership with a government majority, government ownership but contracted out to a management authority under a long term lease, multi-level governments or the form of an authority to own/operate one or more airports in the region, and 100% government corporation ownership/operation. Table 2.4 will summarize airport governance models which used by different sources.

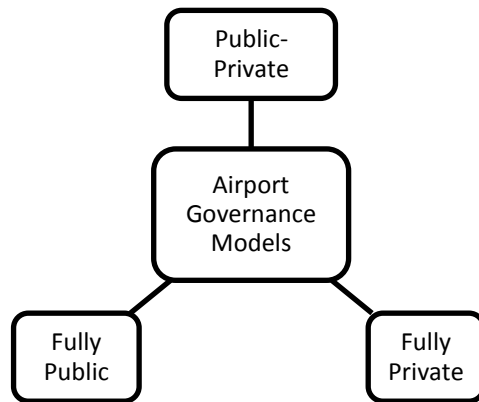


**Table 2.4 Airport Governance Models**

No.	Source (Author)	Airport Governance Models
1.	DeNeufville, 1999	1) fully government; 2) shared control; 3) regulated control; 4) fully private
2.	Oum et al., 2006	1) government agency or department operating an airport directly; 2) mixed private-government ownership with a private majority; 3) mixed government-private ownership with a government majority; 4) government ownership but contracted out to a management authority under a long term lease; 5) multi-level governments or the form of an authority to own/operate one or more airports in the region; 6) 100% government corporation ownership/operation.
3.	Airport Council International-Europe, 2010	1) public airport operator as part of the administration; 2) corporatized public airport operator; 3) public sector owning a majority share in the airport operator; 4) private sector owning a majority share in the airport operator; 5) fully privatized airport operator.
4.	Donnet et al., 2011	1) government owned, government owned company (GOC) – central to decision making; 2) public private partnership (PPP), build-operate-transfer (BOT), managed contract, joint venture, alliances – decisions are a mixture of direct government and private sector influences; 3) fully privatized/long-term leasing – decisions are bound by regulated limits.
5.	Freestone and Baker, 2011	1) planning district; 2) master planned community; 3) airport authority; 4) public-private coordination; 5) mixed jurisdictional for planned versus unplanned; 6) regional planning

6.	Gillen, 2011	<ol style="list-style-type: none"> <li>1) government owned/operated (US, Spain, Singapore, Finland, Sweden);</li> <li>2) government owned, privately operated (several US airports via contracts, Chile, Canada);</li> <li>3) public private partnerships in the form of BOO, BOT and management contract variants (India);</li> <li>4) independent not-for-profit corporations (Canada);</li> <li>5) fully private for-profit via IPO (Initial Public Offering) with stock widely held;</li> <li>6) fully private for-profit via trade sale with share ownership tightly held (Australia, New Zealand);</li> <li>7) partially private for-profit with private controlling interest (Denmark, Austria, Switzerland);</li> <li>8) partially private for-profit with government controlling interest (Hamburg Germany, France, China, Kansai Japan).</li> </ol>
7.	Ernico et al., 2012	<ol style="list-style-type: none"> <li>1) public ownership and operation;</li> <li>2) public ownership with few of private operation;</li> <li>3) mixed public/private ownership with private operation;</li> <li>4) private ownership and operation</li> </ol>
8.	Frank, 2012	<ol style="list-style-type: none"> <li>1) public (public company – Egypt, India, Australia; public airport authority, private airport authority, enterprise, local community body – Australia; non profit organization – Canada);</li> <li>2) local communities (local community body – Canada; public airport authority – USA; private airport authority - France, enterprise – Canada; mixed economy (major public) – France);</li> <li>3) privates (enterprise – Paris, UK, Germany).</li> </ol>

All authors definitely mention two main actors and three main airport governance models. The actors are public (government) and private, while the models are fully public, public-private and fully private (Figure 2.5). Fully public is when the ownership and the management of the airport refer to government control with very little portion for private involvement. Public-private is coordination between the government and private in owning and/or managing the airport. The last, fully private is when the private control the ownership and management of the airport for very long term or undetermined time, for example the control of an airport is undertaken by private for 99 years.



**Figure 2.5 Main Models of Airport Governance**

There are no standards or rules for a country to implement an airport governance model. Keshawarni (1999) states International Civil Aviation Organization (ICAO) has not suggested any airport governance model for a country. Instead, International Air Traffic Association (IATA) recommends the privatization model as an airport governance model because it supports the greater efficiency of the airport (Hooper, 2002). Actually, there are many factors to choose an airport governance model for a country in order to be different from other countries. A country can change its airport governance model by responding to the existing conditions such as the trend of globalization or airport commercialization. It can be seen as a airport governance strategy.

### **II.3 Airport Governance Strategy**

Airport governance strategy is a combination strategy in managing an airport by deciding or changing an airport governance model as a part of the airport governance application practically according to the external aspect like an increasing number of airline companies and internal aspect like airport classification within an urban context. Basically, the implementation of the airport governance strategy depends on the government perspective in understanding the airport position either as a public facility or a strategic business. The first airport governance strategy is positioning the airport as a public facility (Craig et.al., 2005; Carney & Mew, 2003; Frank, 2012; Oum, 2006, 2008; Gillen, 2010). Public facility means the airport as the infrastructure that is owned and operated by governments (Oum et al., 2006). Using the term of a public airport, the airport is seen as publicly owned utilities, operated and

subsidized by the government with the primary objective of facilitating the passenger movement as public good services, rather than a profit machine and customer-oriented commercial activities (Doganis, 1992).

The external factor like the increasing number of airline companies who offer lower prices of aircraft tickets creates higher demand of the airport use. The airports need improvement such as additional capacity to increase the productivity of the airport to anticipate the passenger traffic and other activities at the airport (Zhao, 2011). Therefore, Zhao states the government or a regime in a country can change the governance strategy in response to the current condition. The strategy of changing or shifting the governance is labeled as “new governance” by Salamon (2002). He explains the new governance paradigm has two main features, which are the focus on the collaborative characteristic (governance rather than government) to solve a public problem in the future, and the use of tools of public action as the unit of analysis, particularly on the challenges and opportunities of the governance implementation. Besides that, he also uses the term of “new governance framework” as an approach that provides an interesting and useful lens to analyze public accountability in public-private partnerships.

Another used term in changing strategy is “governance reform” as a way to promote the adoption of new technologies, capital investment and act as a catalyst for innovation (Cowan, 2000). Governance reform is intended to maximize state revenues and/or profits for strategic investors (Jenkinson, 1998). This term is used by Carney and Mew (2003) to attract private capital, and relate it to the commercial growth in the aviation industry. On the other words, the governance reform is needed to adapt to the market conditions.

In the aviation industry, Frank (2012) also uses airport reform strategy as the equivalent term to the new airport governance strategy. Airport reform can be seen as the changes which made by the government on the ownership and the management of the airport facilities (Tretheway, 2001). For instance, both developed and developing countries are involving private sector in airport management (Poole, 1994). Frank (2012) points out the main purpose of private sector involvement is to gain access to private investments and knowledge for infrastructure financing and modernization. He also describes airport reform, including three stages that are:

a. Liberalization

It is indicated by negotiating trade agreements between airport manager with airline companies to improve air transportation services (Airports Council International, 2003 cited by Frank, 2012).

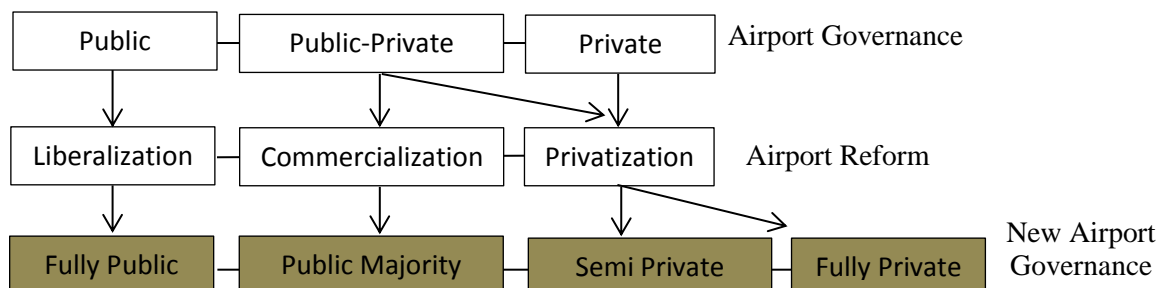
b. Commercialization

The government provides and supports the development of commercial activities at the airport (ICAO, 2008) by contracting of airport facilities to the private sector. This stage offers transformation from a public utility to a commercial enterprise by adopting of business-like management philosophies, values, and approaches (Cook, 2001)

c. Privatization

The definition of privatization from Bishop et al., (1994) as well as Schipke (2001) and Parker (2003) is a form of the transfer of assets of publicly owned by governments to private ownership. Cook (2001) also defined privatization as “the moving of whole or part shares from public to private ownership with the substantial involvement with private sector management and operation”.

According to the airport reform process, Graham (2013) argues that privatization can be considered as an airport commercialization on a great scale to obtain higher revenue from non-aeronautical activities rather than aeronautical activities, while commercialization is only to support the aeronautical activities. This study will elaborate the process of privatization with the popular form of airport governance models regarding to Figure 2.5 (public, public-private, and private) in order to produce new governance models as a basis for airport clusters. The new models are fully public, majority public, semi private, and fully private (Figure 2.6).



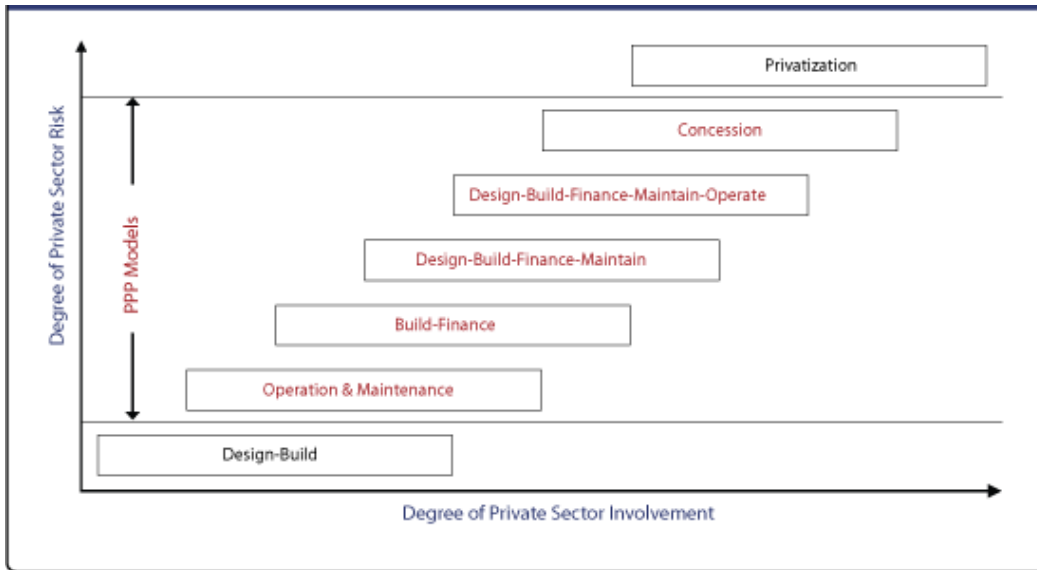
**Figure 2.6 Modifications of Proposed Airport Governance Models**

Figure 2.6 shows that there is a direct relation between public governance and liberalization process as an input to result a fully public model as an output. In (fully) public governance model, the government manages the airport without private involvement. The orientation goal of the airport is to serve aircraft passengers through this governance model. Liberalization supports aeronautical services at the airport by offering a large opportunity for airline companies to open new more routes with more schedules to and from the airport. Public-private model produces two new governance models, including a public majority model from commercialization process and a semi private governance model from privatization process. Both models are developed with regards to the idea of coordination between the public and the private. The basic difference between the majority public and semi-private comes up from the different of private interest. The semi-private model and fully private model offers a big portion of private interest in owning and managing airports, while majority public just offers coordination between the public and private in airport management. The fully private model comes from the evolutionary process of airport reform that offers the opportunity to private in fully owning and also managing the airport.

In this study, a fully public governance model is inspired by a study from deNeuville (1999) that explains the airport ownership and management depend on fully government control, particularly in achieving better connectivity without pursuing any profit. The example options of this governance model are airports that managed by local government or an authority without profit orientation. The involvement of privates is none or very small. The main purpose of this airport model is to support air transportation services in achieving better connectivity within a country.

Then, a public majority as the second model is characterized by commercialization process. Graham (2013) notes commercialization offers the development of non-aeronautical services, instead of aeronautical services. In this model, ownership of the airport is still in public actors, but the management of the airport can be a form of coordination between the public and the private. The examples of this model are service contracts, management contracts by outsourcing or tendering airport services to privates, public-private partnership through design-build, option-maintenance, build-finance, design-build-finance-maintenance, and design-build-finance-maintenance-operate. This model usually takes responsibility for the

day-to-day operation until the medium term of contracts. The Figure 2.7 shows a simply spectrum of public-private partnership models used in Canada.



**Figure 2.7 Models of Public-Private Partnerships**

Source: The Canadian Council for Public-Private Partnership, 2005

The third model is a semi private governance model that offers the possibility of a partnership between the public and the private in ownership and management of the airport. In this model, the private has a large portion of interest in airport development than the majority public model. The popular options for this model are a long term concession and partial shares of privatization through share flotation and trade sale by sharing between the government and the private. This model typically takes the long term coordination above 30 years.

The last, fully private governance model is fully private involvement in the ownership and management of the airport through share flotation and trade sale with 100% shares (Ernico et al., 2012). Share flotation or known as an initial public offering (IPO) is conducted by acquiring shares of the airport on the stock market (Graham, 2013). In this scheme, the airport needs to perform well in order to be sold. Meanwhile, trade sale is conducted by single investors or a consortium through buying shares for partly or the entire airport and make them also capable to reconstruct or redevelop the airport (Graham, 2013). Table 2.5 summarizes the differences between four airport governance models.

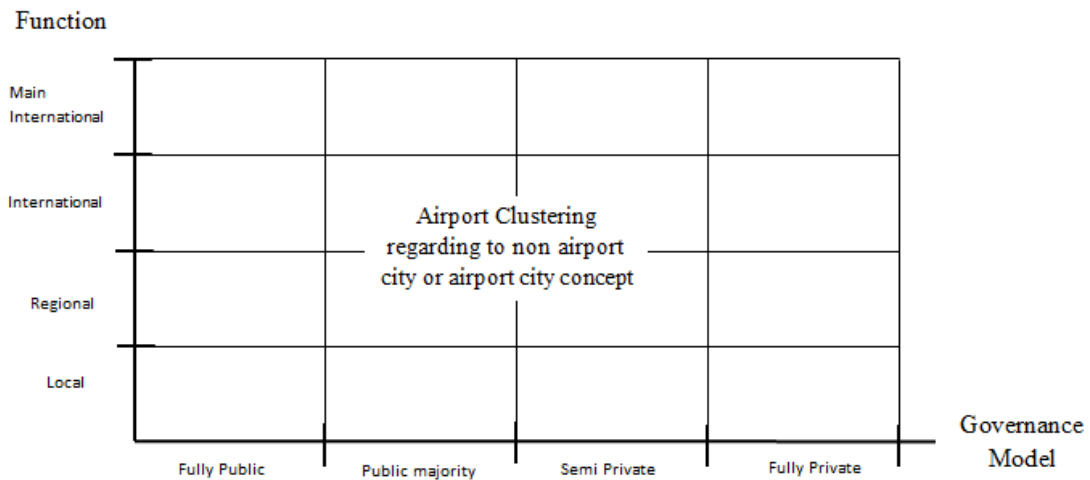
**Table 2.5 Differences of airport governance models**

<b>Governance Model</b>	<b>Definition</b>	<b>Ownership</b>	<b>Management</b>	<b>Time</b>	<b>Coordination Form</b>
Fully public	Fully government control without commercial purposes	Government	Government	Indefinite	Without or very little private involvement
Public majority	The government owns the airport, but making cooperation with private for airport development management	Government	Collaboration between the government and private	5-30 years	Management contract, service contract, public-private partnership
Semi private	The government and the private own and manage the airport together	Government and private	Collaboration between the government and private or only private	30 years - indefinite	Long term concession, sharing through share flotation and trade sale
Fully private	Fully private interest in pursuing profit	Private	Private	99 years or indefinite	100% share flotation, 100% trade sale, long term concession

Source: modified from DeNeuville (1999), Ernico et.al (2012) and Graham (2013)

After developing specific governance models (fully public, majority public, semi private, and fully private), this study provides a cluster model of airport governance strategy by elaborating the governance models with airport classification within an urban context, including functional roles and airport area planning models (airport city or non-airport city concept).





**Figure 2.8 Airport Cluster Model**

The cluster model (Figure 2.8) will be useful in mapping countries and know the similar characteristics among countries for each governance model (fully public, public majority, semi private and fully private). This study will analyze the airport governance strategy among countries by considering the implementation of different governance models and the related strategies, including external aspect like the availability routes, internal aspect like airport classification within an urban context, and the application of airport governance like involved actors.

#### **II.4 Overview of Airport Governance Strategy over the World**

The airport privatization model has been popular since the United Kingdom privatized its major airports in 1987 (Tretheway, 2001). After that, it becomes a trend in the aviation industry. Countries such as Australia, New Zealand, Asian countries such as India, China, Japan and Malaysia, South Africa, Argentina and Mexico followed The United Kingdom implement the model (Oum et al., 2008). Although the full privatization model has become popular in over the world, countries like Canada and the United States have not started using the model (Oum et al., 2008). Unfortunately, Indonesia is also lacking of full privatization implementation since the privates are reluctant to invest in the airport industry in Indonesia considering to the loss that suffered by PT Angkasa Pura as public owned airport company for its six airports in 2012 (Putri, 2013). Table 2.6 describes shortly the example of airport strategy in seven countries related to their classification within an urban context.

