

[Field Research]

Port Co-operations between Public and Private Sector*

Jin-Hwan Kim**

Received: November 14, 2015 .Revised: January 11, 2016. Accepted: January 15, 2016.

Abstract

Purpose – Purpose of paper is to clarify this PPP((Public Private Partnerships)'s essence and advantages as well as disadvantages, and then it will take it out some conclusions and implication together. To do so, PPP should be examined carefully and then landlord port will be investigated in view of PPP, then, it will give some implications whether or not PPP is successful to apply more port in concern.

Research Design, data, and methodology – The methodology that I take is to look into both PPPs and then to look into landlord port in view of PPP. By doing so, it can be more understandable to PPP in port industry.

Results – It can be found that landlord port system is more valuable and applicable instrument to adapt for port competitiveness and productivity, which leads to efficient port management.

Conclusions – Landlord port system is an alternative instrument to be apply to port management in terms of PPP, and it has been justified that many worldclass port has taken this landlord port management system.

Keywords: PPP, Public, Private, Partnership, Port.

JEL Classifications: H54 H42 R42 R58.

1. Preface

Provision of wide-ranging of infrastructure projects, and public-private cooperation on the degree of project finance, is increasing on the global level (Aerts, Grageb, Dooms, & Haezendonck, 2014). Among them, port public-private partnerships (PPPs) are considered to be an important emerging mechanism for port development and improvement in port performance especially for developing countries (Panayidesa, Parolab, & Lamc, 2015),

ance especially for developing countries (Panayidesa, Parolab, & Lamc, 2015),

At this present time, there are tendency of cooperation between public and private sector in many part of areas, and it has implied and suggested a lot of meanings as well. As we understand the nature of public sector which is symbolized as inefficiencies and uncompetitiveness that is not to respond to market as soon as possible, and on the other hand, private one is much more market-oriented structure to cope with, promptly, the market surrounding by environmental changes. However, as far as the management is concerned, public sector has been still controlling with facilities, on the other hand, private one is managing or operating such a facilities efficiently as well productively.

PPP is example of such a public and private cooperation, and many industries including port industry have exercised and considered PPP be able to improve industrial productivity in newly changing situations in field.

2. Background

Efficiency is one of the key parameter for port performance evaluation. Greater efficiency is observed with scale, increased private sector involvement and with transshipment against gateway ports (Cullinane, & Ping, 2006).

From the past experience, it has emphasized the necessity for commercialization of management (through public landlord ports with private sector operations and shared investments), timely and efficient investment, efficient assignment of risk between the public and private sector and active competition among service providers (ADB, 2000). There is not a single common standard approach to port private investment/privatization. The methods used (typically concession or lease agreement) will depend on national laws, level of demand and supply and extent and nature of competition. Though private investment is common and getting popular, the public authority retains the central control in any kind of private participation (Baird, 2002).

* This paper has been modified by comments of 3 unnamed paper examiners and 2 discussants.

** Professor, Korea National Open University, Korea. E-mail: jhkimkp@knou.ac.kr.

3. General Aspects of PPP

3.1. Definition

There is no one widely accepted definition of public-private partnerships (PPP). The PPP Knowledge Lab defines a PPP as "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance" (Worldbank, 2015).

However, it can be explained as a mutual cooperation between the private and the public area, in which the central government authority and the private sectors perform a project together on the ground of an agreed portion of risks and tasks, each party maintaining its own responsibilities as well as identity (van Herpen, 2002).

3.2. Important Characteristics of PPP

- Promise of better project structure and design.
- Allows better screening of projects. A bad project is a bad project no matter whether it is implemented by the public or the private sector.
- Better choice of technology based on life-cycle costing.
- Better service delivery, in particular, if performance based payment is taken into account.
- Better chances of completion on time and within the budget.
 - Risk of default.
 - Project risks can, without difficult, transfer government risks.
 - Various liabilities on government (direct and indirect).
 - Management system based on a long-term contract needs to be in place.
 - An administrative mechanism and special skills in the government are as needed to implement and develop PPP projects.

