Role of State Government in Improving City Bus Services

UMI 2019

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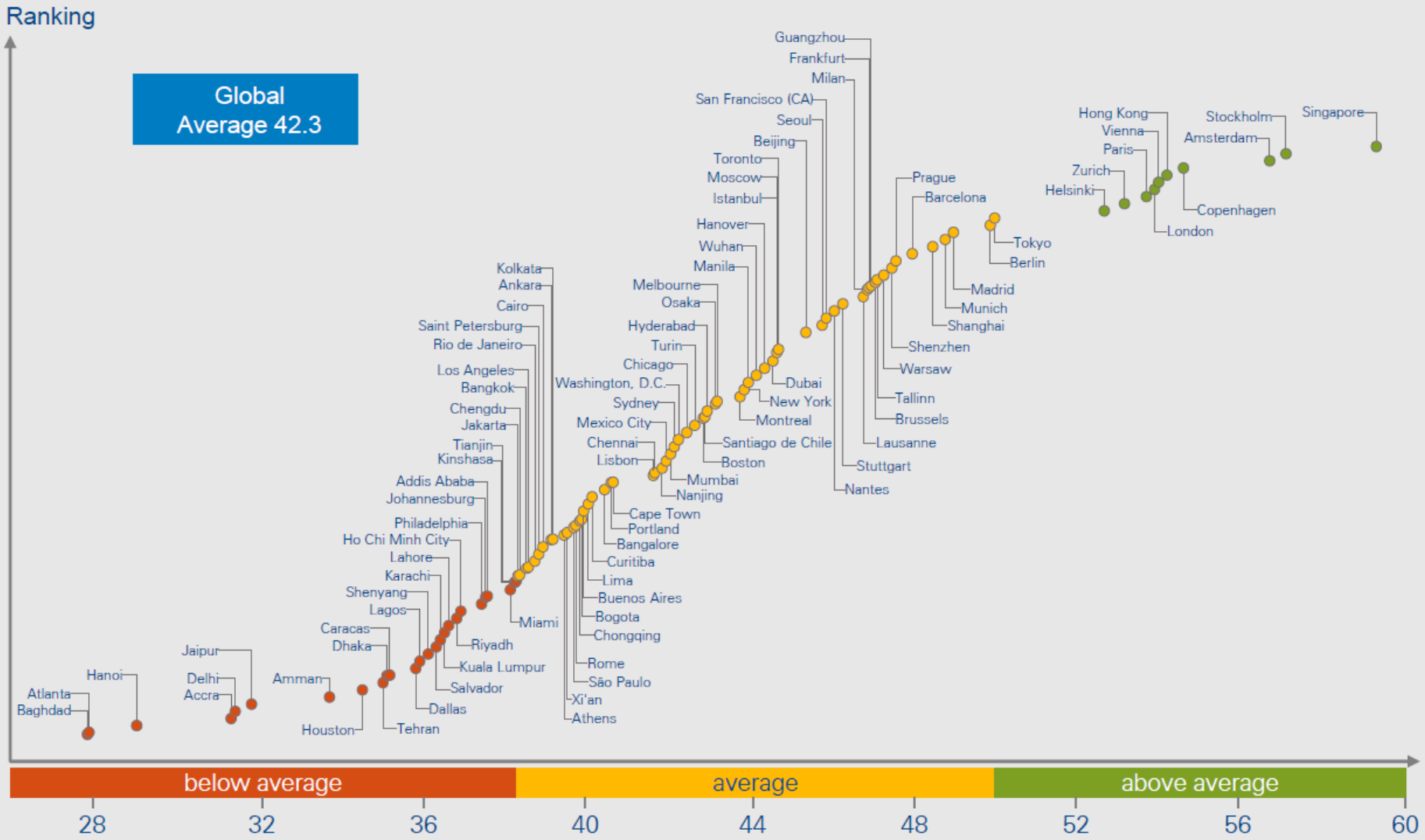
Arthur D. Little Urban Mobility Index 3.0 – City ranking