**Table 2.6 Airport Governance Strategy over the World**

Country	Code	Airport	Function	Airport Area Planning Model	Governance Model	Privatization Option
<b>UK</b>	UK1	London Heathrow	main international	airport city	fully private	share flotation
	UK2	Birmingham	international	non airport city	semi-private (51%)	concession
<b>Germany</b>	DE1	Frankfurt	main international	airport city	semi-private (48%)	trade sale
	DE2	Dusseldorf	international	non airport city	semi-private (50%)	trade sale
<b>US</b>	US1	Atlanta	main international	airport city	public majority	management contract
	US2	Stewart	international	non airport city	public majority*	management contract
<b>Australia</b>	AU1	Brisbane	international	airport city	fully private	trade sale
	AU2	Cairns	Regional	non airport city	public majority	management contract
<b>India</b>	IN1	Mumbai	international	non airport city	semi-private (74%)	long concession
	IN2	Hyderabad	international	airport city	semi-private (74%)	project finance
<b>Korea</b>	KR1	Incheon	main international	airport city	public majority	management contract
	KR2	Seoul Gimpo	international	non airport city	public majority	management contract
<b>Indonesia</b>	ID1	Soekarno Hatta	main international	non airport city	public majority	management contract
	ID2	Radin Inten	Regional	non airport city	fully public**	non private
	ID3	new airport plan in Yogyakarta	international	airport city ***	semi-private (49%)	project finance using trade sales

\*started with public majority then reformed to fully private in the year 1999, returned back to majority public in the year 2007

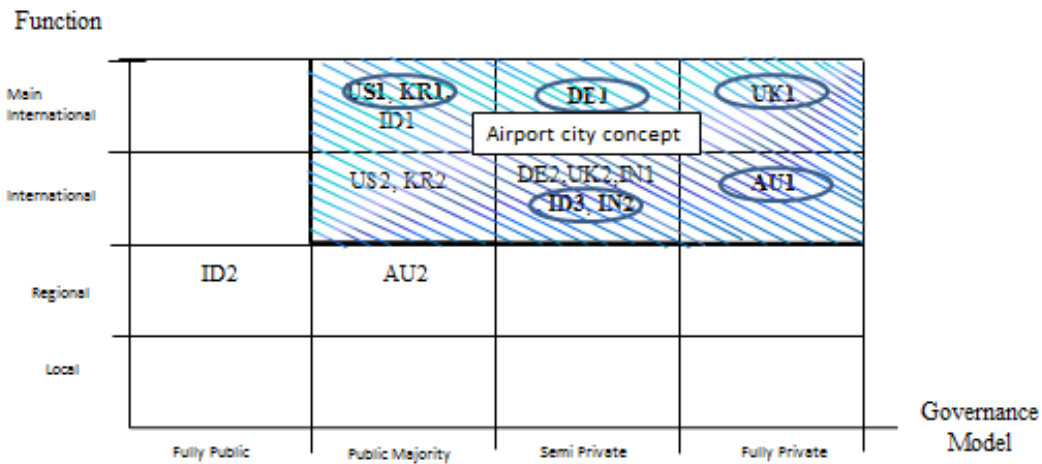
\*\*planned to apply the privatization model in the year 2013

\*\*\*planned to be the first airport city in Indonesia

Source: Graham (2013), Ernico et al. (2012), Trieha (2014)

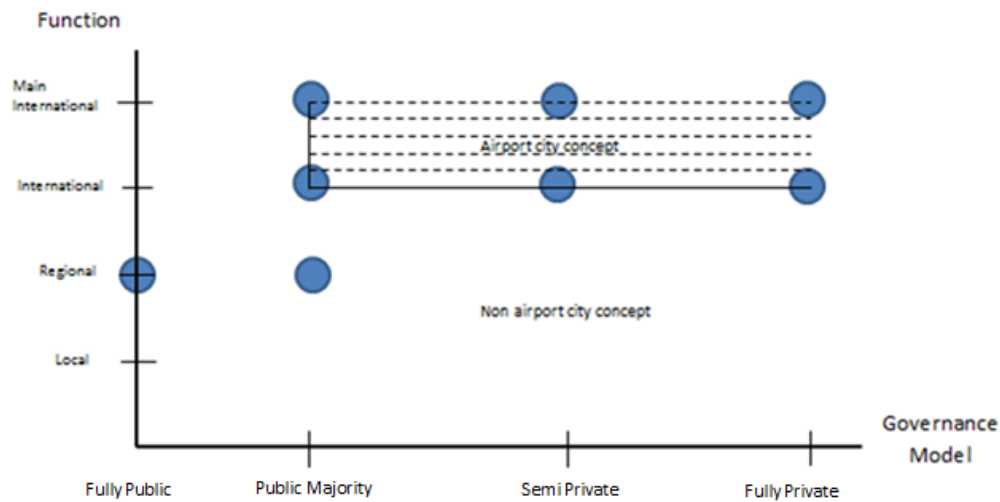
Up until now, all airports in the United Kingdom involve the main role of private sectors in the aviation industry. Besides that, major airports in the United Kingdom have been developed regarding to the airport city concept. On the contrary, the airports in the United

States, as an example, are assumed as a public facility and absolutely under controlled by the government. Even though, The United States also implement an airport city concept for its major airports. Figure 2.9 illustrates the airport cluster through mapping airports over the world.



**Figure 2.9 Airport Cluster for Seven Countries**

The circle sign for airports show the airports that have implemented an airport city concept according to study from Kasarda (2011). For example, the cluster that offer strategy by combining a semi private governance model and international function shows three non-airport cities (Dusseldorf, Birmingham, and Mumbai) and three airport cities (Fankfurt, new airport in Indonesia, and Hyderabad). Indeed, fully private clusters show airport governance strategy in London Heathrow and Brisbane that apply airport city concept with international function. In short, almost privatized airports, especially semi private and fully private governance models serve international function and apply airport city concept as their airport governance strategy. Regarding to the cluster model in Figure 2.9, the study presents a model as a tendency of airport governance strategy of seven countries as illustrated in Figure 2.10.



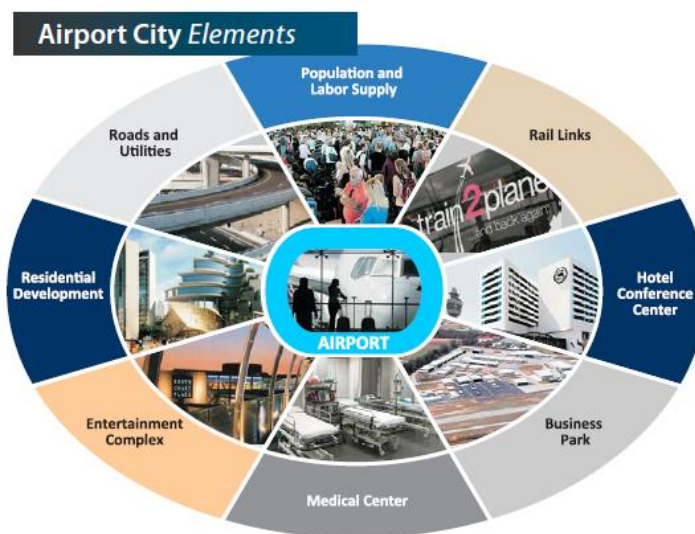
**Figure 2.10 Airport Governance Models for Seven Countries**

Figure 2.10 shows the pattern of commercial airports that serve international function and apply airport city concept. In other words, if airport managers want to apply the strategy of airport city concept with international function, they should involve the private through public majority/semi private/fully private governance model to success the goal of being the airport city in getting higher revenue from non-aeronautical services. Almost major airports have applied the airport city concept, but different options of their governance models. The United Kingdom and Australia have used fully private for their governance model, meanwhile The United States keep using public majority of its governance model.

## **II.5 Airport Services**

An airport planning is really related to the activities as services that can be served by airports. Basically, airports offer aeronautical services such as runways, control tower, the terminals, hangers and other facilities which directly serve aircraft, passengers and cargo (Kasarda, 2006). Since the aircraft passengers have more increased, the airport decision maker sees this phenomenon as an opportunity. Airports are gradually increasing their function not just for aeronautical but also non-aeronautical services. Through offering more variety of services, airports give added value for the airports themselves and the urban context, especially as the business core of the city.

Nowadays, major airports over the world adopt the trend of the airport city concept from Kasarda (2006). Using this concept, the airport revenue from non-aeronautical is higher than aeronautical services. The non-aeronautical services at the airport terminal are duty free shops, restaurants and specialty retail, cultural attractions, hotel and accommodation, business office complexes, convention and exhibition centers, leisure, recreation and fitness, logistics and distribution, light manufacturing and assembly, perishables and cold storage, catering and other food services, free trade zones and customs free zones, gold courses, factory outlet stores, personal and family services such as health and child daycare (Kasarda, 2006). Besides that, the implementation of the airport city concept integrates urban elements such as population and labor supply, rail links, hotel conference center, business park, medical center, entertainment complex, residential development, and road and utilities (Figure 2.11).



**Figure 2.11 Airport City Elements**

Source: Perry, Linda and Raghunath, Satyaki. 2013

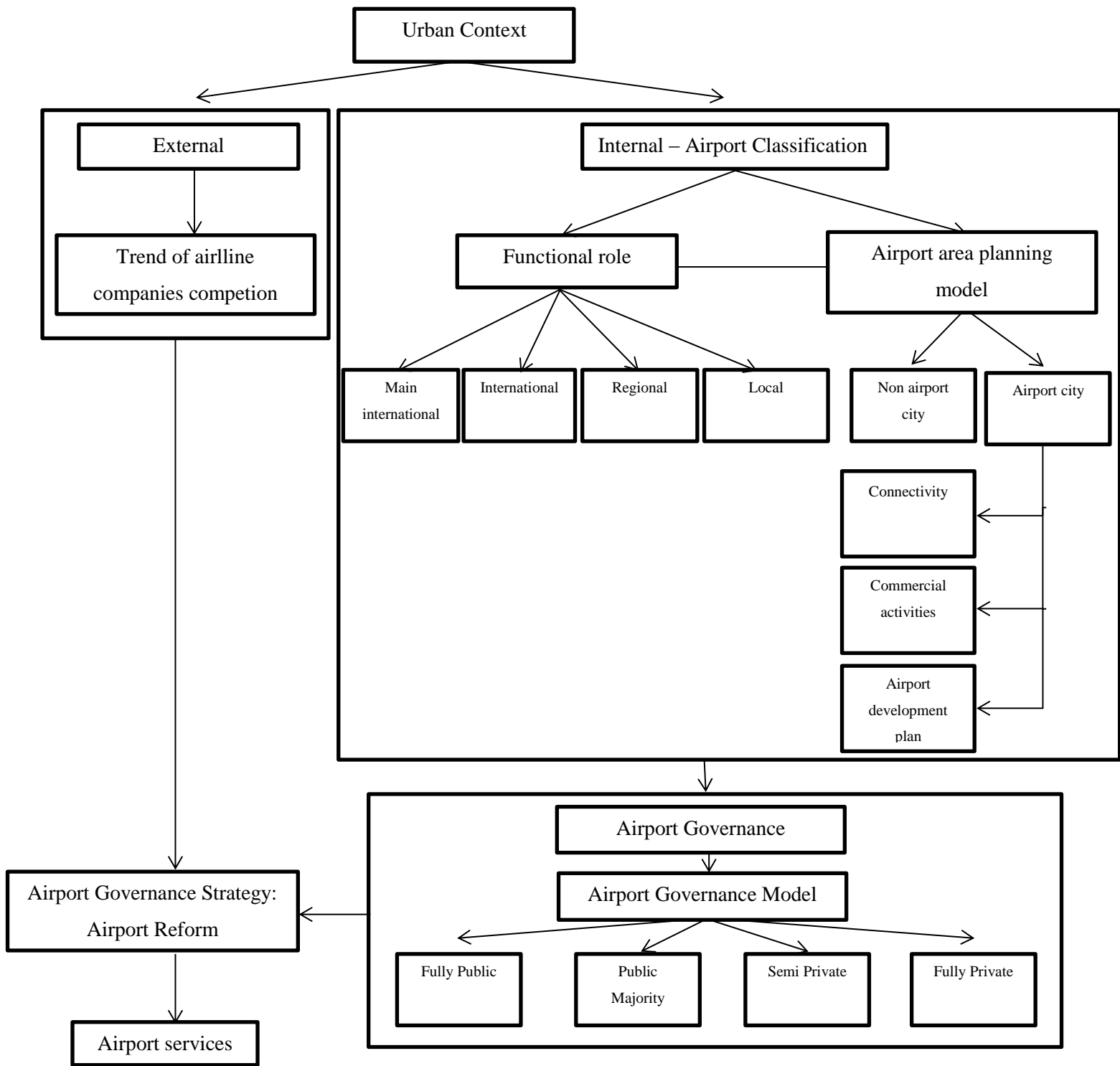
Airports cannot simply be seen only as transportation infrastructure in the city, airports with non-aeronautical services will describe a new urban form, emerging as the spatial manifestation of the interaction between airport-centered commerce, real estate development and multi-modal transportation (Paneda, 2010). Consequently, airports urgently must involve the private in offering commercial services not just for passengers, but also for the city

society. It is also supported by the implementation of the privatization model in the form of coordination between the government and the private to improve airport services as an attraction for aircraft passengers and also in order to get more profits for airports. The other important thing in improving passenger's volume, the airports should offer many interesting routes such as providing the option of international flights. More activities in the range of the airport area cause the airport becoming a new urban center.

## **II.6 Conceptual Framework**

According to the theoretical reviews, the airport classification in the urban context will consequence the airport governance models, then it will be an input of the airport governance strategy. The airport governance model is not about one stakeholder that is a public (government) oriented, but moves on gradually to private involvement. The trend of privatization model is initiated by the United Kingdom in the year 1987 then followed by other countries (Zhao, 2011). Although there are countries that have applied the full private model, there are countries like the United States are still under the government control. Even though using different airport governance models, both countries have the similarity that is obtaining profits from their commercial airports. Between fully public model with non profit oriented and fully private model with profit oriented, there are two models in the range: a public majority and a semi private.

The appropriateness of the airport governance strategy will improve the performance of airport services and the outcome will impact to the urban planning interest. At the beginning, a city need to develop the airport as its infrastructure, then the airport will gradually redevelop the city in the end. The differences of airport governance strategy implementation among countries over the world can be a lesson learned to Indonesia in starting new airport governance strategy to implement an airport governance model like semi private or fully private model based on other countries' experiences. Relating to those issues, a conceptual framework of this study can be depicted in the Figure 2.12. This study will focus on the different airport classification within an urban context with its consequences of an airport governance model as part of an airport governance strategy to produce better airport services. The return impact of the airport reform into urban context has not discussed further in this study yet.



**Figure 2.12 Conceptual Framework**

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter discusses the research method and data collection of this research study. The aim of this chapter is to present the way of how to answer the research question in chapter I, and how to conduct this research in order to answer the questions specifically. This research is aimed to understand the case study of airport governance and based on that understanding provides recommendations the appropriateness of the airport governance model to improve the airport services in Indonesia regarding to the urban context and lesson learned from other countries.

#### **III.1 Research Strategy**

The main idea of this research is to seek lessons learned from another country to improve the airport services in Indonesia, particularly from the airport governance aspect. As a matter of fact, the implementation of airport governance strategy in the world that is different from a country to another country. As a social research, this research uses qualitative research as a useful tool to explore social phenomena that are difficult to separate from their surroundings, or to get deep understanding (Wijk, 2007). Qualitative research gives social phenomena explanations based on the facts, conditions and phenomena occurred (Hancock et al., 1998). Two methods will be conducted as follows:

##### **a. Literature Review**

Bryman (2012) states literature review is used to know the previous research, concept and theories those relevant, happened controversies at the previous time, inconsistencies output, and also unsolved research questions. The literature review in this study is needed to develop theoretical framework about related concepts such as the classification of the airport in the urban context, the institution of airport governance, airport reform, and airport services. It is conducted through collecting literatures from sources that are journals, theses, conference papers, research reports, government reports, books and other relevant publications. The quality justification of the sources can be guaranteed because of the refereeing process undertaken for the almost papers (Graham, 2011). The format of the mainly papers is an electronic database in order to be easily searched on the internet.

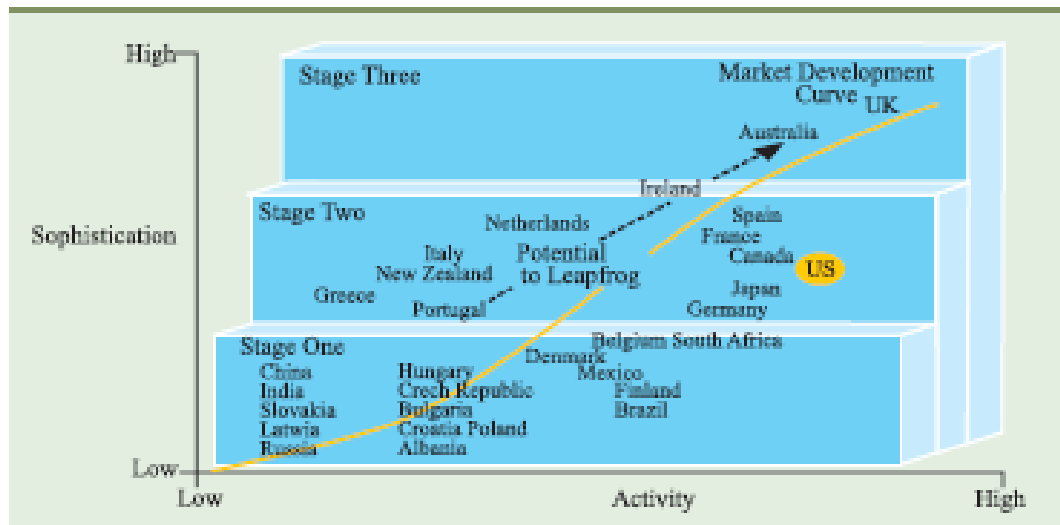


This step answers the sub questions no 1 (one) and 2 (two) in the research question as follows:

- How is the airport classification in the urban context?
- How is the importance of an institution of airport governance?

b. Case Study

Case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly enough (Yin, 1994). Yin also states case study is particularly useful to know the answer about how or why questions. Case study meets the characteristics of the qualitative research: understanding, describing and explaining (Hamel et al., 1993). Although case study offers the possibility of connecting different sources (documents, interviews and other data) for analysis, it also gives unclear explanation in connecting several cases (Wijk, 2007). Therefore, there is a boundary in selecting each case study because it is not a sampling research (Stake, 1994). Scharpf (2000) argues it is not about getting a lot of cases, but the important thing is getting the causal constellations for different cases. This research uses a case study methodology to gain a full and complete picture of how airport governance and why airport reform happens in the United Kingdom and the United States. The reason is because the United Kingdom is the first country in applying the full privatization model in the world and this country has proven its success to apply the model for almost its airports. The United States as another country selected is still on the second stage of private involvement development, while the United Kingdom is on the third stage. Although the United States involve privates at each process of airport development, the airports are still owned and controlled by the government. In a fact, both countries have implemented the airport city concept. In contrast, Indonesia as an Asian country seems to be on the first stage with low activity and sophistication in private involvement (Figure 3.1).



**Figure 3.1 PPP Market Maturity Curve in the Global Economy**

Source: Kaur, G et al., 2010

Historically, the United Kingdom and United States have similar characteristics. Both countries have long historical relations that contribute to English as the official language and neo liberal style in their market condition. Every citizen of both countries is allowed to participate in their development processes. Both countries consider the airport function as commercial activities, but their airport governance models for almost major airports are different. This step is needed to answer the research question in no 3 (three), that is:

- How is the strategy of airport governance in the United Kingdom and in the United States?

c. Comparative Analysis

Comparative method relates to planning culture like the appropriate role of state, private and civil society to influence social outcomes (Sanyal, 2005). The functions of the comparative analysis are as a contextual reason for a policy in other countries, a classification for the similarities and differences of implementing a policy in two or more countries, a test of the policy assumption, a prediction of the policy comes, and a policy transfer from a country to other countries. Furthermore, the examples of policy transfer between countries are contents, concepts and ideas, ideology, goals, and institutions. The first step in comparative analysis is looking for the relationship between the cases under

review, and then formulating the variables for the analysis. A comparative analysis will compare different case study.

In analyzing the implementation of airport governance, strategic policies from selected cases (United States and United Kingdom) will be used as variables to understand the relevant condition in both countries. The variables include the external condition and the internal condition such as airport classification and its consequence to the airport governance strategy. Then, the results will be compared with the current condition in Indonesia. This step is necessary to answer research questions in number 4 (four), and 5 (five) as follows:

- How is the strategy of the airport governance in Indonesia including the government plan of the airport reform?
- What are the recommendations of the appropriateness of the airport government model which are required in Indonesia?

## **III.2 Data Collection**

Data collection comprises type of data required and operationalization of data collection methods.

### **III.2.1 Type of Data Required**

This research collects secondary data sources for theoretical review and for the empirical case study. The used data are almost from academic sources such as journals, theses, government reports, books and other related documentation. To collect information from various data, this study uses content analysis. Content analysis is a method to get replicable information and valid by considering the context (Krippendorff, 1991). This study uses key words such as airport governance and reform to find the information quickly. While using content analysis in data collecting, there are steps to be considered:

1. Sources. This study considers academic sources in order to get more reliable information.
2. Purposes. While collecting the information, it needs to know the purpose of an author as compared to other authors.
3. Content. This study focus on airport classification and airport governance, not deeply focus on other airport aspects such as technical aspects of the airport.

4. Summary. This study summarizes to note the important points for each source.

Besides that, this study prefers to use the recent data as selected references by knowing the release date of sources. Literature review gives overview of the selected concepts and the relevant condition about airport governance strategy in selected cases (United Kingdom, United States, and Indonesia). The considered data of this study related to the airport governance strategy are the external factors, internal factors, including the classification of the airport in the urban context, and the airport governance process (the involved actors, the coordination form and the reason).