3.3. Model of PPP

A wide range of PPP models has emerged. These models vary largely by:

- Ownership of capital assets;
- Assumption of risks;
- Responsibility for investment; and
- Duration of contract.
- The PPP models can be categorized into five wide classification order of generally (but not always) increased participation and presumption of risks by the private sector.

The five broad categories are:

- Turnkey contracts
- Supply and management contracts

- Concessions
- Affermage/Lease
- Private Finance Initiative (PFI) and Private ownership.

4. Potential Benefits of Public Private Partnerships

The fiscal risk has been emphasized in recent days, which governments consider the private sector for some other reasons:

- Exploring PPP as a tool of bringing in private sector technology and innovation in furnishing better public services through enhanced operational efficiency
- Incentivizing the private sector to bring projects in on time and within budget
- Imposing budgetary confidence by establishing current and the future costs of infrastructure projects over time
- Utilizing PPP as a instrument of enhancing private sector capabilities locally by joint ventures with large-scale international corporations, as well as sub-contracting chances for local companies in areas such as electrical works, cleaning services, facilities management, civil works, security services, maintenance services
- Utilizing PPP as a tool of uncovering state owned cooperations gradually and government to raising levels of private sector taking-part (in particular overseas) and organizing PPP in a way in order to ensure relocation of skills steering national champions that can manage their own operations professionally and in the end export their competencies by offering joint venture / project
- Creating economic diversifications by making the country more competitive in respect of its facilitating infrastructure base, together with promoting to its business and industry connected with development of infrastructure (such as construction, equipment, support services)
- Reinforcing public sector capacities, that is limited, to fulfil the increasing demand for development in infrastructure facilities
- Pulling-out long-term value-for-money by the way suitable risk transfer to the private sector over the project life—from construction/design to maintenance/operations

5. Potential Risks of Public Private Partnerships

Public-private partnership (PPP) in infrastructure is a relatively new experience in most developing countries of the Asian and Pacific region. Although many governments have considered various steps to promote PPP in their countries, lack of capacity in the public sector remains to be one of the major problems in implementing PPP projects. So far, only few countries have es-

tablished institutional arrangements and developed manuals and resource materials in support of PPP development and for the capacity-building of their public officials. In the absence of such established institutional arrangements and resource materials, public officials face difficulties in project development and implementation, and general public can have many misunderstandings about PPP (ESCAP, 2011).

Public Private Partnerships have been associated with a number of potential risks, which can be reviewed :

In PPP projects, bidding, development, and ongoing costs are regarded as greater than for traditional processes of government procurement - the government should therefore make a decision whether or not the greater costs involved are explained. A number of the PPP and implementation units around the world have developed methods for analysing these costs and looking at Value for Money.

There is a cost attached to debt – While private sector is more competitive with raising a capital, finance will merely be possible in which the project company's operating cashflows are supposed to furnish a return on investment (i.e., the cost has to be borne either by the customers or the government through subsidies, etc.)

There are some projects which are, perhaps, more simple to finance than others (if there is excellent technology entailed and/ or the size of the private sectors responsibilities and liability is clearly recognizable), some projects will make revenue in local currency only (eg. water projects) while others (eg. airports and ports) will produce currency in either dollar or other international currency and so limitations of finance markets in local may have less influences.

6. PPP in the Different Sectors

6.1. Clean Technology

Overview of clean energy laws and regulations, issues related to climate change and carbon trading, PPP toolkits, examples of PPP for green technology, renewable energy and energy efficiency projects.

6.2. Energy and Power

Overview of existing energy laws and regulations in different countries, PPP toolkits, sample laws and licenses, Power Purchase Agreements (PPAs), implementation agreements, concession agreements and more.

6.3. Solid Waste

Information on current PPP legislation and sample contracts on waste collection, street cleaning, waste disposal, treatment and recycling. Also, you will find initiatives to promote micro-enterprises and to regularize the informal sector.

6.4. Telecommunications/ Information & Communication Technology (ICT)

Information and resources on telecom sector reform, laws, regulations and licensing.

