Decision Making in Flexible Transit: The Importance and Application of the “Golden Rule”

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OUTLINE

› Some terminology
› Why an economic framework is important
› Traditional versus avoidable cost
› Avoidable cost and some scenarios
› The golden rule
› The impact on risk
Paratransit

= Demand responsive transport (DRT)
= Flexible Transport Services (FTS)
Transport activities are lumpy

Average costs not a good guide to the cost of provision

The ‘traditional approach’ unhelpful in making DECISIONS
The production process – inputs and outputs

Costs often described as…

› Fixed
› Variable
› Joint/shared
Avoidable costs are ‘those costs which can properly be attributed to a service and are outlays which are avoided if the service is withdrawn or not implemented’

Not to be confused with fixed/variable costs as no direct relationship
ELEMENTS OF A SERVICE: COSTS AND PAYMENTS

**Vehicle**
- Taxi → Bus
- Lower → Higher

**Driver**
- Volunteer → Paid
- Lower → Higher

**TDC**
- Low tech → High tech
- Lower → Higher

- Traditionally
  - Leased
  - Fixed Cost

- Traditionally
  - Contract
  - Variable Cost

- Traditionally
  - Contract
  - A mixture?

- Bought
- In house
- In house

LESS AVOIDABLE

MORE AVOIDABLE
AVOIDABLE COST IF A VEHICLE USED FOR AN EXISTING FTS SERVICE

› If FTS X1 is operated from a brokerage system – cost fully avoidable
› If FTS X1 is leased – cost avoidable when service is terminated
› If FTS X1 is leased with a penalty clause – cost, less the penalty, is avoidable when service is terminated

› AVOIDABLE COSTS ARE COSTS FOR DECISIONS

Source: www.itbdigital.com
AVOIDABLE AND SHARED COSTS

Organisations have

- Avoidable costs: outlays avoided if activity not done
- Shared costs: outlays that don’t ALL disappear if you don’t do the activity
  - Admin costs shared over all your activities: stop one activity, still have the admin costs for the rest
  - Rent and rates: stop one activity, still have rent and rates for the rest

Avoidable costs VARY directly with the activity (hence can be avoided)

Shared costs can be LUMPY and may not go up or down proportionally with activity

Shared costs can be a HIGH proportion of total costs (and stopping just one activity may not save that much)
APPLYING AVOIDABLE COSTS IDEAS: STOPPING A SERVICE IN OPERATION
Local authority **owns the vehicle** and runs two services

**Avoidable costs…**

Very little…fuel and labour costs of FTS X1

And maybe not even the labour costs if the driver operates FTS X2 as well
Local authority contracts out FTS X1 and FTS X2 on separate contracts (with the same or different operators) with vehicle supplied by operator as part of contract.

Avoidable costs…
The contract for FTS X1 (less any penalties)
Local authority contracts out FTS X1 and FTS X2 on a joint contract with vehicle supplied by local authority as part of contract.

Avoidable costs…
Zero
Local authority **owns** the vehicle for

*Avoidable costs…*

Very little…fuel and labour costs of FTS X1

BUT will still hold a vehicle which can be sold or transferred to another cost centre in the authority
Local authority leases the vehicle and only has

Avoidable costs…

The penalties for the return of the vehicle
Probably little change to shared costs for the local authority
Scenarios show different cost outcomes for FTS X1.

Should?

This depends on the relationship of revenues to avoidable costs for FTSX1.
A service must cover its avoidable cost in the short run from its revenues.

A service covering just the avoidable cost can continue until the investment needs replacing.

In the longer run, a service must cover its avoidable cost AND make a contribution to the capital and shared costs if it is to continue.

Source: www.breathofoptimism.com
Serious thought must be given to the role of risk in planning an experimental or new service. Contracting out elements:

- Increases the proportion of avoidable costs if experiment not a success.
- Transfers the risk of provision to the tenderer.

BUT

- Likely to make the service more expensive in the short term.
- And therefore affects potential overall viability.
Avoidable costs are decision based costs (not to be confused with fixed and variable costs)

Avoidable costs can vary depending on the context

The GOLDEN rule uses avoidable costs to underpin decisions

The GOLDEN rule says
- Should never operate where avoidable costs not covered
- In long term need more than avoidable costs to cover investment

Remember the close relationship
- between allocation of cost and the allocation of risk
- higher risk implies higher costs

There is an inextricable link between revenues and costs – cannot be ignored