### **III.2.2 Operationalization of Data Collection Methods**

This section explains how to operate the used methods in this study to collect the required data. The operationalization of data collection methods depends on the contexts of the cases, which means depending on the United Kingdom, United States, and Indonesia. To be clearer, the detail about the explanation of the operationalization of the methods is described in the following table:

**Table 3.1**

**Data Required and Operationalization of Data Collection Methods**

<b>Research Question</b>	<b>Steps</b>	<b>Process</b>	<b>Source of Data</b>	<b>Operationalization</b>
How is the airport classification in the urban context?	Getting the Information	Doing a literature review to understand the theoretical background through content analysis	<ul style="list-style-type: none"> <li>- Books, international publication like academic journals, lecture materials, the regulations, the reports and internet publication</li> <li>- Creativity</li> </ul>	<ul style="list-style-type: none"> <li>- Concepts of various theories</li> <li>- An own developmental model as an illustration of the current policy implementation</li> <li>- Conceptual framework as a guide to next steps</li> </ul>
How is the importance of an institution of airport governance? How is the strategy of airport governance in the United Kingdom and United States?	Exploring the information	<ul style="list-style-type: none"> <li>- Gathering information about the classification and types of the airport in an urban context.</li> <li>- Gathering information about airport governance in selected cases.</li> </ul>	Books, international publication like academic journals, lecture materials, the regulations, the reports and internet publication	<ul style="list-style-type: none"> <li>- The actual condition of airport governance system in the world</li> <li>- The implementation of airport governance in the United Kingdom and United States</li> </ul>
How is the strategy of the airport governance in Indonesia including the government plan of airport reform?	Comparing the cases	<ul style="list-style-type: none"> <li>- Analyzing the implementation of airport governance in Indonesia.</li> <li>- Analyzing the policy transfer of airport reform to improve airport governance in Indonesia</li> </ul>	Books, international publication like academic journals, lecture materials, the regulations, the reports, internet publication and information from previous steps	<ul style="list-style-type: none"> <li>- Overview of airport governance in Indonesia</li> <li>- The possibilities of policy transfer of airport reform from United Kingdom and the United States to Indonesia</li> </ul>
What are the recommendations related to the appropriateness of the airport governance model which are required in Indonesia?	Drawing conclusions	Concluding the study with results based on synthesis and comparison analysis	The result of the analysis	Conclusion and recommendation

**CHAPTER IV**

**THE CONSEQUENCES OF AIRPORT CLASSIFICATION**

**TOWARDS AIRPORT GOVERNANCE STRATEGY**

**(CASE STUDY: THE UNITED KINGDOM AND UNITED STATES)**

This chapter will discuss about the implementation of airport governance strategy in the United Kingdom and in the United States. First, this chapter identifies the airport classification within an urban context in both of the cases. Then, it analyzes the different implementation of airport governance models for each country. The last, this study continues to make a synthesis as a guideline for Indonesian cases.

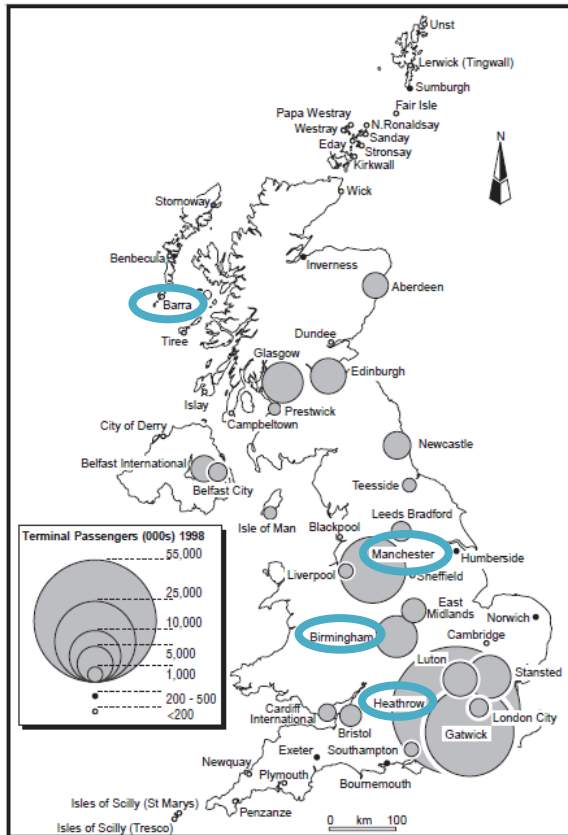
**IV.1 The United Kingdom**

**IV.1.1 Airport Classification in the Urban Context**

There are 54 airports in the United Kingdom consisting of 47 airports for scheduled flight and 7 airports for charter flight (CAA, 2015). The London Heathrow International airport is the main international airport in the United Kingdom. The other international airports are Gatwick International airport and Manchester International airport as the second and the third busiest airport in the United Kingdom respectively. The examples of regional airports are Glasgow airport and Aberdeen (Graham and Guyer, 2000). There are 11 local airports which are provided to increase the social and economic welfare of the airport surrounding area (Highlands and Islands Airports Limited, 2015). Figure 4.1 shows UK airports with scheduled passenger services, including the location of four airports that will be discussed further.

According to the study from Perry and Raghunath (2013), the airports that apply the airport city concept in the United Kingdom are London Heathrow International Airport and Manchester International Airport. Both of them have large commercial services such as malls, restaurants, and hotels. The airports connect to the city center easily using public transportation such as trains and buses. As the operator of the London Heathrow International Airport, the British Airports Authority (BAA) private company manages more airports (six airports) rather than other companies in the United Kingdom. Consequently, other airports that are under controlled by BAA company will be developed according to the airport city

concept following the London Heathrow International airport. In the same way, Manchester Airport Group (MAG) which operates Manchester International Airport is the second largest airport management company in the United Kingdom. The consequence, other airports under MAG are developed according to the airport city concept too.



**Figure 4.1 UK Airports with Scheduled Passenger Services**

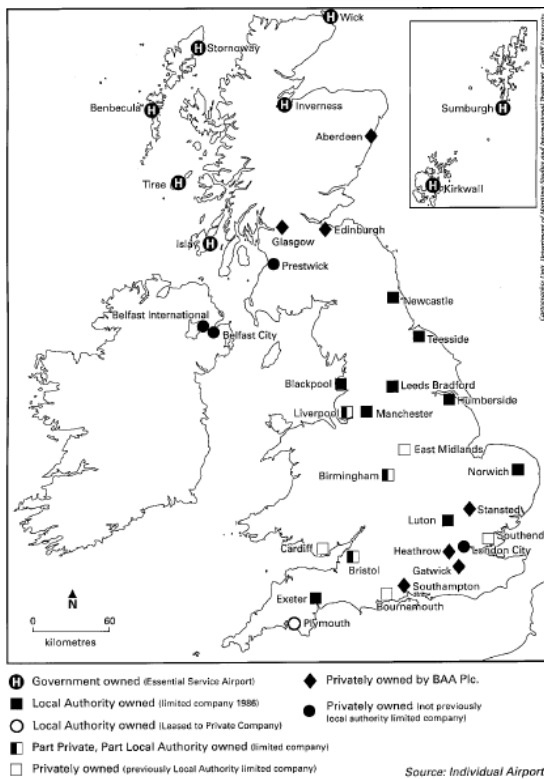
Source: CAA cited by Graham and Guyer, 2000

#### IV.1.2 Overview of Airport Governance Strategy in the United Kingdom

The United Kingdom has been a pioneer in airport privatization strategy in the world since 1987 in the form of a partnership between the government and BAA Company for its seven major airports (Zhao, 2011). The reason was the government of the United Kingdom considered increasing share ownership among citizens in the United Kingdom in nationalized industries (Graham, 2013). Its aim was reflected in the Airport Act that introduced in 1986. According to the Act, the regulation required all airports with a turnover of more than 1 million pounds sterling in two of the previous three years to become airport companies

(Graham, 2013). It seems to be an ideological as the policy basis in the United Kingdom to improve economic efficiency (Humphreys, 1999). In 1997, BAA became the only owner of those seven airports through a 100 per cent share flotation. It indicates a fully private airport governance model era.

Besides fully private model, there are airports that have applied an airport governance strategy by moving to a semi private model. Also, there are few airports using a public majority model. Although the central government tends to give airport governance for privates exclusively, Manchester International airport and local airports in the United Kingdom are still fully under government control. The government actors are local governments at Manchester International airport and the Scottish government at local airports. The Figure 4.2 illustrates the airport governance pattern in the United Kingdom, according to a study from Humphreys (1999).



**Figure 4.2 Governance Models of UK Airports in 1999** (Source: Humphreys, 1999)

Figure 4.2 describes the pattern of airport governance models in the United Kingdom, according to the study from Humphreys (1999). Almost airports that are located around



London, the capital city of the United Kingdom, are owned and managed by private. In other big cities of The United Kingdom, local authority (government) still has an important role in the airport development plan. Meanwhile, airports in the highlands that are located in the outer of the United Kingdom are still owned and managed by the Scottish Government. The function of the highlands airport is to support the United Kingdom connectivity.

#### **IV.1.3 Examples of Airport Governance Strategy in the United Kingdom**

This study tries to classify the airports in the United Kingdom considering their airport governance strategy, including airport governance models and related combination strategies from internal and external aspects such as, availability routes, functional role, airport area planning model within an urban context.

##### **1. Barra Airport (BRR)**

Barra airport (BRR) is an example of local airports in the United Kingdom by providing domestic flights to and from Glasgow. This airport has coordinated with one airline company, Flybe Company. At 2014, the airport just reached 10.560 passengers (Stornowaygazette, 2015). The airport offers basic airport services without considering the characteristics of the airport city concept. There are only taxis and bus to the Castlebay (a recreation place) as the airport transportation connectivity. The airport provides café and public telephone for its commercial activities at the airport. The airport does not consider the profit as their priority, even the airport needs subsidy from the government. But, the airport does not close the opportunity to private for making cooperation in providing better services to passengers. The purpose of the airport is to preserve essential links for rural communities (Humphreys, 1999).

The airport belongs to fully public governance model on behalf of Highland and Islands Airports Limited (HIAL). HIAL is a public airport corporation company through wholly owned by the Scottish Ministry. The company manages 11 local airports that are Barra airport (BRR), Benbecula airport, Campbeltown airport, Dundee airport, Islay airport, Inverness airport, Kirkwall airport, Stornoway airport, Sumburgh airport, Tiree airport, and Wick airport. The purpose of HIAL company is to increase the social and economic welfare of the airports' areas. Figure 4.3 shows the HIAL airport location.



**Figure 4.3 Highland and Islands Airports** (Source: Seaplane, 2004)

Table 4.1 shows the strategy of Barra airport as a fully public governance model in the United Kingdom. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.1 Strategy of Barra Airport As Fully Public Governance Model In The United Kingdom**

Aspects	Characteristics
<b>External</b>	
Airline companies	Limited (one airline company)
Destination route	Limited (one destination to and from Glasgow)
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Local airport
<b>Airport area planning model</b>	Non airport city concept
Connectivity	Limited (taxi and bus)
Commercial activities	No
Airport development plan	Transportation infrastructure for remote communities
<b>Airport governance application</b>	
Airport governance model	Fully public governance
Coordination form	Owned and managed by Highland and Islands Airports Limited (HIAL) with no profit orientation
Actors	Scottish government
Reason	Need subsidy from government

According to the table 4.1, Barra airport has limited air traffic, limited functional role, and no implementation of the airport city concept strategy. To develop the airport function as transportation infrastructure in the city, it still needs government role through fully public model, particularly giving the subsidy to the airport. Managing local airports like Barra local airport can be a lesson for local or regional airports in Indonesia.

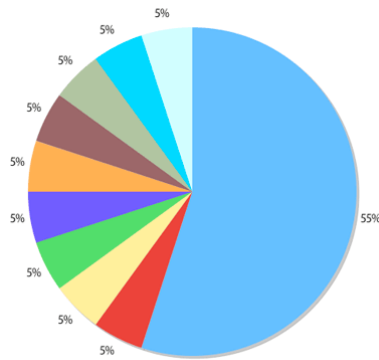
## **2. Manchester International airport (MAN)**

Manchester International airport (MAN) is the third busiest airport in the United Kingdom after London Heathrow International airport and London Gatwick International airport respectively (The Manchester Airports Group plc, 2015). There are 58 airline companies with over 200 direct flights (The Manchester Airports Group plc, 2015). At 2014, the airports reached 21.989.682 passengers (CAA, 2015).

Manchester Airport Group (MAG) has developed the Manchester International airport regarding to the airport city concept since 2009 (Cornish, 2014). Following the concept, the airport is being a Manchester Airport City as the one of business locations in Manchester City. The airport area is planned to be developed as a world-class business district consisting of 1.5 million square feet of office space, 650.000 square feet of advanced manufacturing, around 2400 hotel beds, and 100.000 square feet of amenity and retail space plus multi-storey car parks (Cornish, 2014). The airport also provides the integration of public transportation to the center of Manchester city, including trains, buses, and taxis. As the consequence, MAG starts to involve privates for developing the airport.

Up to the present time, MAG is a publicly owned company that own and manage the Manchester International airport. The company is registered as a public limited company (PLC), with all of its shares belong to the local authority (Figure 4.4). The shares are not available to buy on the Stock Exchange, but MAG pays dividends to its all shareholders and also reinvests the profits into the company for redeveloping the airport (Graham, 2013). In its airport management, MAG is not stand alone, but involves the private. MAG implements a joint venture scheme for developing the whole airport area in order to realize the airport city. MAG cooperated with privates: Beijing Construction Engineering Group, Carillion Plc, and Greater Manchester Pension Fund, with each company has a different task. For example, MAG cooperated with Beijing Construction Engineering Group and Carillion Plc to bring the

excellent construction of the airport. The task of the Greater Manchester Pension Fund is to consider other public facilities in the airport area, such as schools, colleges, and charities.



The Council of the City of Manchester - 55%  
 The Borough Council of Bolton - 5%  
 The Borough Council of Bury - 5%  
 The Oldham Borough Council - 5%  
 The Rochdale Borough Council - 5%  
 The Council of the City of Salford - 5%  
 The Metropolitan Borough Council of Stockport - 5%  
 The Tameside Metropolitan Borough Council - 5%  
 The Trafford Borough Council - 5%  
 The Wigan Borough Council - 5%

**Figure 4.4 Proportions of Shareholders of MAG (Source: PLC, 2009)**

Having successful in managing Manchester International airport, MAG bought the regional airport, Humberside Airport in 1999. After that, MAG bought more two airports, East Midlands airport and Bournemouth airport in 2001. MAG develops the airports by increasing commercial services to gain profit. MAG as a publicly owned company can compete with other airport private companies in providing better services at the commercial airport.

Table 4.2 shows the strategy of Manchester International airport as a public majority governance model in the United Kingdom. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.2 Strategy of Manchester International Airport as Public Majority Governance Model In The United Kingdom**

Aspects	Characteristics
<b>External</b>	
Airline companies	52 airline companies
Destination route	Over 100 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	International airport
<b>Airport area planning model</b>	Airport city concept
Connectivity	Various alternatives
Commercial activities	Yes
Airport development plan	Airport city development
<b>Airport governance application</b>	
Airport governance model	Public majority
Coordination form	Owned by Manchester Airport Group (MAG), Managed by Manchester Airport Group (MAG) and private through joint venture
Actors	Local governments in ownership, Coordination between local government and private in management.
Reason	Financing and developing the airport city

According to the Table 4.2, The Manchester International airport has higher air traffic, offers international role, and implements the airport city concept strategy. To develop the airport function as an airport city, it really needs participation from private to develop the airport area together with the government. This airport strategy can be a lesson learned for international airports in Indonesia on how to realize an airport city and earn the airport profit under government management model.

### **3. Birmingham International airport (BHX)**

In 2014, the Birmingham International airport (BHX) reached 9.705.955 passengers (CAA, 2015). There are 43 airline companies serving 73 destinations within and between the countries (Birmingham Airport Consultative Committee, 2012). The Birmingham International airport has not been included in the airport city concept list by Kasarda (2011),

but the airport has characterized as the airport city concept regarding to its large commercial activities. The commercial activities include car parking, retail, catering, and property rental. The airport is also integrated with various ground transportation to the city center such as trains, busses, and taxis. Based on airports characteristics, It can be said that Birmingham International airport is trying to develop an airport city.

To gain financing for airport expansion, in 1989, the local authorities involved privates to develop the airport through project financing in the form of Built-Operate-Transfer (Humphreys, 1999). Unfortunately, the Built-Operate-Transfer (BOT) was just solving a short-term problem funding (Graham, 2013). For this reason, the airport changed its ownership by moving to the semi private model through selling part of its shareholders in 1997 from the public to private. Now, the Birmingham Airport Ltd is the owner and operator of the Birmingham International airport. The Birmingham Airport Ltd consists of seven District Councils in the West Midlands for 49 percent shares, West Midlands Airport/group Investments Ltd. (Ontario Teachers' Pension Plan and Australias's Victoria Funds Management Corporation) for 48.25 per cent shares, and employee share trust for 2.75 per cent shares (Birmingham Airport Consultative Committee, 2012).

Table 4.3 shows the strategy of Birmingham International airport as a semi private governance model in the United Kingdom. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.3 Strategy of Birmingham International Airport as Semi Private Governance Model in the United Kingdom**

Aspects	Characteristics
<b>External</b>	
Airline companies	43 airline companies
Destination route	73 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	International airport
<b>Airport area planning model</b>	Airport city concept
Connectivity	Various alternatives of public transportation
Commercial activities	Yes
Airport development plan	Airport city development
<b>Airport governance application</b>	
Airport governance model	Semi private
Coordination form	Trade sales its partly shares
Actors	Sharing ownership and management between local governments and private
Reason	Getting financial guarantee for the long term

According to the Table 4.3, The Birmingham International airport has higher air traffic, offers international role, and implements the airport city concept. To develop the airport function as airport city, it really needs participation from private to develop the airport area together with the government. The airport strategy can be a lesson learned for a new airport in Yogyakarta that has used the same model.

#### **4. London Heathrow International airport (LHR)**

London Heathrow International airport (LHR) is the main international airport in the United Kingdom and the third busiest airport in the world in 2014 (Davies, 2014). In 2014, the airport reached 73.408.442 passengers (CAA, 2015). There are 83 airline companies with over 100 destinations. Kasarda (2011) notes the airport as one of airport cities in the world. Gleave (2013) states the commercial revenues from the airport come from retail (duty and tax free, airside specialist shops, bureau de change, catering, advertising, landside shops and bookshops, car rental, and other), car parking (long stay, business/mid stay, short stay, valet, and other). The airport provides various public transportation to and from the airport, such as

Heathrow express (train), London underground (train), Heathrow connect (train), national express coach, feltham rail link, easybus, and taxi. The airport is developed to be a business center in the United Kingdom to improve economic efficiency (Humphreys, 1999).

The London Heathrow International airport is the first privatized airports in 1987, together with other 6 (six) major airports in the United Kingdom under the British Airport Authority (BAA) company (Zhao, 2011). The airport has applied the fully private governance model through share flotation in 1997. Now, Heathrow Airport Holding Limited owns and manages the airport through a consortium, namely FGP Topco Limited. According to LHR Airports Limited (2015), this consortium consists of Ferrovial S. A Spain Company (25%), Qatar Holding LLC (20%), Caisse de dépôt et placement du Québec (12.62%), the Government of Singapore Investment Corporation (11.20%), Alinda Capital Partners (11.18%), China Investment Corporation (10.00%) and Universities Superannuation Scheme (USS) (10.00%). At the previous time, the United Kingdom government has a golden share to prevent undesirable effects on its airport as a national asset, but the European Court of Justice declared the use of the golden share on airport governance was illegal in 2013 (Graham, 2013). The result, Ferrovial Company still owns definitely the airport because of the highest shares.

Table 4.4 shows the strategy of the London Heathrow International airport as a fully private governance model in the United Kingdom. The strategy includes external and internal aspects that give consequences to the airport governance.



