



Asia-Pacific



Symposium on  
Public  
Transportation in  
Indian Cities with  
Special focus on  
Bus Rapid Transit  
(BRT) System

New Delhi  
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*Taxis and Autos–  
FHV Link in Urban Transit*

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# Mass Transit *needs* Micro Transit

Connects first (and last) mile

Individualised, at convenience and call, anywhere to anywhere

Must be part of the transit plan for synergy-- with facilitation, subsidy, investment and nourishment

# Micro Transit-- For Hire Vehicle (FHV)

Micro transit in India is usually taxis, autos, rickshaws

Usual complaints- not by meter, trip refusal, crude, poor knowledge of roads, aggressive driving, rash . . .

Worldwide, very few cities known for good behaviour of taxi drivers

# UITP tenet: Price Influences Behaviour

Fare is the Price for FHV service

Immediate behaviour modifier compared to other controls– capacity, service, labour, capital, engineering

Influences all stake holders: Drivers, passengers, owners, manufacturers, fellow road users, capital, regulators, and society

# Fare structure to influence FHV Behaviour

## Behavioural Approach to Fares

Revenue Models to guide basis

Contribution principle to Pricing

Fare Mix must be based on **4 Ds-**

**Distance, Duration, Drop, Discern**

# Revenue Model of FHV

Depends on topography of city-  
Mumbai Fare for Bombay cannot be  
the basis for Chennai or Trivandrum  
or Hyderabad/ Secunderabad

Depends on traffic density/ demand

Depends on service– good drivers and  
vehicles come only with more money

# Revenue Models

>>> Trip Duration

High Duration Small Distances Ex: Large towns <b>Time Model</b>	High Duration High Distance Ex: Large Cities <b>Combination Model</b>
Small Duration Small Distances Ex: One cab towns <b>Trip Model</b>	High Speed Large Distances Ex: Cross country <b>Distance Model</b>

>>> Trip distance

# Contribution Approach to Fare Structure

Contribution is from 'revenue side' of operation-- not cost

Multiple streams or factors of income gives more 'handles' for influencing behaviour

Short duration is fixed overheads. More relevant approach is 'Contribution'

## 4 Ds of Fare Structure

Primary Factor is objective of the service and direct costs--**Distance**

Secondary Factor is Overheads and amortisation of fixed costs --**Duration**

Third is Hygiene Factor or Excise of the service--(Flag) **Drop**

Fourth is the Motivation Factor that will modify demand-- **Discern**

# The Process To Improve Driver Behaviour– and Transit effectiveness thereby

Scientific approach to fare structure

Formal consultation paper and forum with all stake holders (PAHT has ready formats)

Transparency in fixing fare and disseminate widely to all stakeholders.

Independent Taxi and Auto Commission to collect statistics and recommend policy

Enforcement to follow this work

# Transit effectiveness thereby

Facilitation such as traffic easements

Subsidy by reduced taxation

Direct subsidy such as fuel can be abused

Driver education and awareness

# Discussion

## Public Administration Help Tank (PAHT)

Improving Transportation,  
Culture, Environment,  
Quality of Life