

# CHAPTER 1

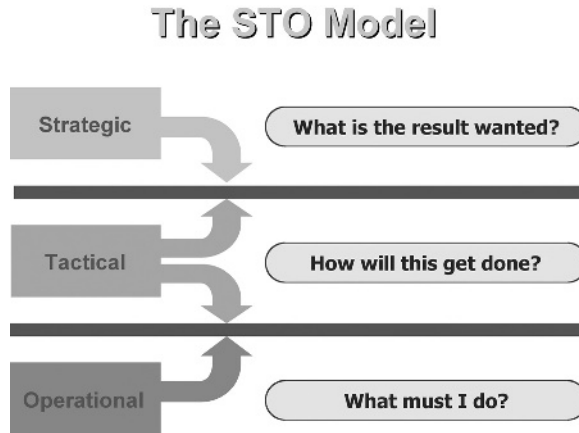
---

## Project Management and Accounting

In today's business world, we often hear the terms "strategic alignment" and "mission and objectives." Usually these terms are used in phrases such as: "We must ensure that our business units are strategically aligned with our mission and objectives." In many companies, large and small, it often seems that one area of a company does not know what is happening in other areas; in some cases, one area may even be working against other areas within the same company. Quite often there is a large gap between what the top levels of the organization are saying and what is happening at an operations level within the company.

In our last book, *The Essentials of Strategic Project Management*, we spoke about the STO model.<sup>1</sup> STO stands for strategic, tactical, and operational. These three levels of operation inherently have typical communication problems that many companies need to deal with (see Exhibit 1.1). Each level of the model represents a different level of a company. Strategic is the executive level, where decisions are made about the purpose and direction of the organization. Tactical is the management level of a company, where decisions are made as to how to carry out strategy. Operational is the lowest level of the company, and represents where people actually execute the work.

## EXHIBIT 1.1 Strategic, Tactical, and Operational Model



### Mission, Objectives, Strategy

In order to have a clearer understanding of what Mission, Objectives, and Strategy mean, we need to look at some definitions and examples. Mission, first of all, is a statement of the purpose for the company's existence. An example of a simple mission statement could be General Electric's: "We bring good things to life." It is simple and easy to understand. Honeywell's mission statement is quite eloquent in its simplicity: "We are building a world that's safer and more secure, more comfortable and energy efficient, more innovative and productive."

In each case, the company's reason for existence is stated clearly and simply, giving direction to all that the company does. The reality is, however, that carrying out that mission is usually much more complex than a simple statement. Problems arise when management is not able to turn a mission statement into action and employees do not understand how their work carries that statement forward. That situation is where mission is often confused with strategy.

Strategy consists of a series of concrete actions that a company performs in order to carry out the mission. Each concrete action is

*Project Management and Accounting*

---

an Objective. The actions must support the mission of the company but must also adhere to good business principles. One of the fundamental responsibilities of a company is to create a return for its owners, whether they are a small group of investors or a large group of stockholders. There is always the responsibility to do this in an ethical manner, so that carrying out the mission and creating value are dual fundamental principles of any business. Even a not-for-profit company must create value; without the money, there is no mission.

An example of a Strategy that might correspond to Honeywell's Mission Statement might be to create a new line of home heating furnaces that are highly efficient and cut down on the amount of heating oil that is used to maintain the home's temperature. An Objective for that Strategy would be to carry out research into new technology for heating oil burners that are more efficient.

Problems arise in many companies when the mission is not understood at all levels, which brings us back to the STO model. When communication does not exist between the different levels of a company, mission cannot be translated into strategy and cannot be carried out by employees. Often the walls between levels exist, as illustrated in the STO model, not because of purposeful action or a desire to harm the company, but simply because no one at the firm has tried to bridge the gap or because someone has tried and failed.

As mentioned in the preface, senior project managers have their roots in many different areas of expertise, but the great majority do not come out of finance or accounting. At the same time, in order to advance within an organization, project managers need to acquire knowledge beyond their areas of expertise. The first step toward advancement is to become proficient in project management knowledge and skills in order to have the flexibility to move beyond those areas of expertise.