6.5. Transport

Sample legislation and agreements related to PPP in the transportation sector, including airports, ports, roads and tolls, light rail, urban passenger rail, metro, trams, railways and other transportation infrastructure projects.

6.6. Water and Sanitation

Resources, toolkits, and documents on water and sanitation sector reform, regulation and PPP projects.

7. PPP in Port Industry

7.1. General Environments

Port can be defined as logistics center and NODE (Kim, 2005). As load center for various distribution flows, they also play a role as a major infrastructure to flexibly organize manufacturing and selling, utilizing varied informations and operation systems. Centers in logistics activities are playing a increasing role as centers of activities in business supply process, growing beyond their previous role of primarily storing goods. It is not just facilities anymore ; they have become logistics fortresses that embrace various features from forecast in demand to the management of manufacturing, supply, and sales by recognizing SCM, taking into account operation and the marketability of products and service (Sun, 2011).

Nowadays port has changed so rapidly as other economic variables. The main issues of these changes are classified with some problems such as the progress of containerization and enlargement of ship size and its speed, the introduction and expansion of EDI system, and the inducement of private capital in port development. Therefore, the competition among ports is severer than before, especially in container cargos. Almost all ports try to strengthen their competitive power and enlarge their port performance and throughput through many kinds of efforts and strategies (Kim, 2004).

Logistic hub strategy in the northeast Asian was established to bring out a competitive advantage nationally in northeast Asia. Countries in this region are struggling fiercely to take a position of distribution port as central base, according to that the volume of container shipping keeps on rising as a result of economic growth of the northeast Asian (especially Chinese) (Oh, 2013).

7.2. Alternatives Solutions

One of alternatives to cope with severe competitive markets, PPP could be an answer. Public-private partnerships (PPPs) in ports have become a means to manage port operations more effectively, traditionally an exclusively government function. Different port management structures are used worldwide but in the majority of large and medium sized ports the landlord port model is used. In this model management responsibilities are delegated to the private sector, while the title in the land and assets remains with the government.

In the landlord port model, the public sector is responsible for port planning, acts as regulatory body, and owns port-related land and basic infrastructure. The infrastructure is generally leased to industries such as tank terminals, refineries, and chemical plants or the private operating companies. As far as operators of the private port are concerned, they have provided and sustained their own superstructure (i.e. terminals) including buildings. At the same time, They purchase and establish their own equipments on the terminal grounds and are responsible for the terminal operations.

7.3. Four Models of Port Administration

It can be illustrated that there are four main types, or models, of port administration <Table 1>.

The approach done by pure public sector is called The first model. In this, all three elements - regulatory, land ownership, and utility- are managed and controlled by the public sector. As far as the second model is concerned, it, indicated to as public/private, is where the cargo-handling activity is managed and controlled by the private sector within areas in port possessed by the public sector. In consequence, waterfront land has been leased by stevedores from the port authority. Actually, many port belongs to this type of port, e.g. Los Angeles, Rotterdam, New York, and Antwerp. In this model, port authorities of public sector also maintain management and control over regulatory aspects. In the third model, set forth as private/public, both the utility task and land/terminal ownership are in the controls of the private sector. The fourth and final model can be illustrated as pure private sector. In this case, together with the utility operation and land ownership in concern, the regulatory matter is also under control of the private sector (Kim, 2015).

<Table 1> Four Models of Port Administration

Models	Port functions Landowner	Regulator	Utility
1 Pure public sector	public sector	public sector	public sector
2 PUBLIC/private	public sector	public sector	private sector
3 PRIVATE/public	private sector	public sector	private sector
4 Pure private sector	private sector	private sector	private sector

Source: Baird (1995)

7.4. PPP Models in the Ports Sector

The main characteristics of PPP model in the port sector can be defined in relation to eight policy issues : activities, investment, contract duration, exclusively, performance requirements, labour, tariffs and concession fees (Farrell, 2010).

