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Activity Based Costing in the Telecom Industry

I am grateful and honoured that John Ure and the Telecommunications Research Project invited me and ABC Technologies to talk about ABC today.

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I am particularly grateful for the punchy introduction John made in the promotion leaflet where he linked “costing” to Enron. To avoid any further confusion and the risk of going to jail, I would like to clarify that Activity Based Costing is a branch of management accounting. ABC is not the same as traditional financial accounting. ABC does not replace traditional financial accounting. If you were to mess up an ABC account, you do not go to jail. If you mess with financial accounting reports, you go to jail.

John explained in the leaflet: For an accountant, “cost” can be any outflow of value ... for an economist a “cost” can arise from a real cause.

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I might like to add that while cost and expenditure might equal in total, they are not the same thing. Expenditures are incurred when money is exchanged between parties. This is where some accountants can become creative.

Costs are always calculated, restated and then assigned to products and services. The need for ABC arises exactly because traditional financial accounting uses arbitrary “Cost Absorption” and fails to show “Causation” or “Cost and Effect”.

ABC practitioners and economists do think alike.

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Introduction – What ABC is not?

I mentioned that ABC does not replace traditional financial accounting. ABC draws data from the general ledger but does not replace financial accounting. Companies that implement ABC still need to submit financial accounting report for tax and legal purposes.

ABC is not a heretic in the world of accounting either. In fact ABC is mentioned in all accounting text books and most accountants already understood ABC as a “Two-stage Cost Assignment Process.” ABC is also a required subject in accounting qualification examinations.

But ABC is not well understood by accountants. Very often, financial accountants think they know everything they need to know already. This “know all” attitude is stopping many from embracing ABC, which has developed from a “Two-stage Cost Assignment Process” into a sophisticated business modeling and quantitative management technique.

In theory, ABC has no conflict with FDC (Fully Distributed Cost) and LRAIC (Long Run Average Incremental Cost) either. ABC can be used to replace the arbitrary cost absorption method that is now being used to calculate LRAIC. The use of ABC might bring much more transparency in the calculation of transferred cost, making the current costing practice look redundant. But ABC does not necessarily judge or replace the economic thinking behind LRAIC.

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What is Activity Based Costing?

Earlier writers of ABC included Peter Turney, who taught ABC to Chris Piper, founder of ABC Technologies at the University of Oregon more than ten years ago. But ABC was first defined in the book “Cost and Effect” written by two Harvard professors, Kaplan and Cooper.

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.

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Instead of a one-stage assignment where costs are assigned directly to Products and Services, ABC assigns costs from the General Ledger (“Resources”) to “Activities”. Costs in “Activities” are then assigned to Products and Services (“Cost Object”).

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The industry standard used is the CAM-I Cross.

CAM-I, stands for Consortium of Advanced Manufacturing International (<http://www.cam-i.org/index.html>) -- a grouping of suppliers, users and consultants who are still developing and setting standards in this management frontier.

The vertical or “Cost Assignment View” represents the ABC business model. Once the quantitative business model is formed, users can now use the “Process View” to “Slice and Dice” or analyse the business model, such as:

- Finding out which are the “Cost Drivers” (or Reason of Cost)
- Activity Analysis (which Activities are value-added or not)
- Performance Measurement (“KPI” or very often “Balanced Scorecard”)

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“CAM-I” betrays the origin of ABC. Facing stiff competition and at the same time unable to see how overhead costs such as R&D and administrative costs are assigned to end-products, high-tech manufacturers turned to ABC for more transparencies and to see to the cost and effect.

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Within the ABC Models, “Activity” is simply “What we do”. Activity Examples include: unloading trucks and processing phone centre orders. Using the “Two-stage Cost Assignment Process”, ABC turns “Traditional Accounting View” into an “Activity-Based” view. From “nouns”, costs now turn into “Verb-Adjective-Nouns” – from still objects into moving objects, as if you are now able to manage them.

