

Optimizing Project Costs While Maintaining Scope

By Josephine Rando, PMP

The relationship between time, scope, and cost is often referred to as the Triple Constraint. Often, if the planned costs do not meet project budget, the project manager will change the scope or finish date of the project to meet the budget constraints. Occasionally, however, it is possible for the project manager and the project team to develop creative means by which to adhere to the budget and still meet the project timeline and implement the original scope. Particularly in today's difficult economic times, companies are often caught in a dichotomy of trying to launch projects in the quest to be competitive while also trying to cut overall enterprise costs.

This article is based on an actual project from a Fortune 500 company that was launched successfully in 2009. The project underwent major budget reductions while its original scope and time schedule were preserved. This article describes a broad set of project management activities that the project team managed throughout the project life cycle while reducing overall project costs and maintaining the integrity of the project.

There are several creative plans that the project team can embark upon to reduce project costs while keeping the original project scope intact and adhering to the original schedule.

Optimize the Project Plan to Look for Opportunities to Reduce Redundancies and Costs

The project plan is an approved document used to guide both *project execution* and *project control*. For these reasons,



it should be reviewed regularly to update any changes to the planning assumptions and decisions, and it can be further used to control project costs.

For example, if there are project deliverables that can be consolidated and managed by one resource rather than by two resources, then there is potentially an opportunity for the project team to streamline the work and to negotiate to have the work managed by one resource. This is demonstrated in Figure 1.

The Change Management team is responsible for deploying “go-live” communications. Clearly, these communications need to be communicated to an impacted audience. The task “communicate system downtime to stakeholders” can be managed by the same Change Management team and can be removed from the project plan for Release Management team. Therefore, leveraging the same change management task potentially reduces costs associated with the Release Management team.

Track	Task Description	Baseline Start Date	Expected Completion Date
	Change Management		
<i>Change Management Team</i>	Deploy system go-live communication	4/8/2009	4/10/2009
<i>Change Management Team</i>	Monitor feedback from stakeholders post communication	4/18/2009	4/17/2009
	Business Continuity		
<i>Business Continuity Team</i>	Socialize existing support processes to teams	5/1/2009	5/1/2009
	Collect business normalization metrics	5/1/2009	5/15/2009
	Identify business ramp-down process before go-live	5/5/2009	5/12/2009
	Identify business ramp-up process before go-live	5/5/2009	5/12/2009
	Collect business contingency plans from teams	5/1/2009	5/22/2009
	Obtain Senior Management approval for contingency plans	5/22/2009	5/29/2009
	Release Management		
<i>Release Team</i>	Communicate system downtime to stakeholders	5/12/2009	5/12/2009

Figure 1: Project deliverables.

Look for Areas With “Overkills”

Sometimes project teams have the tendency to engage in “gold plating” and adopt the mindset that doing more is safer than doing less. This thinking may be related to how project teams respond to risks. When project teams are risk-averse, they may overcompensate by performing quality testing more than they should or by “over-communicating.”

Consider the following example in the area of quality. Depending on the project, there may be unique types of testing. The quality assurance team is responsible for regression and progression testing, the business stakeholders may perform their own business-acceptance-test (BAT), and the impacted audience may, in turn, perform a user-acceptance-test (UAT). There may be instances in which the test scenarios and test cases for these test types overlap. In such cases, it is prudent for the project team to take the time and care to review all of the test scenarios “holistically” to eliminate overlaps and reduce quality costs. For example, in the real-life case of one project, the project team was able to reduce quality assurance test cases from 3,000 to 1,000 and drastically reduced projects test costs by 40%. The project still launched on time, with its reduced budget, was able to maintain its original scope, and, most importantly, was able to exit the post-launch support war-room with no “business critical issues.”

Must-Have’s Versus Nice-to-Have’s

Similar to the above discussion, the project team should look at the project plan deliverables to look for opportunities to identify “must-have’s” versus “nice-to-have’s” to reduce costs

without compromising the scope, schedule, quality, and customer satisfaction.

