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The Right Way to Keep Money for the Hard Times: Allowances and Contingency Management

Keeping money aside for the hard times is, in everyday life, quite a usual and recommended behaviour. In a project environment, if done poorly, it can make your project uncompetitive and produce unexpected surprises for your stakeholders down the road. You need to implement some basic principles for allowance and contingency management to keep your project healthy and fit. These principles are fundamental to the correct reporting and understanding of the project performance.

What are allowances and contingency?

Allowances and contingencies are amounts of money set aside to cover for costs above and beyond the budgeted base cost.

- Allowances are amounts of money added to the base cost of line items to cater for an increase in their cost compared to the budget, based on the current knowledge of the project;
- Contingency is an overall pot of money set aside to cater for the project risks overall and give a conservative view of the expected final project cost for reporting purposes.

It is very important to make the distinction between the base cost and the allowances for a particular cost item. The base cost will include the cost of an item as quoted by a supplier or a subcontractor, additional loadings as appropriate (for example, for inspection, transportation, customs and taxes etc), and, if appropriate, based on feedback, benchmark and experience, a growth factor. This growth factor is particularly needed for such services like engineering or subcontracts; it needs to be substantiated by evidence of past repeated growth.

At tender stage, allowances should be forbidden

One of the main causes for non-competitiveness at tender stage is the fact that estimates tend, naturally, to be padded. Ask someone responsible for a certain deliverable what it will cost, and this person will generally give a padded estimate, i.e. an estimate which contains a certain margin for risk. In statistical terms it will be more of a P80 or P90 than a P50¹. It is a natural behaviour, in particular if that person will be responsible for the delivery later, and feels responsible for meeting the budget. Still, it is a very undesirable behaviour because padding each and every cost item means that the total cost of the project will be grossly over-estimated. It does not take into account the fact that during the project execution, some items will turn out to be more expensive, and some will turn out to be cheaper, compensating each other.

It is crucial for competitiveness that at tender stage, estimates for cost items should be the P50, i.e. a value that only corresponds to a 50% chance of happening. All the risk should be concatenated into an overall contingency pot for the entire project.

Project Value Delivery's experience is that even in seasoned companies, the estimates tend to be P70 or

P75. You can check that easily by verifying what were the actual final costs against the initial budget for the last projects you have executed, by types of cost. If the actual final costs are lower than the budget 75% of the time, your estimates were in fact, P75 estimates. Then, you can also grossly observe how much less a P50 estimate would have been.

How to calculate the contingency at tender stage

All the risk and uncertainty should be included in the contingency, and there only. Uncorrelated cost items contingency is often computed using a Monte Carlo simulation and always fall around 5% of the total cost. What is more important is to look at correlated risks that might impact several line items at the same time, for example: price of material or commodities (steel, fuel, etc); price of manpower (in particular in heavily unionized activities); exchange rates; and most importantly, schedule or resource correlations. Their probability and total contribution needs to be carefully estimated separately and added to the Monte Carlo model. Finally, discrete risks that have been identified as having potentially a significant impact on the project need to be added.

This due diligence in terms of risk will give a contingency pot which will be available to cover all the project risks. If the cost line items are effectively P50 costs, all the project risk provision will effectively be in the contingency. By included correlated elements, the final contingency should then be around 10% of the project cost, depending on how many correlated elements have been qualified out in the contract or project charter.

Allowances and contingency updates during project execution

During project execution, in particular for large, complex projects that will span over a significant period of time, new information is constantly made available to the project, that allow to update the cost forecasts.

On specific items, sometimes the project will get lucky, sometimes the project will get unlucky, and that will not happen at the same time. Allowances should be allowed during project execution: we don't want the project bottom line forecast to vary without reason from one reporting period to the other due to lucky or unlucky strikes linked to natural variation. In addition, new information might warrant a review of the base budget

for future spends; allowances are the right vehicle to update these budgets.

Some simple rules still need to be followed for allowances during project execution:

- Allowances need to be specifically identified in the cost breakdown so as to allow 'allowances reports' to be produced transparently
- Allowances need to be associated with cost line items based on a good substantiation of the expected over/under run.

The contingency amount will also need to be updated. It should generally decrease naturally because it only applies to future cost (the Estimate To Completion), and because uncertainties should generally decrease during project execution, as more and more information gets available. However sometimes new risks are being identified that might warrant an increase in contingency. Contingency should be regularly re-evaluated using a similar process as the original calculation.

Real and false contingency

It is important at any time that the contingency is calculated based on an updated budget that reflects P50 values for all cost line items. Otherwise, significant artificial variation of the contingency will happen. Project Value Delivery's experience is that projects are sometimes reluctant to recognize lucky events, and thus keep budgets high for a long time while everybody knows that it will be much less. When running the contingency

calculation, the sensitivity on that particular line item will create an artificial diminution of the contingency. Discipline is needed to make sure the updated cost line items always reflect the latest P50 estimate; extra money can be put in an allowance for an other line item that seems underestimated, or released to the bottom line.

The allowances and contingencies workout

A particularly important concept during project execution is to keep your budget fit! That means, trim excessive fat out of the budget, or otherwise make sure you have the right level of reserves. Allowances should be regularly reviewed for adequacy and those that seem to have no chance of being needed recognized on the bottom line. While it is important to keep some money in the project for unexpected events, it should not become too much or complacency will creep in!

A regular workout review of the allowances and a critical analysis of the contingency will keep the project fit. Management has a key role to play in this exercise.

Notes:

1. *P50 means that there is 50% chance that the actual cost will be below the value given; P80 means that there is 80% chance that the actual cost will be below the value given, and hence is a safer, but higher value*



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