A FRAMEWORK APPROACH TO DEVELOPING PUBLIC TRANSPORT CONTRACTING REGIMES

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INTRODUCTION

Establishing contracting regimes that effectively achieve policy objectives is a critical role for Government agencies procuring transport services.

As a result of recent changes to land transport management legislation, Land Transport New Zealand recently undertook a review that aimed at developing procurement procedures and guidelines that provide good quality, integrated and continually improving bus and ferry services for a fair price with reasonable return to operators. In parallel, the Ministry of Transport also undertook a review of related Public Transport Legislation.

As part of the Land Transport New Zealand review, L.E.K. Consulting was commissioned to undertake a review of international developments in public transport contracting. Whilst local circumstances differ, both in terms of industry structure, regulatory environment, and Government policy objectives, there are a large number of similarities between public transport procurement regimes in different jurisdictions. These similarities were analysed and summarised as global learnings, which could be thoughtfully applied in the design of a new procurement regime. This paper describes the global learnings identified during the review of the NZ procurement regime along key contract parameters such as contract size and duration, risk allocation, KPIs and asset ownership and their impact on competitive pressure pre-contracting and performance throughout the life of the contract.

A particularly important factor in the successful design of procurement regimes is the achievement of a balance between competitive contract prices, the preservation of service quality and the spirit of partnership and trust between operator and procuring agency, which is discussed in latter stages of the paper.

The New Zealand Context

The existing public transport procurement regime has been in place since mid 1991 and has remained largely unchanged since then. The system was introduced as part of a broader package of transport and local government legislative reforms in 1989. The reforms were

designed to transfer the provision of transport services to the private sector, promoting innovation and introducing a primary focus of increasing efficiency through the maximisation of competition with the aim of reducing costs through lowest tender price.

This approach effectively established a "two tier" public transport system that allowed operators to register services they wished to operate on a commercial basis with regional councils able to contract additional services that they, and the community, wished to have provided.

Regional councils wanting to contract services had to abide by the contracting rules determined by Transit New Zealand, the government agency then responsible for funding. Transit NZ's Competitive Pricing Procedures (CPPs) for Passenger Transport were highly prescriptive in nature. During the 1990s funding for public transport services was restricted to a total of $42m (both central and local government) across the country and during the early years of the decade there was significant patronage decline experienced.

With a change in government in 1999, investment in public transport increased significantly over subsequent years, up to $301m in 2005/06 including significant infrastructure investment (Land Transport NZ, 2006). Accompanying this increased investment which occurred overall in transport, was the recognition that the current regulatory environment needed attention also to ensure best value for the increase funds being injected.

In 2003 and 2004, there were major changes in the legislative environment with the enactment of the Land Transport Management Act (LTMA) and subsequent amendment to establish a new agency, Land Transport NZ, to replace Transfund NZ as the funding and approving agency, amongst other functions. The purpose of the LTMA is to contribute to the aim of achieving an integrated, safe, responsive, and sustainable land transport system and Land Transport NZ's objective under this is to allocate resources and to undertake its functions in a way that contributes to an integrated, safe, responsive and sustainable land transport system (Land Transport Management Act, 2003).

Land Transport NZ assumed a new role as an approver of procurement procedures. Procurement procedures needed to be designed to obtain the best value for money spent having regard to the purpose of the LTMA.. When approving a regional council procurement procedure, Land Transport NZ also has to have regard to the desirability of competition and encouraging competitive and efficient markets. Nothing compels a regional council to accept the lowest tender received. (Land Transport Management Act 2004, s25).

This legislative change established a very different and much more flexible approach to procurement that allows more tailored, individual regional council procurement procedures.

As a result of this change, Land Transport NZ decided to undertake a comprehensive review of public transport procurement and appointed L.E.K Consulting to assist with this task. The key drivers of the review were to ensure that the procurement procedures are aligned with the LTMA, while utilising international experience and best practice to ensure that they suit current market conditions and the needs of regional councils. The establishment of an appropriate environment for public transport provision which also allows regional councils and operators to build longer term partnerships and improve services is vital.