After becoming a proficient project manager, continued experience in project management helps project managers attain senior

status. After years of managing larger and more complex projects, senior project managers often aspire to making greater contributions to their organizations. One way to do this is by gaining expertise in finance and accounting, thereby enabling them to view the organization from a different perspective and to make a greater contribution to it.

In this chapter, we review the project management phases from the perspectives of various project management deliverables and processes with an eye to related finance and accounting issues. This review serves as an introduction to how finance and accounting is related to project management and can serve to help an organization perform projects in a manner that supports sound financial and accounting management. As we review each project management phase, we discuss the questions for finance and accounting implied in that phase and indicate which chapter in this book contains pertinent information.

### **Information Collection**

Information collection is a crucial element in project management, finance, and accounting. Collecting the correct information is crucial for project success. We conduct our review of the project management phases according to the project management documents that are created during each phase of a project:

- ⊗ Initiation: Project charter
- ⊗ Planning: Work breakdown structure, project schedule, project budget and cash flow, resource plan, procurement plan, quality plan, risk response plan

If the project is for an external client, there may be a request for proposal and corresponding proposal and a contract or some other agreement for services.

- ⊗ Project Execution and Control: Status reports and dashboards.

In the remainder of this section, we look to each of these documents for information that is important to understanding the financial health of the project.

## **Project Initiation**

The project charter contains high-level information about the project, including deliverables, stakeholders, and, in particular, the definition of success for the project. That definition ought to include a description of the financial success of the project and how it will be measured. This definition provides the guidelines by which project performance may be judged.

During initiation, the first questions concerning finance and accounting are broached. For example, does the project align with the organization's strategy, in particular the financial strategy? Does the project deliver a product or service that is compatible with the goals and objectives of the organization? Will the project create value that is within the required return that the organization's financial strategy and owners or shareholders require? Often project sponsors ask what a project's return on investment (ROI) will be. In fact, project managers can increase their contribution to the organization not only by understanding a project's ROI but also by understanding in detail how that return will be delivered, over what period of time, and at what cost to the organization.

For example, let's say that a project will have a 10 percent ROI. However, if that return is over a 10-year span at 1 percent annually, it probably would not be considered as valuable as a project that will return 10 percent annually for 10 years. But even a 10 percent return over 10 years would not be very interesting if the organization's cost of capital is 15 percent. In addition, if the project is considered very risky, then the organization may require a 20 percent annual return.

Financial levers—ways in which the finances of a company can be adjusted—are explained in Chapter 2. There are additional illustrations

in Chapter 3. The case study in Chapter 7 gives specific examples of how portfolio management can require criteria based on the financial strategy of the organization.

## **Project Planning**

---

### **Work Breakdown Structure and Project Schedule**

The Work Breakdown Structure (WBS) contains a description of each deliverable that makes up the final project deliverable along with the tasks that must be performed in order to create each deliverable. Each task also has a description that defines the inputs, outputs, materials, and resources required to complete the task. The task description also defines how long each resource must work to complete the task as well as how much of each material is required.

The project schedule arranges each task in its proper order of execution and indicates the order in which the tasks must be done. The project schedule also defines task dependencies, that is, which tasks must be completed before other tasks may begin. Based on these calculations, project managers know when tasks must be carried out and what the end date for the project is, as well as what its critical path will be.

Understanding how much work must be performed is crucial to creating the project budget. During execution, one of the elements of project control is collecting information about how each task is executed. If managers do not have an accurate measurement of the expenditure of resources and materials, then they cannot determine the actual cost of a project or understand how the project is performing financially.

From the task description, project managers know the amount of effort that is required to complete the task. They also know when the task is supposed to be completed. Two basic questions yield information that is needed to get to the true state of the project:

### *Project Management and Accounting*

---

1. How many hours (or days, if the effort is described in those terms) have the resources been working on the task?
2. How many hours (days) remain to complete the task?

