Leveraging Private Investment for Public Benefit: The Role of PPPs in BRTs

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What is PPP?

\[ \text{P} + \text{P} = \text{P} \]

\[ 1 + 1 = 2 \quad \text{ok} \]

\[ 1 + 1 < 2 \quad \text{No} \]

\[ 1 + 1 > 2 \quad ? \]

\[ \text{P} + \text{P} = 2 \]

\[ 0.75 + 1.25 = 2 \quad \text{ok} \]
What is PPP?

Of course PPP isn’t just a finance and business problem. It includes accountability, private responsibility, political will, service level and others not math concepts.

Actually, it should include the people in the formula.

\[ P + P = P + P \ \\
1 + 1 = 1 + 1 \]

Let’s talk about PPPPP!
PPPP Finance’s Sources
Revenues

Fares
Public Sources
Other Sources

{ Regular Taxes
Specific Taxes
Advertisement
Real State }
PPPPP Finance’s Sources
Investment and Consumption

- Vehicles Operators Payment
- Centralized Fare Collection
- Schedule and Monitoring
- Station Customer Service
- Fund Manager
- Infrastructure (B&M)
- Transit Agency

Private Investment
Private Capital Funds Providers
Commercial Banks
Development Banks
Public Sources
Advertisement
Real State
Fare

* Cash source no real source
* Could be cash and real source
* Real source
BRT Economical Equilibrium

Revenues = Consumption + Investment + Government

- Fares
  - Public Sources
  - Other Sources

- Vehicles Operators Payment
- Centralized Fare Collection
- Schedule and Monitoring
- Station Customer Service
- Fund Manager
- Infrastructure (B&M)
- Transit Agency
BRT Economical Equilibrium

Transit Sources

Revenues = Consumption + Investment

Fares

Public Sources

Vehicles Operators Payment
Centralized Fare Collection
Schedule and Monitoring
Station Customer Service
Fund Manager
Infrastructure (B&M)
Building Budgets and the Technical Fare

Public Fares

With Subsidies

Operations
- Private Agents
- Public Agents

Infrastructure
- Exclusive Lanes
- Mix Roads
- Stations
- Terminals
- Depots

Maintenance

Without Subsidies

FARES
Fare Structure and Investment Decision

Fare Structure and Investment Decision

<table>
<thead>
<tr>
<th>OPERATIONAL COSTS</th>
<th>INITIAL INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>Low</td>
</tr>
<tr>
<td>Vehicles</td>
<td>Low</td>
</tr>
<tr>
<td>Control</td>
<td>High</td>
</tr>
<tr>
<td>Fares</td>
<td>High</td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

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Technical Fare Equilibrium

Revenues = Consumption (Expenditures) + Investment

Fares \times \text{Passengers} = \text{VO} + \text{FC} + \text{SM} + \text{SCS} + \text{FM} + \text{TA}

\text{Technical Fare} = \frac{\text{VO} + \text{FC} + \text{SM} + \text{SCS} + \text{FM} + \text{TA}}{\text{Number of Paid Passengers}}
Technical Fare = \( \frac{\text{VO} + \text{FC} + \text{SM} + \text{SCS} + \text{FM} + \text{TA}}{\text{Number of Paid Passengers}} \)

These include all Expenditures, Investments, Operational Costs, Taxes and Profits (FCF, NPV, IIR)

Revenues & Expenditures

Vehicles
Depot & Garage
Maintenance
Drivers
Fuel & Tires
Fixed Costs
Taxes + Profits
Technical Fare = \( \frac{\text{Number of Paid Passengers}}{\text{VO + FC + SM + SCS + FM + TA}} \)

- **Fare Collection:** Hardware + Software + Communication Network + Operations + Tellers + Clearing House
- **Stations:** Maintenance + Cleaning + Security
- **Scheduling & Monitoring:** Hardware + Software + Communication Network + Operations

**Taxes and Profits (FCF, NPV, IIR)**

- **Budget, some Taxes but not Profits**

- **% FM**
- **% TA**
PPPP Equilibrium
Economical - Fare Structure & Contract Structure

Fare Structure
- Revenues
- Expenditures

Contract Structure
- Rights
- Obligations

MIRROR

Legal Stability
Trust Fund

- Escrow Fund to buy the Buses
  - Bus Operator down payment
  - Subsidy for Procurement
  - Bank and/or Provider Loans

- Account No. 1 Main Fund
  - Fare
  - Others
  - Public Subsidy
  - Bus Operators
  - Other Agents
  - Loans

- Account No. 2 Contingency Fund

- Account No. 3 Investment Fund
  - Bus Manufacturer
  - Subsidy for Procurement
  - Bank and/or Provider Loans
  - Fare
  - Others
  - Public Subsidy
  - Bus Operators
  - Other Agents
  - Loans

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Successful PPPP (BRT) Processes

- Demand Studies
  - Operational Alternatives
    - Infrastructure Alternatives
      - Finance Alternatives
        - Operational & Finance Plan
          - Equipment Definitions
          - Infrastructure’s Design
            - Business Plans
              - Contract’s Construction
                - Signing Contracts
Infrastructure PPP
Investment and Consumption

- Private Investment
- Private Capital Funds
- Providers
- Commercial Banks
- Development Banks
- Public Sources
- Real State
- Fare

* Cash source no real source
* Could be cash and real source
* Real source

Building Corridors
Providing Maintenance
Private Constructors
Conclusions for Successful PPPP

The authorities must develop a logical and interdependent sequence of activities to build an equilibrium between the operational level and the business plans.

If there are finance and economical equilibrium, private profits ($P_1$), government skills ($P_2$), adequate contract structure and legal stability ($P_3$) the PPP could be successful.

But besides that, if the level service and the fare are adequate and the people ($P_4$) is using the system, the PPPP will be very successful.
Many Thanks