Review of International Experience

In the context of this study, the objective of the review of international experience was to review and compare the design choices that have been taken in other procurement regimes, and to derive generalisable rules that might be applicable for other jurisdictions. As a first step, eleven key contract design dimensions were identified and defined.

For each of these dimensions, data was collected on the approach adopted for a range of cities in different parts of the world. This data was used to describe the spectrum of design choices procuring agencies have taken. In many cases the spread of design choices was quite large. For instance, observed contract duration ranged from four years in some jurisdictions to ten years in others. Thus, as a further step, we aimed to describe the logic and trade-offs around the choices. For instance, the key trade-off around contract duration is typically to balance long term revenue and cost risk against set-up and learning cost for the operator and contracting transaction cost for the procuring agency.

Data collection for this work comprised the review of academic papers, policy and contract documentation as well as interviews with both procuring agencies and private operators.

Whilst the calibration of the various contract dimensions is clearly interrelated, in this paper, we will present the learnings for the individual contract dimensions separately.

Contract scope

An important dimension of a public transport services contract is its scope. Our review of contract scope focussed on where operators are contracted to run. Route-based or area-based contracting are the most common options observed. In an area-based contract, the operator is contracted to run all services in a given geographic area, where as in a route-based arrangement, the contract covers a specific route only.

In most circumstances an area-based system that incorporates some route-based elements appears to be preferred. These arrangements typically retain the key benefits of area-based networks such as the sense of area ownership that operators experience (and that encourages investment in the area), operators' flexibility to develop services to better meet local needs or their ability to adjust services slightly to improve operational efficiency. However, they also overcome key shortcomings such as the artificial division of geographies by allowing specific cross-city or cross-area services and/or incorporating soft area boundaries, allowing seamless access to activity centres just outside of the contracted area.

Contract duration and renewal

Contract duration and renewal encompasses both contract length and the existence and nature of contract roll-over provisions. Contract durations observed ranged between four and ten years. Contracts that contain roll-over mechanisms can range from 4+2 years to up to 7+7 year arrangements.

Key considerations in determining the optimal contract length are i) the extent of risk that the operator should bear given the circumstances of the operation, ii) the payback periods for asset purchases or start-up investments, and iii) the level of network and service innovation that an operator should provide.

Roll-over mechanisms are often employed to capture the benefits of a shorter contract from a risk transfer perspective, and a long contract in the context of other provisions (i.e. innovation or payback on investments). There exist a wide range of approaches to rollover provisions ranging from highly prescriptive to negotiable. A key distinguishing feature is the extent to which contract prices may or may not be altered under an extension or rollover.

Contract scale

Contract scale relates to the size of contracts in terms of number of buses covered in a single contract. Contract sizes tend to range from 30-300 buses, but average around 50-200 buses.

There are various factors that are often considered when determining contract sizes for the various contracts in the market. Whilst geographic circumstances sometimes limit sensible contract sizes, efficiency, both from operator and Government perspectives, and the impact on competition are also key aspects.

As a rule, procuring agencies appear to accept or appreciate a range of contract sizes in a given city. There is some limited consensus that efficient operations require around 100 buses in a given jurisdiction, which suggests a number of large contracts can be useful in facilitating efficiency. A smaller number of larger contracts will cost less to let and administer, and are more likely to attract large international operators. In contrast, too many large contracts can reduce competition, by excluding smaller local operators.

Concentration

Concentration refers to the number of operators present in a given city or region. The number of operators ranges widely. Whilst in Australia and New Zealand, the number of operators in metropolitan bus are often large, in other jurisdictions, such as France, in many cities one operator contracts are observed.