The answers to these questions yield valuable information. By totaling the two answers, it is easy to find out if the task is taking more effort than expected and to come up with a prognosis on whether the task will be completed on time. Multiplying both the number of hours worked and the hours remaining to be worked by the hourly rate for each resource reveals not only the cost of the resources to that task, but also how much additional cost will be needed to complete the task. Later in this chapter we cover the concept of earned value, which explains how to work with and interpret this information.

Another concern that project managers monitor by reviewing effort on tasks and the state of deliverables is “gold plating.” Gold plating is adding more to a deliverable than is required by the project specification. It is often a problem on client projects, where resources, with good intentions, seek to add value by doing more than required. It is also a major source of effort overruns on many projects. The problem also may be scope creep, where a project stakeholder has requested that additions be made without getting proper authorization.

### **Project Cost**

Chapter 4 covers the notion of cost as it affects a project. It is important to understand the difference between cost and expense. The notion of cost deals with what must be given in exchange for the value that the project creates. For example, the hourly rate or salary of resources employed is a cost to the project. The way that resource cost accumulates will have an effect on the value created. For example, a contractor charging an hourly rate to a project will affect cost differently than a salaried employee.

Expense deals with the accumulation of charges that make up the project budget. In addition to salaries and hourly payments to resources, materials, overhead utilities, and other resources may make up the budget. Chapter 7 covers how to develop and monitor the project budget as well as how to develop and monitor a project cash flow diagram. The cash flow diagram illustrates the timing of cash outflows and inflows as described in the project budget.

### **Resource and Procurement**

The resource plan and procurement plan contain estimates on resources, including the skill sets needed, as well as a list of the actual resources and materials needed to complete the project. The resource plan also describes which internal resources are available and what resources will be needed from outside the organization. It also contains information about the source of resources and an estimate of the cost. This information is important in developing the project budget.

The procurement plan is very similar to the resource plan, except that it covers other materials that are needed for the project, along with estimated costs. The procurement plan addresses timing and delivery and indicates whether there are any special situations, such as volume discounts. In a manufacturing or construction environment, the procurement plan is of great importance; it is much less important in some service industries.

During project execution, project managers must monitor the actual use of resources against the resource plan. Resources reporting on actual time spent on project tasks and estimates for task completion provide the basic information of resource cost. However, project managers must also compare the actual results against the resource plan to ensure that the resources being used match what is in the plan.

For example, a shortage of internal resources could necessitate the use of external resources that are more expensive and add to



### *Project Management and Accounting*

---

project costs. Variances in actual project performance, including scope changes, could also have an effect on resource cost; for example, tasks may have been underestimated or for some other reason may be taking longer to complete or requiring more resources. Additional resource needs can also be a problem that is not related to finances. Increased overtime for salaried employees can have an effect on other work within the organization or on general morale. Close monitoring of the resource plan against actual results helps project managers maintain the financial health of the project.

Project managers also monitor the project procurement plan, both for cost to the project and for any changes in the business environment that could affect the availability or cost of any materials required for the project. As this chapter is being written, the cost of gasoline and other fuels has become quite volatile, which would have a negative effect on any project requiring the use of heavy machinery or other equipment. If no pricing guarantees are negotiated ahead of time, or if quantities needed are greater than first estimated, there could be significant cost overruns on the project, threatening its profitability.

Chapter 4 covers information about cost, and Chapter 7 illustrates the effects of resources and procurement on project finance and accounting.

## Quality

The quality plan needs to be considered in conjunction with the WBS. Asking questions about the intended deliverable in comparison with what the tasks are actually delivering provides additional information about how the project is progressing. Project Managers need to ask, “What is the deliverable and what does it do (or what is it intended for)?” The answers to these questions are the start of quality management.

In Chapter 4, we discuss the cost of quality, including prevention, correction, and warranty. During project execution and control,

project managers monitor the cost of quality by ensuring that any work related to quality prevention is completed and by determining whether any correction work is necessary.

If preventive work is not performed, the overall cost of a deliverable may be lowered; if that results in increased correction costs, the project may fall short of financial goals. Project managers must monitor whether prevention costs are in line with budget, and if not, why. The need for more corrective work than anticipated could have a negative impact on project financials immediately or in the future, if warranty costs (the most expensive) are incurred.