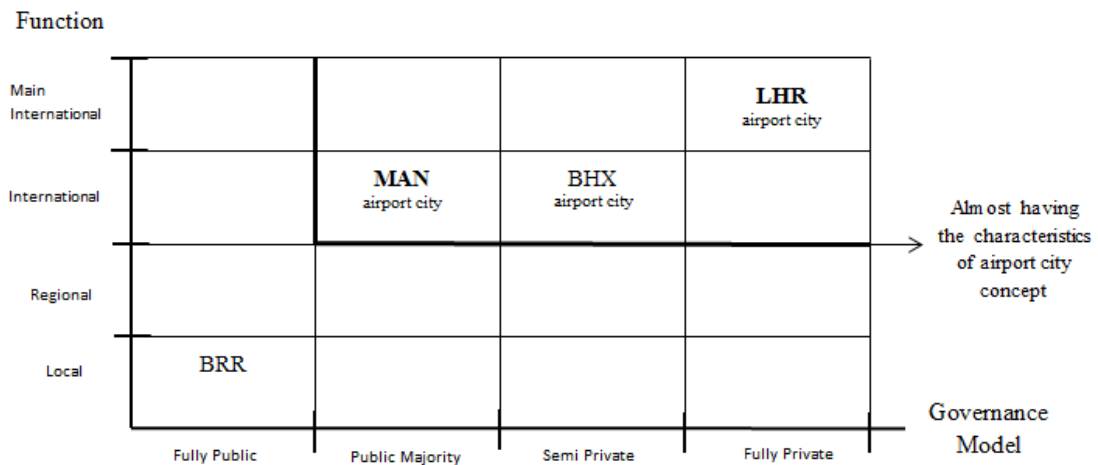
**Table 4.4 Strategy of London Heathrow International Airport as Fully Private Governance Model in the United Kingdom**

Aspects	Characteristics
<b>External</b>	
Airline companies	83 airline companies
Destination route	Over 100 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Main International airport
<b>Airport city concept</b>	Airport city concept
Connectivity	Various alternatives of public transportation
Commercial activities	Large commercial activities
Airport development plan	Business center development
<b>Airport governance application</b>	
Airport governance model	Fully private
Coordination Form	Share flotation 100%
Actors	Private
Reason	Getting highest profit

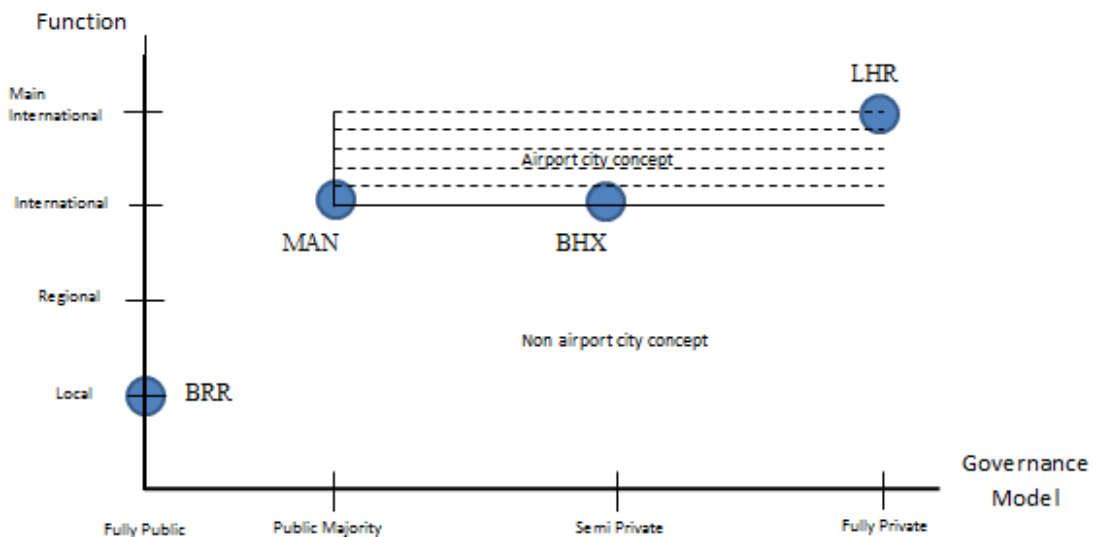
According to the Table 4.4, The Heathrow International airport has higher air traffic, offers international role, and implements the airport city concept strategy. To develop the airport function as one of business centers in the United Kingdom, the government considers the airport as an industry and will be more economic efficiency under the private. It indicates the airport development has moved from the airport city to the business center for the country.

#### **IV.1.4 Synthesis of Airport Governance Strategy in the United Kingdom Case**

There is a different implementation of governance models among airports in the United Kingdom. The Figure 4.5 shows airport clusters by combining airport classification and airport governance models for 4 (four) airports in the United Kingdom. The airport governance models for Barra airport (BRR), Manchester International airport (MAN), Birmingham International airport (BHX), and London Heathrow International airport (LHR) can be illustrated by Figure 4.6.



**Figure 4.5 Airport Clusters in the United Kingdom**



**Figure 4.6 Airport Governance Models in the United Kingdom**

From the Figure 4.5, the airport cluster describes the pattern of local airport strategy that has not considered commercial services as their priority. One of the reasons is because the airport development is still not according to the airport city concept. On the other hand, the international airports in the United Kingdom develop their commercial airport services regarding to the airport city concept strategy. As the consequence of the airport city concept strategy, the airport development needs to involve privates in the higher portion. In the United Kingdom, the fully private model is a must for the airport industry (Graham, 2013). Sooner, the airports in the United Kingdom are becoming the great opportunity for the business sector.

Figure 4.6 shows the different form of private involvement on the airport governance model. Barra as the local airport still stays under the fully public model in the form of a publicly owned company, Highland and Islands Airports Limited (HIAL). The company as the part of Scottish government will know better the needs of the airport since the airport's location is in the Scotland region. This shows the Scottish government can be assumed as the local government that also has a task to develop the airport surrounding area. Although the goal is not getting the profit from commercial services, the using of the company form on its governance makes the airport management to be more professional. To serve the passengers, the airport still provides commercial services at the airport at a small scale by involving local businesses such as souvenir shops and restaurants to develop and promote the local opportunities within the area (Highlands and Islands Airports Limited, 2015).

Since all international airports in the United Kingdom implement the characteristics of the airport city concept, they definitely have to involve privates in providing commercial airport services. Practically, the strategy of the airport governance is different among airports. For example, Manchester International airport takes the majority public model under local government control. At the Birmingham International airport, the local government sold its shares to getting additional funding not for short term. The similarity of both airports is the higher role of the local government rather than the central government in developing the airport.

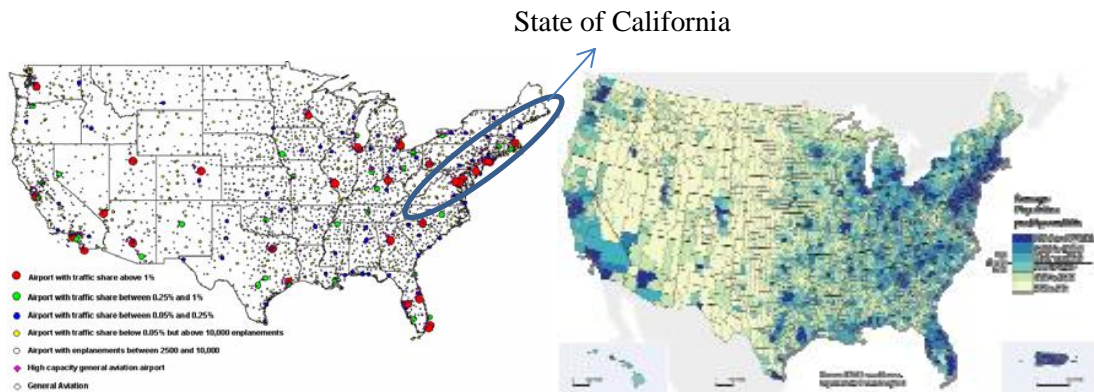
Sooner or later, the function of the airports in the United Kingdom is not just serving for airport passenger and the people in the city within an airport region, but they will become national assets in getting more income for the country, London Heathrow International airport as the example. At the end, the airport can be seen just as a business thing. At London Heathrow airport case, the government takes a strategy in offering a large opportunity for any person (company) to invest in this industry. At the same time, the government has the another focus for financing other infrastructures or country's needs. This strategy is supported by the fact that the airport as the busiest airport in the world by offering high connectivity will absolutely give higher income as long as under a good management control.

From the case of the United Kingdom airports, there is an airport development plan from a transportation infrastructure like at Barra airport, an airport city like at Manchester International airport and Birmingham International airport, and a business center like at the Heathrow International airport. It will depend on the function of each airport regarding to their classification within an urban context. As the consequence, the airport services between the local airports and international airports are different. International airports apply the airport city concept to develop not just airport, but also the city. Even, Heathrow International airport offers a business center by providing a greater airport city. Basically, all airports in the United Kingdom are under controlled by the local government before reforming to new airport governance strategy. This shows the role of local government is important to support the synchronization development between the airport and the city.

## **IV.2 The United States**

### **IV.2.1 Airport Classification in the Urban Context**

In the year 2013, the distribution of airports in the United States was composed of 19,453 airports including 5,155 airports for public use, 14,009 airports for private use, and 289 airports for military use (United States Department of Transportation, 2014). Figure 4.7 illustrates the map of airport distribution while Figure 4.8 shows the spread of population in the US. Based on these both figures, a region with a high density of population has more airports rather than another region. For example, the State of California, a high population density in the United States, has more than one commercial airports (Bonney and Hansman, 2005).



**Figure 4.7 Distribution of Airports in the year 2004** (Source: Bonnefoy and Hansman, 2005)

**Figure 4.8 The Spread of Population in the year 2004** (Source: Bonnefoy and Hansman, 2005)

The main international airport in this country is Atlanta Hartsfield International Airport (ATL). Besides that, there are so many international airports having high passenger traffic like John F Kennedy International airport and Los Angeles International Airport. Besides that, the United States also has regional and local airports to support its connectivity.

In the 1970s, the concept of an airport city was firstly introduced in the United States (Paneda et al., 2011). In this country, the airport city concept is viewed as a means of increasing non-aeronautical revenues, obtaining economic development and creating job opportunity (Perry and Raghunath, 2013). The characteristics of the airport city concept could be found at several airports, such as Atlanta airport, Dallas airport, Denver airport, Detroit airport, Piedmont Triad airport, Indianapolis airport, Memphis airport, San Francisco airport, Las Vegas airport and Pittsburgh airport (Kasarda, 2008).

#### **IV.2.2 Overview of Airport Governance Strategy in the United States**

Since the aviation industry has established in the 1920s, it takes local governments' attention to own and operate airports in the United States (Ernico et al., 2012). Up until the present time, the airport governance model in the United States airports is a publicly model consisting of municipal governments (cities and counties), single-purpose airport authority, multi-purpose port authorities, and state government. The government of the United States considers airport as the public infrastructure in serving the citizens and connecting the region

should be a task of the government. The government is still being the dominant actor in this industry, particularly for the local government. Reasons for using the public majority governance model are to deliver standards of performance, to control public interest, and to set fair rates for airport services (DeNeuville, 1999). The following list will explain about the dominant governance structure in the United States airports, according to the study from Wyman (2013).

#### 1. Department of a City, County, or State

Airports are directly governed by individual government, such as a city, county, or the state department of transportation. The airport manager will give reports directly to its department, such as the mayor or city manager, county executive or county commissioners, or to the state representatives. The examples of this model are Atlanta International airport operated by City of Atlanta, McCarran International airport operated by Clark County, and Baltimore-Washington International airport operated by the Maryland Aviation Administration (Wyman, 2013).

#### 2. Multi-Modal Port Authorities

A port authority is a governmental or quasi-governmental public authority for a special-purpose district to operate ports and other transportation infrastructure. Multi-modal here means considering the integration of various modes, such as the integration between airport and seaport. For example, the Port Authority of New York and New Jersey (PANYNJ) is responsible for five airports including John F. Kennedy International airport, and also seaports in their area.

#### 3. Airport Authority or Other Special Purpose Governance

This governance model refers to a quasi-governmental like a government consortium that has responsibility only for the operation of an airport or group of airports. For example, Fort Worth International airport in Dallas is operated by the DFW Airport Board of Directors consisting of the local governments of Dallas city and Fort Worth city.

#### 4. Privatized airport governance

The Federal Aviation Administration (FAA) runs a pilot program, namely Airport Privatization Pilot Program or APPP, as a method for increasing private participation and especially private capital in airport operation and development. Two airports (Stewart International airport and Luis Munoz Marin International Airport) were approved by the FAA, but the Stewart International airport had applied the fully private model only for about seven years (2000-2007).

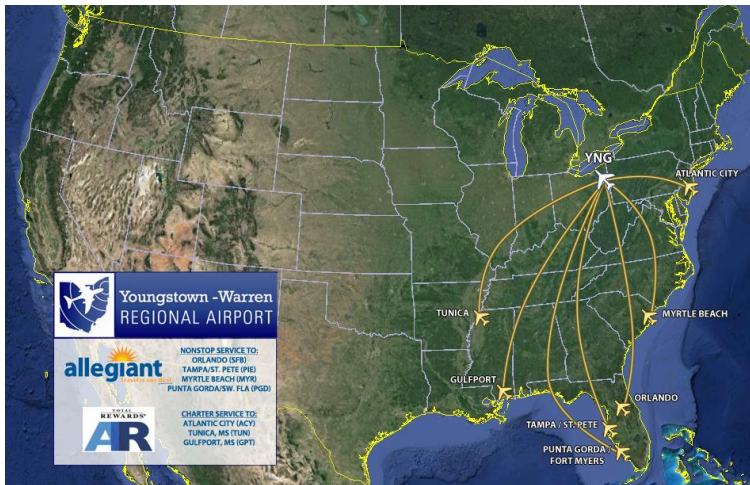
Although the United States does not take the full privatization governance model, the government always involves privates in airport management such as planning, design, finance, operations, pricing, and access is higher than other countries in the world (DeNeuville, 1999). In 1996, The Federal Aviation Reauthorization Act of 1996 established the Airport Privatization Pilot Program (APPP) (Ernico et al., 2012). The purpose of the program is to increase private involvement, especially private capital investment in airport operations and development. Unfortunately, there were two of ten APPP airports (Luis Munoz Marin International airport and Stewart International airport) that have completed the entire privatization process.

#### **IV.2.3 Examples of Airport Governance Strategy in the United States**

This study tries to classify the airports in the United States considering their airport governance strategy, including airport governance models and related combination strategies from internal and external aspects such as, availability routes, functional role, airport area planning model within an urban context.

##### **1. Youngstown-Warren Regional Airport (YNG)**

At 2014, the airport reached 65.983 passengers (FAA, 2015). Youngstown-Warren Regional Airport has cooperated with one airline company (Allegiant Air) to serve 4 domestic destinations that are Orlando, Tampa Bay, Punta Gorda, and Myrtle Beach (Figure 4.9). Since it has not yet applied the strategy of airport city concept, the airport's orientation is not about commercial services, but just being as a transportation infrastructure for passengers using air transportation services.



**Figure 4.9 Youngstown-Warren Airport Locations with Its Flight Destination**

Source: Western Reserve Port Authority, 2012

The airport is owned and managed by the Western Reserve Port Authority since 1992. Western Reserve Port Authority as independent units of Ohio State government conduct the development in the Mahoning Valley area. The purposes of this port authority are developing transportation for all modes, and developing economy, housing, recreation, education, culture, and research. This port authority invites stakeholders such as privates, non-profit organizations and other government entities in making a partnership to develop the Mahoning Valley area.

Table 4.5 shows the strategy of Youngstown-Warren Regional airport as fully public governance model in the United States. The strategy includes external and internal aspects that give consequences to the airport governance.



**Table 4.5 Strategy of Youngstown-Warren Regional Airport as Fully Public Governance Model in the United States**

<b>Aspects</b>	<b>Characteristics</b>
<b>External</b>	
Airline companies	1 airline company
Destination route	4 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Regional airport
<b>Airport city concept</b>	Non airport city concept
Connectivity	Limited
Commercial activities	No
Airport development plan	Transportation infrastructure in the city
<b>Airport governance application</b>	
Airport governance model	Fully public model
Coordination form	Multimodal port authority
Actors	Local government
Reason	Synchronize development of all infrastructures in the city

According to the Table 4.5, The Youngstown-Warren regional airport has lower air traffic, offers regional airport role, and implements the basic function of the airport without considering the airport city concept strategy. To develop the airport function as transportation infrastructure in the region, it needs the local government who knows the actual region condition to support airport development. The strategy of this airport can be a lesson learned for local or regional airports in Indonesia.

**2. Atlanta Hartsfield International Airport (ATL)**

Atlanta Hartsfield International Airport (ATL) is the main international airport in the United States as well as the busiest airport in the United States with 96.178.899 passengers in 2014 (FAA, 2015). The airport has cooperated with 8 domestic airline companies and 7 international airline companies by serving more than 100 destinations within and between the countries.

Like all major airports in the United States, Atlanta Hartsfield International Airport uses the public majority model on its airport governance strategy. This airport is owned and managed by the city of Atlanta. Although the airport is still under government control, the government has involved the privates in developing the airport through the management contract scheme. For example, its main passenger terminal is operated and maintained by the Atlanta Airlines Terminal Corporation (AATC) and its international terminal facilities are contracted to TBI Airport Management. Figure 4.10 shows the location of Atlanta Hartsfield International Airport within other busiest airports in the United States in 2014



**Figure 4.10 Location of Atlanta International Airport with Other Busiest Airports in the United States In 2014**

Source: Maps of World, 2015

In 2008, the airport was planned to be Aerotropolis, the greater airport city (Perry and Raghunath, 2013). This concept included the development of surrounding airport area with hotels, conference center, data center, business park, retail shopping, a 4000 space airport parking facility, 200,000 square feet of mixed-use office space, pet hotel/spa, service plaza (gas station, convenience stores, and dry cleaner), MARTA rail system, and other integrated transportation modes. In 2014, The Atlanta Regional Commission (ARC) as an intergovernmental coordination agency for 10-county Atlanta area and the City of Atlanta plans a regional development in the Atlanta region area that established the Atlanta Aerotropolis Airport Alliance. The members of this organization are the local government,

the privates, nonprofits organization, and other interested parties located near the airport, including Porsche Cars North America, Georgia Power, Delta Air Lines, Prologis, Duke Realty, Grove Street Partners, Invest Atlanta, Clayton County, Fulton County, Hartsfield-Jackson Atlanta International Airport, City of College Park, City of East Point, City of Hapeville, Metro Atlanta Chamber of Commerce, Atlanta Area Chamber of Commerce, Clayton Chamber of Commerce, South Fulton Chamber of Commerce, and Woodward Academy (Atlanta Aerotropolis Alliance, 2014). The alliance is such a collaborative planning by involving privates to enhance the development of the Atlanta region to be a leader in the global economy.

Table 4.6 shows the strategy of Atlanta International Airport as public majority governance model in the United States. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.6 Strategy of Atlanta International Airport as Public Majority Governance Model in The United States**

<b>Aspects</b>	<b>Characteristics</b>
<b>External</b>	
Airline companies	15 airline companies
Destination route	Over 100 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Main international airport
<b>Airport city concept</b>	Airport city concept
Connectivity	Good via shuttle, bus, train, rental car, and taxi
Commercial activities	Yes
Airport development plan	Enhance Atlanta region to be a business center leader in the United States in the future
<b>Airport governance application</b>	
Airport governance model	Majority public
Coordination form	Management contract
Actors	Local government in ownership, Coordination between local government and private in management
Reason	Keeps the presence of the airport as the vital asset for the government.

According to the table 4.6, The Atlanta International airport has higher air traffic, offers main international airport role, and implements the airport city concept strategy. The main goal of the airport is not about highest profit, but offering the sustainable development in the Atlanta region in order to generate benefits for the country. The strategy of this airport can be a lesson learned for international airports in Indonesia such as the Soekarno Hatta International airport.

