

THREE PERSPECTIVES ON THE ROLE OF COMPETITIVE TENDERING IN THE INTEGRATION OF PUBLIC TRANSPORT

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ABSTRACT

The principal objective of this study is to review the role of competitive tendering in the integration of public transport services in industrialised and developing countries, specifically, South Africa, Chile and Britain. It proposes to analyse the regulatory structure and identify some of the implications that the tendering process has for facilitating seamless travel within major urban areas.

One of the objectives of the competitive tendering process in London has been to preserve public transport integration, as the deregulation of public transport outside of London has led to a significant decrease in the number of inter-operator services. Similarly, many developing country cities, such as Santiago (Chile) and Cape Town, have introduced competitive tendering schemes where privatised markets have been established, arguing that it will give the public sector greater control over specific service features, such as systemwide integration. Whilst it is true that tendered routes can be structured to maximise the transfer of passengers at key points of intersection, this paper argues that there are key tradeoffs between integration and service innovation that must be accounted for in the development of these schemes. Authorities will want to facilitate informational and institutional integration, but avoid becoming too prescriptive.

This study can provide important insights into the difficulties faced in promoting integration, and will identify some of the necessary conditions for widespread inter-operator coordination in a privatised environment. It will begin by reviewing integrated transport strategies in London, Santiago and Cape Town. Next, it will assess the impacts of competitive tendering on integration in the first two cities, and explore the objectives behind ongoing efforts to introduce a tendering scheme in Cape Town. Finally, this paper will discuss the prospects of seamless travel in these cities and will present recommendations for improving integration within the tendering process.

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1. INTRODUCTION

In response to the past wave of public transport deregulation, most experts have acknowledged that whilst these policies have increased supply and reduced government spending on transport, they have also resulted in the deterioration of some coordinated services. Consequently, travel mode splits have continued to shift in favour of the private auto, further contributing to increased motorisation, traffic congestion and pollution.

In contrast, a key objective of the competitive tendering process has been to preserve systemwide planning and accountability, whilst promoting widespread transport coordination. A number of countries have introduced competitive tendering schemes as part of the bus privatisation process, arguing that it will allow them greater control over specific service features, such as integration.

Whilst tendered bus routes can effectively be structured to maximise the transfer of passengers, it should be noted that there are tradeoffs between system coordination and service innovation. In order to facilitate system coordination, regional authorities may wish to include integration guidelines in the tendering process, as long as they do not inhibit the commercial integrity of participating operators.

This study provides insights into the inherent limitations faced by transport authorities and operators in promoting systemwide coordination, and it offers a few ideas for preserving widespread integration in a privatised environment. It begins by reviewing the potential benefits of competitive tendering and interoperator integration; and provides background information on the case cities. Next, this study comments on the evolution of bus tendering in London and Santiago, and explores some of the key objectives behind ongoing efforts to introduce a similar tendering scheme in Cape Town. Finally, it draws conclusions concerning the prospect of improving integration through the tendering process.

2. AN OVERVIEW OF BUS TENDERING

Competitive tendering is but one of a spectrum of institutional options for organising public transport. According to Van de Velde (1999), most publicly regulated systems either feature public ownership of vehicles, through direct or delegated management of operations; or private ownership and/or leasing, through franchising systems or centrally planned tendering. The option selected often depends on the existing organisational structure, the institutional capacity for regulating transport and the local political climate.

In some cities, authorities have attempted to provide greater access to the operation of public transport services through the introduction of competitive tendering schemes in certain areas or corridors of the city. The cities of London, Adelaide and Santiago (Chile) have implemented bidding processes for specific routes or service areas, based largely on operator commitment and performance criteria. In each of these cities, a lengthy process of negotiation and service revisions has been undertaken prior to implementation of a tendered system. Operators are often suspicious of government attempts to control public transport, especially where private operators are well established.

