Teach Yourself: Economic Evaluation:

4. A very brief history of economic evaluation

www.economicevaluation.com.au
peter@economicevaluation.com.au

History

- Economic evaluation was created about 50 years ago.
- Because it involved computations involving money it was managed by chief accountants and most of the work was done by accountants
- They began with their income statement, balance sheet and cash flow statement and derived computations. Originally they were by hand.
  - The result was an NPV number – and possibly an IRR by iteration.
  - The computation would have been taken as indisputable because the most important inputs of price, forex, production, opex and capex would have been provided by ‘indisputable experts’.
- This convoluted accounting methodology was very difficult for production and technical professionals to follow.
- Then a few technical/operational professionals slowly managed to infiltrate the activity.

History #2

- In the 1990's several companies made very poor major investment decisions. Some Boards and top management were replaced and economic evaluation professionals were recruited from companies perceived as having better practices.
- This began the transition to economic evaluation being managed by seasoned production and technical professionals, and the modelling being performed by people with production, engineering and technical backgrounds. The more competent began focussing on the 'big picture' of how the business works rather than on the mathematics of calculations.

Professional Practice

- Economic Evaluation falls between accounting, production, marketing and technical
- It suffers from having no global education or professional standards
  - Sadly anyone can set themselves up as a ‘professional’ and tout for business.
  - Sadly anyone can set themselves as an expert and run courses

But now The Australasian Institute of Mining and Metallurgy has set up the first set of Guidelines for professionals
www.ausimm.com.au/content/docs/guidelines_tech_economic_evaluation.pdf

Progress through history …

- The author has seen the single page manual computation used by the Board of one of the world's biggest companies to justify buying approx one third of the magnificent Mt Newman JV in iron ore in the 1970's. It was so concise anyone could work through. Anyone could immediately appreciate the key drivers and the key assumptions.
- In recent years the author has reviewed sophisticated, long, detailed evaluation models. They had strings of logic that ran back and forth through multiple worksheets, employed numerous advanced Excel functions and could do a variety of computations using draw-down menus. But only a handful of specialists could understand the model.

Which one was making decisions with "eyes wide open?"

Financial Modelling – using 100% equity

Many people on the periphery of the profession talk of “financial modelling” or “financial analysis”. Even worse some engineers call it “cost modelling”.

- They are wrong!
  - It is like calling an electrician a plumber.

Financial modelling is the study of how to fund the project or business.

- How should the money be raised by the company? What mix of equity and debt?
- The first step is to decide use the economic evaluation to decide if the project/business is a healthy investment regardless of ownership and financing? The second step is to feed the data from this model into the financial model to work through alternatives for funding. **They are complementary activities but economic evaluation is done first.**

Some people then talk about financial modelling using 100% equity. Again they are wrong and confused!

- The discount rate being used to the evaluate that company’s investment in that industry has an implicit level of debt funding.
- Any one who talks about using debt in an evaluation to improve NPV and IRR is really on the wrong track.
- They may get a marginal mathematical improvement but they are missing the big picture, not understanding their role and getting lost in trivial mathematics.

www.economicevaluation.com.au peter@economicevaluation.com.au