### 3. Luis Munoz Marin International airport (SJU)

Luis Munoz Marin International airport (SJU) is located in the capital of Puerto Rico state, specifically in the San Juan as the largest city in the Puerto Rico. The airport reached 4.150.828 passengers in the year 2014 (FAA, 2015). The airport offers flights to 44 destinations that served by 17 airline companies. The airport area planning model of this airport cannot be said following airport city concept because of no following the airport city characteristics for its connectivity, commercial activities, and airport development plan. One of the reasons is the lack budget of the Port Authority to develop the airport and even the city. The interesting point from the airport is the availability of domestic and international flights to various destinations. The presence of the airport will support the development of San Juan city and Puerto Rico state. Although the airport has not implemented the airport city concept explicitly for its development, the airport provides the airport and city integration as long as the airport is still being under the Puerto Rico Ports Authority as Local Government who will support the airport needs. Figure 4.11 Shows the location of APPP airports, including Luis Munoz International airport and Stewart International airport.



**Figure 4.11 Ten Airports of the Airport Privatization Pilot Program**

Source: United States Government Accountability Office, 2014

Luis Munoz Marin International airport (SJU) is owned by the Puerto Rico Ports Authority (PPPA). The Puerto Rico government has recently experienced deficit income and the port authority cannot afford to finance the airport development. The airport needs a new strategy to make airport improvements as the exit way of the financial problem. In 2013, the FAA approved the strategy of airport privatization through concession for a 40-year to the private operator. Aerostar Airport Holdings LLC is selected to operate the airport. The company consists of Aeropuertos del Sureste as an operator of nine Mexican airports and Highstar Capital, which has made investments in Baltimore and London (Camargo, 2013). Aerostar Airport Holdings LLC paid \$615 million to the Puerto Rico Ports Authority in upfront proceeds and will pay again about \$600 million from revenue sharing over the 40-year lease. Aerostar agreed to improve airport services by developing the airport with budget about \$1.2billion, including a \$200 million for terminal reconfiguration within the first two years (Tang, 2014).

Table 4.7 shows the strategy of Luis Munoz Marin International Airport as a semi private governance model in the United States. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.7 Strategy of Luis Munoz Marin International Airport as Semi Private Governance Model in The United States**

Aspects	Characteristics
<b>External</b>	
Airline companies	17 airline companies
Destination route	44 destinations
<b>Internal – airport classification</b>	
<b>Functional role</b>	International airport
<b>Airport city concept</b>	Non airport city concept
Connectivity	Limited via taxi or autobus
Commercial activities	No
Airport development plan	Develop the integration between the airport and the city
<b>Airport governance application</b>	
Airport governance model	Semi private
Coordination form	Long term concession
Actors	Coordination between local government and private in ownership and management for 40 years
Reason	Finance the airport development

Table 4.7 shows the strategy of the Luis Munoz Marin International airport as a semi private governance model in the United States. Luis Munoz Marin International airport has higher air traffic, offers international airport role, but it still does not implement the airport city concept. The main goal of the airport is not about highest profit, but getting the extra financing to develop the airport and the city.

#### **4. Stewart International airport (SWF)**

Stewart International airport (SWF) is a different example of a fully governance model strategy that was not successful implementation. This international airport is located in the historic of Newburgh, about 57 miles north of New York City (Figure 4.14). This is a non-hub airport by that has a few passengers under one million passengers in a year. At 2014, the airport reached 158.556 passengers (FAA, 2015). The airport has cooperated with 4 airline companies (Allegiant, Jetblue airways, Delta connection, and US airways express) and offers flights to 5 destinations.

Being reliever for other airports in the New York State, Stewart international airports has not developed through the airport city concept strategy yet. The first governance model of Stewart International airport was public majority under the Port Authority of New York. This airport has contracted airport facilities such as operation of parking facilities, cargo facilities, and rest facilities with private companies. The offered services at the airport are not many, only food and beverage concessions, including two cafes and one retail.

In 1999, the agreement between the local government and the private was signed and became effective on April 2000, Stewart International airport formally became the first privatized commercial service airport in the United States under the Airport Privatization Pilot Program (APPP) through a fully private model. The States of New York and New Jersey as the Port Authority of the airport sold the airport to the UK-based National Express Group (NEG) for \$35 million and annual payment equal to 5% of gross income. The contract duration of lease agreement was a 99-year lease. The purpose of the privatization of the airport are to leverage the expertise of the private sector in developing the airport with its fullest potential, to develop the real estate on the vast site to create jobs and economic development, to get out of the usual business of managing airports, and to introduce private sector participation in operations (Ernico et al., 2012).

During the operation time, NEG could not realize its proposed idea to operate an express bus service between New York City and SWF in order to stimulate low fare service from the airport. Unfortunately, The passenger volume during the NEG management decreased. NEG wanted to get a financial return immediately and was not interested in investing in the airport (United States Government Accountability Office, 2014). NEG sold the lease back to the Port Authority of New York and New Jersey after its seven years operation for \$78.5 million. Through a fully private governance model, the airport could not contribute to economic development, but the airport operator just focused on airport operations for its profit. Hence, the airport still needs a local governance structure than a state department to develop the airport as well as contribute to the regional economy. Finally, up until this time, the operation of Stewart International Airport has returned to public control through the public majority governance model.

Table 4.8 shows the strategy of Stewart International Airport as a fully private governance model in the United States. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 4.8 Strategy of Stewart International Airport as Fully Private Governance Model in The United States**

Aspects	Characteristics
<b>External</b>	
Airline companies	4 airline companies
Destination route	5 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	International airport
<b>Airport city concept</b>	Non airport city concept
Connectivity	Limited via taxi, bus and taxi
Commercial activities	No
Airport development plan	Develop an airport as transportation infrastructure
<b>Airport governance application</b>	
Airport governance model	Majority public
Coordination form	Management contract (now), share flotation (previously)
Actors	local government (now), fully private (2000-2007)
Reason	Introduce the private involvement in airport industry in the United States (unsuccessful). Now, the government role keeps the function of the airport.

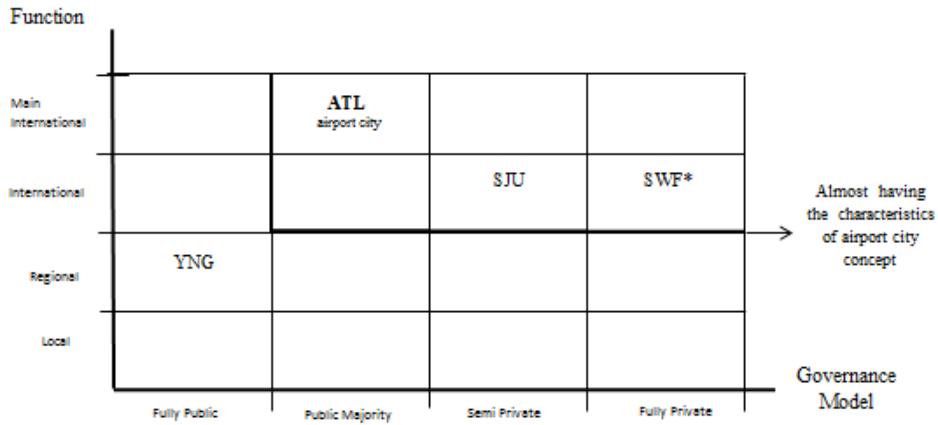
According to the table 4.8, now, Stewart International airport still has lower air traffic, offers international airport role, but it does not implement the airport city concept strategy. The main goal of the airport is not about profit, but getting the extra financing to develop the airport and the city.

#### **IV.2.4 Synthesis of Airport Governance Strategy in the United States Case**

There is a different implementation of governance models among airports in the United States. The Figure 4.12 shows airport clusters by combining airport classification and airport governance models for 4 (four) airports in the United States. The airport governance models

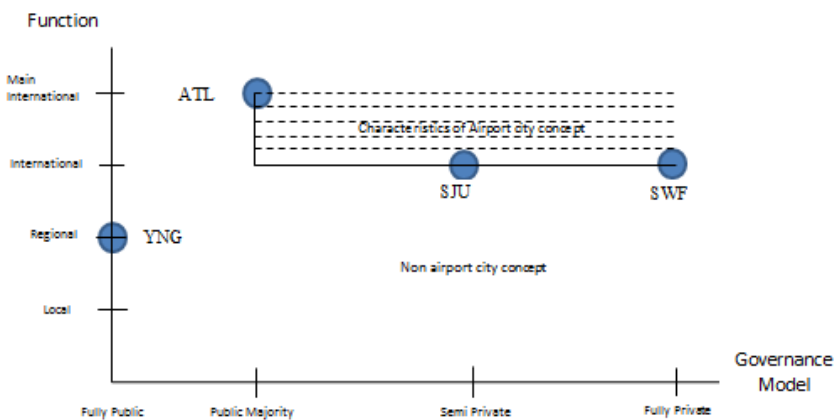


for Youngstown-Warren Regional Airport (YNG), Atlanta Hartsfield International Airport (ATL), Luis Munoz Marin International airport (SJU), and Stewart International Airport (SWF) can be illustrated by Figure 4.13.



\* started with public majority, then reformed to fully private in the year 1999, returned back to majority public in the year 2007

**Figure 4.12 Airport Clusters in the United States**



**Figure 4.13 Airport Governance Models in the United States**

Surprisingly, Figure 4.12 shows the airports with semi private and fully private models have not been developed according to the airport city concept strategy. In a fact, almost the development of all major airports in the United States based on the airport city concept (Kasarda, 2011). Besides that, all international airports, excluding Luis Munoz Marin International airport and Stewart International airport, implement the public majority

governance model. It means all airports in the United States, except these two airports are still fully owned by the government and implement airport city concept strategy.

From the Figure 4.13, Youngstown-Warren Regional airport uses a fully public governance model. The function of airport for connectivity, not for getting revenue can be a reason why it still uses the fully public governance model. The similar thing from the United Kingdom is the important role of local government in having responsibility to develop the airport. The other interesting thing, since the Youngstown-Warren Regional airport is under multipurpose port authority, the port authority will make an integration plan with other infrastructures in the whole region. It will support the comprehensive plan of the region.

Atlanta Hartsfield International Airport like other major airports in the United States develop its airport regarding to the airport city concept strategy under a public majority airport governance model. Local government always tries to make innovation such as an Aerotropolis alliance that consisting of privates and other organization. It indicates the private involvement in airport development is very welcome and higher, even though the airport has not used semi private or fully private model.

Then, Luis Munoz Marin International airport has implemented the semi-private governance model since 2013. It is still a short time to prove the successful implementation of the model in this airport. As the preventive strategy, Aerostar Airport Holdings LLC as its new owner should realize its plans to develop the airport within two years. Besides that, as an early case of the semi private governance model in the United States, Aerostar Airport Holdings LLC is given to develop the airport only for 40 years, not for a long time like the Stewart International airport.

The last, unsuccessful story of the Stewart International airport can be a lesson learned too. The commitment and the vision of the private to develop the airport should be important considerations in applying the privatization model, especially fully private governance model. Indeed, the United States government approved the privatization model through semi private and fully private models only for non-major airports. In a fact, the passenger volume in Stewart International airport is very small under 1 million a year. It can be a difficulty for private to get profit from the airport immediately. To attract more passengers, the airport

should develop the attraction of the airport surrounding area and deliver a good connectivity with other transportation modes following the airport city characteristics. The characteristics cannot be found at the Stewart International airport. The private just focused on the airport planning, not for the airport development plan. Hence, the development of the airport still needs collaboration with the local government and privates to provide better airport services.

In essence, there is a different of policy ideology between the United Kingdom and the United States. The United Kingdom assumes the airport function tends to be a business model, while the United States assumes the airport function keeps being a public task. Recently, the government of the United States has considered the semi-private and fully private governance models for a few airports. This can be a beginning of airport governance strategy for major airports in the United States. Nevertheless, the role of local government in both countries is very high. The local governments develop not just the airport as physical transportation infrastructure, but also develop the city by considering the airport functions. To obtain the integration of airport-city development, both countries implement the strategy of the airport city concept, particularly in their major airports. As the consequence, both countries should invite the private to invest in the airport development as the way to become a successful airport city, even though both countries implement different airport governance models.

## CHAPTER V

### AIRPORT GOVERNANCE STRATEGY IN INDONESIA

This chapter analyzes airport governance strategy in Indonesia, especially in the Soekarno Hatta International airport, new Yogyakarta International airport and Radin Inten airport that have implemented or have planned to use privatization governance model. First, it will give an explanation about the existing airport governance strategy in Indonesia, including the airport classification within the urban context and the existing airport governance models. Then, this chapter will provide a comparative analysis between the three countries: the United Kingdom, the United States and Indonesia, including the external and internal aspects, such as airport classification with its consequences of airport governance. The last, it will give strategy recommendations that might be useful to be adopted for Indonesia in order to implement the new airport governance strategy, including the required airport governance models in Indonesia.

#### **V.1 The Existing Airport Governance Strategy In Indonesia**

Indonesia has 237 airports for scheduled flights, including 6 main international airports (Soekarno Hatta International airport in Banten, Kualanamu International airport in North Sumatera, Juanda International airport in East Java, I Gusti Ngurah Rai International airport in Bali, Sultan Hasanuddin airport in South Sulawesi, and Sepinggan International airport in East Kalimantan), 19 international airports, 13 regional airports, and 199 local airports (Transportation Regulation 69, 2013). All airports are located over 33 provinces in Indonesia. The main international airports are being the primary hub in this country. International airports are being the secondary hub. Regional airports are being the tertiary hub. Local airports are being the spoke in the national connectivity. The Figure 5.1 illustrates the airports map in Indonesia, including the location of three cases: Soekarno Hatta International airport (CGK), new International airport in Yogyakarta, and Radin Inten airport (TKG).



Figure 5.1 Map of the Indonesian Airports (Source: Transportation Regulation 69, 2013)

All scheduled flights airports in Indonesia belong to publicly airports for its airport governance. There are two publicly own companies (PT. Angkasa Pura I for airports in eastern of Indonesia and PT. Angkasa Pura) manage 25 international airports, including Soekarno Hatta International airport and new international airport in Yogyakarta. Ministry of Transportation as central government manages 184 regional and local airports, including Radin Inten airport. Local government manages only 1 regional airport and 27 local airports (Ministry of Transportation, 2015). All airports follow the airport management regulation and standard from the Ministry of Transportation. There is a budget allocation from central government funding for all airports to develop their airports. Even regional and local airports only depend on the funding from the central government. In this situation, the dominant actor of airport sector in Indonesia is central government, not local government and private.

#### **V.1.1 The Existing Airport Governance Strategy at Soekarno Hatta International Airport**

Soekarno Hatta International airport is intended as the main gate of Indonesia country. The location is near the center of Jakarta, the capital city of Indonesia. Additionally, almost all international flights are focused at the Soekarno Hatta International airport. In the year 2014, Soekarno Hatta international airport reached 63.825.645 passengers, including 10.431.088 passengers for international flights (Ministry of Transportation, 2015). The airport has cooperated with 51 airline companies and has served over 100 destinations.

Although no airports in Indonesia have implemented an airport city concept strategy, the redevelopment of the international airports with regards to the characteristics of the airport city concept (Angkasa Pura Airports, 2012). For example, Soekarno Hatta International airport is surrounded by business activities and seems to be a new city. In a fact, there are still a few commercial activities at the airport and no integration transportation to business activity's locations near the airport. The problem of the airport city strategy implementation at this airport are the limited land to redevelop the airport facilities, limited connectivity via public transportations while the airport really depends on the road transportations that have no fix time because of traffic jam, and no collaborative planning with other multilevel government such as local government, Spatial Planning Ministry, and privates (Yusuf et al., 2012).

Soekarno Hatta International airport as the busiest airport in Indonesia use public majority governance model with a management contract scheme. PT. Angkasa Pura II public company has responsible in managing the airport. The company has contracted with the private actor for ground handling service and other publicly owned company for fuel supplier. PT Angkasa Pura II also tenders airport services, such as electricity or cleaning services, for short term period to privates.

Table 5.1 shows the strategy of Soekarno Hatta International Airport as a public majority governance model in Indonesia. The strategy includes external and internal aspects that give consequences to the airport governance.

**Table 5.1 Strategy of Soekarno Hatta International Airport as A Public Majority Governance Model In Indonesia**

<b>Aspects</b>	<b>Characteristics</b>
<b>External</b>	
Airline companies	51 airline companies
Destination route	Over 100 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Main International airport
<b>Airport city concept</b>	Non airport city concept
Connectivity	Limited via taxi or autobus
Commercial activities	No
Airport development purpose	Develop to be an airport city
<b>Airport governance application</b>	
Airport governance model	Public majority
Coordination form	Management contract
Actors	Central government, specifically publicly owned company
Reason	Provide better airport services

According to the table 5.1, the airport has higher air traffic, offers main international airport role, but it still does not implement the airport city concept strategy. The main goal of the airport is not about profit, but providing better airport services according to the airport city concept. Now, the airport vision is being an airport city in Indonesia following examples from other airports over the world (Yusuf, 2012).

### **V.1.2 The Existing Airport Governance Strategy at International Yogyakarta Airport**

The central government has developed a new international airport in Kulonprogo, Yogyakarta Province since 2011. This airport will replace the function of Adisucipto International airport in Sleman, Yogyakarta. The replacing reason is because of the over airport capacity. Unfortunately, the existing airport in Sleman has no area to extend or redevelop the airport facilities (Pranoto, 2014). Through developing new international airport in Yogyakarta, the government of Indonesia expects the airport could be the first implementation of the airport city concept strategy in Indonesia (Julaikah, 2014). In the year 2014, the Adisucipto international airport as the existing airport in Yogyakarta reached 8.002.438 passengers (Ministry of Transportation, 2015). Adi Sucipto airport has cooperated with 12 airline companies with 15 domestic destinations plus two international destinations to Singapore and Kuala Lumpur.

PT. Angkasa Pura I public company has a responsibility to develop new airport in Yogyakarta. They have cooperated with Grama Vikash Kendra (GVK) from India since 2011. It belongs to semi private airport governance model through trade sales. GVK has a 49% share in the development of the new airport in Kulonprogo (Julaikah, 2014). The remaining share is still owned by PT. Angkasa Pura I. By this year, the development of this new airport has not been realized because of social conflict in the society.

Table 5.2 shows the strategy of Adisucipto International Airport in Yogyakarta as planned to be replaced by a new International airport in Kulonprogo, Yogyakarta with a semi private governance model. The strategy includes external and internal aspects that give consequences to the airport governance.



**Table 5.2 Strategy of Adisucipto International Airport in Yogyakarta that will be Replaced by a New International Airport in Kulonprogo, Yogyakarta with a Semi Private Governance Model**

Aspects	Characteristics
<b>External</b>	
Airline companies	12 airline companies
Destination route	17 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	International airport
<b>Airport city concept</b>	Non airport city concept (existing airport)
Connectivity	Limited via taxi or autobus
Commercial activities	No
Airport development purpose	Develop an airport city
<b>Airport governance application</b>	
Airport governance model	From public majority (existing airport) to a semi private (planned airport)
Coordination form	Management contract (previously) and sharing 49% shares with privates (now)
Actors	Central government, specifically publicly owned company
Reason	To finance airport development with better management performance

According to the table 5.2, the airport has higher air traffic, offers international airport role, but it still does not implement the airport city concept as its airport governance strategy. The main goal of the airport reform is to get financial support to develop a new airport in Yogyakarta. It will introduce a new scheme of airport management and be a pioneer the use of a semi private governance model in Indonesia.

### **V.1.3 The Existing Airport Governance Strategy at Radin Inten Airport**

Radin Inten airport as the third case in this study is the regional airport and the only one airport in Lampung Province, Indonesia. As a regional airport, Radin Inten just serves domestic flights. In the year 2014, Radin Inten airport reached 634.497 passengers (Ministry of Transportation, 2015). The airport has cooperated with 6 airline companies with 8 domestic destinations. Like other regional or local airports, Radin Inten airport has the limited function just as the transportation infrastructure in Lampung Province, not focus on

commercial activities like the characteristics of the airport city concept. The transportation connectivity to and from the airport is only using taxi. There is no large space for commercial activities at the airport.

Radin Inten airport is the example of fully public airport governance model in Indonesia. Radin Inten airport is owned and managed by central government, specifically the Ministry of Transportation. In 2013, this airport with 9 other regional airports are planned to take privatized governance model (Directorate General of Civil Aviation, 2013). Until this year, this plan is being studied by the Ministry of Transportation. The Ministry of Transportation has not given any recommendation about the airport governance model that is appropriate for the Radin Inten airport.

