

# LEARNING FROM LONDON AND SEOUL EXPERIENCES IN PUBLIC TRANSPORT REFORM\*

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## 1. Introduction

Public transit is an integral and important component of local transportation systems. Currently, public transit agencies are trying to operate more efficiently as the level of government funding declines, or as a result of changes in ownerships or regulations<sup>1)</sup>.

There is a variety of regulatory frameworks of local public transport in worldwide. In many countries, governments are pushing for the introduction of competition in the organization of public services and more broadly in public procurement<sup>2)</sup>. The development of public-private partnerships around the world is a good illustration of this trend<sup>3)</sup>.

We have seen many public transport organizations which are owned by government previously undergo the privatization process. The aim of privatization is to pave the way for the public transport market into the competitive industry. In the mean time, in Europe there is an increasing trend towards the tendering in the local public transport service. Competitive tendering seems to be the most effective approach to introducing competition into the public transport sector<sup>4)</sup>.

In London, the regulatory framework in public bus transport system has evolved over the last three decades as a consequence of the London Regional Transport Act of 1984. Under the Act the bus industry has to be put out to competitive tendering and has been implemented in form of route by route tendering. In line with this, publicly owned company which previously ran bus transport passenger services had been privatized in order to increase efficiency and reduce financial assistance from public funds.

Differ from London, another reform experience, Seoul Metropolis Government, South Korea, has made a radical change in public transport reform in 2004. It had changed the operation system of public bus transport services which was previously run by private company to quasi public system. It has also introduced competitive tendering but it is still limited.

This paper intends to review the success of the reform in both those two countries respectively, but not to compare between them. It will start with briefly reviews of the reform in those two countries separately, and then discuss some key points of the success of the reform in order to derive some valuable learning of those countries reform experiences, in particular both London and Seoul experiences.

## 2. United Kingdom's and Seoul's experiences in Public Transport Reform

### (1) United Kingdom's Public Transport Reform

A wide variety of public transport organizational forms can be observed across Europe. Some regimes are based upon the principle of market initiative, others on the principle of authority initiative. In both cases, one can observe a large variation in the amount of public sector coordination and planning. A common feature of most regimes, though, is the growing involvement of the private sector in service production, either through deregulation or through competitive tendering<sup>5)</sup>. A number of European countries have adopted competitive contracting procedures for assigning public transport services over the last twenty years.

In historical perspective on regulatory reform of the bus industry, the United Kingdom led the way in significantly deregulating the urban and rural public transport market when it introduced the 1985 Transport Act<sup>6)</sup>. Under the act, the provision of bus

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\* Keywords: public transport, reform, efficiency, and services quality

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transport services for local and regional areas outside London were deregulated, and this means that the initiative to run bus transport services for passenger come from operators. The Operators are free to take initiative in providing public transport services, where and when they feel necessary on a commercial basis. They can apply and choose routes, arrange timetable and fare to be charged and without subsidy from the authority. However, for non commercial service which is necessary to meet community needs the authority could provide some subsidies under competitive tendering. In contrast to outside London, bus services in London are operated by privately owned operating companies, which work under contract to London Buses (LB) through competitive tendering selection process mechanism. LB is part of Transport for London (TfL) which is one of the organizations responsible for delivering the Mayor of London's Transport Strategies. LB manages bus services in London. It plans routes, specifies service levels and ensures service quality. It is also responsible for bus stations, bus stops and other support services<sup>7)</sup>.

