

論文 / 著書情報  
Article / Book Information

|                   |                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 題目(和文)            |                                                                                                                                                                                            |
| Title(English)    | Assessment of Airline-Airport Cooperation under Liberalization: A Network Model Approach and Perspectives from Southeast Asia                                                              |
| 著者(和文)            | SARASWATIBATARI                                                                                                                                                                            |
| Author(English)   | Batari Saraswati                                                                                                                                                                           |
| 出典(和文)            | 学位:博士(学術),<br>学位授与機関:東京工業大学,<br>報告番号:甲第9575号,<br>授与年月日:2014年3月26日,<br>学位の種別:課程博士,<br>審査員:花岡 伸也,高田 潤一,屋井 鉄雄,室町 泰徳,福田 大輔                                                                     |
| Citation(English) | Degree:Doctor (Academic),<br>Conferring organization: Tokyo Institute of Technology,<br>Report number:甲第9575号,<br>Conferred date:2014/3/26,<br>Degree Type:Course doctor,<br>Examiner:,,,, |
| 学位種別(和文)          | 博士論文                                                                                                                                                                                       |
| Category(English) | Doctoral Thesis                                                                                                                                                                            |
| 種別(和文)            | 論文要旨                                                                                                                                                                                       |
| Type(English)     | Summary                                                                                                                                                                                    |

## 論文要旨

### THESIS SUMMARY

専攻 : International  
Department of Development  
Engineering

専攻

申請学位 (専攻分野) : 博士  
Academic Degree Requested Doctor of (Philosophy)

学生氏名 : Batari Saraswati  
Student's Name

指導教員 (主) : Shinya HANAOKA  
Academic Advisor(main)

指導教員 (副) :  
Academic Advisor(sub)

#### 要旨 (英文 800 語程度)

Thesis Summary (approx.800 English Words )

This study discussed the issue of airline-airport cooperation. Airline-airport cooperation is in need of further examination because of its double-edged sword effects on competitive operation levels and for adherence to regulatory requirements in the industry. This study also argued that airline-airport cooperation under regional liberalization, especially in developing countries such as Southeast Asia, needs to be reviewed from the perspective of fair competition.

The study modeled airline-airport cooperation under commercial revenue sharing agreement by utilizing multi-airport multi-airline two-stage game theory model. In the first stage, each airport chooses particular airlines with which to cooperate and to share a proportion of its commercial revenue in order to maximize its profit. In the second stage, airline chooses airfares and flight frequencies in order to maximize its profit subject to airport capacity. When an airline receives a revenue share, its operating profit function is affected, which in turn influences its optimal airfare and frequency offered to potential passengers. Through the model, cooperating parties are determined endogenously. The effects of cooperation on the level of competition and social welfare can also be systematically assessed based on the extent of network liberalization.

Based on the application on a simplified network, several findings can be summarized as follows: (i) commercial revenue sharing allows the demand complementarities between aviation and commercial services that potentially leads to higher airline-airport profits; (ii) commercial revenue sharing benefits passengers as it triggers reduction of airfares in the market; (iii) commercial revenue sharing favors airline dominance in airports; an airport is likely to cooperate with its dominant airline; (iv) benefit from revenue sharing is restricted by the limits of airport capacity; without sufficient airport capacity revenue sharing could not fulfill its potential to generate additional

income; (v) commercial revenue sharing between dominant airline and airport potentially disturbs airline competition as it reduce the profits of outsider airlines. The results and findings argued that government or regulatory monitoring is needed when there are practices of cooperation between airport and its dominant airline.

Further, air transport liberalization policy in ASEAN (Association of Southeast Asia Nations) was reviewed and was found that the policy is still limited both in concept and implementation. Open skies policy in ASEAN still puts several restrictions especially on market access and airline ownership. Finally, real practices of airline-airport cooperation in Southeast Asia were reviewed. It was found that cooperation most likely occurs within country. Airport is cooperating with its dominant local airline in practice, either in form of bilateral incentive scheme for route and traffic development, facility investment, or transit incentive program. Airports in Southeast Asia cooperate with airlines through incentive scheme based on volume growth or additional route and flight frequency. It is found that 35 out of 51 airports offer incentive to the airlines. Airport operator in Southeast Asia is more likely to offer incentive for route and traffic development if there is high economic activity in the airport's catchment area. There is higher probability of the presence of incentives at an airport if the airport has hub status. This study argues this within-country cooperation may have potential anti-competitive concerns if it is reviewed from the perspective of single unified air transport market of ASEAN.

The study provides contributions on the development of airline-airport cooperation model and on the overall researches of airline-airport cooperation - providing perspectives from the developing countries.

備考：論文要旨は、和文 2000 字と英文 300 語を 1 部ずつ提出するか、もしくは英文 800 語を 1 部提出してください。

Note : Thesis Summary should be submitted in either a copy of 2000 Japanese Characters and 300 Words (English) or 1copy of 800 Words (English).