The trade-off around operator concentration relates to balancing complexity with contract competition. One or a low number of operators reduce complexity as the partnerships between authorities and operators are easier to maintain, and administration of network planning and aspects such as integrated ticketing is easier. In contrast, high concentration levels can lead to lack of competition potentially resulting in higher contract prices, and possibly to a lack of alternative operators that have the capacity to take over responsibility, if required. If there is a significant degree of operator concentration in a city, then high levels of transparency over operator costs are appropriate.

Risk allocation

Observed risk allocation in bus contracts range from management contracts all the way to pure net cost contracts. The key objective in the design of contractual elements around risk allocation is to best align the interests of authorities and operators, given the local circumstances at the time.

In virtually all contracts reviewed, the operator takes on cost risk. It is widely accepted that operators are well placed to manage resource consumption, with the exception of some specific input costs. Thus cost indexation mechanisms are often in place to minimise risk transfer around input prices, particularly diesel.

The incorporation of revenue risk in contracts has the advantage that operators are incentivised to maximise patronage via good service quality, and work against fare evasion. In contrast, there are a number of factors that impact fare box revenue, that cannot be controlled by operators. These include, for instance, the attractiveness of alternative modes (including private car). It is increasingly common for procuring authorities not to transfer full revenue risk in contracts, recognising that they will be likely to pay a premium to transfer risks that operators cannot control.

Therefore a number of alternative approaches are in place for more limited revenue risk transfer. These range from revenue risk caps (to ensure viability of operators in case fare box revenue levels drop significantly), revenue sharing arrangements, or gross cost contracts with incentives for passenger growth or service quality. These more sophisticated contracts are increasingly popular. Specific local circumstances that can tend to weaken the case for revenue risk transfer are typically those that create uncertainty in the revenue line (e.g. route restructuring, fair changes, smartcard introduction). On the other hand, where relatively stable operations are being retendered, sizeable revenue risk transfer is more practical.

KPIs / Incentives

KPIs and incentives are increasingly important contract components. The review found that on-time running and service quality are the two most important objectives for KPIs and incentive.

Successful KPI regimes have three key ingredients: stable historical data, a stable and suitable measurement system, and reasonable performance incentives or penalties. Stable historical data allows the appropriate calibration of the system. This data should be a sourced from a measurement system providing reliable data prior to the introduction of the performance measurement regime. Calibration of incentives is important, whilst they should not significantly determine viability of the business, a measurable bottom line impact is important.

The unique characteristics of bus operators appeared to have hampered the development of good KPI regimes. Best practice here is hard to identify. The incentive regime implemented for Victoria's tram system provides a useful example of how such schemes could operate:

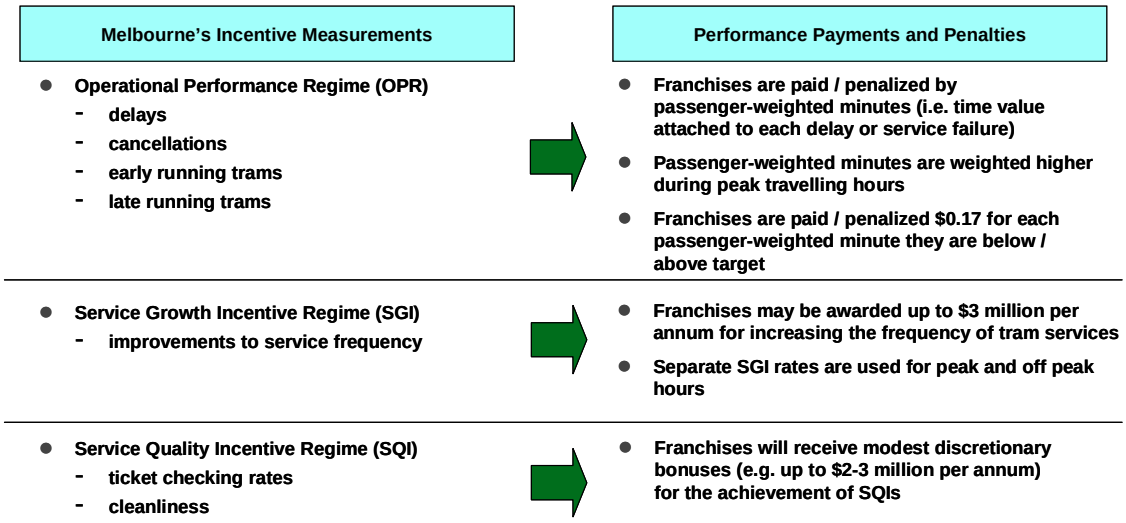

Figure 1: Melbourne Tram KPI Regime

Performance reporting

Transport authorities ideally require quite detailed information from operators, however, accurate performance reporting is rarely achieved. There are a large number of reasons for authorities to require information. Firstly, authorities require information to plan and decide on services (i.e. should the operator run another bus?). Secondly, information is needed to monitor service performance. Thirdly, contract award processes, in particular for net contracts, require the best possible information to allow new operators to bid for the contracts with a reasonable level playing field.

Information collection, in particular in respect to operational performance, is a major challenge in most jurisdictions. Self-reporting of information can be unreliable, in particular, if an operator has a disincentive to report correctly. Whilst audits play an important role in ensuring high quality data provision, they have limited effectiveness in achieving valid information on an on-going basis. In addition, to the challenges around data collection, in many cases data definition, and the authorities' ability to analyse data and draw conclusions appear to be limitations. Effective management of contracts require skilled contract managers and all too often the procurement authority is under-resourced in this area.

Integrated fares

The procurement model and particularly the allocation of revenue risk has a significant impact on the ease of introducing integrated fares and ticketing. Integrated fare structures and integrated ticketing increase customer convenience and can help to optimise network and cost efficiencies.

However, integrated fare structures have implications for the contracting model. Net cost contracts require revenue allocation mechanisms and supporting integrated ticketing systems. The introduction of integrated fares and ticketing has been proven difficult in net cost environments. In contrast, implementing integrated fares in gross-cost environments is less complex. Thus, many cities with multiple operators have moved to gross cost contracts when introducing integrated fares.

Contracting process

Competitive tendering and negotiation are the two key contracting processes. When starting from a public ownership, competitive tendering can deliver a significant cost reduction of often more than 30%. At later re-tendering rounds, further significant savings did not typically occur.

The environments for effective competitive tendering differ significantly from those for effective negotiation. Successful competitive tendering requires a number of willing alternative bidders and low barriers to entry (e.g. good access to required assets for the successful bidder, and a sufficiently deep information base). In contrast, effective negotiation is typically based upon a strong and positive relationship with the current operator, access to operators' financial information ("open book"), and/or access to benchmarks.

Achieving an environment, where effective negotiations can take place, is not only desirable from a purely contracting perspective. They often form the basis for trusted partnerships, which will be discussed in more detail in the following section (refer to page 7, Quality Partnerships).

Contract variation

Contract variation is an important factor in effective contract design. Circumstances often change during the contract term, and if contract variation is not catered for, the implementation of changes can be difficult for both parties.

Our work showed that in order to facilitate the implementation of variations, the contract can include a simple formula for small adjustments (defined relative to contract volume, e.g., 10%) and a clear process for major changes. Small changes should be easy to implement, they might be expressed in a change of revenue kilometres and the adjustment might be reflected in a fixed dollar amount per service kilometre.

As major adjustments could change the economics of an operator significantly, agreed rates will often not constitute an appropriate mechanism, as the impact on the operator's business is either too substantial or simply not reflected by a change in revenue kilometres. Thus a clear process towards adjustments is required. Two elements of these processes that are considered successful are a "no net gain - net loss" philosophy, and a materiality threshold.

End of term arrangements

End of term arrangements are required to prepare a system for effective contestability at the end of the contract term. In the context of bus contracting, access to key assets, in particular depots (in dense metropolitan areas) and, to a lesser extent buses, are the key areas that might require end-of-term arrangements to avoid entry barriers and consequently reduced "interest" or the lack of a level playing field.