Previously, London's bus system was an increasingly costly public monopoly. Inflation-adjusted costs per bus mile grew 65 percent or 3.4 percent per year, from 1970 to 1985<sup>8)</sup>. The bus operation service was run by a publicly owned and subsidized company. Under the London Regional Transport Act 1984, London Transport (LT) that was then replaced by a new organization called Transport for London (TfL) in 2000, is required to set up subsidiary companies to run both buses and the underground. It also stipulated that, where appropriate, competitive tendering should be introduced to ensure LT operated economically and required less financial assistance from public funds. In 1985 LT set up a subsidiary known as London Buses Limited (LBL), which was then split into 13 locally based subsidiaries. In the same year, LT set up the Tendered Bus Division to begin the process of competitive tendering that is set up within routes. The operators tendered on the basis of all the costs required to operate the specified service, including vehicle, staff and overhead costs, and LT retained the fares revenue. In consequence of introducing competitive tendering, LBL should compete against privately owned operators for the opportunity to run individual bus routes. As a step towards the reform of the sector, LBL subsidiaries were privatized in 1994. The Tendered Bus Division was merged with other sections such as the LT Planning bus sections to form London Transport Buses. In 2000, under the Mayor and the Greater London Authority, London Transport Buses became London Bus Services Limited (London Buses)<sup>7)</sup>. The introduction of competition for the market and the involvement of the private sector have therefore been gradual<sup>3)</sup>.

In 2001, Quality Incentive Contracts were introduced that are a development of previous contracts, but with direct financial incentives for operators linked to the quality of service. The contracts are an extension of the gross cost model insofar as TfL retains the revenue. Currently, bus operators compete for contracts to provide specified services for up to seven years, and are rewarded for exceeding defined targets to improve the service to passengers. This role is crucial to the current and future success of bus transport in London<sup>7)</sup>. Based on the report of The Transport for London 2009, the bus network has developed in the last few years. The bus ridership has grown by 68% per cent between 1999/2000 and 2007/08, and buses in London now carry the highest number of passengers since 1962.

## (2) Seoul's Public Transport Reform

Before the Seoul Public Transport Reform in year 2004, bus operation was a sunset industry. They suffered from highly inefficient, uncoordinated, and dangerous operating practices of the many private bus companies who ran the services (Kim and Rim 2000; Hwang 2001)<sup>9)</sup>. There was high overlapping of service on the most profitable routes, and bus companies avoided operation in unprofitable areas. The bus routes in Seoul city were old and dilapidated at that time. Due to there was no coordination among the different bus companies, many routes was highly circuitous, overlapping, and not adequately integrated with metro services and the routes of other bus companies<sup>10)</sup>. Due to permanent licenses, right to routes had become privatized making it difficult to adjust routes according to passenger demand. And service grew worse as time went on.

For decades, bus services in Seoul were operated by a large number of private firms, with virtually no government control of routes, schedules, or other aspects of service. Only the fares were determined by the Seoul Metropolitan Government, which also provided increasing operating subsidies to cover growing operating deficits that were causing many firms to go bankrupt or curtail the quality of their services<sup>10)</sup>. However, the bus fare system was not reasonable either. Moreover, it was not easy to transfer to another bus or subway. Public transport being such and this situation naturally increased the number of private passenger vehicles, and led to aggravating traffic congestion. Consequently, traffic congestion reduced the punctuality and speed of bus, and it made people began to avoid travelling by taking bus if possible.<sup>11)</sup> As bus passengers continued to decline, there were fewer passengers per bus, less fare revenue per bus, and escalating operating deficits. For example, the average number of total daily passengers per bus fell from 1,093 in 1989 to only 494 in 2002<sup>12)</sup>.

At the time Seoul city government decided to reform the public transit system, this was a huge task with formidable obstacles such as technical difficulties, conflict of interests, and other complicated matters. The major factor behind the success of Seoul public transport reform was the radical idea of changing the privately run bus service to so-called “quasi public operation system”<sup>11)</sup>. In supporting this purpose, a full scale reorganization of the bus routes was put into practice. Bus routes have been grouped into 4 lines including trunk, feeder, circulation and wide-area lines. Then bus colors are divided function wise and the bus number system indicating the operating area is implemented. To make the system works well, some transportation center buildings had been establish to ease passenger to interchange from one bus or subway to another or between both modes of transport. The exclusive median bus lanes were also put on congested streets so as to increase the speed of transit. It is complemented bus Buses Rapid Transit (BRT) and the increasing the number of curbside lanes.