Using our recent project as an example, the project team found that developing mitigation plans and the associated post-“go-live” normalization metrics required a very high support cost. As a result, the project team reviewed all of the required metrics and plans, categorized the scenarios, and prioritized the scenarios based on two criteria: 1) the probability of the scenario happening and therefore the need to develop a contingency plan; and 2) the severity of the scenario based on our understanding of impacts to the business, revenue, and customers (Figure 2).

Using this analysis, the team greatly reduced the number of scenarios and the support costs associated with them and was able to launch the project on time without cutting scope. The project also experienced very few problems after “go-live.”

Piggy-Backing

One other creative way to reduce quality costs without compromising quality is to do integrated testing with other ongoing projects. If there are other multiple projects that are slated for launch at the same release or within the same timeframe, it may be worthwhile to sit down with these other project teams to discover what areas of testing they are doing that may be similar to what your project is already testing, whether it is process, code, applications, or functionalities. If these other projects are already performing the same exact areas of testing, it may save the project teams quality costs by leveraging and piggy-backing each other’s testing. Such

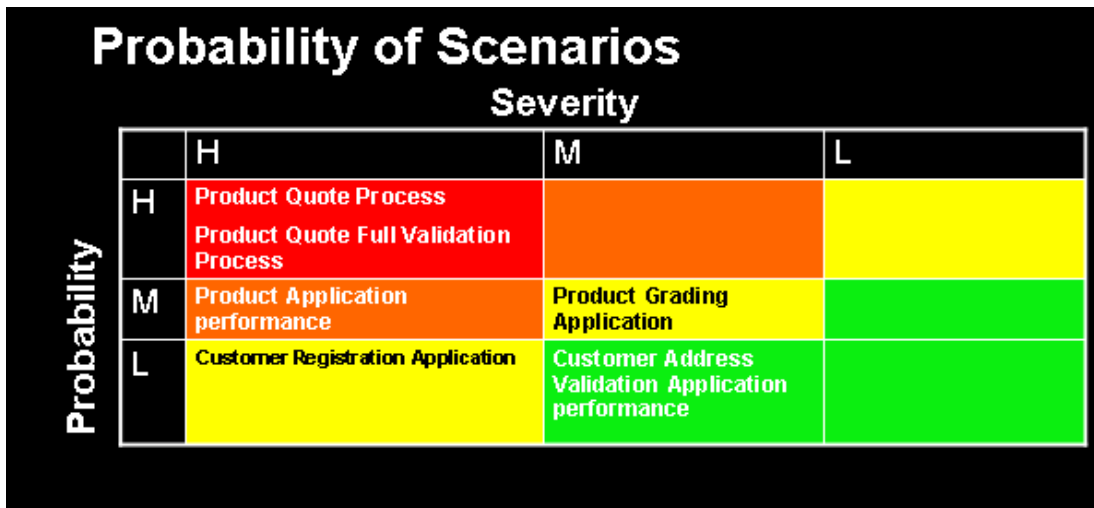


Figure 2: Probability of scenarios.

strategy not only reduces costs and improves productivity, but also fosters and promotes teamwork and motivation once the teams realize the benefits.

Use Planned-Time-Off to Offset Costs

Because projects are time-based and have a start and end-date, most project teams tend to outsource some parts of the project work to consultants and vendors. In recent months, a number of companies have asked employees to take mandatory paid vacation to cut costs. For example, costs savings can be realized from utility bills since buildings are closed and variable costs such as lobby ambassadors and security guards will not be incurred. This move to mandate employees to take vacation days can also be applied to consultants working on projects, (since consultants will not be paid for time taken off) as long as critical deliverables can still be met and the project integrity is maintained. This practice was actually performed by a real project team and proved to be very successful.

Consultants can be very costly to a project. However, through their subject matter expertise, they are critical to the success of the project. This approach of mandating vacation days can be effective since the project team can reduce costs by deducting the number of vacation days taken by the consultants in statement-of-work documents and purchase requisitions. It is also effective because consultants are willing to cooperate by taking time off rather than risking having the project canceled completely due to the economic hard times.

