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A decision framework for successful private participation in the airport sector

Soh Young In [a, b, *], Luiza A.S. Casemiro [b], Julie Kim [c]

[a] Stanford University, Civil and Environmental Engineering, Jerry Yang & Akiko Yamazaki Environment & Energy Building, 473 Via Ortega, Stanford, CA 94305, United States

[b] Stanford University, Freeman Spogli Institute for International Studies, Encina Hall West, 417 Galvez Mall, Stanford, CA 94305, United States

[c] Stanford University, Global Projects Center, Jerry Yang & Akiko Yamazaki Environment & Energy Building, 473 Via Ortega, Stanford, CA 94305, United States

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ABSTRACT

As private participation in public airports becomes a global trend, there are a number of concerns and debates over the conflicting interests of the private and public sectors. For instance, the private sector's interest in maximizing profits often opposes the public sector's interest in protecting the public interest and social welfare. In this paper, we reframe the conflict in terms of principal-agent theory, and inform policymakers to understand public-private management problems in a broader context. Firstly, we demonstrate how various ownership and governance structures shape the private participation based on (1) ownership-type, (2) mode of ownership shift, and (3) ex-post government control. Secondly, we then highlight that this process should be context-based, and examine the recent case of Incheon International Airport (IIA) in South Korea to illustrate the importance of contextual factors. Lastly, we provide comprehensive recommendations to policymakers involved in bringing private partners into the airport sector, which include setting a clear agenda, exercising a reasonable level of control, understanding the sharing of risk and responsibility under different structures, and assessing technical, economic and political factors that may affect the policy outcome.

1. Introduction

Private participation in publicly owned airports has become a global trend. The Centre for Aviation (2015) reports that 40 of 100 largest airports around the world in terms of revenue are either fully or partially owned or controlled by private investors. Private entities participate in managing and operating public airports through various types of arrangement ranging from public-private partnership (PPP) through to partial and full privatization. London Heathrow Airport, for example, has been fully privatized and is now owned by an investor consortium led by Ferrovial S.A. The Danish government has divested its shares in Copenhagen Airport since 1994 and is currently holding a partial share. The government of India has developed and modernized its four major airports in Delhi, Mumbai, Bengaluru and Hyderabad on a PPP basis.

A number of market studies and cases show that private participation has brought greater operating efficiency, improved amenities and increased capital investment for airports (Starkie, 2008; Oum et al., 2008). Yet, private involvement in public airport business remains controversial because the private sector may have goals and interests that conflict with those of government agencies (Palma et al., 2009). Diverse stakeholders and experts who experience airport privatization report that aligning interests and removing information asymmetries are crucial factors for successful outcomes (U.S. Government Accountability Office, 2014).

Both private and public sectors enter airport PPP or privatization expecting a bargaining relationship in which each partner has independent sources of leverage over the other (Posner et al., 2009). The government expects to leverage private sector's ability to deliver operational efficiency and a larger capital pool while the private sector aims to maximize profit by getting into the public good business. But their disparate agendas may affect whether the private involvement is successful. Management problems can arise that complicate the implementation of the public-private

* Corresponding author. Stanford University, Civil and Environmental Engineering, Jerry Yang & Akiko Yamazaki Environment & Energy Building, 473 Via Ortega, Stanford, CA 94305, United States.

E-mail address: si2131@stanford.edu (S.Y. In).

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relationship and undercut each partner's ability to deliver expected outcomes.

For example, despite the oversubscribed initial public offering (IPO) of the British Airport Authority (BAA), the UK government forced the private owner to sell off some of its profitable airports, including Gatwick, Stansted, and either Edinburgh or Glasgow because the private investment consortium abused its market position. On the other hand, the Auckland International Airport Ltd. (AIAL) has provided substantial economic benefits to New Zealand because new shareholders are in line with the national airport's long-term growth plans (In et al., 2017).

We approach the public-private relationship based on principal-agent theory because this theory provides a framework that makes it easier to understand the dynamics of the relationship and address conflicts. In the airport sector, the government (principal) involves a private airport operator and/or owner (agent) in fulfilling its primary promise to protect the public interest and social welfare. Scholars note that the private sector tends to have more information about its own actions and the public sector finds it difficult to monitor and control the private sector's behavior (Palma et al., 2009). Therefore, the public sector should concentrate on providing appropriate incentives, or barriers, to the agent so that it acts in the best interests of the principal.