A number of mechanisms exist that provide contestability: early tendering, asset rental (from outgoing tenderer), option to buy, or Government ownership are among the possibilities.

Bus operators views vary significantly on this issue. Smaller family owned operators tend to place great value in their asset ownership. Larger, more international operators are much more pragmatic and prepared to consider many types of asset arrangements.

Quality partnerships

Successful operation and improvement of public transport services require the transport authority and the operator to positively and productively work together. Successful partnerships are built upon a high quality of relationship: Quality Partnerships.

Much of the previous discussion focused on technical aspects in the implementation of contracting regimes, in large parts with a focus on ensuring contestability. This is important, as achieving value for money and procurement efficiency are very important objectives for authorities procuring public transport services. The establishment of an appropriate legislative regime and the subsequent procurement framework provide the foundations for forming quality longer term partnerships between regional councils and operators. And whilst competitive tendering might not always be the contracting approach of choice - large cost savings after the initial contracting round are not very likely - retention of the "option to tender" is important.

Negotiation with the incumbent is often a more suitable approach, in particular, if historical performance is good, and the contract price can be demonstrated to be competitive. Negotiation is more conducive to building and maintaining a trusted partnership. The roles

and responsibilities of operators and authorities are often complementary. Operators often take responsibility for tactical tasks such as service improvements, product reform, customer information and marketing, as well as responsibility for customers in their contract area beyond the contracting timeframe. These activities are valuable and best developed in trusted partnerships. They cannot be easily transferred at the end of a contract.

Many cities are working towards these positive relationships - a positive trend for public transport quality.

Implementing the Review

Land Transport NZ has endorsed the procurement approach and the overall aspect of the key dimensions as recommended by L.E.K Consulting. It is progressing the next phase of the review in terms of working with stakeholders to review the recommended approach and examine its application in the New Zealand context, including its workability for all the different regions and their own unique public transport operations.

A technical reference group, involving regional council, operator, central and local government membership, was established. A number of additional workstreams have been identified and work commenced, including a review of contract cost adjustment mechanisms and the development of guidelines for Regional Passenger Transport Plans to assist regional councils when planning their network and developing their overall procurement strategy or philosophy. Wider stakeholder consultation will be undertaken before Land Transport NZ adopts a final procurement framework.

SUMMARY AND CONCLUSION

This review of global learnings in public transport services contracting highlighted a number of insights that can be of great assistance in the design of contract guides and guidelines around the world. However, it is important to recognise that local circumstances, and policy objectives differ, and thus detailed and tailored work is required in each jurisdiction.

Whilst many of the learnings discussed in this paper appear simple, their implementation is not. The change process in implementing reforms is at times difficult and can be lengthy. The implementation of the New Zealand procurement procedures and guidelines and the associated legislative reform is on-going and expected to be fully implemented by the end of 2007. Regional Councils will then be able to develop their own individual procurement procedures and seek approval of these under the new regime.

REFERENCES

Cox, W., Duthion, B. (2001), Competition in urban public transport a world view, Paper to Seventh International Conference on Competition and Ownership in Land Passenger Transport (Thredbo 7), Molde, Norway, June 2001

Hensher, D.A. and Houghton, E. (2004), Performance Based Contracts, Institute of Transport Studies, University of Sydney

Hensher, D.A. and Stanley, J. (2002), Performance-Based Quality Contracts in Bus Service Provision, Institute of Transport Studies, University of Sydney

Land Transport Management Act (2003), http://www.legislation.govt.nz/browse_vw.asp?content-set=pal_statutes

Land Transport New Zealand (2006), The National Land Transport Programme, http://www.landtransport.govt.nz/funding/nltp/2006/docs/fact-sheet.pdf

L.E.K. Consulting (2006), Recommended Procurement Model: Guidelines and Procedures. Draft Final Report to Land Transport New Zealand, March 2006