Moreover the integrated distance-based fare system was chosen, so that citizens may transfer to a bus or a subway without paying an additional fee for certain distance. In addition, a revenue pool management system, a scientific bus operation namely TOPIS, and Bus Management System (BMS) were introduced. Bus schedules were also synchronized with the subway. As the new public traffic system became stabilized, leading to much improved service levels and reduced safety accidents, more and more citizens were responding positively to it. Consequently, over its first year of operation, the public transport drew more than 900,000 passengers on a daily basis<sup>11)</sup>. The average number of daily bus passenger has increased of 15,2%, from 4,869,000 in 2003 to 5,608,000 in 2008. While the average daily travel revenue per bus has increased of 42,46 %, from \$358 in 2003 to \$510 in 2008<sup>13)</sup>.

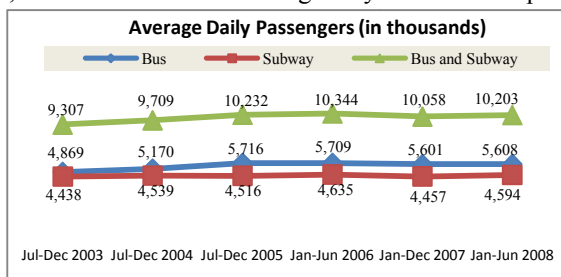


Figure 1: Average daily bus passenger 2003-2008<sup>13)</sup>

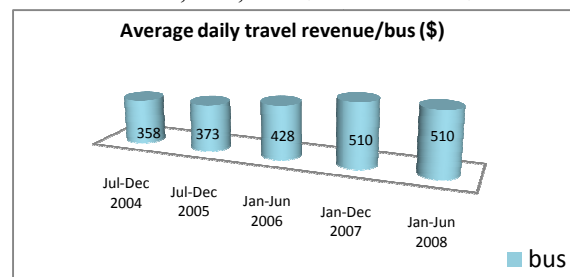


Figure 2: Average daily travel revenue/bus 2003-2008<sup>13)</sup>

In Summary, some aspects concerning both London and Seoul public bus transport system can be seen in the following table.

Table1. Some aspects of both London and Seoul public bus transport system

ASPECTS	LONDON	SEOUL
The Act	• London Regional Transport Act 1984	• Seoul Public Transport Reform 2004
Operation System	• Privatization from state-run bus operation • Controlled competition	• From private to a quasi public operation system • Join management of revenue • Bus and subway integrated system
Planning	• Public sector planning and controlling by managing entire networks	• Public management of routes
Selection Process	• Competitive tendering for all routes	• Tendering system for trunk routes only as a new concept, the others are existing ones
Contract	• A 5 year contract, with a potential for a 2 years extend contract based on performance evaluation	• A set period of 6 years for trunk lines only
Source of funding for operation	• Authority pays operators according to contract as a results of competitive tendering • Authority retains revenue	• Operators get reimbursement according to the total distance of service per vehicle • Shortfalls are subsidized by the authority
Incentives and Penalties	• In form of bonus and deduction by comparing company's operation performance against the Minimum Performance Standard (MPS)	• Evaluation of operation services annually, as basic of giving incentives and penalties
Fare System	• Fare is set by authority, and uses smart card	• Integrated fare system, and uses smart card
Monitoring & Evaluation	• Comparing the performance of operation with contracted MPS, field survey	• Evaluation of operation services, field survey

### 3. Some findings and discussion

The following sections will discuss some findings of success experience concerning both London and Seoul Public Transport Reform. It is just limited to some aspects which are regarded to have significant contribution to the success of the reform.

### (1) Controlling in public transport operation system

Both London and Seoul have introduced the partnership between government as authorities and bus companies as operator in public transport services provision. The system gives more freedom of action to authority in controlling public transport service provided by operators. Despite the formerly type of transportation operation systems of those two countries are different each other, however after changing the system, those two systems seem to have the same purposes. Both authorities put the public transport operation being more competitive industry on one hand, and take a controlling on public transport operation on the other hand.