Whilst some question the ability of private operators to remain competitive under tendering, many experts believe that this regulatory option provides for a coordinated network of public transport services, whilst promoting the benefits of privatisation (e.g., reduced government expenditure, innovative services). It is argued that often, comprehensive planning is not undertaken on an ongoing basis, especially in multi-operator markets where regulations have been relaxed.

For example, under deregulation, whilst government and the private sector have benefited from a drop in costs, many passengers have been adversely affected by the loss of fare, route and timetable coordination.

Although competitive tendering is often restricted to private operators, there are examples where public carriers have been allowed to submit bids, such as in Adelaide, Australia. In this case, both private and public sector carriers were initially awarded tenders. In order to create a level playing field, many governments have advocated limiting competition to only private sector companies.

3. PUBLIC TRANSPORT INTEGRATION

Integration is a key element of any transport system. Whilst operators serve key origins and destinations, it is too costly for them to provide direct service between all points and some interchange is inevitable (LTP 1997, White 2002). Passengers interchange when there is either no direct service, or when transferring offers a faster alternative (TfL 2001). In order to serve transferring passengers, it is important to provide key services, such as timetables, transfers, and off-street facilities (Cervero 1998).

Interoperator integration can expand the range of options available to the passenger, and provide such benefits as urban mobility and economic efficiency. Commuters spend less time travelling, and not only save time and money, but also contribute less to urban congestion and pollution. Whilst time-savings is of primary interest to middle and high-income urban residents, cost savings is critical to the survival of low-income residents (e.g., a higher percentage of their wages are spent on transport). Consequently, public transport should be coordinated so that the transferring passenger only pays once; routing and headways facilitate the transfer of passengers; and interchange facilities are kept clean and safe for the passenger (Rivasplata 1993).

It is important to note that there are different forms of integration, requiring varying levels of operator and/or public involvement. For example, physical integration, the most common and least expensive form of coordination, involves establishing transition points between public transport networks (Henry 1990). Whilst this contact is essential, without some element of fare integration (e.g., standard transfer procedures financed by participating operators and/or the government), passengers may be inclined to drive.

Informational integration is key to the distribution of up-to-date route, fare and timetable data, whilst institutional integration ensures public sector participation in ongoing planning and investment in interoperator agreements. Logically, under optimal conditions, the more integrated the public transport system, the greater the potential for cost and time-savings to the passenger.

Furthermore, interoperator integration establishes the conditions for two or more operators to develop a multi-ride ticket/pass, i.e., offering a significant reduction in the combined cost of each individual ticket. In such urban areas as Paris, London, and the Rhein-Ruhr, comprehensive transfer systems have been developed for multioperator journeys. Nevertheless, the specific organisational characteristics of an urban area often inhibit widespread integration.

In a privatised environment, regional transport planning is often not conducted on an ongoing basis, leaving operators to operate freely, without fare and timetable coordination. In cities where a majority of the bus market is privatised, widespread accessibility and system connectivity are jeopardised if fares, routes and schedules are not monitored on an ongoing basis. However, some argue that there are cities where the demand for interoperator transfers is low because there are a small number of operators.

One of the conditions necessary for the development of a well-integrated public transport system is that an autonomous, metropolitan authority be given the power to introduce a set of through-service standards (Nash 1988). When establishing a set of intermodal transport objectives, this authority should balance the commercial interests of the operators with the needs and expectations of public transport passengers. Indeed, it is essential that regional coordination policy be transparent to all; be designed to preserve operator competitiveness; and respond to a proven demand for transfers.

In the developing world, if public transport integration is to be achieved, it is essential that regional plans propose policies and financial support for integration. In addition, it is important that public transport service plans incorporate the needs and desires of all parties, including passengers, operators, local communities, and society-at-large.

4. THE CASE CITIES

As previously mentioned, in all three case cities, there have been efforts to improve system coordination through the competitive tendering process. The following subsections describe the case cities, their public transport networks and the evolution of their tendering systems.