Arthur D Little

Role of buses in top performing cities

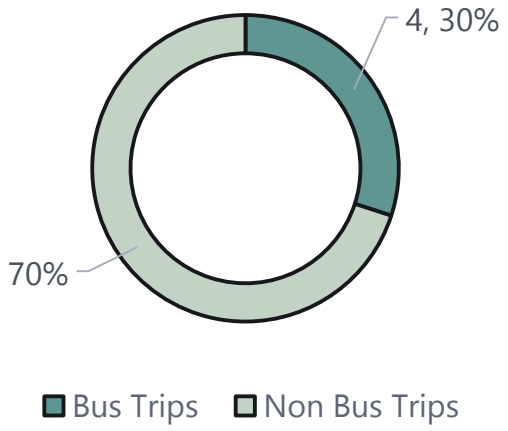
In all cities performing highly on mobility, buses are a major system component

PARIS

Mode Share PT+NMT

61%

PT Trips
(Million per Day)

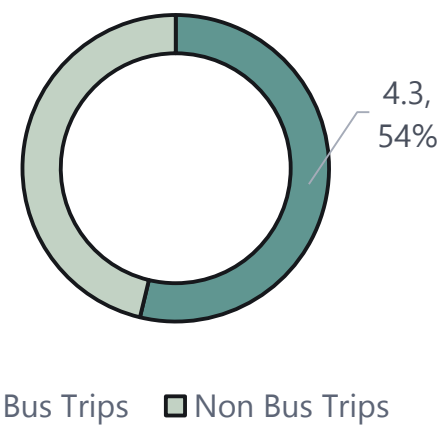


SINGAPORE

Mode Share PT+NMT

72%

PT Trips
(Million per Day)

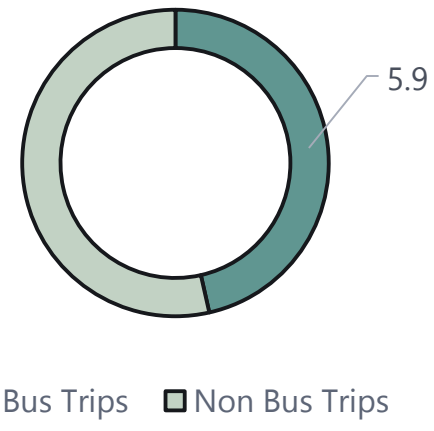


HONG KONG

Mode Share PT+NMT

88%

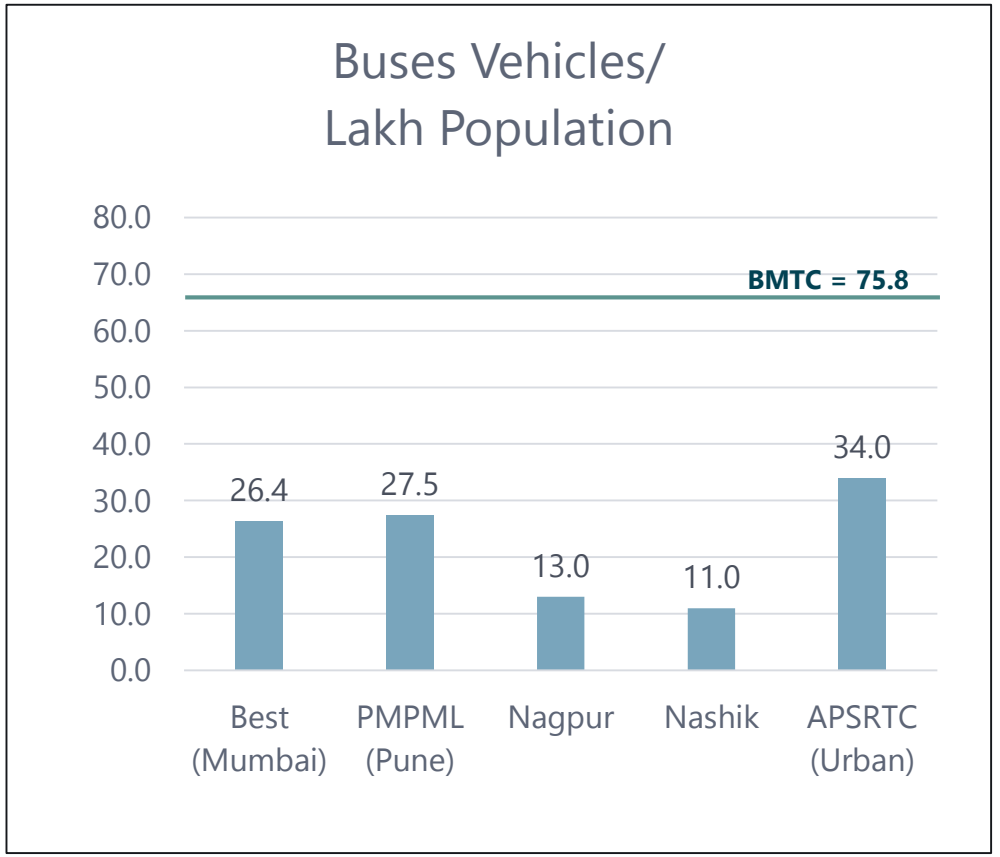
PT Trips
(Million per Day)