Under the 1985 Transport Act, London undergoes competitive tendering. It goes hand in hand with the privatization of buses companies which was publicly owned previously. TfL manages all bus services in Greater London Area, such as to plans routes, specify fare, and ensures a good service quality to the users. Moreover, it is also responsible for bus stations, bus stops and other support services. These imply the change of transportation operation system from state-run bus previously.

In contrast to London, Seoul Metropolitan Government (SMG) has changed bus operation system from unorganized bus services run by private companies to a quasi public system. This new system retains private bus companies but increases the authority's control over public bus services operation. It was aimed at increasing public responsibility in controlling the provision of bus services by managing all routes. The system is adopted as a new business rule for the bus industry in which private bus firms run their bus operation on the assigned routes and schedules, determined by the SMG. It would be a crucial point when the main objective of service provisions is to secure the available of adequate services to community without having to ignore the quality of services.

By managing and controlling all routes, it is much easier for the authority to implement a better service into the bus operation system, including the adjustment of routes and schedules quickly as in Seoul which is supported by TOPIS. Therefore one of the crucial efforts of SMG in the early of public transport reform is to reorganize of all bus routes network that are divided into trunk lines, feeder lines, circulation and wide area lines. It is in line with the change of buses color and number to ease bus passenger to recognize them. This effort is complemented with the introduction of route tendering system though it is still limited for trunk routes only as one of new concepts in Seoul Public Transport Reform. Very much like with Seoul, in London, TfL responsible for planning and controlling of service provision. All policies come from the authority initiatives. This gives a more integrated policy<sup>4)</sup>.

The changing of the bus operation system also led to formation of a new organizational, in particular to manage and coordinate an effective bus operation. Both in Seoul and London, the organization as a part of government body is established to take in hand and support the public transport operation system. Consequently it is of course requires additional budget allocation from authority to support organization's operation. Meanwhile, the change of London's system also meant that the public operator of London was gradually transformed from a public provider of all public transport services to a public organization responsible for organizing the route-by-route competitive tendering of the bus services that continued to be centrally planned by London Transport<sup>14)</sup>.

### (2) Integrated and Transparent System

One of the most important key factors in supporting the success of Public transport reform is the introduction of integrated public transport system. Many countries have implemented this kind of system in the context different forms, situations and reasons, so as to increase the quality of services.

Public transport reform both in London and Seoul tends to led to allow more coordination and integration of the services being provided by operators. This involved various forms of partnership between operators and/or authorities. In many cases, ticketing integration, tariff integration or timetable coordination played a role in the provision of general facilities from the side of the authorities (bus lanes, shelters, traffic priorities, etc), this in return for better vehicles or services from the side of the operators<sup>14)</sup>.

The integrated system seems to have played a major role in Seoul, by grafting Information Technology (IT) onto public transport business. It is supported by TOPIS, a management system which integrates the whole system of buses operation. As an effort in creating a more reliability public transport and enhancing quality of public transport service in Seoul, the introduction of trunk lines and feeder lines concept is a concrete measure of manifestation of integrated system of public transport services. It is not only to integrate an unorganized bus transport operation run by many bus companies previously, but also has converted highly competition between buses and the subway being a mutually beneficial linking system. It also enables to secure others advantages results from efficiency of the services by avoiding duplication of services provided by operators under a whole system.

The implementation of a unified fare structure between bus and subway can be seen as another form of the integration system that has been introduced in Seoul's public transport reform. According to this system, fares are based on distance traveled only,

with free transfers permitted between buses, subways as well as between bus and subway. The system which is supported by what so-called T-Money system has put into practice a transparent system thereof. As a part of the reform, SMG has introduced a joint management of revenue. In practice, all the fares are collected into a single account, "Revenue Pool", and then are distributed to bus operators according to traveled distance. It will also encourage a transparent business operation for both authority and private bus operators. The creating of transparent system is not only give guidance to enhance the trust between involved parties engage under contract agreement, but also will led to the creating of accountability system. In turn the present of transparent a system will be a response to one of the significant issues in allocating subsidy or share out revenue between authority and operator transparently and effectively, including in allocating incentive. Due to all data has been recorded in the system completely and accurately. In London TfL uses travel smartcard so-called Oyster for the payment system.

