METHODS FOR SELECTING PROJECTS

Although people in organizations identify many potential projects as part of their strategic planning process (using a traditional, agile, or combination approach), they also identify projects by working on day-to-day operations. For example, a project manager overseeing an apartment building project might notice that some workers are much more efficient than others are. He or she might suggest a project to provide standardized training on specific skills. A marketing analyst might notice that competitors are using new forms of advertising and suggest a project to respond to this competition. It is important for organizations to encourage workers at all levels, as well as customers, to submit project ideas because they know firsthand what problems they are encountering and what opportunities might be available.

How do senior managers decide which of the many potential projects their organization should pursue? Some projects directly support competitive strategy and are easy choices, but other project ideas require additional thought and analysis. However, organizations need to narrow down the list of potential projects due to resource and time constraints and focus on projects that will be most beneficial. Most large organizations go through a preliminary project prioritization process annually. For example, early each fall Exxon Mobil Corporation's IT organizations work with all their internal client organizations worldwide to identify potential IT projects and resource requirements for the coming year. This process takes about three weeks, followed by meetings to discuss and prioritize potential projects and agree to cut-off lines based on the availability of funds and other resources. Senior management then reviews the prioritized list of potential projects as part of the corporation's fall company planning and budgeting process.

Selecting projects is not an exact science, but it is a critical part of project, program, and project portfolio management. Many methods exist for selecting from among possible projects. Common techniques include:

Focusing on competitive strategy and broad organizational needs

Performing net present value analysis or other financial projections

Using a weighted scoring model

Implementing a balanced scorecard

Addressing problems, opportunities, and directives

Considering project time frame

Considering project priority

In practice, organizations usually use a combination of these approaches to select projects. Each approach has advantages and disadvantages, and it is up to management to decide the best approach for selecting projects based on their particular organization. In any case, projects should first and foremost address business needs.

Focusing on Competitive Strategy and Broad Organizational Needs

When deciding what projects to undertake, when to undertake them, and to what level, managers must focus on meeting their organizations' many needs. Projects

that address competitive strategy are much more likely to be successful because they will be important to the organization's competitive position.

For example, a company might have a competitive strategy of cost leadership, meaning that it attracts customers primarily because its products or services are inexpensive. WalMart (www.walmart.com) and Cub Foods (www.cub.com) fit into this category; a project to help reduce inventories and, thereby, costs would fit their competitive strategies. Other companies might have a particular focus for their competitive strategies, meaning that they develop products for a particular market niche. Babies"R"Us (www.babiesrus.com) and Ron Jon Surf Shop (www.ronjons.com) fit into this category; a project to help attract new customers (new parents and grandparents for Babies"R"Us and new surfers for Ron Jon Surf Shop) would fit their competitive strategies.

In addition to projects that directly tie to competitive strategy, organizations might pursue projects that everyone agrees will meet broad organizational needs. These needs might involve minimizing legal or financial risks, improving the firm's IT infrastructure, improving safety or morale, or providing faster customer service. It is often impossible to estimate the financial value of such projects, but everyone agrees that they do have a high value. As the old proverb says,

"It is better to measure gold roughly than to count pennies precisely."

One method for selecting projects based on broad organizational needs is to determine whether they meet three important criteria: need, funding, and will. Do people in the organization agree that the project needs to be done? Does the organization have the capacity to provide adequate funds to perform the project? Is there a strong will to make the project succeed? For example, many visionary chief executive officers (CEOs) can describe a broad need to improve certain aspects of their organizations, such as communications. Although they cannot specifically describe how to improve communications, they might allocate funds to projects that address this need. As projects progress, the organization must reevaluate the need, funding, and will for each project to determine if the projects should be continued, redefined, or terminated.

Another approach to selecting projects based on organizational needs is to focus on factors affecting the organization. These factors can be grouped into four categories, as described in the PMBOK® Guide – Sixth Edition:

1. Meeting regulatory, legal, or social requirements
2. Satisfying stakeholders needs or requests
3. Implementing or changing business or technological strategies
4. Creating, improving, or fixing products, processes, or services

Figure 2-4 provides specific examples of factors that lead to creation of a project mapped to these four categories. Note the wide variety of examples. As you can see, there is usually no shortage of potential projects to be done.