However, the public sector lacks guidance on addressing the principal-agent conflict and implementing efficient incentives. Although many studies have examined various private participation structures from a contractual perspective, relatively few studies further consider a relational understanding of the organization.[1] Policymaking on airport business is highly contextual that simply benchmarking an accredited option to one airport or country cannot guarantee success in other places. Therefore, the discussion should cover a larger context, and question under what condition the private sector would be more likely to act in the public's interest.

In this regard, this study aims to provide some guidance to policymakers to resolve conflicting interests and promote information sharing between the public and private sectors in order to enable successful private participation in the airport sector. It begins with demonstrating how various ownership and governance structures shape the private participation based on three key components, (1) ownership-type, (2) the mode of ownership shift and (3) ex-post government control. This study also highlights that the policy design and implementation should be context-dependent. Thus, the argument is illustrated by a case study on the Incheon International Airport (IIA) in South Korea, which undergoes discussion to privatizing its business. Lastly, it also illustrates key considerations to inform policymakers in implementing private involvement in the airport sector.

2. Public airports and the principal-agent problem

Airports, like other public infrastructure, are considered as public goods, whose properties often lead to market failure. Thus, the government has had a primary responsibility to manage and operate them. Airports are non-rival and non-excludable public goods that are often under-supplied by private providers although they are beneficial to the public (Besanko and Braeutigam, 2008). Also, airport business generates positive externalities by stimulating economic activities but it is difficult to internalize them. The private partner cannot recoup the costs of their inputs in the desirable period. Given the size of the capital invested over a long time horizon, it is difficult for the private sector to realize an adequate return on their investment. Hence, without government's involvement, such public goods are unlikely to be provided at all or are unlikely to be provided at levels that are socially optimal.

However, private participation has become a matter of necessity to many countries that have high level of debt on their national accounts after multiple economic downturns (Estache, 2001). It has been widely believed, although has not fully settled, the private sector is more efficient than the public sector, and that market practice would make public services more efficient (UNDP, 2015). Monopolistic position and limited competition of public airport business have also stimulated private participation. Although both the public and private sectors want private involvement, they clearly have different goals and preferences. For this reason, there have been incessant debates whether to privatize or delegate public airport to the private sector.

Private investors have a vast interest in the airport sector for its revenue security, limited competition and steady growth of air transport. Historical data shows that airports have reported a moderate degree of cash flow certainty and greater potential for growth than other traditional infrastructure assets (Radia et al., 2013). Its revenue stream is relatively robust because airports face limited competition both from other airports and from other modes of transportation. Recently, private interest has been further accelerated with deregulation and the establishment of “open skies” agreements among countries, which have boosted air transport and its revenues (Silva, 1999).

The growing presence of the private sector has shifted the airport business to become more revenue-driven. The modern airport business model places increased importance on non-aeronautical business, such as retail, food and beverage, real estate, advertising, car parking and car rental (Gillen, 2011). Since 2012, the non-aeronautical revenues of a number of large international airports, including Atlanta, Frankfurt International, Paris Charles de Gaulle, Copenhagen, Singapore Changi, Hong Kong International and IIA, have grown to more than 60% of their total revenues (ATRS, 2014). Merkert and Assaf (2015) empirically demonstrate that this higher percentage of non-aeronautical revenues not only boosts an airport's profitability but also its overall efficiency, which includes profitability, quality and traffic volume.

Accordingly, most governments expect to utilize private capitals and capacities to improve airport's efficiency. Private participation can increase government access to sources of private capital and therefore unburden the public budget for airport development (Tang, 2016). Efficiency improvement is expected to further ease government's budgetary burden that often caused by state enterprise inefficiencies. Oum et al. (2008) show a statistical analysis of 109 airports worldwide with a variety of ownership forms and finds that airports with private ownership are more efficient than those with traditional public ownership. Privatized airports tend to have the advantage of charging efficient prices and responding to market incentives for capacity expansions (Craig, 1996).

The relationship between the private and public sectors can be reframed as the one between principal and agent, where the government plays the role of “principal,” defining the necessary specifications to improve the airport's asset and service quality, and the private partner plays the role of “agent,” responsible for the delivery of services according to the provided guidelines. This relationship often involves management problems such as agency problem and information asymmetry (Eisenhardt, 1989; Jensen and Meckling, 1976). The agent often has incentives to pursue its own interests that may run contrary to those of the principal and to misrepresent the information to their own use. The parties with divergent objectives and different level of information may have

[1] A related discussion centers around how the relational understanding can address governance problems raised from public-private partnership. For further discussion, see In et al. (2017).