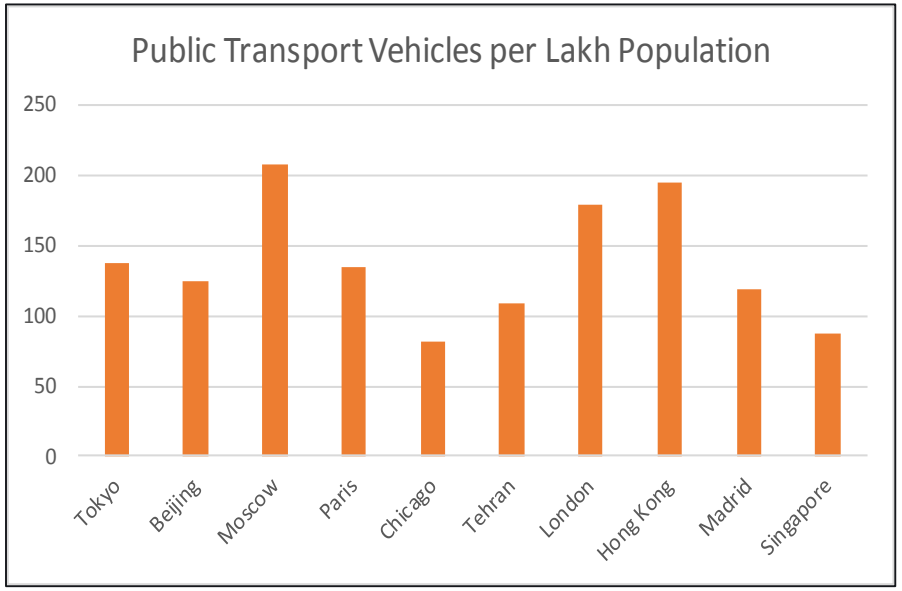
Situation in India

There is a major SUPPLY GAP (about three to four times) compared to international benchmarks and bus quality needs to improve

