

Selecting Six Sigma Projects

There's no shortage of potential projects, just the human resources to get them all done.

Some of my previous columns have addressed the issue of project selection from the organization's perspective (e.g., how to determine which projects should be funded when funds are limited). However, even when an enterprise puts together a good portfolio of funded projects, there may be a shortage of another critical resource: the time of Six Sigma Black Belts. In many organizations, Black Belt time shortage is a more severe constraint than limited money. It seems there's no end to the list of potential projects—just the hours in a Black Belt's day. The same situation occurs for project sponsors, Green Belts and team members. Thus, it's important that key players



make certain that the projects they choose to pursue are good ones.

But what exactly constitutes a "good" project? This question can't be answered by running numbers through a computer simulation, although a computer can help get you there faster. The determination ultimately requires that someone make intelligent and informed judgments. Following is a short version of a sample methodology that can be used to make these judgments.

Figure 1 shows a set of criteria for assessing a Six Sigma project, along with weights for each criterion. The weights are simply my own subjective assessment of the importance of each criterion. I arrived at these weights using a software package called Expert Choice, which I've found to be very useful in converting subjective assessments to numerical values. Expert Choice uses the analytic hierarchical process method to convert pairwise comparisons to weights that add to 100 percent. These weights can be used in

Figure 1: Project Assessment Criteria and Weights

Criterion	Criterion Score	X Weight	= Project Score
1. Sponsorship		23%	
2. Benefits (specify main beneficiary)	Consensus Score	19%	
2.1 External customer			
2.2 Shareholder			
2.3 Employee or internal customer			
2.4 Other (e.g., supplier or environment)			
3. Availability of resources other than team		16%	
4. Scope in terms of Black Belt effort		12%	
5. Deliverable		9%	
6. Time to complete		9%	
7. Team		7%	
8. Project charter		3%	
9. Value of Six Sigma approach		2%	
TOTAL		100%	

Note: Any criterion scores of zero must be addressed before project is approved.

Figure 2: Sample Criteria Guidelines and Weights

Score	Interpretation
9	Sponsor identified, duties specified and sufficient time committed and scheduled
3	Sponsor identified, duties specified and sufficient time committed but not scheduled
1	Willing sponsor who has accepted charter statement
0	Sponsor not identified, or sponsor has not accepted the charter

various decision matrixes, such as the one shown in Figure 1, or in quality function deployment.

Figure 1 is used by assigning a score of zero to nine to each criterion. The criterion scores are then multiplied by the weights and added together to get a total score for the project. Project scores can range from zero to nine. Keep in mind that the total isn't as important as the distribution of project scores. Ideally there will be a point where some projects are clearly better than others, allowing Black Belts to pursue those projects.

To use Figure 1, you need to develop guidelines for assigning scores to each criterion. The guidelines just need to make sense for you and your organization. The numerical scale need not be zero to nine; however, I recommend using the same numerical scale for every criterion. Using a different numerical scale

amounts to changing the weights. Figure 2 presents an example of how guidelines might look.

This approach borrows elements from QFD and decision making. It isn't perfect, but it will serve the purpose of distinguishing good prospects from real duds. The inevitable projects remaining in the gray area can be examined more closely once the cherries have been picked. But by that time, there are usually more cherries on the tree.

About the author

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