Table 5.3 shows the strategy of Radin Inten airport that planned to be privatized governance model in Indonesia. The strategy includes external and internal aspects that give consequences to the airport governance.

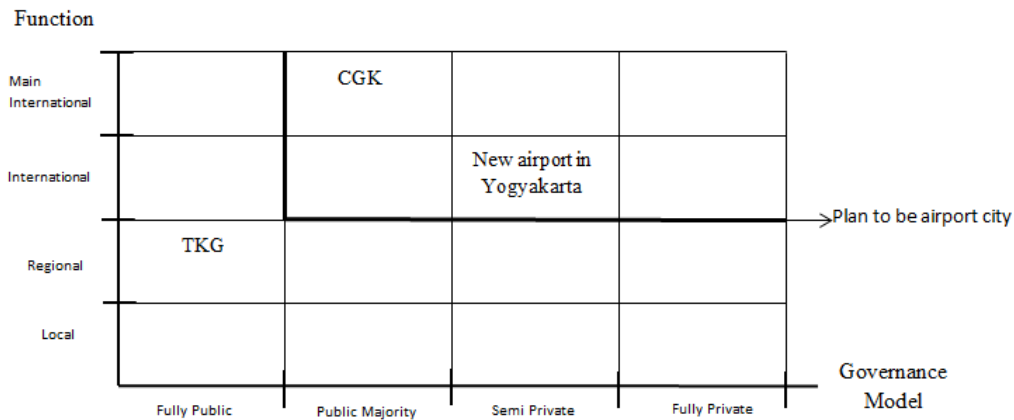
**Table 5.3 Strategy of Radin Inten Airport that Planned to be Privatized Governance Model in Indonesia**

<b>Aspects</b>	<b>Characteristics</b>
<b>External</b>	
Airline companies	6 airline companies
Destination route	8 destinations
<b>Internal (airport classification)</b>	
<b>Functional role</b>	Regional airport
<b>Airport city concept</b>	Non airport city concept
Connectivity	Limited, only via taxi
Commercial activities	No
Airport city concept	Transportation infrastructure in the city
<b>Airport governance application</b>	
Airport governance model	Fully public
Coordination form	Under government control without commercial orientation
Actors	Central government, specifically Ministry of Transportation
Reason	Through the new governance model, the government hopes the airport will give better airport services

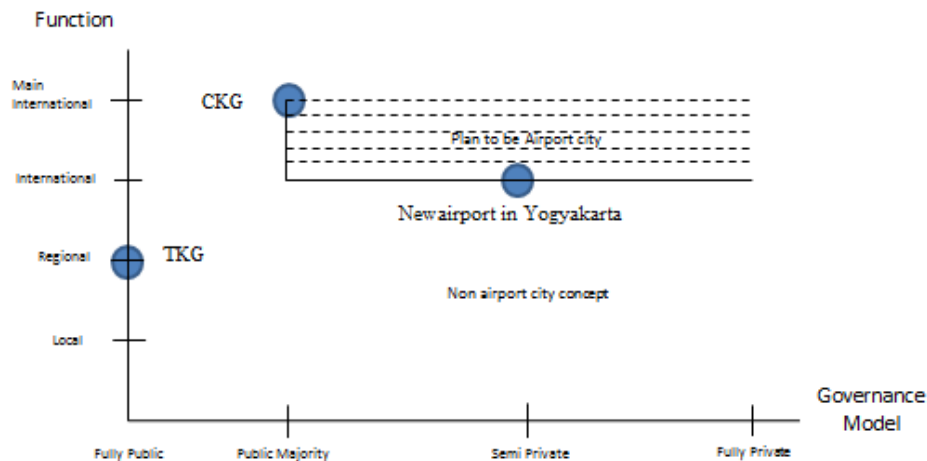
According to the Table 5.3, the airport has lower air traffic, offers regional airport role, but it has not implemented the airport city concept. The main goal of the airport reform is to give better airport services to support the airport function as transportation infrastructure in the city. The airport can give another benefit for the city such as foster economic growth.

## V.2 Airport Governance Models in Indonesia

Using the develop airport governance models, airports in Indonesia have implemented a public majority model for all international airports, and a fully public model for remaining airports, including regional and local airports. The central government has started to take a new airport governance strategy from a public majority model to semi private model for one international airport in Yogyakarta. Besides that, the central government plans to reform 10 regional airports from a fully public model to privatize models. The Figure shows airport clusters for three airports in Indonesia, including Soekarno Hatta International airport (CGK), new airport in Yogyakarta, and Radin Inten airport (TKG).



**Figure 5.2 Airport Clusters in Indonesia**



**Figure 5.3 Airport Governance Models in Indonesia**

According to Figure 5.2 and Figure 5.3, Soekarno Hatta International airport and a new airport in Yogyakarta should consider the strategy of airport city concept like other airports in other countries. This strategy needs private involvement to invest in providing commercial activities at the airport. The other important this is the role of local government to achieve integration between the airport and the city through an airport city concept. In a contrast, Radin Inten airport should consider its function as transportation infrastructure in the city by providing more routes in order to get more passengers as its additional strategy. If the government plans to privatize the airport, the airport should consider strategies that support the implementation of its new governance model. The airport governance strategy can be learned by comparing and learning from other countries like experiences from the United Kingdom and The United States.

### **V.3 A Comparative Analysis of Airport Governance Strategy**

This study will compare different characteristics of airport governance strategy in the United Kingdom, the United States, and Indonesia. It will compare the characteristics from three aspects, that are external strategy, including airline company and routes, internal strategy, including airport classification (functional role and airport area planning model), and the application of airport governance. Table 5.4 shows the comparison among three countries

**Table 5.4 Airport Strategy In The United Kingdom, The United States, and Indonesia**

Aspects	Characteristics		
<b>External</b>			
	<b>The United Kingdom, The United States, and Indonesia</b>		
Airline companies	International airports have cooperated with more airline companies rather than regional/local airports		
Destination route	International airports serve higher air traffic rather than regional/local airports		
<b>Internal (airport classification within urban context)</b>			
	<b>The United Kingdom, The United States, and Indonesia</b>		
<b>Functional role</b>	There are main international, international, regional, and local airports		
	<b>The United Kingdom and The United States</b>		<b>Indonesia</b>
<b>Airport city concepts</b>	All international airports implement the airport city concept, except Stewart International airport in the United States		Non airport city concept strategy
Connectivity	Good connectivity, especially for major airports via train, bus, taxi, etc.		Limited connectivity, usually via us and taxi
Commercial activities	Develop the commercial activities at the airport, the city, and the corridor between the airport and the city. The exception is Stewart International airport just focused on airport planning.		Very few activities at the airport. Airports are just seen as aeronautical activities.
Airport city concept	Develop an airport city and move towards to be a business center, especially in the United Kingdom airports		Has not yet implemented the airport city concept
<b>Airport governance application</b>			
	<b>The United Kingdom</b>	<b>The United States</b>	<b>Indonesia</b>
Airport governance model	Barra airport- fully public, Manchester airport- majority public through joint venture; Birmingham airport- semi private through trade sales; Heathrow airport- fully private.	Youngstown-Warren airport- fully public; Atlanta airport- majority public; Luis munoz airport- semi private; Stewart airport- fully private.	International airports implement a majority public model, except new airport in Yogyakarta will use a semi private model; Other airports implement a fully public model

Coordination form	Large portion for private interest	Under government control, but have coordination with private	Absolutely government control in ownership and management
Actors	Private is the actor who has the highest power in owning and managing the airport. Also coordinated with local government	Local government has the highest power in owning and managing the airport. Also coordinated with private.	Central government has the highest power in owning and managing the airport.
Reason	Get highest profit for a fully private model; The development of airport and city for a public majority model and a semi private model; Connectivity for a fully public model.	The development of airport and city for a public majority model and a semi private model; Connectivity for a fully public model.	The development of airport and city for a public majority and a semi private model; Connectivity for a fully public model.

According to table 5.4, Indonesia has different characteristics with the United Kingdom and the United States on the airport city concept strategy and airport governance implementation, including main actors, coordination form, and reason. The development of all airports in the world, especially international airports, follows the airport city concept characteristics. In the United Kingdom and United States, all major international airports with higher passenger volume implement the characteristics of the airport city concept, such as the integration of other transportation modes to the city center and any places within the whole of the city area. Besides that, the airport city concept strategy offers the airport becoming another of city center through providing business center and commercial activities. In this case, both United States and United Kingdom have another airport function not just as transportation infrastructure, but also as the city where offers another commercial center. The exception is for international airports that have lower passengers like the Luis Munoz International airport and Stewart International airport have not implemented the airport city concept yet. These airports still focus on how to attract people to use the airport. In this perspective, the airport

function is being the transportation infrastructure in the city, not being as the airport city in contributing to the economic growth of the city, or even not becoming a business industry in getting higher revenue for the airport, the city and the country. The major international airports in Indonesia are also developed according to the airport city concept, though there are problems to realize the concept in the existing airports. As the initiation step, the central government will develop new airport in Yogyakarta to be the first airport city in Indonesia.

The strategy of the airport city concept has the consequence on the airport governance. Providing more commercial services needs more involved stakeholders, including the private. The success of the airport city concept depends on the success of the collaborative planning among various stakeholders in developing the airport and the airport region area. Local governments who know the local condition has limited power in participating to develop the airports in Indonesia. Indeed, local government has firstly managed airports in the United Kingdom and the United States on their airport governance before making collaboration with other related stakeholders. The role of local government here is important to synchronize the airport planing with the city planning. The role of local government could not be found importantly on airport governance in Indonesia. The airport development plan is only under controlled by central government, Ministry of Transportation.

#### **V.4 Lessons from the United Kingdom and the United States**

Indonesia can learn the strategies from both the United Kingdom and the United States such as offering interesting international routes, implementing the airport city characteristics, taking a collaborative planning with the local governments and private, and making a comprehensive plan between an airport planning and a city planning. The airport governance strategy in The United Kingdom and the United States takes a long time process. Before London Heathrow International airport has implemented the fully private model, the airport implemented the majority public and semi-private models respectively. After that, other airports in the United Kingdom follow the strategy from the London Heathrow International airport to involve the private to participate in airport management.

Although the local government of Manchester city can manage its airport development successfully, the local government of Manchester city keeps involving the private in order to be more innovative in developing the airport and the city. This strategy is similar to the Atlanta International airport strategy. The Atlanta International airport made an Aerotropolis alliance by involving various stakeholders, under controlled by the local government. On the other words, through the model, the local government still has the strong power without sharing its ownership to the private. The strategy of majority public has been applied in all international airports in Indonesia. The different thing is the role of local government in developing the airport is lower. It indicates no collaborative planning here. There is such a monopoly system when the only two publicly owned companies in Indonesia who have responsibility in managing all international airports in Indonesia, seems no new innovation and no competition. The companies manage all airport development processes through planning, constructing, until monitoring only by themselves.

For other airport governance models, the United States and Indonesia have just applied the semi-private model for one airport in each country no any positive reviews yet. The successful example of the semi-private model is at the Birmingham International airport in the United Kingdom. To be more professional in getting more revenue as the airport city, the Birmingham International airport involves the private as the part of its ownership and management. Through the model, the airport wants to get financing and improve its airport services professionally. Besides that, the model offers the risk sharing between the government and the private. The success factor is the commitment of each stakeholder to develop an airport city together.

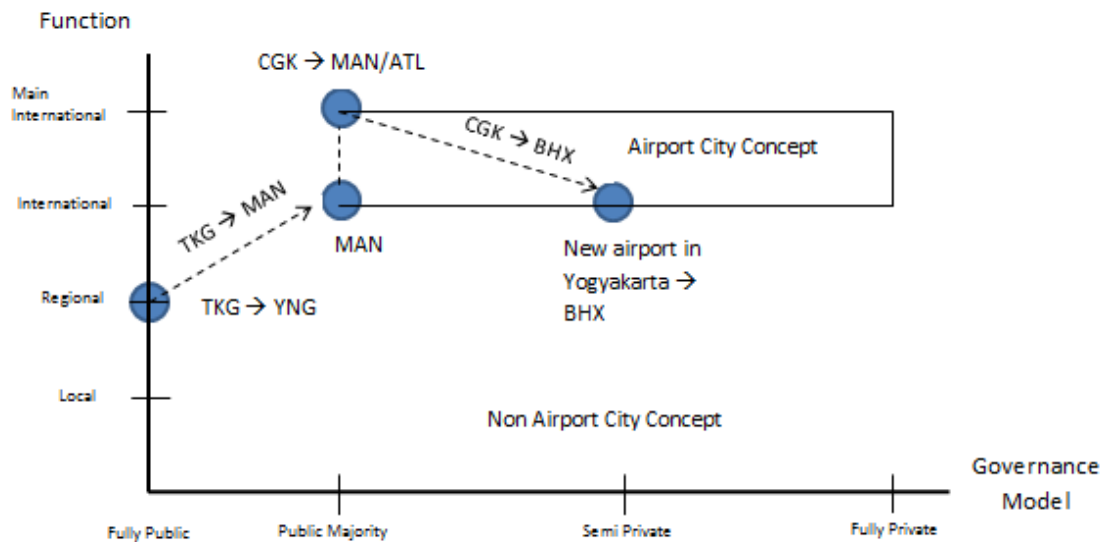


After becoming successful as transportation infrastructure in attracting more passengers as well as being an airport city in creating a city center, the London Heathrow international airport attracts privates to gain more profit from the airport. In this situation, the airport will add the airport function as the business center. The different situation was happening in the Stewart International airport in the United States. Even though the airport attracted lower passenger number, the airport kept using the fully private model. In this case, the private will be difficult to develop the airport because the private cannot get revenue from the airport in aeronautical services immediately. The other impact, the private had no capable to develop the airport area, according to the airport city. Finally, the airport cannot be an interesting business anymore. Figure 5.4 shows airport clusters at Barra airport (BRR), Manchester International airport (MAN), Birmingham International airport (BHX), London Heathrow International airport (LHR), Youngstown-Warren Regional Airport (YNG), Atlanta Hartsfield International Airport (ATL), Luis Munoz Marin International airport (SJU), Stewart International Airport (SWF), Soekarno Hatta International airport (CGK), new airport in Yogyakarta, and Radin Inten airport (TKG).

Function		Governance Model			
		Fully Public	Public Majority	Semi Private	Fully Private
Main International			<b>ATL</b> = more routes, major airport, good integration with other modes, large commercial activities, local government dominant, management contract, aerropolis alliance, business orientation <b>CGK</b> = more routes, major airport, public owned company, no integration with other modes, limited commercial activities, limited land, no collaborative planning, airport city orientation		<b>LHX</b> = more routes, major airport, good integration with other modes, large commercial activities, share flotation, business orientation
			<b>MAN</b> = more routes, major airport, good integration with other modes, large commercial activities, local government dominant, project finance, airport city orientation	<b>BHX</b> = more routes, major airport, good integration with other modes, large commercial activities, collaboration between local government and private, share flotation, business orientation <b>SJU</b> = more routes, airport city orientation <b>Yogyakarta airport</b> = collaborative planning, trade sale, airport city orientation	<b>SWF</b> = more routes, limited commercial activities, share flotation, business orientation (not success).
Regional		<b>YNG</b> = limited routes, low passengers, limited commercial activities, local government dominant, transportation infrastructure orientation <b>TKG</b> = limited routes, low passengers, central government dominant, transportation infrastructure orientation			
		<b>BRR</b> = limited routes, low passengers, local government dominant in the form of company, transportation infrastructure orientation			
Local					

Figure 5.4 Airport Clusters in the United Kingdom, the United States and Indonesia

According to Figure 5.4, although there are two different airports on the same cluster, they have different strategy such as their vision of the airport (whether for business orientation or not) and the current traffic condition. For example, Youngstown-Warren airport (YNG) and Radin Inten airport (TKG) have a different form of fully public governance model on the same cluster. Radin Inten airport is under the central government, while Youngstown-Warren airport is under local government. Soekarno Hatta international airport (CGK) is on the same cluster with Atlanta International airport (ATL), but they have a different strategy. Soekarno Hatta International airport has just tried to implement the airport city concept to develop the airport area, on the other hand, the Atlanta International airport has moved forward to Aerotropolis concept to make a business center in the United States. New Yogyakarta airport is on the same cluster with Birmingham International airport (BHX) and Luis Munoz International airport. Figure 5.5 shows the option model of airport reform strategy for three airports in Indonesia.



**Figure 5.5 The Option of Airport Governance Models for Three Airports in Indonesia**

According to Figure 5.5, there is an airport governance strategy process through a moving pattern from a fully public model to public majority model to semi private model and finally to fully private model. As the earlier steps of airport reform strategy, Radin Inten airport can learn the airport governance strategy from Youngstown-Warren airport with still using a fully public governance model with a different strategy, such as the involvement of local

government. Another strategy for future, Radin Inten airport can learn from Soekarno Hatta international airport (CGK) and Manchester International airport (MAN) for applying a public majority airport governance model. Soekarno Hatta international airport (CGK) can learn the experiences from Atlanta International airport (ATL) and combine with the experiences from Manchester International airport (MAN) in order to be commercial airport but still using a public majority model. After that, Soekarno Hatta international airport (CGK) can consider the semi private governance model like in Birmingham International airport (BHX). New Yogyakarta airport can learn the airport governance strategy from the Birmingham International airport in order to get success in the implementation of its governance model.

## **V.5 Recommendations of New Airport Governance Strategy for Indonesia**

The strategy recommendations are derived from the lessons or experiences in the United Kingdom and the United States. Indonesia may adopt a strategy from those countries as a policy transfer. The strategy recommendations of airport governance are intended to three airports, including Soekarno Hatta International airport, new Yogyakarta International airport, and Radin Inten airport.

### **V.5.1 The Strategy Recommendations of Airport Reform for Soekarno Hatta International airport**

Soekarno Hatta as the main international airport in Indonesia is the 12<sup>th</sup> busiest airport in the world (Erwin, 2015). PT. Angkasa Pura as the publicly owned company is in charge to manage the airport. The vision of this airport is making it as the airport city then move to Aerotropolis (Yusuf at al., 2012). These are the strategy recommendations that can be learned from the Atlanta International airport, Manchester International airport, and Birmingham International airport experiences:

1. PT Angkasa Pura should collaborate with local government to make synergy of airport development plan between the airport and the city. If possible, there are regular meetings between them to get the same perspective. Soekarno Hatta International airport can copy the idea of alliance from the Atlanta International airport as a collaborative planning method. The alliance consists of various stakeholders, including multilevel governments

and privates. Every decision related to the airport development is a result from the communication within the alliance.

2. To realize the airport city concept strategy, PT Angkasa Pura should involve private participation, especially for local business within the city on how to maximize the benefits from the airport function. The airport can offer the easiest for distributing the goods or having export import activities. Besides that, the airport can provide job opportunities in aeronautical and non-aeronautical services. Through the airport city concept, PT. Angkasa Pura should consider not only about the commercial activities, but also the integrated transportation to and from the airport. For the example, Soekarno Hatta International airport offers high speed train to all central points of Jakarta city, instead of road transportation in order to prevent a traffic jam.
3. As the earlier step to reform the airport, PT. Angkasa Pura can try another scheme of the majority public model. For instance, the airport can move from management contract scheme to Design-Build-Operate-Finance-Maintain scheme through cooperation with private like at the Manchester International airport. The government still has the strong power as the owner and manager of the airport. All decisions keep depending on the government. The role of government is still needed in developing the airport city.
4. After that, to get more income, PT. Angkasa Pura can reform its governance model to a semi private. PT. Angkasa Pura can learn from Birmingham International in managing the airport by involving privates as the active actors in financing and developing for a long term. This makes a risk sharing between them. This model offers the transfer of knowledge in a business management in order to provide professional and better airport services. To maintain the power of the government, the government should have higher shares than private.
5. To implement the strategy of new governance models effectively, it needs a clear regulation about the agreement and the rules between the government and the private. Besides that, it needs a strong commitment of the private not only for getting profit, but also for developing the airport and the city. Because of more commercial activities that will be offered by the airport, the government should involve private sectors who are experts in the respective fields.
6. A fully private model is not recommended for Soekarno Hatta International airport considering to the business orientation of the model. At this time, Soekarno Hatta International airport focuses on developing the airport city. The airport needs

immediately the collaboration strategy of multilevel government to make a solid collaborative plan between central and local government before inviting the private participation.

