Activity Based Costing in the Telecom Industry

Introduction – What ABC is not
What is Activity Based Costing:
- As defined by Kaplan & Cooper in 1991
- Difference between ABC and Traditional Accounting
- The CAM-I Standard and business modeling

ABC in the Regulatory Environment:
- FDC, LRAIC versus ABC

ABC in Government:
- Cost Recovery, Cost Management, Process Improvement and Outcome/Output Analysis

ABC in the Telecom Industry:
- Predictive Resource Planning, Profitability Analysis, Costing and Cost Management

Who are using ABC

Financial Accounting versus ABC

“There are many ways to arrive at “cost” as well as revenue as the Enron scandal has so vividly illustrated.

For an accountant, “cost” can be any outflow of value … for an economist, a “cost” only arises from a real cause.”

John Ure

Expenditure is not the same as cost

- Costs and expenses equal in total. But they are not the same thing.
- Expenditures are incurred when money is exchanged between parties. Costs are always calculated, restated and then assigned to products and services.
- ABC resolves the arbitrary “Cost Absorption” in traditional accounting

ABC is not ...

- the same as financial accounting
- A heretic in the world of accounting
- Well understood by accountant
- In conflict with FDC, LRAIC and other “Costing Philosophy” as defined by economists

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Who are using ABC
ABC is... Defined by Kaplan and Cooper in 1991, ABC shows what activities are used to produce what products and services. Full blown ABC business models now use Activity-based Cost as a unit of measurement to describe the organisation activities, the resources consumed by those activities and the products and services generated by those activities. ABC is not just a way to describe cost. It is also an unimpeachable operational management methodology that enables fact-based and quantity based management decision.

What is ABC
- Resources are consumed by Activities
- Activities are consumed by Products/Services

Industry Definition: The CAM-I Standard

A key to understanding ABC is to understand how cost behavior truly varies in relation to other factors.

The Need for ABC

A key to understanding ABC is to understand how cost behavior truly varies in relation to other factors.

Activity

“Work performed within an organization.”

Activity Examples

- Unloading trucks
- Processing phone centre orders
- Training employees
- Maintaining company vehicles
- Forecasting sales
The Language of ABC

Stating activities with an action-subject-verb grammar convention creates an atmosphere for change by providing a new way of looking at something people are already familiar with, rather than something foreign.

<table>
<thead>
<tr>
<th>Claims Processing Department</th>
<th>To: ABC Data Base</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salaries</strong></td>
<td><strong>Equipment</strong></td>
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<tr>
<td>$621,400</td>
<td>$161,200</td>
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<tr>
<td><strong>Travel</strong></td>
<td><strong>Supplies</strong></td>
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<tr>
<td>$58,000</td>
<td>$43,900</td>
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<tr>
<td><strong>Use and occupancy</strong></td>
<td></td>
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<td>$30,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td>$914,500</td>
<td></td>
</tr>
</tbody>
</table>

When managers get this kind of report, they are either happy or sad, but they are rarely any smarter!

ABC Doesn’t Replace the Accounting System

An ABC/ABM system does not replace the accounting system. It restates the same data and adds operating relationships to more effectively support decision making.

Three Views of Cost

Operational View

Financial View

Yesterday

Today

Tomorrow

Strategic View

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LRAIC as stated by Telecom Agency of Germany

- LRAIC is the long run cost of providing either an increment or decrement of output, which should be measured on a forward-looking basis.
- Setting interconnection charges using LRAIC permits recovery of fixed costs, while retaining some of the desirable properties of marginal cost pricing.

OFTA versus Irish Telecoms

The Telecom Authority considered that ... LRAIC would be the appropriate cost standard for it would send the right “build or buy” signals to interconnecting carriers.

ABC principles are relevant to the determination of interconnection charges, for which purposes the costing systems of operators will need to be sufficiently detailed to permit the allocation of costs to network components.
The Telecoms Regulator today issued proposals for the costing methodologies to be used in the separated accounts of operators designated as having significant market power (SMP). The move should facilitate and sustain the further development of a competitive telecoms environment.

The proposals consider the implications of following the principles of cost causation, e.g. Activity Based Costing, in the allocation of costs, revenues and capital employed for the purposes of preparing separated accounts.