## Risk

There are several ways to look at risk. From a project management point of view, risk is quantified and dealt with through a risk response plan, seen below. From an accounting or audit view, Chapter 8 presents a comprehensive overview of dealing with risk. The risk response plan answers these questions:

- ⊗ What risks threaten the project?
- ⊗ What is the likelihood that a risk will occur?
- ⊗ If the risk occurs, how serious will it be?
- ⊗ What can be done to mitigate the occurrence of the risk?
- ⊗ What is the plan if the risk does occur? What is the backup plan?

Many methods are used to calculate the effect of project risk, some quite sophisticated in their analysis and requiring detailed information. Whatever method is used, the outcome is usually quantified as a project cost. In other words, what will it cost to mitigate for risk, and what are the potential costs if risk occurs? The potential costs are often expressed as contingencies and the amount of resource time or money that is budgeted for use if risk occurs.

Project managers monitor risk in much the same way that they monitor quality. They must ensure that mitigation activities occur as

planned, and thus increase cost. Project managers must also monitor for signs that risk may happen, in order to be ready to implement the risk-response plan. A timely response to risk and the judicious use of contingency often can make or break a project financially. Chapter 7 contains pertinent information for risk management as part of budget development. Chapter 8 takes on Risk Assessment from a different point of view, that of an accounting professional, providing an additional body of information to the project manager.

## **Project Execution and Control**

---

*A Guide to the Project Management Body of Knowledge*<sup>2</sup> defines project execution as coordinating people and other resources to carry out the (project) plan. This definition is deceptively simple; under the direction of the project manager, the project team, vendors, and others carry out the tasks that are defined in the project plan in order to produce the project deliverables.

However, project managers must not only ensure that work is progressing as planned, but also must monitor all aspects of project execution, in particular the financial results. This is project control, which ensures that project objectives are met by monitoring and measuring progress regularly to identify variances so that corrective actions may be taken.

Project Management is not unlike flying an airplane. Flying conditions are perfect as the plane heads toward its destination. However, even on a clear day, wind currents in the air can push the airplane off course. As the pilot monitors the gauges, she will notice if this is occurring and will compensate by steering the plane back in the other direction, toward the intended destination.

The project manager is the pilot, always monitoring the gauges and ready to steer the project back on course. There is more to flying the airplane than just steering it. The pilot is always monitoring the systems, making sure that there is enough fuel to reach the

destination and that all of the systems are functioning properly. If the plane runs short of fuel or if a system malfunctions, the pilot can decide what to do next to correct the problem.

So, too, the project manager is at the controls, monitoring the project to ensure that value is actually created for the organization. A number of the gauges or controls that the project manager monitors may be financial controls or quality controls. A project may be on time and deliver what is intended, but if there are cost overruns, for example, the project may not deliver value to the organization. Even an on-time, on-budget project may suffer from quality defects, costing the firm money and reputation later on.

## Communication

Communication planning is the process required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. Information distribution during project plan execution is the execution of the project communications plan. Carrying out the communications plan is a crucial factor in project success, especially when it—the plan—pertains to the project sponsor and other high-level stakeholders.

Communication is the real glue that holds the STO model together. During project execution, two-way communication through all levels of the organization is vital. If project initiation and planning have been done properly, then the project will be in alignment with the firm's mission and goals. The project charter will communicate organizational strategy to the project team and other stakeholders. There also must be appropriate communication back to the strategic level in order to ensure that the executives of the organization are aware of what is happening.

We talk about the appropriate level of detail in the next section, but we would like to point out a serious error that frequently occurs during projects. Often, when there are problems occurring in a project, the problems are not known, either due to a lack of project

control or because the project team does not want to reveal them. It is vitally important that the project manager control the project closely and report on any problems as soon as they are discovered.

## Project Control

Project control consists of one primary process: project status reporting. There are four secondary processes: schedule control, change control, risk control, and quality assurance control. These sub-processes all depend heavily on information collection and information distribution.

