17 The Cost of Cost Cutting

17.1 The Mechanics

If you want to be “in” these days, you need to talk a lot about cost. There are more corporate slogans with “cost” in them than I care to recall. There is a lot of effort spent on calculating the cost of everything to the penny. As a matter of fact, we are rapidly approaching the point where we will know the cost of everything and the value of nothing. As you can imagine, there are a couple of problems with this.

Cost does not matter all that much. Neither does profit.

You do not have to say a word more than this to become forever an outcast in every executive suite on five continents (in certain parts of Africa you might still get away with it, but not long anymore). The problem is that it’s true! The bigger problem is that at this point 99% of all executives will cry in outrage that it is not. What happened? Rather simple: we lost sight of the core purpose of the enterprise. Please bear with me.

The purpose of the enterprise is to create value. But value comes in many very diverse forms and therefore we need a common metric. That common metric is money. It is far from perfect, but we have no better one. When we say that we need to compare apples to apples, we really mean dollars to dollars.

Unfortunately, almost every venture starts with spending money, thus cost. We do this in the expectation that we will generate enough revenue in order to retain after all expenses a surplus over a number of years, after which the product or the equipment is obsolete, and we can close the books on this cycle. Only then, it will be possible to show beyond doubt whether this was good or bad business (please notice the past tense). We do this by determining the “discounted cash flow rate” or DCF rate.

My experience tells me that few people understand what this means, but even fewer will admit that they don’t. So let’s explain it short and sweet.
17.1 The Mechanics

C_n is the cash flow in year n.

i is an interest rate expressed as a fraction (6% would be 0.06).

Then, the DCF rate is the value of i for which

$$\sum_{n=0}^{N} C_n \times (1+i)^{-n} = 0$$  \hspace{1cm} (1)

For those of us who like it better in a narrative form, I will do my best, but I am not good at this.

Suppose you had a time line of cash flows. The first two years are negative, because you are building your business. Then you hopefully get out of the red, and your cash flow becomes positive for a number of years. Then you have to close the installation, and after all activity has subsided, your cash flow gets to zero. What you now have is a number of cash flows at different points in time, so you cannot really compound or compare them. In order to be able to do that, you need to convert everything to one reference point in time. Let’s agree that we will take year one of the venture (that means this year) although any other year would do just as well. To do this, we have to agree on an interest rate, let’s call it i. Let’s say that I have a revenue in 2003. It’s pretty easy to calculate the capital I would have to place today at that interest rate, in order to have it grow to the expected revenue in 2003. I do this for the expected cash flow in every single year. Also for the negative ones that represent net expenses. I then make the sum of all these numbers, and what I have is the Net Present Value of the cash flow array. The problem with this is that I have to assume an interest rate, and I could be terribly wrong about that. So there is a more elegant twist. I do the same calculation with a number of different interest rates, until I find the one for which the net present value is zero. This very long story tells about what is represented by expression (1).

But what is the practical merit of all this? Simple, it helps with the apples to apples concern. It means that if a bank would give me a certificate of deposit (CD) at an interest rate equal to what I calculated as a DCF rate, I could save myself the trouble building the company. The CD would generate just the same financial result, with a lot less effort, a lot less risk and a lot less headaches. When you expand that thought a little you will understand that it essentially means: somebody else can do this better, let him do it. So you want to build that gigantic petrochemical plant. You calculate a DCF rate in the order of magnitude of the interest you get for your checking account, but nevertheless, you go ahead with it. You may not exactly go out of business yet, but you certainly are a prime contender for the world stupidity award, and for going out of business in the very near future as well.

Truly, the DCF rate is all that matters, and it is poorly understood. Very often, projects with a known bad DCF rate are justified by “Strategic Benefits” or “Securing the Future” promising gains in 10 years or so. Reality is different.