ABC does not replace the accounting system. ABC draws data from the General Ledger – an Accumulator, focuses it for analysis and turns those data into “Operational” and “Strategic” management decision support information.

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In summary, Traditional Accounting shows the historical view of cost. ABC business modeling is essentially an operational management technique. Applying other techniques such as Balanced Scorecard and Resource Planning (Activity Based Budgeting) using quantitative data accumulated in ABC business models, ABC also enables a strategic business view.

ABC in the Regulatory Environment

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I think that many in the audience are interested in how ABC might be applied in the regulatory environment, how ABC relates to FDC and LRAIC and how ABC might affect the telecom regulatory environment in future.

It was acknowledged in one of John Ure's papers that LRAIC favours new comers to the market.

But ... quite frankly, ABC is simply a costing methodology and does not judge how telecom operators might make their "Make or Buy Decisions". ABC has no conflict with FDC or with LDC.

Quite frankly, ABC practitioners understand the reasons behind FDC more readily than the marginal costing concept behind LRAIC.

I found the best description of LRAIC from the Telecom Agency of Germany. This 55-page document, uses the first 15-20 pages explaining what is LRAIC:

- 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.

I have no problem with the first 20 pages of the document. The second half of the document claims to be a costing model for LRAIC. But I got totally confused. I suspect the author does not know how to calculate "shared costs" and used a "model" and 35 pages of words to hide what he does not know about costing.

As I mentioned before, ABC has no argument with FDC or LRAIC. To ABC practitioners, LRAIC is more of an “Economic Philosophies” which tries to predict investment decisions (make-or-buy) by saying which costs should or should not be included in the transferred cost calculation. Instead of using the traditional accounting methodology (a one-stage cost assignment method) which cannot show shared costs and ABC (the two-stage assignment process) can be used to calculate FDC and LRAIC.

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Hong Kong considers that LRAIC is the appropriate costing standard for determining interconnection charges. I had the opportunity to mention ABC to Mr. Anthony Wong, Director General of OFTA during a cocktail reception. Mr. Wong said LRAIC is used in Hong Kong. And that was the end of conversation.

While Hong Kong holds LRAIC up as “The Truth” because most regulatory agency in the world chose this costing standard developed by a United Nations agency, it is not the full story.

LRAIC might be a “Popular Truth” and a “Safe Truth”, but is it the “Whole Truth”? Some regulatory agencies, such as the Irish Telecoms are beginning to question the LRAIC approach.

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Irish Telecoms stated in April 1999 that ABC is relevant to the determination of interconnection charges. This document went on to say that ABC is relevant to a competitive telecom environment.

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Irish Telecoms said that “Access”, “Pricing” and “Quality” are important to an open, fair and transparent licensing regime. Within “Pricing”, both Long Run Incremental Costs and ABC are stated as determinants.

“Cost Causation” is emphasized. “... activity-related cost apportionment basis should be used”, said Irish Telecoms.

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Irish Telecoms said that “Price” and “Interconnection Rate” are fundamental to the development and sustainability of competition of telecommunications industry.

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FDC and LRAIC are costing philosophies invented by economists. But the ability to measure cost is the key to a fair and open regulatory regime.

ABC in Government

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There is a big budget deficit. Do you think government department such as OFTA will cut expenditure or do you think they will try to charge more to help cover the budget deficit?

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In fact, regulatory agencies are not supposed to make money on their services they provide to telecom operators. Nor should they lose money. Hence, Activity Based Cost Recovery is one of the most common applications in Government.

In the case of one of our clients in Australia, the TGA(Therapeutic Goods Agency), a regulatory agency of drugs and medical devices of the federal government of Australia:

- ABC is used as costs input to pricing – what fee they charge
- ABC is used to identify cross subsidies – profitable services are not subsidizing money-losing services
- ABC is used to defend pricing – the fee level that they charge

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ABC is also used in process improvement and cost management within Government; so that inefficiencies of government departments are not passed on to the private sector.

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Government officials often argue that government is not about making a profit. Therefore, cost is irrelevant to government.