As far as the ports sector is concerned, large part of PPP models falls into a landlord port structure in which port authority of a public sector (often autonomous) has made PPP contracts for a set of individual terminal. As for individual business units, The most general PPP models are :

- The management / investment model as far as the existing public assets are concerned, and this type of PPP is, in general, combined with the port privatisation programs which have occurred since the late 1980s in South America, southern Europe, Africa and South Asia.
- The model of development rights for new private assets (BOT), and this type of PPP model is associated with greenfield site developments in many different countries, but has been particularly important in N.W Europe where there is a long-established landlord port tradition.
- The public-private joint venture model, and this style of PPP model has come to be the pattern in Indonesia and China, but is scarcely noticed elsewhere.

8. Conclusions

Public/Private Partnerships could make for how we run after infrastructure investments in certain countries, and they stand for a sharing of costs and responsibilities between the public and private sector in delivery and project finance. It is desirable to establish PPP unit as a process to build capacity to implement and develop PPP. All the states and countries around the world with well-developed PPP markets have constructed such units to cooperate with policy guidance, standardization, quality control, technical assistance, and promotion. In port, the unit can be landlord port management system, and, in particular, public sector has played a role to construct and invest and regulate something related to hardware of port industry, and private sector has got involved to operate and manage port system. By the cooperation of two sectors, more efficient and productive management of port system can be possible, which leads port competitiveness. At present times, ports as are world class port have taken a landlord port system in order to get over fierce port competition. Therefore, landlord port system is a sample of PPP in port industry.

References

ADB (2000). *Developing Best Practices For Promoting Private Sector Investment in Infrastructure: Ports*. Manila,

- Philippine: Asian Development Bank.
- Aertsa, G., Grageb, T., Dooms, M., & Haezendonck, E. (2014). Public-Private Partnerships for the Provision of Port Infrastructure: An Explorative Multi-Actor Perspective on Critical Success Factors. *The Asian Journal of Shipping and Logistics*, 30(3), 273-298.
- Baird, A. J. (2002). Privatization Trends at the World's Top 100 Container Ports. *Maritime Policy and Management*, 29(3), 271-284.
- Cullinane, K., & Ping, J. (2006). The Technical Efficiency of Container Ports: Comparing Data Development Analysis and Stochastic Frontier Analysis. *Transport Research Part A*, 40(4), 354-374.
- ESCAP (2011). *A Guidebook on Public-Private Partnership in Infrastructure*. Bangkok: ESCAP, United Nations, Retrieved May 23, 2015 from <http://www.unescap.org/resources/guidebook-public-private-partnership-infrastructure>.
- Farrell, S. (2010). *Observations on PPP Models in the Port Sectors*. USAID, Retrieved June 3, 2015 from <http://ppp-ukraine.org/wp-content/uploads/2015/10/PPPs%20in%20the-Port-Sector.pdf>.
- Kim, Hong-Sep (2004), The Operation of Port marketing and Future Strategy Directions. *Journal of Distribution Science*, 2(1), 63-98.
- Kim, Jin-Hwan (2005). Studies on NODE as Competitive Power in International Logistics. *Journal of Distribution Science*, 3(1), 113-131.
- Kim, Jin-Hwan (2015). Lessons from British Port Privatisation. *Journal of Distribution Science*, 13(2), 5-13.
- Oh, Moon-Gap (2013), Practical approaches to becoming the logistics hub of Northeast Asia. *Journal of Distribution Science*, 11(6), 31-40.
- Panayidesa, P. M., Parolab, P., & Lamc, Siu Lee J. (2015). The Effect of Institutional Factors on Public-Private Partnership Success in Ports. *Transportation Research Part A: Policy and Practice*, 71, 110-127.
- Sun, Il-Suk (2011). A Contemplation on Measures to Advance Logistics Centers. *Journal of Distribution Science*, 9(1), 17-27.
- van Herpen, G. W. E. B. (2002). Public Private Partnerships, The Advantages and Disadvantages Examined (pp.1-13). European Transport Conference 2002. Association for European Transport.
- Worldbank (2015). *A World Bank Resource for PPPs in Infrastructure*. PPIRC, Retrieved May 23, 2015 from <http://ppp.worldbank.org/public-private-partnership/sector/transportation/ports>.