### ACCESS:
- An open, fair and transparent licensing regime
- Regulatory Costing and Accounting
- Interconnection Rates
- Long-Run Incremental Costs (LRIC)
- Internet Interconnect
- Accounting Separations
- Costing Methodologies
- Consumer Prices
- Price Cap
- Rate Regulation for TV Delivery

### QUALITY:
- Quality of service offered by operator to operator and by operator to consumer is of major importance.

### PRINCIPLES OF COST ALLOCATION:
1. **Transparency**: the operator should publish updated versions of its cost allocation methodology when changes are made to it.
2. **Consistency**: the same bases of allocation should preferably be used from year to year. Where there are changes made the operator should restate the previous year separate accounts on the new bases.
3. **Materiality**: the use of specific allocation bases may not be necessary if the effect on the allocation is not material to the outcome. Of course, it may not be possible to measure the effect without adopting an alternative basis and, in cases of doubt, the most appropriate activity related cost apportionment basis should be used.

### PRICE:
- Access is effectively denied if the price is prohibitive.

- In a monopoly market and in markets in transition from monopoly to competition, specific regulatory measures are necessary to ensure that users and new entrants have appropriately priced access to services from the former monopolist.

### INTERCONNECTION RATE:
- The ability of new entrants to interconnect to the network of an incumbent operator is fundamental to the development and sustainability of competition in a telecommunications industry.
Many Costing Philosophies …

FDC and LRAIC are costing “philosophies” which say what costs should or should not be included

Measurement (quantitative technique) is the key

- ABC is a measurement
- ABC demonstrates the “Cost and Effect” (Causation)

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Does our Government understands its cost structure?

"We will first consider [how to cut] expenditure. The Government is determined to solve the issue in the medium and long term"

Antony Leung, Financial Secretary, S.C.M.P. Thursday December 6, 2001

Activity Based Cost Recovery

(Therapeutic Goods Agency) TGA, Commonwealth Department of Health and Aged Care of Australia
Regulator of therapeutic goods, drugs and medical devices

- Costs as input to pricing
- Identify cross subsidisation
- Defensible basis for prices
- Similar applications in Hong Kong: Water Supplies Department, Hong Kong Post, OFTA etc.

Process Improvement and Cost Management Example

Minimize Cost Drivers for Non-Value Added Activities

Finished Product

Output/Outcome Decision Framework

2. ABC/M In Government

Government’s Mission

Government’s Strategy

Policy Objectives (Outcomes)

Government Services (Outputs)

Activity Arrangement
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Key challenges for the Telecom industry ...

Economic and Structural Change:
"... these "secular" trends have seen the traditional cash cows of the industry, IDD and mobile voice service drying up."

John Ure, TRP

"... the (Hong Kong) telecom market is saturated. Profits of most operators are falling. Most companies are losing money. I hope government policy would also consider and encourage investments as it opens up the telecom market."

Linus Cheung, PCCW

ABC in Telecom Business Planning

Business planning for policy makers and Telecommunications operators in the new technical and legal environment

ABC in Telstra - Why?

The existing Cost Management System was inappropriate

- Profit Margins were not transparent
- Lack of belief in the cost system(s)
- Provided little insight into the key activity costs for each major product segment
- Information not used by line managers
- Large number of special costing studies
- Reports not used by management
- Insufficient to support strategy setting

It was not supporting the product management process
Profitability Profile Using ABC

Profitability profiles are like electrocardiograms of a company’s health. After sales are attached to the ABC costs, this graph reveals that $8 million was made on the most profitable 75% of products — and then $6 million was conceded back!

Unrealized profit revealed by ABC

Specific Products, Services, and/or Customers (ranked most profitable to least profitable)

Cumulative Profit (Millions)

Net Revenues Minus ABC Costs

Sample Activity Based Budgeting Model

Process Improvement Theory

Process Improvement - Scenario Analysis

Resource Planning

Using OROS Software With Sprint Process Improvements

There are cuts going on all over the company. How do I reduce my budget without sacrificing customer service?

With the business environment dramatically changing, we need to be able to manage growth of some products and maturation of other products effectively.

How efficient do I have to become to support my expected volume with my current budgeted resources?

How many employees should I hire?

What staff levels (Employees with OT vs. Contractors) do I need?

What should my mix between Contractors and Salaried employees?

Do I need to build a new facility to handle my expected volume?

Should I buy a new server to support data storage?

Should I train employees to handle multiple tasks? (able to handle 2-3 types of calls)
Management = Management of Activities

Customer Needs

Activities

Product or Service

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Who are using ABC – Regulatory Environment

Who are using ABC – Telecom Operators

Clients in the Asia Pacific:
Telstra
Singapore Telecom
Telekom Malaysia
Globe Telecom (Malaysia)

Clients in Europe:
ICP Institute das Comunicacoes
NTL Communications
TMN Telecomunicacoes Movels

Clients in US and Canada:
AT&T
Northern Telephone Limited
Telecom Australia
Bell South/Atlanta
Sprint

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THANK YOU!

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