4.1 London

Competitive tendering was initiated in London in the 1980s. Greater London, located in the Southeast of England, serves as seat of the British government and is a key commercial and financial centre. Currently, Greater London, the central core of a larger metropolitan region, covers an area of approximately 1,600 square kilometres and is home to more than seven million inhabitants (see Table 1).

Table 1. Urban Characteristics of the Case Cities, 1998.

Indicator	London*	Santiago	Cape Town
Population (thousands)	7,100	5,000	3,200
Total Employment (thousands)	4,500	1,300	1,200
Density (per hectare)	45	83	39
No. Administrative Units	14	35	6

*Greater London

Sources: DETR 1999, Mideplan 1997, Sectra 1998, City of Cape Town 2002.

Average densities in Greater London are higher than in most industrial regions of North America and Australia, however, they are relatively low by European standards. In the past few decades, increased motorisation has led to an increase in auto mode share and a corresponding drop in public transport share, especially between areas outside of Central London. In addition, traffic congestion levels have risen substantially, particularly in Central London, where public transport provision is still relatively extensive. The recent introduction of a congestion charge for vehicles entering Central London seeks to reduce traffic queues and average travel times, investing toll revenues in transport infrastructure.

Despite the rise in motorisation, public transport still plays a key role in the lives of most Londoners. Currently, the most commonly used public transport modes in Greater London include heavy rail ("Tube"), bus, commuter rail and light rail. The first and last are run by public entities, whereas the other two modes are run by private sector operators. Collectively, this system carries over 13 million daily passengers: 77 percent by rail, 22 percent by bus and less than 1 percent by other modes, including river ferry (see Table 2).

Twenty years ago, most urban bus services in the Britain were publicly planned/operated, however, in 1985, the Thatcher Government privatised the urban bus market, curtailing the powers of regional transport agencies and reducing public subsidy. In addition, deregulation accompanied privatisation in most areas of Britain, except for London, where planners felt that deregulation would negatively impact systemwide service (e.g., causing widespread confusion).

Consequently, after passage of the *1984 London Transport Act*, private sector operators were allowed to compete for routes through a competitive tendering process. Over the following decade, bus services were gradually transferred to the private sector through three-year contracts with the regional authority, London Transport. Performance criteria were developed to ensure safety, punctuality and coordination with other bus operators.

Table 2. Travel Characteristics of the Case Cities, 1998.

Indicator	London	Santiago	Cape Town
Daily Trips (thousands)	26,400	8,370	3,500
Daily Mode Split* (percent)			
Private Modes	50	24	48
Public Transport	50	76	52
Public Transport Modes (percent)			
Rail	77	14	62
Bus	22	80	18
Others (e.g., Shared Taxi, Ferry)	<1	6	20

* motorised modes during commute period

Sources: DETR 1999, Sectra 1998, City of Cape Town 2002, CMC 1998.

Since the mid-80s, tendering has yielded positive results in London: a 20 percent rise in bus mileage, a 40 percent drop in cost per bus mile, and a 27 percent drop in total network costs. In addition, the total number of passenger journeys in Greater London has increased, despite the fact that it has significantly decreased in other areas of the U.K. (DETR 1999). In addition, there has been a rise in the use of system Travelcards and a rise in the provision of formal transfer facilities and information. Thus, in the case of London, competitive tendering has reduced public sector costs without sacrificing system integration.

Nevertheless, there are those that point to the key role of the operator as entrepreneur. Some argue that the tendering system in London favours large operators and that some requirements are too prescriptive to ensure operator innovation. On the first point, large operators often can afford to invest in vehicle improvements and route coverage, giving them a competitive advantage over small operators. In response to the second point, competitive tendering should be structured so that it does not endanger the commercial integrity of the operators.

4.2. Santiago

Greater Santiago was one of the first urban areas in South America to implement a competitive scheme for granting bus route licences to operators. Located in Central Chile, it is the largest city in Chile and the sixth largest urban area in South America, with more than five million inhabitants (see Table 1). Greater Santiago encompasses an area of 600 square kilometres.