Well ... government departments may be good with “Mission/Vision”, but they are not very good at matching what they do to those high-level statements.

Very often, the “Output” (i.e. services) delivered are irrelevant or sometimes even counter-productive to the state “Outcome” (policy). Hence some governments are using ABC and “Outcome/Output Analysis” to match the services they deliver to the state policy.

The most comprehensive guideline on “Output/Outcome Analysis” can be found in the website of the Treasury Department of the Queensland, Australia.

ABC in the Telecom Industry

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In one of his papers, John Ure mentioned a “Secular Trend” in the Telecom market. PCCW even said that the Hong Kong Telecom Market is saturated and there is no more money to be made.

Yet companies such as Reach and Teletra are still investing in Hong Kong. They probably come here for access to an increasingly international telecom market.

I would have thought that market for the tradition voice services is saturated but opportunities are in the new fields such as data services. And to stay profitable, telecom operators need to adjust to those changes quickly.

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There is some mentioning of ABC in an ITU Business Planning Document. But companies that are actually practicing ABC are leading the field.

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I had the opportunity to talk to Paul Girolami, Manager, Activity Based Costing Studies at Teletra at an ABC Technologies conference held in Brisbane only a week ago. Teletra has been practicing ABC for ten years and have been working with ABC Technologies since 1995. Teletra operates the largest and most sophisticated ABC model known in the Asia-pacific region. Yet Paul told me they still found something new every day and had to learn and adjust on a continuous basis.

Teletra applies ABC primarily in the “Profitability Analysis” area. They found that they could not rely on the traditional costing system because nobody believes in it. Management is not using it. And traditional costing simply does not support strategy setting.

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As shown by the “Whale Curve”, companies typically make some money on some product they offer. But because they use traditional costing methods and do not know what the true cost of their products and services are, they typically lose money in one-third to one-quarter of the products offered and ended up with a smaller profit than they could have.

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Sprint is a relatively new ABC Technologies client and uses ABC primarily in the “Resource Planning” area – calculating what resources are required to support the new products and services.

They work the ABC modeling backwards by predicting demand first, then they work back and try to predict:

- What “Activities” are required to support the new “Services”(Cost Objects) and
- What “Resources” are required to support those “Activities”.

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The “Process Improvement Theory” of Sprint may look complicated from here, but basically Sprint uses ABC modeling as the operational management tool. Strategic decisions are based on the operational reports generated by the ABC models.

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In day-to-day language, Sprint looks at:

- 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?

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- How many employees should I hire?
- Should I buy a new server to support data storage?
- Should I train employees to handle multiple tasks?

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In summary, the telecom industry has a fairly complicated mix of products and services. And somehow, they need to match their business activities to satisfy customer needs.

Who are using ABC?

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Amongst the regulatory regimes around the world, I could only find: Australia, Ireland and Panama using ABC.

Telecom operators in the Asia Pacific area that use ABC Technologies software include: Telstra, SingTel, Telkom Indonesia, Telekom Malaysia etc.

Conclusion

In a very short time, I have tried to explain:

- What is ABC
- How ABC might affect the regulatory environment
- How ABC is used in government and
- How ABC is used by telecom operators.

It was often said experts should be viewed with suspicion since expert view could distort policy. And a detached view from economists is often preferred.

People say that the telecom business in Hong Kong is no longer profitable. But Hong Kong is still one of the most developed telecom markets in the Asia and companies such as Telstra and Reach come to Hong Kong to have more access to the international market.

Let us consider the following:

- From the regulatory environment point-of-view, are we satisfied that LRAIC is good enough? Or should we consider ABC as a costing methodology that is better able to support an open, fair and forward-looking regulatory regime?
- Are telecom operators satisfied that OFTA has only been “Recovering Cost”?
- And are telecom operators satisfied that they could remain competitive in this forward-looking and increasingly international market without knowing what their cost structures are and what cost will be incurred as they move on to develop and market new categories of services?

Thank you very much.