**SCHEDULE CONTROL** Schedule control consists of monitoring the project schedule to determine if the project is on schedule and making any necessary changes. The most important tool used in schedule control is earned value estimation.

**EARNED VALUE** Earned value calculations express the amount of value that a project has created at any given point in the project in relationship with the amount of value that should have been created at that point. Earned value can be expressed in terms of schedule or cost. Earned value management is a technique used to integrate a project's scope, schedule, and resources and to measure and report project performance from initiation to closeout. It is a technique that is rarely done manually, but it is helpful to learn how earned value is calculated in order to understand the premise behind the calculations and the results of earned value. We spend some time explaining earned value here, and then apply the concepts in conjunction with finance and accounting principles in Chapter 7.

To illustrate how earned value is calculated, let's take an example. Suppose that we have a task that is scheduled to be done by one person and will take 50 hours over the course of two weeks (Effort = 50 hours, Duration = 2 weeks). The effort will be evenly divided between the 2 weeks, 25 hours each. So the planned value equals 25.

**EXHIBIT 1.2 Calculating Schedule Performance Index (SPI)**

---

Time Estimated to Complete Project = 50 Hours

Duration of Project = 2 Weeks

Planned Value = 25 (25 Hours per week)

Results:

Actual Time Needed in First Week: 30 Hours

Additional Time Required: 40 Hours

Actual Percentage of Time Completed on Project: 43% (30/70)

Earned Value = Actual Percentage  $\times$  Total Time Required (43%  $\times$  70) = 21

Schedule Variance = Earned Value – Planned Value (21–25) = –4

Schedule Performance Index (SPI) =  $\frac{\text{Earned Value}}{\text{Planned Value}} = \frac{21}{25} = 84\%$

---

At the end of the first week, the person performing the task reports that she actually worked on the task for 30 hours. She also reports that she will need an additional 40 hours to complete the task. This means that, in addition to some poor estimating, she has actually only completed about 43 percent of the work, or what should have taken roughly 21 hours, so the earned value is 21. Exhibit 1.2 shows the calculations that we would apply.

The Schedule Variance is a negative number, indicating that the project is behind schedule. The Schedule Performance Index (SPI) of 84 percent tells us that for every hour worked, we are getting only 50 minutes' worth of value created (60 minutes times 84 percent equals 50 minutes).

These numbers actually tell us more. When a project does not use earned value and simply relies on completion date of tasks to calculate progress, a problem could arise. Suppose that the resource in this anecdote actually finished the task during week 2, and it did take an additional 20 hours. If only completion was tracked, it would seem that all is well. However, completion alone does not tell us what effect this problem had on other tasks. In total, the resource worked on

*Project Management and Accounting*

---

the task for 20 hours more than planned. We must ask why this happened. Is it an isolated incident, or is it a sign of other schedule problems? What other tasks suffered because this one took longer to complete and cost more than estimated?

The calculations in Exhibit 1.2 tell us that the task is over cost. The cost performance index also tells us that for every dollar spent, only \$.70 worth of value is being created. We can ask the same questions that we asked about running behind schedule. While this is only one task over cost here, again, even if a small percentage of other tasks are also over cost, the financial effect on the project could be significant. To see how significant, we can apply the formula for estimate at completion, which calculates the end cost of the project based on the present results.

What we can see from the last set of figures in Exhibit 1.3 is that this project will run over cost by more than \$170,000, a serious cost overrun. Yet if we do not calculate earned value and only track when tasks are completed, we risk not being aware of problems until much too late in the project, perhaps even just at completion.

Many organizations do not calculate earned value for their projects. One of the main reasons is that they don't plan projects; it is very hard to track something that is not planned. Some organizations do plan, but do not collect the information necessary to do the calculations. Tracking resource hours and other expenses against the project schedule and calculating earned value will not guarantee that projects will always be on time and on budget, but it will guarantee that if there are problems, project managers will be alerted much earlier and have a better chance of correcting the problems.