Low Urban Public Transport Availability per Capita



International Benchmarks for Public Transport Availability > 100

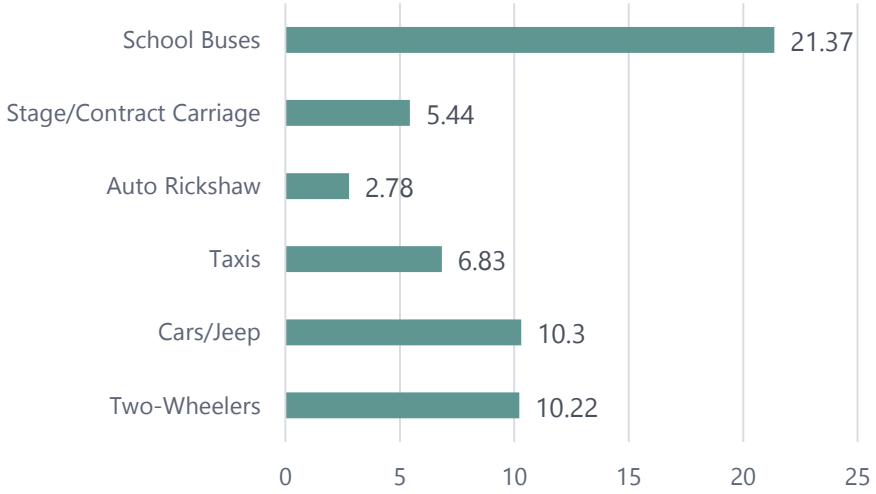


Situation in India

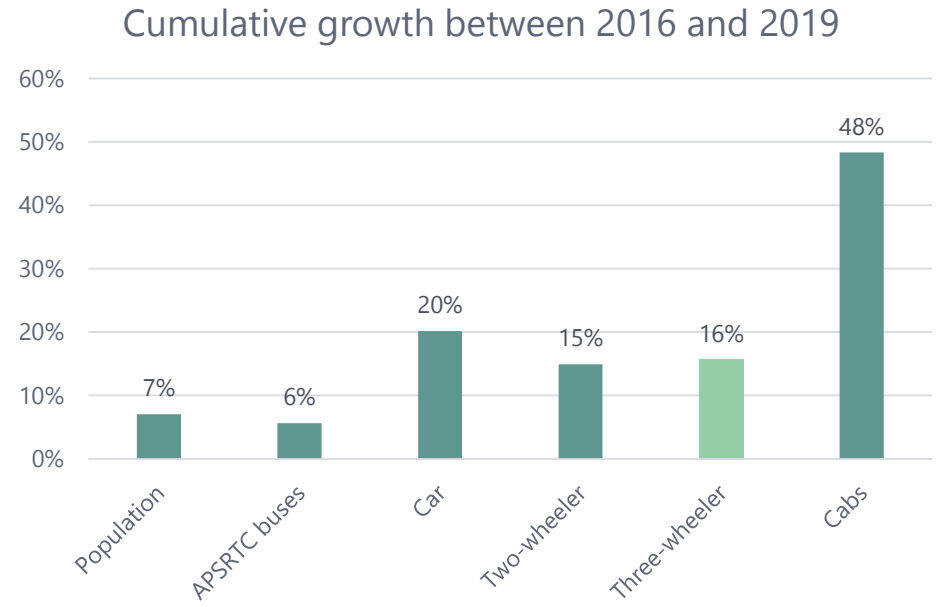
The situation is rapidly deteriorating, leading India into an unsustainable path

Growth in bus fleet is not keeping pace

Maharashtra Annual Growth Rates of Vehicle Categories (2001-15)



Andhra Pradesh Cumulative Growth of Vehicle Categories (2016-19)



Bus sector challenges

Major Supply Gap	Bus provision is 1/3 to 1/4 of needs in cities
Low quality of services	Aging fleet with limited customer focus
Low fleet growth	Growing at half of competing modes
Limited public resources for scale up	Public operators on survival mode

Key Challenges

- Fragmented institutional responsibilities
- Bus network not responsive to customer demand
- Licencing and regulatory regimes limiting market access and ineffective mechanisms to leverage private sector operators
- Costly service by public operators
- Low fare and limited government support leading to insufficient investments
- Congested roadways for buses
- Gaps in skilled resources (planning/contract management/drivers)

Why it matters

Assumes an alternative for passenger-kilometres at 72% 2W/3W and 27% cars

Increased bus services lead to

Improved mobility

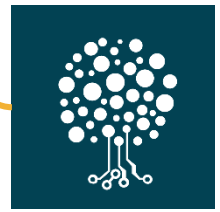
STU Buses cater on average for 961 in urban daily. A fleet of 25,000 urban buses can deliver **20 million daily trips** or 78 billion passenger kilometres per annum, at a cost lower by 64% than the alternative.

Efficiency

The vehicle operating cost of bus transport per passenger kilometre is **45%** lower than the alternative for urban transport

Safer mobility

Bus safety in fatalities per passenger kilometre is about **6** time safer than the alternative.