Performing Financial Projections

Financial considerations are often an important aspect of the project selection process, especially during tough economic times. As authors Dennis Cohen and Robert Graham put it, "Projects are never ends in themselves. Financially they are always a means to an end, cash."4 Many organizations require an approved business case before pursuing projects, and financial projections are a critical component of the business case. Three primary methods for determining the projected financial value of projects are net present value analysis, return on investment, and payback analysis. Because project managers often deal with business executives, they must understand how to speak their language, which often boils down to understanding these important financial concepts.

Net Present Value Analysis

Net present value (NPV) analysis is a method of calculating the expected net monetary gain or loss from a project by discounting all expected future cash inflows and outflows to the present point in time. (Detailed steps to walk you through the calculation are outlined in the following paragraphs.) A positive NPV means the return from a project exceeds the opportunity cost of capital—the return available by investing the capital elsewhere.

Return on Investment

Another important financial consideration is return on investment. Return on investment (ROI) is the result of subtracting the project costs from the benefits and then dividing by the costs. For example, if you invest $100 today and next year your investment is worth $110, your ROI is ($110 – 100)/100, or 0.10 (10%). Note that the ROI is always a percentage. It can be positive or negative. It is best to consider discounted costs and benefits for multiyear projects when calculating ROI. Figure 2-7 shows an ROI of 112%. You calculate this number as follows:

ROI = (total discounted benefits – total discounted costs)/discounted costs

ROI = (516,000 – 243,200) / 243,200 = 112%

The higher the ROI, the better; an ROI of 112% is outstanding. Many organizations have a required rate of return for projects. The required rate of return is the minimum acceptable rate of return on an investment. For example, an organization might have a required rate of return of at least 10% for projects. The organization bases the required rate of return on what it could expect to receive elsewhere for an investment of comparable risk.

You can also determine a project's internal rate of return (IRR) by finding what discount rate results in an NPV of zero for the project. You can use the Goal Seek function in Excel (use Excel's Help function for more information on Goal Seek) to determine the IRR quickly. Simply set the cell containing the NPV calculation to zero while changing the cell containing the discount rate.

Payback Analysis

Payback analysis is another important financial tool to use when selecting projects. Payback period is the amount of time it will take to recoup—in the form of net cash inflows—the total dollars invested in a project. In other words, payback analysis determines how much time will lapse before accrued benefits overtake accrued and continuing costs. Payback, if there is one, occurs in the year when the cumulative benefits minus costs reach or exceed zero.

Project Time Frame

Another approach to project selection is based on the time it will take to complete a project or the date by which it must be done. For example, some potential projects must be finished within a specific time period, such as projects that were done to meet Year 2000 issues. If they cannot be finished by this set date, there may be serious consequences. Likewise, if there is a potential project that is only valid if it can be done by a certain time and there is no way your organization can meet the deadline, it should not be considered. Some projects can be completed very quickly—within a few weeks, days, or even minutes. However, even though many projects can be completed quickly, it is still important to prioritize them while keeping in mind strategy, financials, and

resources.

Project Priority

Another method for project selection is the overall priority of the project. Many organizations prioritize projects as being high, medium, or low priority based on the current business environment. For example, if it were crucial to cut operating costs quickly, projects that have the most potential to do so would be given a high priority. The organization should always complete high-priority projects first, even if a lower priority project could be finished in less time. Usually, there are many more potential projects than an organization can undertake at any one time, so it is very important to work on the most important ones first.
time, so it is very important to work on the most important ones first.
As you can see, organizations of all types and sizes can use many approaches to select projects. Many project managers have some say in which projects their organizations select for implementation. Even if they do not, they need to understand the motive and overall business strategy for the projects they are managing. Project managers and team members are often asked to justify their projects, and understanding many of these project selection methods can help them to do so.