**EXHIBIT 1.3 Estimate at Completion**

---

Budget at Completion: \$400,000

Cost Performance Index: 70%

$$\text{Estimate at Completion} = \frac{\text{BAC}}{\text{CPI}} = \frac{\$400,000}{.70} = \$570,000 \text{ (approximately)}$$


---

Consider this example: A task is supposed to take one person 30 hours to complete over two weeks, about 15 hours each week. At the end of the first week the resource has spent 22 hours and has about 18 hours left to work on the task. We now know that the task will take a total of 40 hours to complete, which is 33 percent more time than allotted for in the task description. Although the task may be completed at the end of the second week (on time), we already know that if it takes the time predicted, the task would be 33 percent over budget.

We must also consider that if work originally scheduled to take 15 hours actually took 22 hours, how do we know that the work predicted to take 18 hours will not take even longer? We actually don't know. We do know that now we must get to the root cause of the additional effort.

Based on earned value calculations, the schedule variance for this task at the end of the first week is  $-7$  (hours). (The negative number indicates that the task is behind schedule.)

The Schedule Variance Index (SVI), a measure of productivity, is 68 percent. The best way to interpret the SVI is this: For every hour that is worked, the resource is accomplishing 68 percent of what was expected, or roughly 40 minutes worth of work.

This task is seriously behind schedule. It is only one task, but the implications for the project are important. Some of the questions that should be asked at this point are: Why is this happening? What amount of effort will it take to complete the task? What will the affect be on the rest of the project?

We already know that it will take at least 10 additional hours to complete this task, so what are the implications for other similar tasks? What additional costs will the project incur as a result? According to the estimate in the task description, this task should cost \$3,750 (30 hours multiplied by \$125). We know is that the actual cost at the end of the first week was \$2,750 (22 hours multiplied by \$125). We also know that the amount of work actually completed was 15 hours, so the earned value is \$1,875 (15 hours multiplied by \$125). We calculate the cost variance to be \$875, which is over budget.



### *Project Management and Accounting*

---

The Cost Performance Index (CPI), a measure of productivity, would then be \$0.68. This means that for each dollar spent on this task, we have achieved a \$0.68 return. It follows that this task is 32 percent over budget. When we consider how many tasks there are in a project, it is clear that having even a small percentage of tasks over budget will cause a serious cost overrun. If we apply an estimate-at-completion calculation, we can see that the final cost of the task could be \$5,515, rounded to the nearest dollar. This would be \$1,765 over budget.

It is clear why it is important to track hours and cost for each task. If completion by a certain date was all we looked at, we would miss the fact that this task is seriously over budget.

Once project managers have determined that there is a variance in project schedule or cost, why it has happened, and what the solution is, they must change the project schedule. Depending on the level of detail that a project is using, this may be done through a schedule change control process or simply by using the project's change control process.

Before making the changes, all of the implications, in particular to overall schedule and costs, must be calculated. Any changes must be approved at the appropriate level of authority, depending on the cost of the change.

**CHANGE CONTROL** Rare is the project that does not undergo any changes at all during its full cycle. Projects deal with change, and they themselves are the subjects of frequent change. Change in a project is not bad, but uncontrolled and undocumented change has been the death of many a project. A well-planned project that is not properly controlled will run astray at some point. Change control does not mean that there cannot be any change; it means that change must be regulated with a process to ensure that only those changes that will benefit the project's objectives occur.

A change control process is what prevents changes from drowning the project. The change control process documents all requested

changes so that the project team can determine what effect the changes will have in terms of effort and cost. Once the estimates are complete, the stakeholder can accept or reject the change. The key here is that the project manager must have the authority to refuse any change if the stakeholder does not sign off on the effects of the change on the project, on the cost, the resources needed, or the delivery date.

Changes could also affect the financial health of the project. For example, a delay in project execution beyond an agreed-on date or an increase in project scope could require additional resource time. If the additional scope is larger than what was anticipated, it might use all of the contingency time allowed for, increasing the overall project cost. If project cost increases, the return may decrease below the level that is acceptable to the organization. In Chapter 7, we show how change control must be coupled with financial and budget analysis to ensure project health.