The average population density of Santiago is less than 90 persons per hectare, low to moderate by developing country standards. This particular pattern of development has resulted in high average trip lengths and long public transport journeys.

Despite the historic predominance of public transport, there has recently been a marked rise in private auto usage, particularly in the middle to high-income residential areas east of the city core.

At present, the regional network consists of bus services, shared taxi services, a heavy rail metro and state railway. The first two are privately run, whereas the rail-based modes are run by public sector entities. Collectively, this system carries over 3 million daily passengers: 80 percent by bus, 6 percent by shared taxi and 14 percent by rail (see Table 2). Most public transport services extend from the urban core to outlying suburbs to the south and east (Rivasplata 2000).

Whilst public transport integration was an objective of the 1968 urban transport report that recommended construction of the Metro (BCEOM-SOFRETU-CADE 1968), once the first segment was built, the military regime advocated a policy of transport deregulation that discouraged interoperator coordination. Subsequently, it was the Santiago Metro that first introduced formal integration, (through its Metrobus Programme), in an attempt to extend its catchment area.

Since 1987, the Santiago Metro has operated the Metrobus Programme, which relies on a series of bilateral agreements between the Metro and individual private bus operators to provide integrated feeder services at designated Metro stations. Metrobus passengers can purchase a combined metro ticket and bus token for 60 to 70 percent of the combined cost of these instruments. The Metro reimburses operators a fixed amount for each Metrobus token accepted.

Whilst this programme has provided cost and time savings to passengers, only 3 percent of all intermodal passengers take advantage of its fare savings (Cedano and de Freitas 1994). Many Metrobus passengers are unaware of the Programme, or have poor access to Metrobus ticket locations. Others take the Metro, but don't connect to a Metrobus because it does not take them where they need to go, they are unwilling to wait for it (e.g., some board the first bus to arrive at a stop), or they only use the service occasionally. In addition, there are two principal reasons that Metrobus is still not widely used: a very small proportion of bus operators actually participate in the Programme; and the Metrobus Programme is voluntary.

In response to worsening traffic congestion and air quality problems in Santiago, a competitive tendering scheme was developed in the early 1990s. Initially, tender requirements focused on vehicle age, use of street facilities and professional integrity, however, they have been expanded to include other aspects. Over the past decade, at least three major bidding schemes have broadened the geographic limits to include most areas within Greater Santiago.

However, whilst the democratic governments of the 1990s have re-regulated many services, until recently, little had been done to encourage further integration between buses and between buses and other public transport modes. As a result, informal integration still characterises a large proportion of multioperator trips.

Local government has been hesitant to require that operators coordinate and has delayed setting policy on integration. For example, the Transport Infrastructure Planning Commission's (Sectra) *Urban Transport Development Plan* set intermodal fare integration as a goal for 2005, but did not outline a plan of action (Sectra 1995). Nevertheless, it is widely speculated that the upcoming tendering process will include provisions for ensuring formal integration with the Metro, through a revamped Metrobus system.

4.3 Cape Town

Whilst Cape Town has yet to implement a competitive tendering scheme, the South African government has developed general guidelines for bidding the rights to provide bus, minibus and rail services in the major cities. This section describes the local transport network and recent progress made toward introducing a tendering system there.

Currently, the Cape Metropolitan Area is the second largest urban region in South Africa, with more than 3 million residents (see Table 1). The average population density of Cape Town is even lower than that of Santiago, with fewer than 40 persons per hectare. This dispersed pattern of land development is partly a result of the isolationist land use policies of the apartheid era. Recent government policy has supported the integration of public and private transport modes; however, significant investment in the former will be required before it becomes truly accessible to all.

At present, the public transport system consists of Metrorail, a unit of the national commuter rail company; Golden Arrow (GA), the privately-owned bus company; and many, independently-run, “minibus” services. Collectively, this system transports close to 1 million daily passengers: 14 percent by bus, 24 percent by minibus and 62 percent by rail (see Table 2). Spatially, bus and rail services extend out from the downtown to outlying areas, whilst minibus services principally link low-income townships with major employment centres (Williams and Kingma 2002).

