Lucid Thought

Ruth Murray-Webster & Peter Simon

First published in Project Manager Today

LUCID 32 THOUGHT

Driven to precision - Part II

In the previous Lucid Thought, we discussed the problems that arise when Project Managers are driven to precision by the attitudes of clients and sponsors to project completion dates and out-turn costs. We all know that estimates are no more than 'educated guesses' and overwhelming logic tells us that the best way to estimate is using a range of values. Even though we know this we continually estimate single points and work on deterministic end dates and costs that take no account of the real uncertainties (risks) that exist, setting ourselves up for perceptions of failure in the future.

Driven to Precision Part II is in response to a Project Manager Today reader's request. He points out that in some industries where competition for work is intense, fixed deadlines and fixed prices are the norm, resulting in liquidated damages for time over-runs and reduced profitability for over spending the deterministic budget. So what can actually be done differently in these environments?

A three-pronged approach is needed, and in our opinion all three require a level of education:

- ***Effective use of three point estimates and risk models as part of early planning, prior to the submission of bids, contract agreement or authorisation for full project go-ahead.*** *In the past this used to be quite difficult to achieve but today there are numerous, easy to use software applications that can facilitate the analysis of three-point estimates and produce a view of the probability of achieving an end-date or out-turn cost. The same analysis will give you a view on the range of possible outcomes which in itself can be very enlightening. The graph in Figure 1 is the output of a Monte Carlo simulation based on a simple cost risk model. The same arguments apply directly to schedule risk. Such models are so simple to produce nowadays that we would suggest that any of you can do it for yourselves without the aid of a consultancy safety net.*

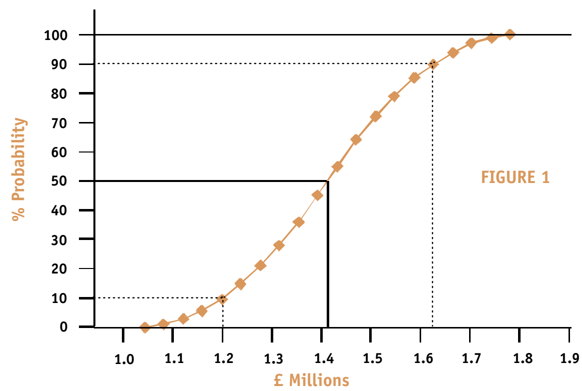

FIGURE 1

So if it's that easy can it be of any benefit? Just take a look at the graph and imagine you are bidding for some work on a fixed price basis. Your original estimate for the work, excluding profit margin, is £1.2m. Inspection of the graph means you now know that you have only a 10% chance of achieving it. Are you happy with this? We would hope not. Logic would say that what you should bid is £1.42m plus a margin for profit, say 15%. This means that you have a 50:50 chance of completing the project and making a 15% profit. If your Business Development team tell you that there is no way that you can win the work at £1.63m then you have a business decision to make. Do you bid less knowing the risk that you might make less profit or worse - or do you refuse to bid? The choice is yours! One company we know of would always bid for work, having carried out this type of analysis, on a 50% or 50:50 approach excluding profit i.e. using the information in Figure 1 they would bid

£1.42m for this work knowing that on average they will not lose money across their portfolio of projects and if they manage their projects well they will make profit by proactive and effective project/risk management

- ***Honest awareness of what you're doing when you're bidding or agreeing a project's objectives and understand the consequences of your actions.*** *If your bid or agreement is based on a schedule that uses optimistic times and costs such that your risk model says you have a less than 50% chance of achieving the estimate then the consequences of failing to manage everything perfectly are obvious and you shouldn't be surprised when they happen. Every company's approach to setting contingency will be different but it should be a project by project decision based on the chance of being able to deliver and the consequences if they don't. What we are really say here is that bids should be submitted and contracts made with your 'Eyes Wide Open' and not as in the Stanley Kubrick film 'Eyes Wide Shut'. Keeping your eyes shut does not mean that the consequences can't or won't happen!*

- ***Very focused, proactive risk management.*** *A living and committed to risk process is essential, rather than a 'tick in the box' attitude. Risk management must make sure that all the uncertainty that would result in worst-case times and costs being achieved is identified and managed. Much has been published on how to do this. For now all we want to stress is that it is increasingly recognised that the human, psychological aspects of risk management are critical: those things that make sure that people actually commit to action.*
  Of course we also need to identify and manage the uncertainties that would, if they occurred, speed things up or reduce costs. Doing this will help to alleviate some of the effects of things going wrong i.e. we need to manage the opportunities as well as the threats.

All the methods, tools and techniques outlined above exist and are generally well understood by the profession at large. Many consultants can help your organisation in this broad area and indeed in most environments they are understood at a theoretical level, but not applied with 'hearts and minds'. However, fewer consultants exist that can help your organisation **address these issues from a business perspective and in a way that addresses the human dimension to gain true commitment from all the members of the project organisation.**

Knowledge is easy to transfer, changes to attitudes and behaviours are more elusive but nevertheless achievable - this is the place to start.

If your organisation is struggling to deliver projects to clients on a fixed price basis with consequential liquidated damages for time delays or alternatively you work on internal projects and you are pushed into 'agreeing' aggressive delivery times or project costs - there are some things you can do to make it easier.

Our company, and others, can help you identify where your current practices are making life harder than it need be; we can help you identify bespoke routes to helping you make the changes that would help; we can **provide practical solutions to tough business problems by addressing the behaviours and practices that are holding you back.**

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90 Long Acre | Covent Garden | London WC2E 9RZ | www.lucidusconsulting.com | Telephone: London 0207 060 2196 · Manchester 0161 939 0189 | Fax: 0207 060 2198