### **V.5.2 The Strategy Recommendations of Airport Reform for new Yogyakarta International Airport**

Although the agreement between PT. Angkasa Pura and investor from India has signed since 2011, the airport planning has not started yet in this year. These are the strategy recommendations on getting the successful semi private model to Yogyakarta airport that can be learned from Birmingham International airport:

1. PT. Angkasa Pura can offer a number of new interesting routes, including national and international flights, rather than the current routes that offered by the Adisucipto airport as existing airport. For this strategy, PT. Angkasa Pura should cooperate with airline companies and the Ministry of Transportation to support the opening of new routes.
2. Referring to the Birmingham International airport, PT. Angkasa Pura should involve the local government as an important actor to realize the airport city concept. Local government knows the actual condition at the airport location and how to support the airport development by doing synchronization between the city planning and the airport planning. The airport development should consider the impacts to the local communities and the social condition of Yogyakarta Province in the future.
3. To develop an airport city, PT. Angkasa Pura with the local government should develop the corridor between the airport and the city center of Yogyakarta by providing the commercial activities along the area and integrated transportation to and from the airport. For this strategy, the airport needs the private involvement to invest.
4. At this time, a semi private as the current model has been a suitable one for developing a new airport in Yogyakarta. The reason is PT Angkasa Pura absolutely needs more money to develop the new airport. This is a different case from the case of renovation or redevelopment the existing airports.
5. As the preventive strategy, PT. Angkasa Pura set the same vision with the investor to achieve mutual agreement as the commitment together. They should set the target time and the ways in realizing the plan. The central government should support by making the clear regulation and incentive such as the easiness for privates to invest.

### **V.5.3 The Strategy Recommendations of Airport Reform for Radin Inten airport**

These are the strategy recommendations to implement an airport reform strategy on Radin Inten airport as one of 10 regional airports that will be privatized. The airport can learn from the experiences of Youngstown-Warren regional airport, Soekarno Hatta International airport, and Atlanta International airport.

1. Radin Inten should play its strategic role as transportation infrastructure to support the connectivity within Indonesia area. It means, Radin Inten airport facilitates the aircraft passengers to and from the Province by providing more additional interesting routes. As the consequence, the airport should adjust to the airline company needs. For example, the airport provides larger runway to facilitate wide body aircraft. Besides that, the airport should improve the basic needs of the airport, such as terminal capacity and cheaper public transportation from and to the airport.
2. Since the airport has just started to develop its facility, the airport needs the government support, including the finance and the rules as the guidelines. For this strategy, the fully public governance model is still being the appropriate option. The airport can also learn from the Youngstown airport for its airport management strategy. While Radin Inten airport is owned and managed by central government (Directorate General of Civil Aviation, Ministry of Transportation), Youngstown-Warren airport is owned and managed by the local government in the form of multipurpose authority. The authority has responsibility for all public facilities in its region. Through an integrated planning, the Warren city can maximize the function of the airport and other infrastructure like seaport or education land use together. Radin Inten airport should consider the important role of local government, instead of central government. The airport manager should take a collaborative planning between central and local governments to make a decision on the airport development plan.
3. Besides the role of the airport to maximize the airport function as transportation infrastructure, the airport can give benefit as added values to the city. For example, the development of the area around the airport for hotel or commercial activities. That will be such an income from the taxes for the city. The public majority model like in Soekarno Hatta International airport and Atlanta International airport can be the other option for new airport governance models in the Radin Inten airport. Through the public majority model, the airport can provide the commercial activities to get additional

revenue without making it for its first priority. Radin Inten can implement a service contract or a management contract scheme with the privates at the beginning . Next, another model that could be taken is a short term concession for airport facilities, such as a terminal operation for less than five years. It is a good way to adapt and understand the professional working way of privates.

4. To success the airport governance strategy, the airport can evaluate the implementation of new models and its outcome. One of the ways is making a working group that works for assessing and reviewing the transition process from the fully public model to majority public model. A working group consists of the government, urban planner, financial planner, airport engineering and privates to evaluate the airport performance in the early year of transition process related to the implementation of public-private partnership. It can review a successful implementation of an airport governance model.



## **CHAPTER VI**

### **CONCLUSION AND RECOMMENDATION**

This chapter will consist of a conclusion, a recommendation, a generalization and a reflection, and also a contribution to the planning theory and practice. First, conclusion, it will describe the goal and method, and the explanation of each research question. Second, from the conclusion, this study will give general strategy recommendations to the Indonesian government to decide the required airport governance model for improving airport services. Third, a generalization will offer the use of findings for other countries and a reflection will criticize the process and the outcome of the research. Final part of this chapter is a contribution of this research to the planning theory and practice.

#### **VI.1 Conclusion**

The demand of air transportation mode increases gradually from year to year. To respond the needs of this mode, the government should improve the airport services to support the system of air transportation connectivity. One of the strategies is applying the appropriateness of the airport governance model related to the urban context. Recently, the government of Indonesia plan to implement privatization models for international and regional airports. For that reason, this study aims to learn the airport governance strategy in the United Kingdom and United States that relates to their airport governance models and their airport classification within an urban context. This study uses literature review, case study, and a comparative method for different experiences of both countries, this study takes relevant strategies as lessons learned to give the appropriate recommendations to enhance the airport governance strategy in Indonesia for three selected cases: Soekarno Hatta International airport, new international airport in Yogyakarta, and Radin Inten airport.

Related to the goal and the method mentioned before, the research questions were raised and have been answered. Herewith the research question and the answer to each question.

*How is the airport classification in the urban context?*

The airport was classified according to its function in the city, whether the airport just offers an aeronautical activities place or a mix-used activities place that will give more benefit to the city. The classification depends on the criteria used, such as the passenger volume, geographic location, functional role and others. This study focuses on the functional role of the airport and airport area planning model criteria as the airport classification within an urban context. The functional role of the airport consists of main international, international, regional and local airport. In the urban context, the airport will be understood as the airport city or non-airport city as the airport area planning model. This research uses three characteristics of the airport city concept: the connectivity, commercial activities, and the airport development plan. The classifications are useful to cluster the airports that have the same strategy and relate to their airport governance model. From the combination between functional role and airport area planning model criteria, the cluster shows the strategy pattern of commercial airports over the world that implement airport city concept and offer international flight routes.

*How is the importance of airport governance?*

Airport governance is about the involved actors and their coordination. The airport governance strategy is really important to achieve the vision of the airport whether as a public infrastructure, a city or a business opportunity. The airport governance strategy will depend on the different actor perspectives on how actors understand the airport function to the city even to the country. In this study, airport governance strategy includes the strategy of changing an airport governance model that is supported by other strategies from external aspects like the trend of air traffic demand from the increasing number of airline companies, the internal aspects from classifying the airport function within urban function and the application of the airport governance itself. By simulating between the actor domination (the fully public, public-private, and fully private) and the process of privatization (liberalization, commercialization, and privatization), this study offers new airport governance models. They are fully public, public majority, semi private, and fully private. The airport governance models will be used for clustering and analyzing the airports among countries as a study case. The airport governance strategies from The United Kingdom and the United States can be a lesson learned to Indonesian cases. For example, Indonesia can learn how the important role

of the local government of airport governance, and how the characteristics of the airport city to support the successful implementation of a proposed new airport governance model.

*How is the strategy of airport governance in the United States and United Kingdom?*

The United Kingdom and the United States develop the same strategy for their international airports not just for transportation infrastructure, but also as a city center for commercial purposes. Practically, both countries have applied different airport governance models. Almost airports in the United Kingdom are using a fully private model or a semi-private model. The exception, Manchester International airport uses the majority public model and local airports in the United Kingdom use a fully public model. The reason of airport privatization in the United Kingdom is getting more profit through liberalization style for all nationalized industries. On the other hand, the United States keeps the airports as a vital public asset for the country in order to be controlled by the government. The United States considers a public majority model for its almost airports. The government of the United States considers the benefit of the airport for the city and the region rather than taking the highest profit as the priority of the airport function. Recently, The United States has implemented the semi-private model for Luiz Munoz International airport since 2013. The first and only airport that uses a fully private model, Stewart International airport, was not successful implementation the model and return back to the majority public model. Because of those experiences, Indonesia can learn from the cases how their strategies in the airport governance model, whether still using a public majority like in the United States or even using a fully public like in the United Kingdom. The same strategies from both of them for their privatized airports are offering international routes, implementing the airport city characteristics, taking a collaborative planning with the local governments and private, and making a comprehensive plan between an airport planning and a city planning.

*How is the strategy of the airport governance in Indonesia, including the government plan of airport reform?*

In Indonesia, all airports are under public control. It means the government owns and manages the airports as its the airport strategy. Soekarno Hatta International airport and new International airport in Yogyakarta as the examples of international airports in Indonesia are managed by a publicly owned company, PT. Angkasa Pura company. At this time, PT. Angkasa Pura uses a public majority model through a management contract scheme for

airport facilities, such as security or cleaning services. On the other side, regional airports and local airports in Indonesia including Radin Inten airport are taking a fully public model under the control of the Ministry of Transportation as central government. The central government of Indonesia plan airport reform for the new International airport in Yogyakarta and Radin Inten airport through using new airport governance models. In 2011, PT Angkasa Pura as the representative of central government made an agreement with investor from India to develop new airport in Yogyakarta through a semi private model. After that, in 2013, central government planned to privatize the 10 regional airports, including Radin Inten airport. Until today, the government has not decided an appropriate airport governance model for 10 regional airports. Besides that, this study also analyzed the airport governance strategy that supports the implementation of a new airport governance model in Indonesia such as internal and external aspects, and also the required characteristics airport governance to support the implementation of the new model.

*What are the recommendations related to the appropriateness of airport governance models which are required in Indonesia?*

Indonesia can learn airport governance strategy from the United Kingdom and the United States. According to the both countries' experiences and the relevant condition in Indonesia such as the airport classification within the urban context, this study recommends different models for different airports. This study recommends Soekarno Hatta International airport (CGK) still uses the public majority model to develop the airport city at the earlier airport reform process, but the airport can increase the level of private involvement. Learned from Atlanta International airport (ATL), Soekarno Hatta International airport can make an alliance strategy consisting of various stakeholders to success the implementation of the airport city concept. Next step, Soekarno Hatta International airport can apply Design-Build-Finance-Operate-Maintain scheme with the private like in the Manchester International airport (MAN). After success in applying a new scheme, the airport can reform its airport governance to be a semi private model like in the Birmingham International airport (BHX) to get more money to develop new terminal or develop other new facilities. Another case, new international airport in Yogyakarta that has applied a semi private model can learn the strategy from the Birmingham International airport (BHX) in always involving local government through a collaborative planning to support the airport development plan, consisting of the airport planning, the city planning, and the corridor planning between the

airport and the city. Besides that, the airport needs a clear regulation to clarify the rules of agreement and the commitment between the government and the private. Lastly, Radin Inten airport (TKG) as a regional airport in Indonesia can learn the strategy from the Youngstown-Warren airport (YNG) in managing the airport through a fully public model in order to give local government the strong power in positioning the airport as the strategic transportation infrastructure in the city. Gradually, the airport can reform its airport governance model to be a public majority model like in the Soekarno Hatta International airport (CGK) and Manchester International airport (MAN) by involving privates to increase the airport function. In the future, Radin Inten airport can be a strategic place where offers aeronautical and non aeronautical activities that give benefits for passengers, the airport, the city, and even the country.

## **VI.2 Recommendation**

Based on the result of the research above, this study would like to give the Indonesian government general recommendations for considering the strategies while taking airport reform policy in Indonesia. As the result, Indonesia can have the appropriateness of the airport governance model to improve the airport services. The recommendations are:

1. Developing the airport should be in line with developing the city. The more people want to visit the city, the more aircraft passengers use the airport. For example, a new recreation destination in the city will be an interesting attraction for tourists. One of the strategies is applying the airport city concept in all Indonesian airports. The government should consider the characteristics of the airport city concept by offering the integration concept between the airport and the city. The concept emphasizes on the commercial activities and transportation integration between the airport and the city. It needs innovation and creative thinking from the airport management. Besides that, airports should cooperate with the airline to open interesting flight routes such as new international route to and from the city.
2. To get mutual development between the airport and the city, it needs a comprehensive plan and a collaborative plan on the airport governance strategy. Comprehensive plan is necessary to synchronize between airport planning and city planning and how each planning supports each other. The collaborative plan needs to coordinate between airport manager, the government, including local and central government, the private, and the

local community. Local government has the main role to know the real condition of the airport area and to support the airport development plan. The central government is needed to establish the regulation as the guideline for the detail process of airport reform in Indonesia. Business involvement is important to invest in developing the airport city. Besides that, the airport development plan should involve the local community who is affected by the airport. The local community can monitor the impact of the implementation of the new airport governance model.

3. The government of Indonesia should consider all aspects related to the airport governance strategy. For example, the airport offers higher air traffic through more routes and schedule. Besides that, the government considers the airport city concept strategy by applying the airport city concept characteristics, such as providing good connectivity, commercial activities, and airport development plan to synchronize between the airport and the city. The government can involve private to develop the airport together through providing a high portion of active participation in planning, designing, constructing, maintaining, monitoring, and others.
4. From the United States case, the government of Indonesia can establish the strategy like making an organization that has responsibility for airport privatization process in Indonesia, like Airport Privatization Pilot Program (PPP) in the United States. This organization has tasks to assess, plan, process and monitor the privatization plan. According to almost countries' experience, the privatization process takes long time to be implemented because it needs a detailed study to accept the appropriateness of a new airport governance model. From the United Kingdom case, there is a strong commitment from the government to privatize the airports through clear regulation. The process should be transparent in order to be monitored by the community. Besides that, the government also can give incentive for the privates to participate in the airport development plan such as the easiness procedure to get the available land to invest. From both countries, local government has to be considered as the important actor to synchronize the development of the airport and the city.
5. This study recommends public majority and semi private models on the airport governance for Indonesia as the beginning process of airport reform. The determination of airport governance model depends on the needs of cooperation form between the government and the private. There are airports that need more finance, but the other airports just need expertise to manage airport facilities in delivering better airport

services. Absolutely, the strong commitment from the private to invest and realize its interesting idea to improve airport services is needed.

### **VI.3 Generalization and Reflection**

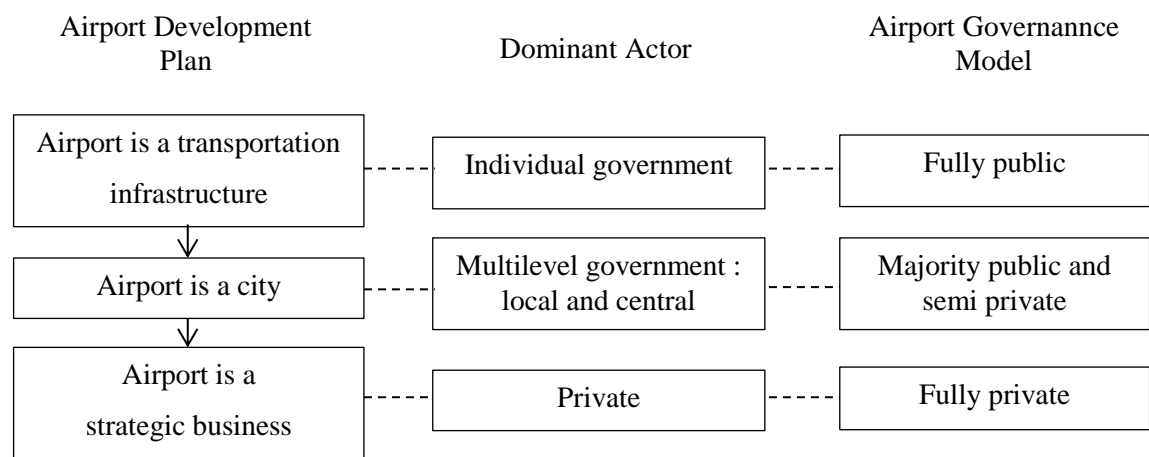
The use of airport cluster through combining airport classification within an urban context (functional role and airport area planning models), and new airport governance strategies (fully public, public majority, semi private, fully private) can be used by other countries to see their airport position compared to the airports all over the world. Besides that, the new airport governance models can be one of the guidelines to prepare airport reform on what strategy to be considered such as the implementation of the airport city concept for international airports, and on what process (liberalization, commercialization, privatization) will be passed from a fully public model to a fully private model. The strategy that related to airport governance such as external and internal aspects can be copied by other countries to review the airport performance. For example, countries that want to implement the airport city concept should meet the characteristics such as good connectivity, availability of commercial activities, the synchronize between airport and city development purpose.

There are limitations in the process of this study, such as the limited time to explore other countries in gaining large insight of airport governance all over the world and to get perspectives on the appropriateness of the airport governance strategy in a country from different actors through deeply interview with them. It means, the further study can use the combination between a primary and a secondary data. The study is necessary because the implementation of airport governance strategy depends on various factors that can be different from one country to another country. For example, the study includes the service performance factor (the improvement of aircraft passengers, the availability of land to be developed, and its current activities), and financial performance factor (comparing the aeronautical and non-aeronautical revenue and the prediction of those revenues in the future) that can give a deep analysis from qualitative and quantitative research strategies.

### **VI.4 Contribution to the Planning Theory and Practice**

An airport planning cannot be separated from the city planning. Like Kasarda (2011) states “The airport leaves the city. The city follows the airport. The airport becomes a city”. Tthe

airport location is usually far from the city, specifically located in the city periphery. At the previous time, the airport function is just a transportation infrastructure in the city to support national connectivity. The airport is about technical planning. Then, the increasing trend of air transportation use influences the improvement of airport function. The higher concentration of the people at the airport makes the airport as one of the important places of the city. At this time, the airport can be another city center by offering mixed activities. Airport development contributes to the city development. In addition, the trend of the airport city concept is in line with the ways to maximize airport function within an urban context through providing integrated transportation to and from the airport. The airport is about miniature of city planning. After being the airport city, the airport can posit its orientation to be just commercial or more commercial. The commercial orientation is getting more revenue from the airport, but the priority is still positioning the airport as public infrastructure in the city. Meanwhile, more commercial means airport looks like a business orientation to maximize profit. The process of the airport development plan will give the consequence to the airport governance such as the needs of different actors who have the strongest power in the process. Finally, it also influences directly to the airport governance model to be required of an airport. The airport governance model will identify the private involvement as the important thing in the planning process to be more collaborative. Collaborative planning will produce mutual agreement and vision among actors in developing the airport and the city.



**Figure 6.1 Consequences of Airport Development Process within Urban Context to the Airport Governance Model**



Figure 6.1 illustrates the relation between airport development plan and airport governance model. An airport will be an important infrastructure in a city to support the connectivity within a country and outside the country. For this reason, the role of the government is really necessary as a regulation maker to initiate the airport development. Then, to develop an airport and a city together needs the collaboration plan between central, local government, and private to plan a sustainable development in order to give benefits to society at the current time and future. When airport is fully seen as a business center in the city, the role of the private will change the role of the government as a dominant actor in getting the highest profit.