Over the past decade, planners have become increasingly aware that bus and rail modes have historically been developed in isolation of one another, and they have sought to integrate services. Based on Metrorail’s past role in the provision of long distance service to neighbourhoods and townships to the south and east of the downtown, it has been decided that a rail-based network of bus and minibus feeder routes should be the focus of integration efforts (Williams and Kingma 2002). The metropolitan transport plan for Cape Town proposed that future investments in vehicle rolling stock be accompanied by improvements in intermodal compatibility and facility management throughout the Cape Metropolitan Area.

In response to these needs, the federal government’s *Transport White Paper* (1996) and the metropolitan government’s *Moving Ahead* (1998) document have placed greater emphasis on renewing investment in public transport and reducing travel time and cost for rail and bus commuters. In particular, the latter document supports “an effective, efficient, equitable and affordable transport system” (CMC 1998). The federal government has committed itself to the tendering of all urban bus routes, including those currently operated by GA in Cape Town. In effect, this process will break up services provided under the existing monopoly. Whilst this tendering process could encourage innovation and reduce subsidies to the current operator, it will require greater government investment in regulation and coordination.

Since the release of the government documents, Cape Town has led efforts to strengthen service integration through the Multimodal System Plan Programme and associated public transport restructuring projects (Williams and Kingma 2002). This effort has featured construction of new interchanges and bus shelters, as well as the systemwide rationalisation of services. For example, the Modalink Programme, created in 1996, is a joint venture between transport authorities and operators that fosters greater systemwide cooperation. Demonstration projects have included development of a telephone information centre, dial-a-ride services for the disabled, and the drafting of guidelines for the operation of interchanges (City of Cape Town 2002).

Despite this effort, there are many operational and institutional issues that still need to be resolved. Key problems facing the system include ageing vehicle fleets, escalating federal subsidies to GA, rail safety concerns and widespread rail fare evasion (Clark and Crous 2002).

Whilst there have been improvements in physical route and facility integration (e.g., over 100 new interchanges), the coordination of fares is still quite limited, due in part to uneven levels of subsidy and territorial rivalries. Similarly, improved access for the disabled has yet to be fully implemented.

Thus, the tendering process provides a unique opportunity for establishing cooperative programmes. Clearly, for some of these integration efforts to be effective, particularly those related to bus-rail and minibus-rail arrangements, tenders will need to include provisions that cover such issues as fare integration, minimum headways and informational resources. Due to the magnitude of the task and scarcity of funding, the metropolitan government has wisely sought to implement a short-term restructuring process first.

5. ASSESSING THE IMPACTS OF TENDERING

A comparative analysis indicates that whilst all three case cities have adopted policies supporting competitive tendering and have faced many of the same barriers to implementation, London and Cape Town planners have more aggressively sought to improve the integration of services and facilities in tandem with the development of a bidding process. In contrast, Santiago planners have always been aware of the need for better interchange, however, authorities have been hesitant to introduce tendering provisions that directly impact existing bilateral arrangements (e.g., Metrobus).

One reason for this difference may be explained by the fact that each city has introduced tendering at a different stage in the privatisation cycle. As a major financial and cultural centre, London has long recognized the importance of public transport links and integrated fare schemes. In addition, its phased approach to privatisation allowed authorities to carefully design tenders that preserved and further strengthened integration. In addition, London Transport played a key role in providing regional guidance and planning.

In contrast, Cape Town has only recently sought to integrate services, fares and information. One advantage held by Cape Town however, is the manner in which the competitive tendering process and the creation/legalisation of a large number of private operators have been coordinated. On the one hand, the competitive tendering process will open the market to many new operators, a situation that could cause havoc if service integration is not ensured by the government. However, with the ongoing public transport restructuring effort, a series of tenders is being developed to service a revamped network of routes. Tenders could be tailored to include interchange standards on those routes where integration is a major issue.