Greener transport

Bus CO2 per passenger kilometre is **40 %** compared to the alternative in an urban context.

Private investments and employment

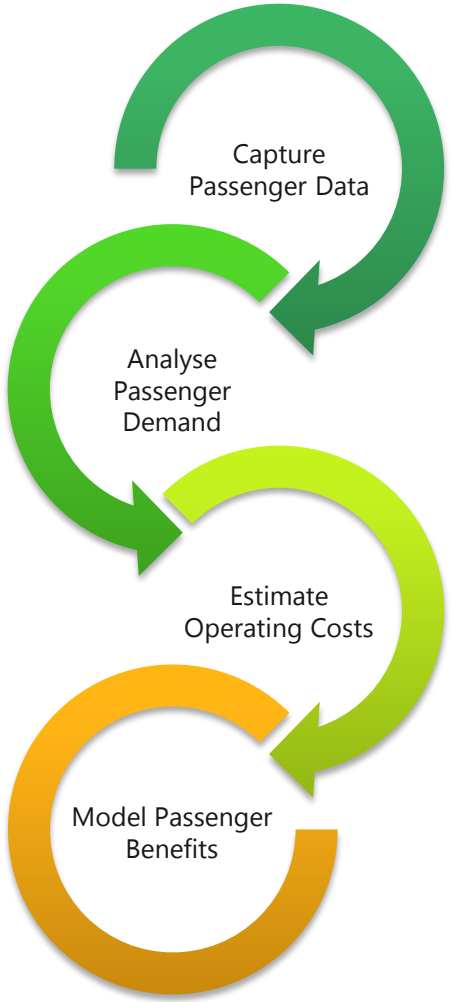
Under contracting, most investments in buses can be raised by the private sector, with a focus on service delivery.

Manufacturing of one bus represents a full year of employment and six to seven long-term operational jobs.

