LESSONS LEARNED

AGAIN AND AGAIN AND AGAIN

RECENTLY I HAVE SAT THROUGH A VARIETY OF PROJECT CRITIQUES AND HAVE ASKED THE TEAMS INVOLVED TO ARTICULATE THEIR LESSONS LEARNED ON THEIR PROJECTS. DURING THESE REVIEWS, MY ANXIETY LEVEL AND BLOOD PRESSURE INVARIABLY INCREASE BECAUSE I HEAR THE SAME LESSONS LEARNED, REPEATED AGAIN AND AGAIN FROM EACH TEAM.

I WANT TO SCREAM, "I LEARNED THESE LESSONS 30 YEARS ago. Why do we continue to learn these same lessons over and over again?" I don't scream, though; I remind myself the individuals are probably experiencing these lessons for the first time. I've come to realize, too, just about all the repeated lessons reduce down to just one primary lesson: Project scope drives project cost and schedule.

Said another away, if you properly define and gain alignment to your project scope early in the life of your project, the cost and schedule will follow.

I love the scope but hate the cost!!!

I was the project manager on a project and was called into a Friday afternoon meeting to review the project's cost, scope, and schedule. I used my traditional agenda of scope review, cost review and schedule review. During the scope review, I discussed the base scope (i.e. scope required to meet the business requirement) and the value-added scope (i.e. savings-justified scope, which is discretionary but improves the economics of the overall project). The scope review went extremely well.

Next we talked the cost of this scope. The reaction was, "I love the scope but hate the cost." My response was if you like the scope, then this is the cost. We went back and forth on this point for the next twenty minutes and at the conclusion of a robust discussion, we agreed to the proposed scope but disagreed on the cost to be presented to top management the following Monday. We did agree to mull over the scope and cost data and reconvene on Monday morning to review our positions again. We met at 7 AM on Monday and agreed to use my cost figure in the subsequent meetings with hierarchy. The figure was used, the scope was installed, and the job came in slightly below the stated costs.

This experience reaffirmed my belief that if you get the scope correct, the costs will be correct. As I sit through other project critiques or learn a project's costs are trending high or low, the root cause I ask the team to address is how their original scope basis has changed. Without exception, changes in scope by the team and/or their hierarchy directly relate to changes in cost and schedule.

by W. Scott Cameron

I want this cost but need that scope

We started to design and construct a "grass-roots" manufacturing facility and planned to complete the multi-million dollar project several years later. Unfortunately, just how many millions of dollars the plant was going to cost became extremely troublesome.

Early in the life of this project, management believed the project should cost $X, a figure based on their collective experience and not on the project's scope. Agreement to proceed with the project and its staffing was based on their $X cost figure. A subsequent conceptual study, however, indicated that the project's cost could be as high as $X + 40% based on the defined scope.

Management declared this estimate unacceptable. They questioned the cost engineer's credibility, even though he was quite experienced and had used proven methods to develop the estimate. Accusations flew that the scope and estimate were "gold-plated." After agreeing to reduce the project scope to appease management (for example, reducing the building size), a compromise estimate of $X + 20% was reached by agreeing to eliminate or change specific scope items.

After receiving project funding, however, the eliminated/modified scope was restored because the reduction decisions had been based on cost criteria alone, with no real consideration of the actual needs of the project. For example, by reducing the building size, a key piece of process machinery could no longer fit, so the building had to be returned to its original dimensions. Despite valid scope additions, management refused to approve project change authorizations. They said, "You already have 20% more funding than you need. We're not going to give you more fat!"

WITHOUT EXCEPTION, CHANGES IN SCOPE BY THE TEAM AND/OR THEIR HIERARCHY DIRECTLY RELATE TO CHANGES IN COST AND SCHEDULE.

Once management ignored valid cost estimating and trending data, the project team didn't bother much with cost control. The situation soon got out of hand. The project team knew they were exceeding their funding commitment, but since management refused to listen to the team's concerns and data, cost control was ineffective.

SINCE MANAGEMENT REFUSED TO LISTEN TO THE TEAM'S CONCERNS AND DATA, COST CONTROL WAS INEFFECTIVE.

So the required scope grew while the cost predictions stayed the same. When the project team completed definition and design, a second estimate was published at $X + 25%. During construction, the estimated cost of the plant increased to $X + 40% (note the amount the conceptual study estimated at the outset of the project).

At project close, the project team had done an excellent job of designing and building the plant. The start-up was on time and one of the best in company history. Cost was the only criterion the project failed to meet. Once again, the same lesson learned: Project scope drives project cost and schedule.

We continue to learn this lesson over and over again. One day I may just scream! •

SCOTT CAMERON is the Global Capital Systems Manager for the Food & Beverage Global Business Unit of Procter and Gamble Company in Cincinnati, Ohio. For the past 20 years, he has managed capital projects and developed other capital management practitioners for Procter & Gamble within its Beauty Care, Health Care, Food & Beverage and Fabric & Home Care Businesses.

In an interview last year (*ASK* 7), Cameron reflected on his tenure as a project manager: "When I think about how I have grown throughout my career, I can talk about the projects that I've worked on. But when I get down to the root cause of my growth and development, the most important factor has been the people who managed, coached and challenged me. Individual managers have had a profound impact on me. As I look back, I can see how this boss taught me how to write proposals. This mentor taught me financial aspects and cash flow of the company. This peer focused me on schedules. This one focused me on team dynamics. This one taught me how to listen and not immediately react. A collection of people helped me become the manager I am today, and now I feel that it's part of my job to share my experience with younger managers the same way that others invested in me."