**RISK CONTROL** Risk control has several facets:

- ☒ Monitoring project results for signs that risks may occur or may have occurred
- ☒ Reviewing risk responses that have been taken to see if they were effective
- ☒ Reviewing project goals and objectives to ensure that they are still valid
- ☒ Reviewing the project context to see if there are any changes in external factors that may affect the project

As with all of the other categories of project control, risk control relies on a well-constructed risk plan along with proper execution of the plan. In practical terms, risk monitoring also depends on information gathering to find the information needed to determine whether any risks are either imminent or actually happening.

When gathering and reviewing project information, project managers must make constant reference to the risk plan, which contains

information about possible risks, the warning signs that they may happen, and how the risks will be dealt with if they happen. Once the signs of risk appear, project managers initiate the risk response plan and continue to monitor the situation. Finally, project managers evaluate the effectiveness of the response to determine if changes need to be made in the risk plan. The Chapter 7 case study relates risk control to project budget and cash flow.

**QUALITY ASSURANCE AND CONTROL** In essence, quality is divided into two facets, quality assurance and quality control. These terms are often confused. In the context of project management, quality assurance refers to project management and quality control refers to the product or service that the project is producing. Quality assurance refers to all of the various activities that are a part of the project's quality.

Project managers monitor quality tasks in the same manner that they monitor all other project tasks: Are they happening on schedule and according to plan? Are quality tasks completed within their allocations of effort and cost? Project quality tasks completed satisfactorily according to plan are not absolute guarantees that quality will be up to par, but they will be an indication that there is a better chance that quality will be present.

Quality control consists of the various tasks within the quality plan that determine whether the project's actual product meets the quality standards that have been set for it. At times general quality standards, such as those of the International Standards Organization, or more specific standards, such as regulations by the Food and Drug Administration in the pharmaceutical industry, are required. At other times, the project team sets the quality standard during the planning process.

In either case, project managers, along with any quality professionals who might be involved, are responsible for ensuring that the quality standards are met. Quality assurance is important because it attempts to ensure that quality is in place before anything is

produced; quality control is more focused on testing the results to see that quality standards have been achieved. When quality assurance functions well, it is less likely that there will be problems with quality. When quality control does find that quality standards have not been met, there is usually increased cost for rework. Chapter 4 and Chapter 7 cover the cost of quality.

### Status Reporting

Status reporting is the activity that conveys information about project progress to individuals or groups that require information. Status reporting should happen frequently; we suggest weekly or at least once every two weeks. Leaving intervals longer than two weeks creates a risk that problems that occur may go unnoticed and uncorrected for too long a period. This correlates well with the basic duration of a project task: That is usually no more than two weeks.

Project managers are primarily responsible for status reporting, although on larger, more complex projects, an administrator may collect information and report status to the overall project manager, who would then report to other stakeholders as is necessary.

The project status report should be concise and to the point. Depending on the audience, it may have a greater or lesser level of detail. For the project sponsor and anyone else who has a direct stake in the project (including the project team), the status report should be detailed enough so that they will have sufficient information to understand the state of the project and be able to make decisions concerning it. If some issues are more complex, other documents explaining them may accompany the status report. The status report should include at least:

- ▣ An accounting of tasks for the period concerned.
- ▣ Earned value calculations. If they indicate any problems, any information concerning root causes should be included.

### *Project Management and Accounting*

---

- ▣ A financial and accounting dashboard containing pertinent information related to the organization's overall financial and accounting requirements.

Chapters 2 and 3 are about the DuPont Analysis, a manner of analyzing the financial performance of a company. In Chapter 7, we introduce a financial dashboard that will compare project results to the organization's calculations based on the DuPont Analysis.

### Notes

---

1. Kevin Callahan and Lynne Brooks, *The Essentials of Strategic Project Management* (Hoboken, NJ: John Wiley & Sons, 2004).
2. A Guide to the Project Management Body of Knowledge, (Newton Square, PA: Project Management Institute, 2005).