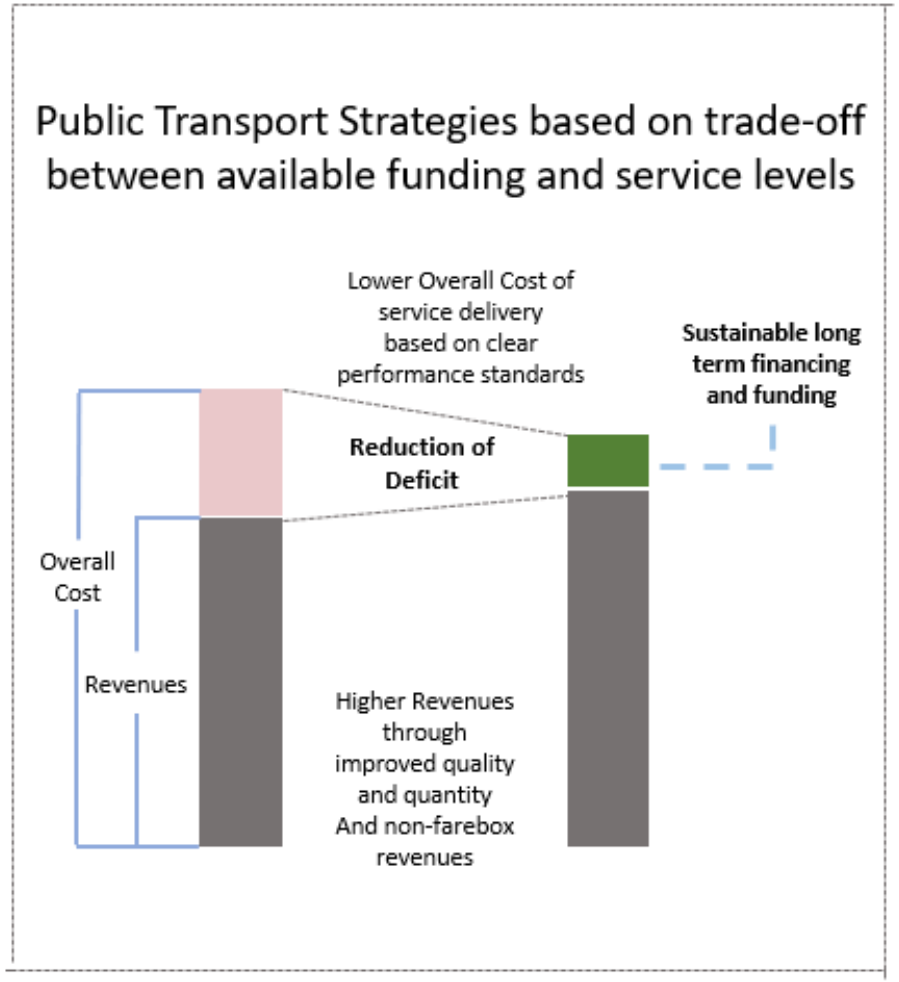
Transforming Bus Transport Provision

Strategizing improvement of Bus Service Delivery quantity and quality with optimized financing

Plan an effective network



Enhance efficient delivery



Unlock efficiencies through private sector operations under contract

Increase financing/ funding

Fare+fare increase +subsidies+ non fare revenues ensuring long term sustainability

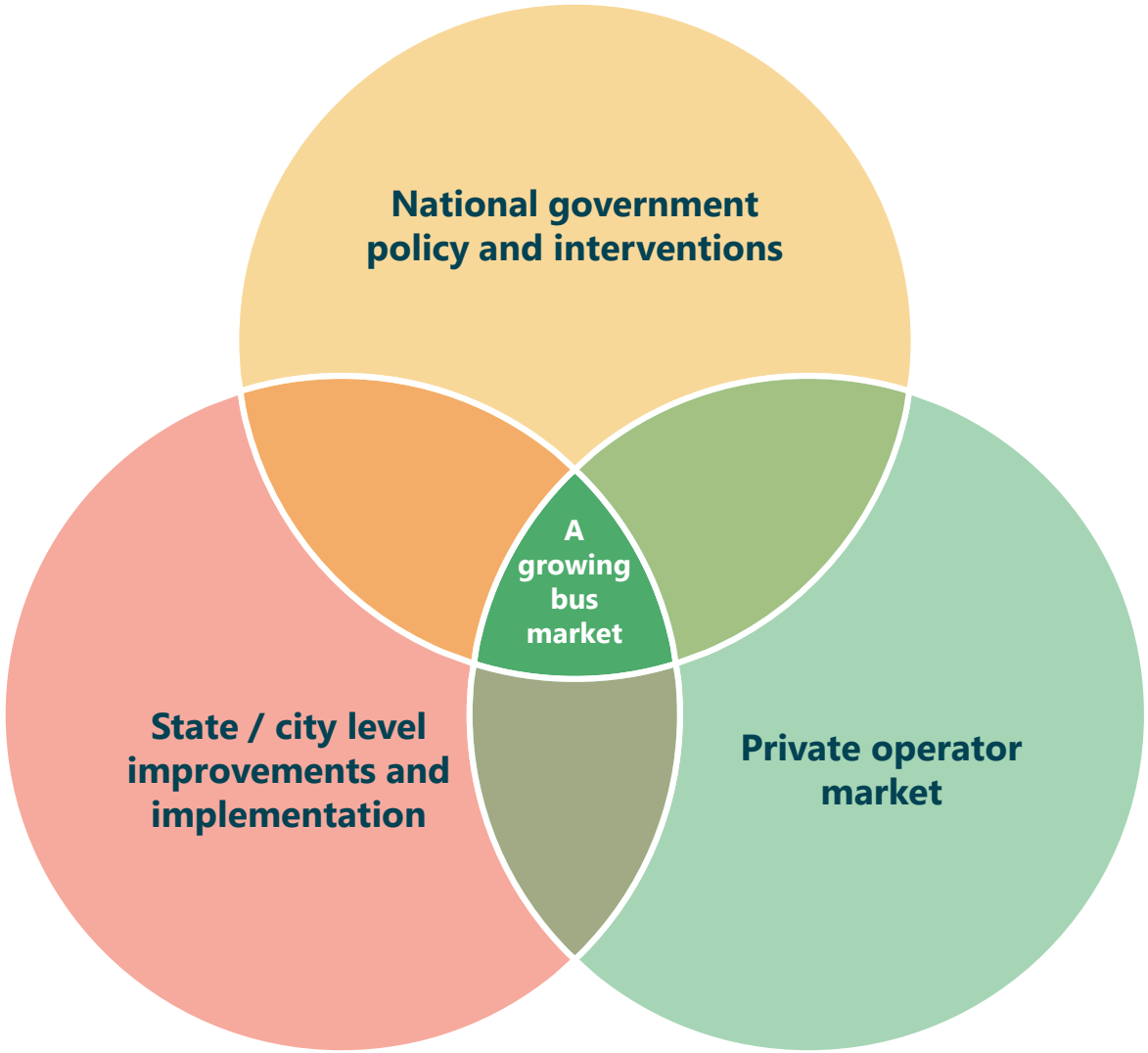
Leverage private capital for investments