A key factor explaining Cape Town's choice to give a high priority to integration relates back to the area's land use pattern. Like Santiago, a large percentage of the population of Cape Town relies on public transport; however, key destinations in South African cities are much more widely dispersed, generating greater demand for transfers. In Santiago, the public transport network is denser and more readily accessible to the poor (e.g., there are numerous transfer opportunities), with a lower demand for transfers. In addition, powerful operator cartels in Santiago have never widely embraced fare and timetable integration.

One way of measuring the impacts of tendering on integration is to analyse changes to fare and route coordination. Whilst an assessment of the Cape Town experience cannot yet be made, we can evaluate the London and Santiago cases. In the former, London Transport, and more recently, Transport for London (its successor), have been directly responsible for public transport planning. Over the past 20 years, integration strategies have included not only the introduction of a Travelcard, but also, the use of regional fare media on all modes.

In contrast, the Metrobus Programme is the only successful example of fare integration in Santiago. Its scope is limited and local tenders have not yet addressed bus-bus fare integration. Nevertheless, the Metro, Sectra and the Ministry of Public Works (MOP) are now working together to improve fare coordination, through the development of a single fare instrument for all modes, and a reduced fare for intermodal trips (Metro de Santiago 2002). Some institutional constraints remain, however.

In the area of route coordination, most of London's services have safe interchange facilities; whilst Santiago has many transfer points, but only some feature convenient and safe connections. More recently, the Santiago Metro, Sectra and MOP have designed feeder routes that directly serve Metro stations, and have put them out to bid (Metro de Santiago 2002).

These interagency efforts are promising, however, unless policy direction is established at the regional level, operators will continue to allocate time and resources to the improvement of their own services, and will often avoid integration.

6. CONCLUSION

This study has reviewed the role of competitive tendering in the provision of service integration, taking into account the experiences of three different cities. A comparison of existing and planned competitive tendering schemes leads us to conclude that this form of regulation can be instrumental in preserving a desired level of public transport integration as long as the regulator incorporates specific provisions into the bidding process. In the case of London, competitive tendering was initiated during a period of transition towards privatisation, a process that allowed regulators to encourage operators to provide integrated services.

In contrast, in the cases of Santiago and Cape Town, some services were already provided by the private sector, so local governments were faced with convincing operators that competitive tendering would improve the system. In the case of Santiago this entailed a long period of negotiation, during which integration objectives were never articulated. In Cape Town, the tendering process was delayed, but it appears that coordination provisions will be made.

Once existing transport operators have agreed to support efforts to introduce tendering, it is important that the process be administered by an independent transport agency capable of maintaining a high level of objectivity in the selection of operators, and charged with ensuring that operators work cooperatively for the collective good of the public transport system. The establishment and regulation of tenders should not only focus on improving overall service quality, but also on facilitating systemwide, multioperator travel.

In order to remain competitive, operators must be granted some degree of autonomy to set their own timetables and fare structures, consistent with network standards. In addition, a committee comprised of representatives of passenger groups, public transport operators, and regional and federal transport authorities, should be created. Its mission should be to develop acceptable integration standards for all.

Once the process has been agreed upon, it might be advisable to systematically phase-in elements of interchange. This approach should ensure that the regulatory agency and bus operators are prepared to implement these changes.

Tenders should ensure that operators provide the following:

- punctuality and reliability;
- improved physical access to transfer services;
- availability of timetables (or service intervals)

- participation in network through-ticketing.

In sum, this paper concludes that each city has a unique set of characteristics, and thus, must define its long-term transport objectives and establish its own set of criteria for developing a coordinated network (e.g., through the tendering process). In general, programmes must reflect local urban values and needs, however it is equally important that comprehensive planning and integration be conducted through regional oversight. Competitive tendering provides an attractive option for maintaining and/or improving integration. Tenders should encourage operators to facilitate transfers; provide better access for the disabled; improve urban links; and provide access, safety and security to passengers.

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