Both London and Seoul have introduced information integration system as well. In Seoul, a bus management center has been built to provide a scientific bus operation management, whilst in London it uses a similar information system what so-called iBus. The operations of bus fleet both in Seoul and London are managed by a sophisticated monitoring system to ensure buses run as required. By keeping track of where buses are, allowing bus controllers to regulate services to make them more reliable.

### (3) Competitive tendering

Competitive tendering is merely a selection mechanism in the context of outsourcing. It is a method of production available to any initiator of services whatever the organizational form, but it is not an organizational form in itself<sup>15</sup>. The objective of using auction procedures is to replace competition in the field by competition for the field, leading private operators to operate public services at a competitive price without loss of quality<sup>3</sup>. The competitive tendering is carried out in order to increase efficiency of public bus transport services, and hence reduces the level of funding support by authority or government. The competitive tendering meant that the public authority purchases public transport services from the competitive market.

Following the reform, both London and Seoul City have implemented competitive tendering in selecting potential operator to run the provision of public bus transport services under contract with private companies. The tendering system is implemented in London based on route by route system, whilst in Seoul it is still limited for trunk lines only which is introduced as a new concept, a part of the reform as a whole. Contracts are awarded with the intention of achieving the most economically advantageous outcome within the resources available. Public authority retains full control over policy and some service levels such as routes, and time tables. Operators just provide the services specified by authorities at the fares given by the authorities.

The choice of regulatory regime and organizational structure can directly effect on a range of factors such as price, quality, stability and quantity supplied, as well as the level of competition which can, itself, have further impacts on price, quality, stability, quantity supplied and costs<sup>16</sup>. Competitive tendering has been successful in London. Direct savings from competitive tendering have averaged 15 to 20 percent<sup>17</sup>. The advantage of using controlled competition is also indicated by the increasing of the number of trips on local buses in London between 1986 and 2000 by 13%, whilst in the same period, in the rest of United Kingdom, under deregulation, the number of trips on local buses fell by 34%<sup>18</sup>. Meanwhile, London Transport found that competitively tendered service was generally of higher quality, and that when the public operator provided service in a competitive environment (faced with the threat of contract cancellation, like private carriers), service quality improved on the same services<sup>19</sup>.

### (4) Incentive

Despite in distinct ways, both London and Seoul have given an incentive to operators in order to encourage the increasing of services quality. The incentive is allocated based on reliability performance of operator.

The giving of incentives in London is carried out by comparing operator's performance with the contracted Minimum Performance Standard (MPS) which is agreed between operator and authority in the early of contract agreement. While in Seoul it is based on annual evaluation of operator's performance. That is all aimed at encouraging the improvement of operator performance in providing public transport services.

## 4. Conclusion

It is realized that some valuable learning experiences that is explained in this paper not cover all of the successes experience of both those countries. There is no guarantee that some success experiences in public transport reform in both London and Seoul are

not ride of problems in point of fact as well. But at least the successes of the reforms in those countries could be attributable to strong control of the authority mainly in planning and managing some service levels. The system has given more planning and controlling competence to authority through empowered public organizations that coordinates the system as a whole. It also aimed to enhance the quality of public transport services provision hand in hand with the efforts in creating efficiently and effectively integrated transport system. Thus, a semi public system could be significant alternative in doing public bus transport reform.

The increasing of service quality is an important element in public transport reform as well. The giving of incentive will encourage the increasing of service quality provided, as well as the implementation of competitive tendering that is not only aimed at increasing cost efficiency, but also the improvement of service quality.

Some efforts must be done continuously so as to increase and keep service quality as required. It is also intended to anticipate future development in dynamic circumstances that change very fast. Eventually it could be in response to meet a good and efficient service in the provision of public transport.

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