Pillars of Success

All elements of this framework need to work together to deliver maximum benefit

Solution requires engagement of many stakeholders in the bus market

The development of bus services needs to be anchored in a clear sector vision, shared among the stakeholders.



National government policy and interventions that create the environment for improvements in the bus market, including resolving nation-wide issues and enablers, for example boosting capability and providing consistent contracting documentation.

State / city level improvements and implementation will set a vision and ensure improved performance for the authorities who are accountable for bus networks

A market of private operators who have sufficient trust in the contracting authorities and the process to participate with confidence, capacity to provide consistently good quality services, as well as access to the required resources and financing.

Role of the State

Establishing capacity to implement critical Requirements for successful bus sector rejuvenation

State level policy on Public Transport /UM	Includes targets for coverage, service delivery models, institutional arrangements and funding strategy.
Operationalization of Institutional Arrangement	Nodal responsibility for policy, planning, contracting and management, monitoring and evaluation; Five year business plan with KPI for authority and operator; strategy for transitioning to outsourced operations
Sustainable approach to PT funding	Create fare setting and funding mechanism to keep system solvent over time.
Contracting Approach	Efficient service delivery through outsourcing based on standardized document (hybrid/quality/performance based GCC) with expeditious dispute resolution mechanism
ITS Platform	ITS system covering all aspects of bus operation, and contracting, as well as interactions with customers

Setting up a Vision for Urban Bus Services

Service Design

- What cities should be served by formal public transport?
- What types/segmentation of bus services should be provided?
- How much service should be provided?
- How should private sector services be involved in service design and delivery?

Institutional Frameworks

- Who should responsible for policy, regulation, service planning?
- Who should manage service operations?
- Who should be financially responsible?

Business and Operating Models

- Who should operate bus services?
- How should private providers be involved in service design and delivery?
- What performance standards should be used?

Financing and Funding Mechanisms

- What funding programs should the Union, state and cities provide?
- How should state funding be awarded?
- Should state create local revenue sources?
- What should be requirements for tariff setting and adjustments?

Establishing long term Financing and Funding

A combination of revenue streams (fare/non fare revenues and viability gap funding) allow cities and states to meet their obligations under GCC, with the overseeing entity as a pass through.

Business planning

- Embed decisions impacting financing and funding (like fares) in a business planning process
- Earmark source for gap funding and infrastructure development
- Require appropriations for subsidies and discounts established by policy
- Establish fare setting with gradual adjustments

Use non-fare revenues

- Contribution by employers (France/Sao Paolo)
- Revenues from Business Rate Retention (Greater London)
- Revenues from advertisement
- Revenues from cars

Improved targeting

- Direct subsidy to those in needs
- Differentiated services @ different fare rates

Keep in Mind Social, Environmental, Economic Societal Goals

And

Direct/Indirect Beneficiaries

Existing Practices in Financing and Funding

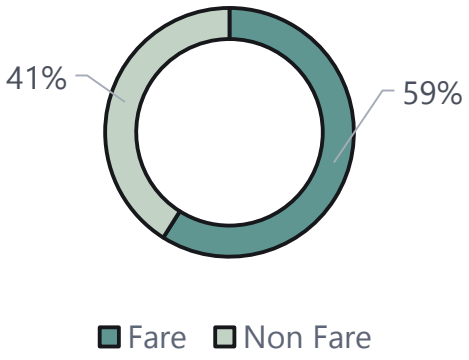
Cities seldom cover their costs from fares only.

