THE ROLE OF CONNECTIVITY PLANS IN THE INTEGRATION OF PUBLIC TRANSPORT

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Presentation Outline

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Introduction

• Many world cities have identified need to improve public transport connections
  ◦ operational enhancements
  ◦ better traveller experience – reliability, reduced travel time and barriers

• Connectivity plans seek to establish a set of integration standards

• This study looks at two cities with unique issues and approaches
Overview of Transport Integration

• Transport integration seeks to facilitate multi-modal, multi-operator journeys
  ◦ organisation of services into network
  ◦ rational system of routes, fares, timetables
• Efforts have focused on urban regions
  ◦ high levels of demand, multiple operators
• Integration standards exist in some cities
  ◦ formal policy statements/strategies as stand-alone documents or part of a plan
• Connectivity is an indicator of passenger ability to use multiple modes
  ○ *facilitates multi-operator journeys*
    - safe and reliable transfers
    - improved fare payment systems
    - minimal waiting time at transfer point
  ○ *can effectively attract passengers*
• When connectivity is poor, trips are lengthy and costly
• Connectivity Plans set network norms, e.g., TfL (*Interchange Plan*)
Case Cities and Their Plans

Greater Santiago (Chile)
Greater Santiago
Public Transport in Santiago
• Urban Characteristics
  ◦ National capital, commercial center
  ◦ Population: 6 million
  ◦ Public transport is most common mode
    - over 60% of motorised trips
    - bus (80%), rail (14%), and shared taxi (6%)
  ◦ Long history of public transport provision
    - Metro opened, buses deregulated in 1970s
    - competitive tendering phased in about 1993
    - Transantiago introduced in 2007
Connectivity Issues in Santiago (2005)

- Some physical integration
  - no formal arrangements between bus operators, but Metro-bus at some stations (<5% demand)

- Minimal fare integration
  - no arrangements between bus operators, but between Metro and Metrobus/Metrotren

- Minimal information integration
  - Metrobus routes/fares, but no timetables

- Impacts of poor connectivity on congestion, travel time
• Transantiago Plan
  ◦ *Designed to achieve major goals*
    - encourage use of public transport
    - enhance quality of service
    - reduce negative impacts and travel time
  ◦ *Connectivity a central feature of the Plan*
  ◦ *Introduced a number of new features*
    - division of region into 10 service areas, with trunk, connector, local lines; transfer points
    - common fare system (smart cards)
    - new intermodal facilities (e.g., La Cisterna)
• Transantiago Plan (cont.)
  ◦ *System had problems at outset*
    - insufficient transport supply on some lines
    - loading of large pax volumes onto Metro
    - inadequate bus platforms at some nodes
    - increases in avg. travel time, no. of transfers
  ◦ *Changes to improve system performance*
    - lines and frequencies readjusted
    - increased capacities on the Metro
    - smart card problems largely resolved
• Transantiago Plan (cont.)
  ° *Key lessons to be learned from experience*
    - without incentives, often difficult for operators to place a high value on connectivity
    - risky to implement systemwide changes -- is a phased approach safer?
    - routes should be direct -- transfers should be minimised
    - planners need to seek public input and the support of operators
Case Cities and Their Plans

San Francisco Bay Area (USA)
San Francisco Bay Area
Public Transport in the Bay Area
• Urban Characteristics
  ◦ *Regional, commercial hub (SF, SJ)*
  ◦ *Population: 7+ million*
  ◦ *Public transport vital, but smaller share*
    - 11% of work trips, largely focused on SF
    - modes: bus (61%), rail (38%), ferry (<1%)
    - network: 26 public-sector operators
  ◦ *Long history of public transport provision*
    - BART and Muni (metro) opened in 1970s
    - public-operated regional bus systems
    - integration began in 1970s, 1980s
• Connectivity issues in Bay Area (2005)
  ◦ **Widespread physical integration**
    - developed incrementally, over time
    - chiefly focused on bus/rail links
  ◦ **Moderately good fare integration**
    - largely between 2 to 3 operators (limited)
    - regionwide smart card in development
  ◦ **Moderately good informational integration**
    - Internet access: general info., next bus
    - Limited signage at major transfer points
• Metropolitan Transportation Commission
  ◦ Regional transport planning organisation, representing SF Bay Area
  ◦ Has promoted transport integration since ‘70s
  ◦ State legislation (SBs 1474, 603) gave MTC duty to promote coordination
    – funding tied to operator compliance
    – MTC charged with studying connectivity
• Connectivity Plan
  ◦ *Developed to improve integrated services*
  ◦ *Preceded by Connectivity Study (2005)*
    - diagnosed weaknesses in regional network
    - included operator, agency participation
  ◦ *MTC managed Connectivity Plan (2006)*
    - established set of regional hubs
    - real-time scheduling scheme developed
    - prioritised a list of implementation projects and set a timeline for operators
• Connectivity Plan (cont.)
  ◦ *Recession has reduced available revenues and limited implementation*
  ◦ *Raids on transport funding at the state level have put the sector in jeopardy*
    - two years of lost funding assistance
    - some operators in danger of extinction
  ◦ *Thus, operators have had to place service priorities ahead of connectivity concerns*
• Connectivity Plan (cont.)
  
  ◦ *Key lessons to be learned from experience*
    - need to tie specific programs to available funding, monitoring
    - must address key issues facing the public (e.g., fares, sustainability)
    - need to keep regional agencies (e.g. MTC) in day-to-day discussion and evaluation
    - planners need to seek out greater public input and support of operators
• Transit Sustainability Project (TSP)
  ◦ *Attempt to improve network efficiency*
    - responds to operating, capital shortfalls
    - sets framework, implementation plan for a cost-effective and customer-focused system
    - looks at service design and decision-making
  ◦ *Analysis will explore the role external factors play in system viability*
    - economic conditions
    - land use changes
Conclusions

• Transport integration facilitates travel
• One way of improving connectivity is to memorialise a set of principles
• Stand-alone connectivity plans address existing issues, but require policy support
• Regional financing of projects is important, as it can assist operators in times of need
• Connectivity plans depend on a minimal level of political, institutional commitment
• Outside factors can also impact projects
  - *plan adoption does not ensure success*
  - *operator issues can delay implementation*
  - *during a recession, plans are put on hold*
  - *introduction of new technologies can delay coordination (e.g., Translink/Clipper Card)*

• Still, Connectivity Plans can significantly improve the quality of travel in a region

• The focus must be on passenger satisfaction
Thank You!