## References

- Airport Council International-Europe, 2010. The ownership of Europe's airports report [Online]. Available at: [http://81.47.175.201/sky-water/attachments/article/92/2010\\_ownership\\_report.pdf](http://81.47.175.201/sky-water/attachments/article/92/2010_ownership_report.pdf) [Accessed: 15 May 2015]
- Adikariwattage et al., 2012. Airport classification criteria based on passenger characteristics and terminal size. *Journal of Air Transport Management*, (24), 36-41
- Agranoff, R. & Radin, B. 1991. *The comparative case study approach in public administration*. Los Angeles: USC.
- Air Transport Group, 2002. *Study on Competition Between Airports and the Application on the State Aid Rules*. European Commission, Brussels
- Airport Hotel Guide, 2015. Manchester Airport Hotels [Online]. Available at: <http://www.airporthotelguide.com/manchester-uk/>. [Accessed: 01 June 2015]
- Alexander, E. R. 2005. Institutional transformation and planning: from institutionalization theory to institutional design. *Planning Theory*, 4 (3), 209-223
- Angkasa Pura Airports, 2012. Airport City Masa Depan Industri Pengelolaan Jasa Kebandaraan. Available at: <http://www.angkasapura1.co.id/upload/file/2013/07/majalah-majalah-angkasa-pura-edisi-01-ari-rusmanto-e6f819c432f281a3b321115db1aaa08a2ba3bc96majalah-angkaspura-edisi-01-mei-jun-2012.pdf> [Accessed: 01 June 2015]
- Atlanta Aerotropolis Alliance. 2014. Fact Sheet. Available at: [http://atlantaerotropolis.org/documents/Aerotropolis\\_PressConf\\_FctSheet.pdf](http://atlantaerotropolis.org/documents/Aerotropolis_PressConf_FctSheet.pdf) [Accessed: 01 June 2015]
- ATP Flight School. 2011. ATP Opens Peachtree Dekalb Atlanta Location [Online]. Available at: <https://atpflightsschool.com/news/2011-01-04-atp-opens-peachtree-dekalb-location.html> [Accessed: 01 June 2015]
- Baker, Douglas C. & Donnet, Timothy. 2012. Regional and remote airports under stress in Australia. *Research In Transportation Business And Management*, 4, pp. 37-43.
- Bandaraonline, 2011. Profil Bandara Soekarno Hatta. Available at: <http://bandaraonline.com/airport/profil-bandara-internasional-soekarno>. [Accessed: 01 June 2015].

- Bandaraonline, 2013. 10 Bandara Siap Dikelola Swasta. Available at: <http://bandaraonline.com/airport/10-bandara-siap-dikelola-swasta> (Accessed: 26 November 2014)
- Bel, G., and Fageda, X. 2007. *Patterns of Airport Policy Reform in Eastern Europe: Lessons from OECD Experience*. Research Unit Public Policy and Economic Regulation (GPPE-IREA) at Universitat Barcelona, Dep. De Politica Economica
- Birmingham Airport Consultative Committee, 2012. *Airport Profile*. Available at: <http://www.ukaccs.info/bham/profile.htm> (Accessed: 30 June 2015)
- Bishop, M., Kay, J. & Mayer, C. 1994. Privatisation in performance, in: M. Bishop, J. Kay & C. Mayer (Eds) *Privatisation and Economic Performance* (Oxford: Oxford University Press).
- Blanton, Whit. 2004. "On the Airfront." *Planning* 70:34-36.
- Bonnefoy, P. A., and Hansman, R.J., Emergence of Secondary Airports and Dynamics of Regional Airport Systems in the United States, Report No. ICAT-2005-02, MIT International Center for Air Transportation, May 2005
- Bryman, A. 2012. *Social research methods*. Oxford university press.
- CAA, 2015. *Summary of Activity at Reporting Airports April 2015*
- Carney, Michael and Keith Mew. 2003. Airport Governance Reform: a Strategic Management Perspective. *Journal of Air Transport Management* 9, pages 221-232
- Carnis, Laurent and Yuliawati, Eny. 2013. Nusantara: Between sky and earth could the PPP be the solution for Indonesian airport infrastructure. *Case Studies on Transport Policy*. page 18-26.
- Clingermayer, J. C., & Feiock, R.C. 2001. *Institutional Constraints and Policy Choice: An Exploratiion of Local Governance*. Albany: State University of New York Press.
- Columbus Travel Media Ltd., 2015. Birmingham Airport Guide [Online]. Available at: <http://www.worldtravelguide.net/united-kingdom/england/birmingham-airport>. [Accessed: 01 June 2015]
- Conway, McKinley. 1980. *The Airport City: Development Concepts for the 21<sup>st</sup> Century*. Atlanta: Conway Publications
- Cook, G. 2001. Airport commercialization and privatization. Why? [Online]. Available at: [http://www.spoudmet.civil.upatras.gr/2001/pdf/5\\_3.pdf](http://www.spoudmet.civil.upatras.gr/2001/pdf/5_3.pdf) [Accessed: 01 June 2015]

- Cornish, Charlie. 2014. Manchester Airport City: The story so far [Online]. Available at: <http://www.internationalairportreview.com/advent-calendar/manchester-airport-city/> [Accessed: 01 June 2015]
- Cowan, J., 2000. *Airport Privatization in Practice: the Australian Experience Company*. Document . Macquarie North America Ltd, New York.
- Craig, Steven & Airola, James & Tipu, Manzur. 2005. *The Effect of Institutional Form on Airport Governance Efficiency*. Calhoun: California
- Davies, Rob. 2014. Heathrow loses its place as world's busiest airport... to Dubai: Bosses attack politicians for dithering over third runway after airport is knocked into second place [Online]. Available at: <http://www.dailymail.co.uk/news/article-2594651/Heathrow-loses-place-worlds-busiest-airport-Dubai-Bosses-attack-politicians-dithering-runway-airport-knocked-second-place.html#ixzz3fV6zXjSD> [Accessed: 01 June 2015]
- DeNeufville, R. 1999. *Airport Privatisation - Issues for the United States* (Draft Paper), Cambridge, MA, Massachusetts Institute of Technology (MIT).
- Directorate General of Civil Aviation, 2012. *Pihak Ketiga Disilahkan Kembangkan Infrastruktur Bandar Udara*. Available at: <http://hubud.dephub.go.id/?en/news/detail/1611> (Accessed: 26 November 2014)
- Directorate General of Civil Aviation, 2013. *Tawarkan 10 Bandara, Pemerintah Minta Tiga Hal Terpenuhi*. Available at: <http://hubud.dephub.go.id/?id/news/detail/2142> (Accessed: 16 May 2014)
- Doganis, R. 1992. *The Airport Business*. Routledge: New York
- Donnet, Timothy. Et al., 2011. Fitting Airport Privatisation to Purpose: Aligning Governance, Time and Management Focus. *EJTIR*, vol. 11 (2), pages 98-114
- Ernico, Sheri., Retmer, Dan., Van Beek, Steve. 2012. *Considering and Evaluating Airport Privatization*. ACRP Airport Cooperative Research Program. Transportation Research Board: Washington DC
- Erwin, 2015. *Soekarno-Hatta Named 12<sup>th</sup> Busiest Airport*. Available at: <http://en.tempo.co/read/news/2015/04/01/240654605/Soekarno-Hatta-Named-12th-Busiest-Airport> (Accessed: 16 May 2014)
- European Union, 2005. *Community Guidelines on Financing of Airports and Start-Up Aid to Airlines Departing from Regional Airports*. European Union, Brussels.

- FAA, 2015. Enplanements at US Airports in 2014, by State. Available at: [http://www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/passenger/media/cy14-all-enplanements.pdf](http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/cy14-all-enplanements.pdf) [Accessed: 01 June 2015].
- Fecioru, Timotei. 2014. *Kuala Lumpur Aero City Connecting the Global with the Local*. Urban Planning. Bucharest
- Forsyth, P., 1997. *Privatization in Asia Pacific aviation*. In: Findlay. C., Chia, L.-S., Singh, K. (Eds.), *Asia Pacific Air Transport. Challenges and Policy Reforms*. Institute of Southeast Asian
- Frank, Laurence. 2012. *Competitive Airport Management: governance, strategic choices and returns on investments*. ISC Paris School of Management
- Freestone, Baker and Douglas Baker. 2011. Spatial Planning Models of Airport-Driven Urban Development. *Journal of Planning Literature* 26 (3), pages 263-279
- Freestone, Robert. 2009. "Planning, Sustainability and Airport-led Urban Development." *International Planning Studies* 14:161-76.
- Gillen, David. 2011. The evolution of airport ownership and governance. *Journal of Air Transport Management*, vol. 17, pages 3-13
- Gleave, Steer. 2013. Assessment of Commercial Revenues at Heathrow Airport [Online]. Available at: [http://www.caa.co.uk/docs/78/HeathrowFinalReport\\_Redacted.pdf](http://www.caa.co.uk/docs/78/HeathrowFinalReport_Redacted.pdf) [Accessed: 01 June 2015]
- Gong, Stephen et al., 2012. The impact of airport and seaport privatization on efficiency and performance: A review of the international evidence and implications for developing countries. *Transport Policy* (24), pages 37-47
- Gonzales, Carlos. 2013. *Connecting the Megalopolis*. EMU Thesis. Delft The Netherlands.
- Graham, A. 2013. *Managing Airports, 4rd Edition*. Butterwoth-Heinemann, Burlington
- Graham, A., 2011. The objectives and outcomes of airport privatization. *Transportation Business and Management* 1, 3-14.
- Graham, B., 1998. Liberalization, regional economic development and the geography of demand for air transport in the European Union. *Journal of Transport Geography* 6, 87-104.
- Graham, Brian and Guyer, Claire. 2000. The role of regional airports and air services in the United Kingdom. *Journal of Transport Geography* (8), pages 249-262
- Green, K. Richard. 2007. Airports and Economic Development. *Real Estate Economics* 35, pages 91-112

- Guller, Mathis, and Michael Guller. 2003. *From Airport to Airport City*. Barcelona: Editorial Gustavo Gill.
- Hamel, Jacques. 1993. Case study methods. *Qualitative Research Methods Series*, Vol 32. Newbury Park, CA: Sage
- Hancock, B., Ockleford, E., & Windridge, K. 1998. *An introduction to qualitative research*. Nottingham: Trent focus group.
- Highlands and Islands Airports Limited, 2015. *Retail Opportunities* [Online]. Available at: <http://www.hial.co.uk/commercial/retail-opportunities/> [Accessed: 01 June 2015]
- Hooper, Paul, 2002. Privatization of Airports in Asia. *Journal of Air Transport Management* 8, pages 289-300
- Humphreys, I. 1999. Privatization and Commercialization. Changes in UK Airport Ownership Patterns. *Journal of Transport Geography* 7, 121-134.
- ICAO International Civil Aviation Organization, 2008. *Airport Economics Manual*. Second Edition.
- Jenkinson, T., 1998. *Corporate Governance and privatization via initial public offering*. Corporate Governance, State-owned Enterprises and Privatization, OECD, Paris, pp. 87–118.
- Julaikah, Nurul. 2014. *Yogyakarta akan dijadikan kota bandara* [Online]. Jakarta:Merdeka.com. Available at: <http://www.merdeka.com/uang/yogyakarta-akan-dijadikan-kota-bandara.html>. [Accessed: 01 June 2015]
- Kasarda, J. 2006. *Airport Cities and the Aerotropolis*. Available at: [http://www.webmail.aerotropolis.com/files/2006\\_07\\_AirportCities.pdf](http://www.webmail.aerotropolis.com/files/2006_07_AirportCities.pdf) (Accessed: 26 June 2015)
- Kasarda, J. 2008. *Airport Cities: The Evolution. The transformation of airports into world-class airport cities*. Insight Media. London.
- Kasarda, J. 2011. *About the Aerotropolis*. Available at: <http://www.aerotropolis.com/airportCities/about-the-aerotropolis> (Accessed: 27 November 2014)
- Kasarda, J. and Lindsay, G. 2011. *Aerotropolis: The Way We'll Live Next*, Farrar, Straus and Giroux: New York
- Kaur, G et al., 2010. *Infrastructure Financing – Global Pattern and the Indian Experience* [Online]. Available at:

- <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/SSGKF170810.pdf>. [Accessed: 01 June 2015]
- Keshawarni, T. 1999. *Privatization in Provision of Airports and Air Navigation Services*. International Civil Aviation Organization. Airport Seminar for the NAM/CAR/SAM Regions. Guatemala City
- Kooiman, J. 2003. *Governing as governance*. London: Sage Publications.
- Koppenjan JFM, Klijn EH. 2004. Managing uncertainties in networks. *Routledge*: London.
- Krippendorff, Klaus, 1991. *Analisis Isi*. Jakarta: Rajawali
- Lafferty, William M., ed. 2004. *Governance for Sustainable Development: The Challenge of Adapting Form to Function*. Cheltenham: Edward Elgar
- LHR Airports Limited, 2014. *Heathrow (SP) Limited and Heathrow Finance plc* [Online]. Available at: <http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Heathrow-Investor-Report-December-2014.pdf> [Accessed: 01 June 2015]
- LHR Airports Limited, 2015. *Company Information* [Online]. Available at: <http://www.heathrowairport.com/about-us/company-news-and-information/company-information> [Accessed: 01 June 2015]
- Malighetti, P., Paleari, S., Redondi, R., 2009. Airport classification and functionality within the European network. *Problems and Perspectives in Management* 7, 183-196.
- Maps of World. 2015. *Busiest Airports in US*. Available at: <http://www.mapsofworld.com/pages/busiest-airports/> [Accessed: 01 June 2015].
- March, J.G. and J.P. Olsen. 1989. *Rediscovering Institutions: The Organizational Basis of Politics*, New York: Free Press
- Mills, Russell. 2007. *The New Governance Of Airports In The United States: How The Selection Of Policy Tools Affects Accountability Structures*. Thesis. Public Administration. The University of Vermont
- Ministry of Transportation. 2015. *Lalu lintas angkutan udara*. Available at: <http://hubud.dephub.go.id/?id/llu/index/filter:category,2> [Accessed: 01 June 2015]
- North, D. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- Oum, H Tae & Yan, Jia & Yu, Chunyan. 2008. Ownership forms matter for airport efficiency: A stochastic frontier investigation of worldwide airports. *Journal of Urban Economics*, 64, pages 422-435

- Oum, Tae H. & Adler, Nicole & Yu, Chunyan. 2006. Privatization, corporatization, ownership forms and their effects on the performance of the world's major airports, *Journal of Air Transport Management*, Elsevier, vol. 12(3), pages 109-121
- Paneda, Mauro et al. 2010. *Critical Factors for the Development of Airport Cities*. Transportation Regional Board: Washington DC
- Parker, D. 2003. "Performance, risk and strategy in privatised, regulated industries - The UK's experience." *The International Journal of Public Sector Management* 16(1): 75-100
- Perry, Linda and Raghunath, Satyaki. 2013. *The Emergence of the Airport City in the United States* [Online]. Available at: <http://www.leighfi sher.com/discover-whats-new/publications>. [Accessed: 01 June 2015].
- Poole, R. J. 1994. Guidelines for Airport Privatisation, Reason Foundation.
- Pranoto, P. 2014. *Bandara Adisucipto Sudah Over Kapasitas* [Online]. Available at: <http://jogja.tribunnews.com/2014/01/21/bandara-adisucipto-sudah-over-kapasitas/>. [Accessed: 01 June 2015].
- Putri, Ananda. 2013. Enam Bandara Angkasa Pura I Merugi [Online]. Available at: <http://bisnis.tempo.co/read/news/2013/03/04/090465069/enam-bandara-angkasa-pura-i-merugi> [Accessed: 17 May 2015].
- Reynolds, Aisling and Feighan. 2000. The US Airport Hierarchy and Implications for Small Communities. *Urban Studies*, vol. 37 (3), pages 557-577
- Salamon, L. 2002. *The tools of government: A guide to the new governance*. New York: Oxford.
- Sanyal, Bishwapriya. 2005 'Comparative Planning Cultures, 2<sup>nd</sup> edition, London: *Routledge*
- Saughnessy. 1973. *Inquiry and Decision*. Harper and Row:New York
- Schaafsma, Maurits. 2008. "Accessing Global City Regions: The Airport as a City". In *The Image and the Region: Making Mega-City Regions Visible!*, edited by Alain Thierstein and Agnes Forster, 69-79. Baden: Lars Muller
- Schaafsma, Maurits., Joop Amkreutz., and Mathias Guller. 2008. *Airport and City. Airport Corridors: Drivers of Economic Development*. Amsterdam: Schiphol Real Estate
- Scharpf, F.W. 2000. Institutions in comparative policy research, in: *Comparative Political Studies*, Vol. 33 No.6/7, August, pp.762-790
- Schipke, A. 2001. *Why do governments divest? The macroeconomics of privatization*. Berlin: Springer



- Schlaack, Johanna. 2010. "Defining the Airea: Evaluating Urban Output and Forms of Interaction Between Airport and Region." In *Airports in Cities and Regions: Research and Practice*, edited by Ute Knippenberger and Alex Wall, 113-26. Karlsruhe: KIT Scientific Publishing
- Seaplane, 2004. *The Highland Council* [Online]. Available at: [http://www.seaplane-project.net/partners/highland\\_council.html](http://www.seaplane-project.net/partners/highland_council.html) [Accessed: 01 June 2015].
- Stake, Robert. 1994. *The art of case study research*. Thousand Oaks, CA: Sage
- Stevens, Nicholas J. and Baker, Douglas C. and Freestone, Robert. 2010. Airport in their Urban Settings: Towards a Conceptual Model of Interfaces in the Australian Context. *Journal of Transport Geography*, 18 (2), pages 276-284
- Stornowaygazette. 2015. *Passengers number rise at Barra Airport*. Available at: <http://www.stornowaygazette.co.uk/news/local-headlines/passengers-numbers-rise-at-barra-airport-1-3686820> [Accessed: 01 June 2015].
- Tang, Rachel. 2014. *Airport Privatization: Issues and Options for Congress*. Congressional Research Service
- The Canadian Council for Public-Private Partnership. 2005. *Models of Public-Private Partnerships*. [Online]. Available at: <http://www.pppcouncil.ca/resources/about-ppp/models.html> (Accessed: 6 July 2015)
- The Manchester Airport Group plc, 2015. Manchester airport part of MAG [Online]. Available at: <http://www.manchesterairport.co.uk/> (Accessed: 6 July 2015)
- Transport Canada, 2010. *Airports*, Transport Canada, Ottawa.
- Transportation Regulation 69, 2013. National Airport System. Ministry of Transportation Indonesia
- Tretheway, M., 2001. *Airport Ownership, Management and Price Regulation*. Research Conducted for the Canada Transportation Act Review. InterVISTAS Consulting Inc.
- Trieha, Utroq. 2014. *Bandara Kulon Progo adalah bandara pertama Indonesia yang dibangun menggunakan dana non pemerintah* [Online]. Available at: <http://ensiklo.com/2014/09/bandara-kulon-progo-adalah-bandara-pertama-indonesia-yang-dibangun-menggunakan-dana-non-pemerintah/>. [Accessed: 01 June 2015]
- United States Department of Transportation. 2014. *Number of U.S.Airports(a)*. Available at: [http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national\\_transportation\\_statistics/html/table\\_01\\_03.html](http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_01_03.html) (Accessed: 27 June 2015)

- United States Government Accountability Office. 2014. *Airport Privatization*. Available at: <http://www.gao.gov/assets/670/667076.pdf> [Accessed: 01 June 2015]
- US Federal Aviation Administration. 2010. *Airport Categories*. USFAA, Washington, DC.
- Vasigh, Bijan and Haririan, Mehdi. 2003. An Empirical Investigation Of Financial And Operational Efficiency Of Private Versus Public Airports. *Journal of Air Transportation*, vol.8 (1) pages 91-110
- Western Reserve Port Authority, 2012. Route Map [Online]. Available at: <http://www.yngwrnair.com/images/routemap.png> [Accessed: 01 June 2015]
- Wijk, Michel Van. 2007. *Airport as Cityports in the City-region*. Dissertation in Geographical Studies. Utrecht The Netherlands.
- Wyman, Oliver. 2013. *Charlotte Airport Governance Study*. Final Report.
- Yin, Robert K. 1994. Case study research: Design and methods. *Applied Social Research Methods*, Vol. 5. Thousand Oaks, CA: Sage.
- Yusuf et al. 2012. *Penerapan Konsep Aerotropolis dalam Pengembangan Wilayah dan Kota di Indonesia*. Kementerian Perhubungan Indonesia: Jakarta
- Zhao, Qi. 2011. *The Effect of Governance Structures on Airport Efficiency Performance—The North American Case*. Theses in Business Administration. The University of British Columbia