SAO PAULO

Support from Government (2018)

$900 m

Expenditure Coverage

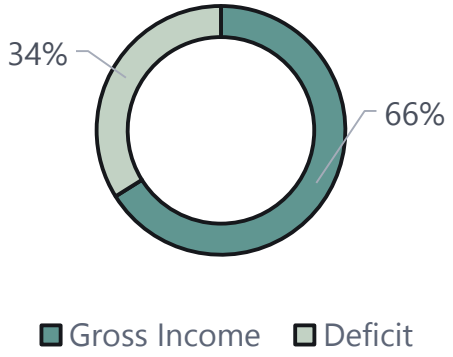


LONDON

Bus Operational Deficit 2017-18

$934 m

Expenditure Coverage

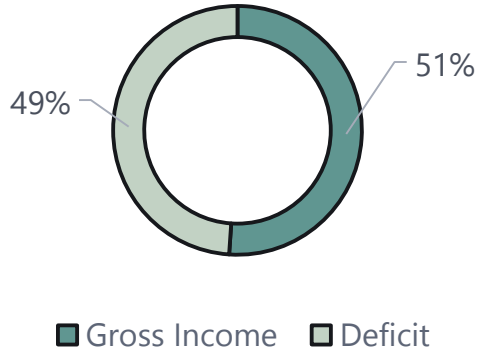


SINGAPORE

Support from Government (2017/8)

$633 m

Expenditure Coverage



The five pillars of a successful contracting model

Contracting maturity framework

Customer Focus

To grow mode share for bus, the service must be appealing to potential customers, these questions aimed to understand the extent to which customer feedback is already sought and how (or if) it is incorporated into bus contracts

Service Planning

The approach taken to service planning will have direct implications for how those services are contracted and managed

Procurement

The process adopted for procuring contracts has an important role to play in ensuring contracts are awarded to the most appropriate operators and in helping the market to mature

Quality focused contracts

The type of contract used dictates the flexibility for changes during the contract term and the level of leverage the contracting authority has to encourage improvements to service quality after the contract has been awarded.

Successful operator market

Successful Operator Market– It is necessary for there to be enough stable operators for successful tendering to spread risk, without being overly resource intensive or them being too small to be financially viable

Current findings in India: Trusted partnerships

Barrier to growth:

Contracts are in place but they are not reliably honoured by either side.

- Late payment
- Payment deductions without clear rationale
- Operators not able to complete contracts
- Lack of structured opportunities for dialogue between STUs/operators
- Lack of clarity or trust regarding dispute resolution and arbitration

Need to build capacity on both authority/operator side

Moving forward:

Improved contracts, with standard unambiguous terms

Better payment terms and security

ITS for effective monitoring

Regular dialogue between STUs and operators

Good Practices in Business Model

A growing number of cities adopting GCC contracts with performance criteria (applied as well to public operators)

SYDNEY

GCC with performance criteria for 5 years (+3)

State buys many of the buses and the contracts focus on service delivery

Public and private operators

KPI focused on punctuality, % of trip cancelled, complaints, bus defect rate.

14 contract regions for Sydney (9 open tender and 5 direct award)

LONDON

GCC with performance criteria for 5 years (+2)

Private operators(~20) purchase buses based on TfL specs

KPI strong focus on Reliability and Excess Wait Time.

Multi year program (~15% of all routes awarded each year)

Operators need to prequalify first

Takeaways

Service focus

Open tender

Comprehensive KPIs

Reliability/punctuality safety/customer

Conclusion: Many opportunities for bus services

Keys to success:

- A clear vision and plan
- Building capability in new skills
- Leveraging best practice in India and Internationally
- All parties working together

Supported by:

- Institution
- Funding and financing
- Private Sector Effectiveness
- Improved Infrastructure

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Thanks!