Look for Peaks and Valleys

A typical project transitions through different phases from conception to closure. During this transition, project

resources may not be utilized fully at all phases of the project. For instance, in the beginning of the project, during the identification and assessment phase, all business subject matter experts will be fully engaged in scoping discussions and interlocks, making initial key design decisions, and, ultimately, translating scope into requirements. Essentially, all subject matter experts will undergo capacity “peaks” and are fully utilized in the analysis and assessment phases.

However, during the design and build phases, these same subject matter experts may experience “valleys” in terms of capacity. Depending on the project per se, some project teams may be able to utilize resources even during times when the project undergoes “valleys,” provided that the same resources can be used to do the work based on skill sets, knowledge, and expertise. The following examples illustrate the peaks and valleys within a project work plan and how the project manager can perform resource leveling to save costs.

Figure 3 shows that the resources are utilized fully in the beginning phase of the project.

However, Figure 4 illustrates that when it comes time to build the product, the same resources are basically sitting idle. So, rather than hiring additional resources to do the design and build work, the project team can utilize the same resources from the assessment phase to perform some of the design and build work. In a project experience, the team used the same subject matter experts who wrote the business requirements document in the assessment phase to write IT technical documents in the design and build phases. The IT technical documents are more technical in nature, and this approach will only work if the same subject matter experts have the skill sets and knowledge to do the work in other project phases.

Project Phase	Task Name	Total Work in Hours	Oct	Nov	Dec	Jan
Initiate Project	Create business value case	600	350	250	0	0
	Create high-level scope document	650	350	300	0	0
	Create detailed scope document	N/A	340	40	300	0
	Support Change Management and Training Teams	200	50	50	50	50
	Support Legal Team	10	10			
	Update workplan resource plan	600	300		300	

Figure 3. Activities and resource plan.

Project Phase	Task Name	Total Work in Hours	Oct	Nov	Dec	Jan
Build Phase	Support IT high-level Build document	0	0	0	0	0
	Support Technical Specification Doc	0	0	0	0	0
	IT Technical Review	5	5	0	0	0

Figure 4. Activities and resource plan.

Risk Management and Check Impacts to Other Projects

In all the various discussions above, it is critical that the project team also consider risk management when making cost reduction decisions. A prime example is the consideration around implanting mandatory deliverables versus “nice-to-have” deliverables. After the prioritization of deliverables, if the project team deems that some of these can be removed from the plan to save costs, the project team should document the risks by removing some of the deliverables and socialize the risks in a formal meeting to include senior management. The goal is to gain approval from the senior management, as well. The risk discussion should follow conventional Risk Management process. Therefore, if the team decides that a risk can be accepted, then no further actions are required. However, if there are extreme risks that the team and management cannot accept, then the team should move forward with a contingency plan.

Checking impacts to other projects is also critical, since removing a deliverable may impact another project that has dependencies on the project in question. One other safeguard is to examine the critical path to see how the changes you made to optimize costs. Sometimes, different dates, tasks, and resources associated with the critical path will show up and might indicate that removal of the deliverables is not ideal albeit the cost reductions it causes.

Conclusion

As the economy begins to emerge from the recession, high-performing companies will include those that undertake creative and effective measures to optimize costs while keeping project quality intact. In the past, postrecession periods have led to increased pressure to launch additional projects that enable companies to take advantage of growing markets and increased access to capital. The companies that have proactively managed and optimized their existing projects will hold a competitive edge in taking on additional projects.

About the Author

Josephine (Jo) Rando is a business operations manager in the services organization at Cisco Systems in San Jose, CA. She is responsible for leading overall project management with a focus on solutions and requirements within projects. Jo brings 8+ years of experience in program management and IT project implementation to Cisco. Prior to joining Cisco, Jo worked for Xerox Corporation in supply chain management. She holds a bachelor of science degree from University of Oregon in Business Administration, an M.B.A. in marketing from Syracuse University, and a master of science in Information Technology from Rochester Institute of Technology.

In her free time, Jo enjoys running and reading. She has participated in four marathons and three half marathons.