Our Transportation System is in Crisis – 122

Can we avoid the 'One-Day Big Bang!' This refers to the very risky strategy adopted by the Government of Chile to implement a major integrated mass rapid transit system all at one time and launched in one day. It is known as the TransSantiago. According to Washington Post Foreign Service (WPFS), "the Government had separately spent about US$1.3 billion to double the subway system's size, an expansion regularly cited as a symbol of Chile's prosperity under former President Ricardo Lagos. The bus system, according to the plan, would feed the subway routes and greatly improve overall efficiency."

The TranSantiago was fully introduced in February 2007 in one day. There were severe teething problems, including: (1) SmartCard does not work well; (2) Information system is poor and incomplete; (3) Chaos, frustration, demonstrations; (4) Metro is very overloaded; (5) low quality of service; and, (6) Severe political backlash: official inquests; the President has lost 20 percentage points in approval rate. The Minister of Transport had to resign.

Last week, Dr. Luis Willumsen was in Port of Spain and presented a lecture/discussion to key transport and planning professionals entitled "Successes and Failures in Rapid Transit Integration: Transmilenio, Bogotá and TranSantiago, Chile." Willumsen has over thirty year of experience as a consultant, transport planner and researcher with a distinguished academic career. His background covers all aspects of transport policy, traffic engineering and travel demand modelling. He has written more that 50 papers in technical journals, chapters in books and conferences; and is co-author of Modelling Transport, a major book published by Wiley reflecting the state of the art and now is in its Third Edition.

He has significant experience directing studies for advanced Bus Rapid Transit and Light and Rapid Rail schemes in both developed and emerging countries. He has been Project Director for the following Rapid Transit schemes: (a) Fare, patronage and revenue study for Merval rapid rail in Chile; (b) High-speed rail demand forecasting in Portugal; (c) Patronage and revenue projection for mass transit concessions for TranSantiago, Chile; (d) Feasibility study for mass Transit in Almaty Municipality, Kazakhstan; (e) Operational Design of the Transmilenio System in Bogotá, Colombia; and, (f) Feasibility Study for the Caracas Rapid Rail to Los Teques, Venezuela.

Transantiago Objectives were: (i) Improve service quality to all users; (ii) An economic, social and environmentally sustainable public transport (PT) system; and, (iii) Maintain and improve PT share of trips in Santiago. According to the WPFS, "People were very excited about this plan, because the government said that it was going to reduce the time of their trips to work… People thought they were going to have an extra hour in their lives every day… The unfortunate result, say the programme's critics, is that a lot of people have given up on public transport altogether. According to Ciudad Viva, automobile traffic has increased nearly 20 percent in Santiago this year. Hundreds of commuters have banded together to sue the operators of the system for millions of dollars in losses they claim to have suffered from disruptions in transportation… The government is pouring millions more dollars into the system to try to bail it out."

Willumsen explained that the design of new services must seek to satisfy user requirements. This means that we must seek to reduce the Generalised Cost of Travel. The components of Generalised Cost of Travel are (1) Access Time: number and location of stops; route coverage; (2) Waiting time: frequency; fleet size; operational design; (3) In-vehicle time: infrastructure and priority; delays at stops (pay on/off bus); operational design; (4) Fare: risk allocation; commercial speed; cost recovery ratios; and, (5) Transfer time: infrastructure; integration; operational design.

He said that an effective design can appropriately change each of these components of cost. Moreover, a good PT system requires design for the whole journey, not just the main part. That is, the service must be door-to-door; not just pretty, high-tech vehicles and well-dressed operators. He admonished that PT systems are much more vulnerable to errors and overloads than road traffic. For example, they require redundancy especially since demand for PT is 'peaky,' with specific rush hour periods. This would address (a) Service coverage and comfort: minimise overloading; minimise passenger ability to board and so decrease delay; (b) Minimise walking and travel times; and (c) Transfers: minimise transfers thus decreasing travel time and uncertainty. In other words, Public Transport cannot be properly designed by those who never use them regularly!

Willumsen concluded with the following remarks: (1) Never try to implement a comprehensive new route system in one day. There is a lot to be learnt from pilot studies and gradual change. Users need time to adapt to new systems, but they need to go to their places of employment every day and on time, and the new system must not obstruct that. (2) Implementation must be thought from the user point of view, not the convenience of a clever, technologically advanced

concession system. The resources required for good implementation are easily underestimated at a significant political cost. (3) TranSantiago will eventually get better, but at a very significant monetary, social and transport policy cost. These costs were avoidable. TranSantiago was an unnecessary self-inflicted injury. (4) Transparency is valuable; do not ignore constructive criticism. It is unwise to label as ‘enemy’ whoever expresses a dissenting view. (5) There is a significant political risk in introducing a major new Public Transport scheme. President Bachelet has paid a significant price for this. (6) Transantiago was not a good idea poorly implemented; it was a poorly developed idea badly implemented.

Next week, I will discuss the successes of the Transmilenio.

e-mail: info@ccost.org