Improve the Prioritization Process

The most challenging step in the above description of the project portfolio management (PPM) office is choosing which projects to fund. Yet, knowing how to make such choices is becoming more and more critical. Managers and their organizations are facing increasing internal and external competition for resources, constantly changing demands from customers, and narrowing windows of opportunity. In many organizations, projects are repeatedly added, changed, and removed in response to heightened business activity and changing market conditions. The backlog of “needed” projects requires resources that often exceed what the organization can provide. Making the wrong project choices and ineffectively using the limited resources can threaten the very survival of the business.

In order to continually make the best use of limited organization resources, the PPM office must determine which projects to initiate, which on-going projects to continue to fund, and which projects to terminate. As illustrated in Figure 21, the focus of the PPM office is effective management of the “project pipeline.”

For most organizations, making project selection decisions involves the forced-ranking of projects. By “forced ranking,” I mean that managers get together and “force” each project into either a strict priority ordering or into a few priority groups. Projects are added until the business runs out of resources. Below that point, projects are put on hold or killed outright. Considerations that apply at the portfolio level, such as project synergies and portfolio risk, may be used as final modifiers to the ranking. Needless to say, forced ranking, as well as the final choice of which projects to conduct, are difficult decisions. In the absence of a more formal approach, politics can play a major role in project selection.
In some instances, experienced, unbiased individuals who are well-informed about the needs to be served can do a good job of ranking projects. However, project ranking becomes more difficult and time consuming if there are:

- **Many project proposals.** If there are more than twenty or so requests, decision makers may not be sufficiently informed about the projects or their underlying needs to make consistent choices.

- **Different motivations for projects.** Prioritizing projects is much harder (and more contentious) when the motivations for doing projects can be very different. How do you compare a project intended to improve worker safety with one that makes a product more attractive to customers?

- **Project complexities.** If projects are technologically complex or involve difficult-to-judge considerations (such as risks or critical timing factors), most experienced individuals will be hard pressed to provide reliable priorities without reference to formal criteria.

- **Multiple decision makers.** The more people involved in priority setting, the less likely it is that they will agree without first agreeing on the objectives, principles, and criteria to guide project prioritization.

- **Pressures to justify project choices.** There may be stakeholders not involved in setting priorities, including those who provide project proposals, who require an explanation for the funding choices that are made. If decision makers arrive at their choices intuitively, they may have trouble explaining priorities when questioned or challenged.

Although creating a PPM office and a project inventory helps, the key to reaping the true benefits of PPM is following through and implementing a formal, organized, and logical process for prioritizing proposals and optimizing the project portfolio. This step is, in my opinion, critical to justifying the role of the portfolio office within the governance system for the enterprise. Project management, primarily concerned with achieving project deliverables, is largely a tactical function. But, PPM is focused on making project decisions that achieve the fundamental and strategic objectives of the organization. To justify the delegation of the portfolio management function to a team other than the organization’s senior executives requires a formal prioritization process that makes explicit what would otherwise be the implicit preferences of senior executives.

**Improve Project Data**

Even the best project prioritization process will be worthless without adequate project data. As one manager put it, “A micrometer won’t help you measure a cloud.” Steps must be taken to address the problems of poor project data that plague most organizations.

The first step to getting better data is to make sure that information requirements are well-defined. If project proponents are clear about what information is needed to enable their proposals to be considered, they are much more likely to supply that information. Thus, the templates for collecting data on project proposals must be complete and precise.
Second, there must be a culture and expectation that rigor is required to generate project proposals. Estimates must be backed by reason and analysis. Project proponents need to do their homework before the project gets proposed up the management chain.

Third, the organization must be prepared to allocate increased resources to project planning. Skill, experience, and true cross-functional collaboration are often needed to generate solid project proposals. Inevitably, increasing the effort devoted to preparing project proposals detracts from the resources available for actually doing projects. However, as previously asserted, the tradeoff in improved decision making will be worth it.

Note that a lack of adequate systems for collecting relevant project data should not rule out attempts to implement PPM. In my experience, project evaluation systems based mostly on data generated subjectively through “best professional judgment” can perform quite well, so long as those providing the judgments are knowledgeable and techniques are used to counter gaming and judgmental biases. Invariably, PPM acts as a “forcing function” that causes the organization to improve its ability to collect important business data.

**Be Careful Using Scoring Models**

Many organizations use scoring rules as aids to project prioritization, for example, with regard to a given criterion, 1 = unfavorable, 2 = neutral, and 3 = favorable. The scoring rules are meant to systemize the process used by the managers who collectively rank projects and to record their judgments. A score above a certain level is judged a “must do.” Alternatively, projects may be grouped into priority categories. Projects in critical categories, for example, projects that address safety issues or projects related to regulatory requirements, are designated “priority one.”

Point scoring and priority categorization systems have significant limitations. Frequently, too many projects get labeled must do’s. One reason is that the project proponents may designate as mandatory projects that have only a statistical influence on safety, as opposed to just projects that eliminate ongoing harm or remove clear code violations.

Assigning a number to something doesn't necessarily make for a more accurate method of measurement. If scores are subjectively defined without clear criteria, the process can be as arbitrary as a beauty contest. Different people will assign wildly different scores to the same project, and the same person may assign different scores on different occasions. Regardless, middle scores are common for most projects, especially when numerous scoring criteria are used. High scores on some criteria cancel out low scores on others. Most scoring models aren't sufficiently precise to trust small differences in total scores.

Furthermore, ranking projects by their project scores is generally incorrect anyway. Projects are undertaken to produce value for the organization. Thus, as noted previously, the proper ranking metric (for independent projects) is value added per unit of cost. Most scoring systems don’t claim to measure value. Even when they do, they often fail to scale results to project cost and, therefore, don’t estimate "bang for the buck." (Methodology for developing defensible, value-based scoring methods as well as problems with simplistic methods are described in the next part of this paper.)
Estimate Cost, Value and Risk

Correctly prioritizing projects requires being able to estimate the costs, value, and risks of alternative project portfolios. However, each side of the equation is difficult. Project costs include not just the funding request, but also any funding provided from other sources plus the opportunity costs of using equipment, personnel, raw material and any other "non-costed" resources that will be employed by the project. Also, all future costs necessary to obtain project benefits, including future O&M costs, should be identified, estimated, and included in the calculation. A project to install a $100,000 building security system, for example, will likely produce future costs associated with the necessary labor to operate and maintain the system.

Some companies still do not track costs at the project level, relying instead on the general ledger system to impute approximate project costs. Tracking project costs is essential to encourage accurate estimating and to provide budget data needed to make, monitor, and update project decisions. The foundation for effective PPM includes a finance system that tracks labor costs using fully burdened labor cost rates for roles and individual resources.

Estimating value is even more difficult than estimating costs. Systems must be in place to help managers measure the benefits of projects as well as to determine the value of alternative project portfolios. This leads to the hardest part—developing the metrics for measuring project and portfolio value. See the next part of this paper for information on how to this can be accomplished.
References for Part 2

