

## 5.9: Understanding Cost

Budgeting is an exercise in refining your focus. You start with a wide-angle estimate, in which the details are necessarily fuzzy, and bit by bit zero in on a sharper picture of project costs. You might be temperamentally inclined to try to nail down every figure in an early draft of a budget, but in fact, you should only develop a budget at the precision needed for current decisions. Your overall precision can and should advance as the project advances.

This is especially important in the earliest stages of the budgeting process when you are working out rough estimates. Take care to estimate at the appropriate level of precision: Don't make the mistake of thinking you can estimate costs to the exact penny or dollar. \$378,333.27 is not a realistic or intelligent estimate. Ultimately, overly precise budgets represent a communication failure. By proposing a budget to the customer that contains overly precise figures, you risk giving a false sense of accuracy regarding your understanding of and knowledge of the project.

In the early stages of the budgeting process, when you are still working out estimates, it's helpful to include an uncertainty percentage. A typical approach is to include a +/- percentage, such as \$400,000 +/- 10%. The percentage may initially be large but should gradually decrease as the project progresses and the level of uncertainty declines. For IT projects, which are notoriously difficult to estimate, consider going a step further and adding an uncertainty percentage to every line item. Some items, such as hardware, might be easy to estimate. But other items, such as labour to create new technology, can be extremely difficult to estimate. These line item variances can influence the total estimate variance by a significant amount in many projects.

But even when you have a final budget in hand, you need to prepare for uncertainty by including an official contingency fund, which is a percentage of the budget set aside for unforeseen costs. Contingency funds are described in more detail later in this chapter.

Successful project managers use the budgeting process as a way to create stakeholder buy-in regarding the use of available resources to achieve the intended outcome. By being as transparent as possible about costs and resource availability, you'll help build trust among stakeholders. By taking care to use the right kinds of contracts—for example, contracts that don't penalize stakeholders for escalating prices caused by a changing economy—you can create incentives that keep all stakeholders focused on delivering the project value, rather than merely trying to protect their own interests. The relationship between costs and contracts is discussed in more detail elsewhere.

### Project Cost Management Plan

Project planning is at the heart of the project life cycle and tells everyone involved where we are going and how we are going to get there. It involves creating a set of plans to help guide our team through the implementation and closure phases of the project. The project cost management plan is one of the sub-plans of our overall project plan. It provides guidelines to project managers on how to estimate, budget, manage, monitor, and control project costs<sup>[1]</sup>.

A project cost management plan consists of similar items that we have in a schedule management plan. This plan can consist of the following<sup>[2]</sup>:

- **Process descriptions** <sup>[3]</sup>
  - What processes will be used for cost management?
  - These processes include planning, estimating costs, and establishing the overall budget.
- **Unit of measurement**
  - Daily working hours and shifts for human resources and equipment
  - Weekends and/or off-days for especially human resources
  - Metric (e.g., meter, liter, kilogram) or imperial (e.g., inch, gallon, pound) system measurement units
- **Level of accuracy**
  - Acceptable range to ensure realistic cost estimates (e.g.,  $\pm 10\%$ ,  $\pm 20\%$ )
  - Evaluation of the impact of risks on the costs of each activity and overall project based on the project risk management plan
  - Methods describing how the cost contingencies will be assessed.
  - Procedure to account for fluctuations in currency exchange rates
- **Level of precision**

- The degree to which cost estimates will be rounded up or down (e.g., \$95.55 to \$96; \$95.45 to \$95; \$495.75 to \$496 or \$500)
- Evaluated based on the scope, size, and complexity of the project.
- **Cost estimation methods**
  - Estimation methods (e.g., expert judgment, analogous, parametric, three-point, bottom-up), and when they will be utilized.
- **Methods, tools, and software utilized to develop, manage, and monitor project cost**
  - Specify the organizational procedures and policies if they should be utilized.
  - Methods and tools such as control accounts, WBS, project baseline, Earned Value Management, and critical path method
  - Reserve analysis to set aside some money for cost overruns due to risks in order to implement risk mitigation strategies.
  - Software such as Microsoft Project Professional, Excel, Visio, and Jira (for Kanban and Scrum), and online collaboration tools such as Monday, Trello, and Basecamp.
- **Rules for monitoring cost performance**
  - Earned Value Management (EVM)
  - Defining the points in the WBS at which measurement of control accounts will be performed
  - How strategic funding choices would be managed.
  - Control thresholds for deviations from the parameters in the cost baseline
  - Using software such as Microsoft Project
- **Reporting formats**
  - Reporting formats and frequency should be in alignment with other project plans.
  - When, how frequently, and to whom are we reporting?<sup>[4]</sup>
- **Approval of the cost baseline**
  - Who will be responsible for preparation and control?
  - Who will approve the cost baseline?

#### ✓ Creating a Project Budget

This blog post by Tim Clark includes some helpful tips on creating a project budget: [7 Tips to Create a Budget for your Project](#).

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