

The good news is that project managers are learning how to succeed more often; the bad news is that it is still very difficult to lead successful IT projects. "The reasons for the increase in successful projects vary. First, the average cost of a project has been more than cut in half. Better tools have been created to monitor and control progress and better skilled project managers with better management processes are being used. The fact that there are processes is significant in itself."¹⁶

Despite its advantages, project management is not a silver bullet that guarantees success on all projects. Project management is a very broad, often complex discipline. What works on one project may not work on another, so it is essential for project managers to continue to develop their knowledge and skills in managing projects. It is also important to learn from the mistakes and successes of others.

Project Success

How do you define the success or failure of a project? The list that follows outlines a few common criteria for measuring the success of a project using the example of upgrading 500 desktop computers within three months for \$300,000:

1. *The project met scope, time, and cost goals.* If all 500 computers were upgraded and met other scope requirements, the work was completed in three months or less, and the cost was \$300,000 or less, you could consider the project successful. The Standish Group studies used this definition of success, but several people question this simple definition of project success and the methods used for collecting the data. (See the references by Glass on the companion Web site for this text to read more about this debate.)
2. *The project satisfied the customer/sponsor.* Even if the project met initial scope, time, and cost goals, the users of the computers or their managers might not be satisfied. Perhaps the project manager or team members never returned calls or were rude. Perhaps users had their daily work disrupted during the upgrades or had to work extra hours due to the upgrades. If the customers were not happy with important aspects of the project, it would be deemed a failure. Conversely, a project might not meet initial scope, time, and cost goals, but the customer could still be very satisfied. Perhaps the project team took longer and spent more money than planned, but they were very polite and helped the users and managers solve several work-related problems. Many organizations implement a customer satisfaction rating system to measure project success instead of tracking only scope, time, and cost performance.
3. *The results of the project met its main objective, such as making or saving a certain amount of money, providing a good return on investment, or simply making the sponsors happy.* Even if the project cost more than estimated, took longer to complete, and the project team was hard to work with, the project would be successful if users were happy with the upgraded computers, based on this criterion. As another example, suppose that the sponsor approved the upgrade project to provide a good return on investment by speeding up work and therefore generating more profits. If those goals were met, the sponsor would deem the project a success, regardless of other factors involved.

Why do some IT projects succeed and others fail? Table 1-2 summarizes the results of the 2011 CHAOS study; the factors that contribute most to the success of IT projects are listed in order of importance. The study lists user involvement as the most important factor, followed by executive support. A few of the top success factors relate to good scope management, such as having clear business objectives and optimizing scope. Project management expertise continues to be a key success factor. In fact, experienced project managers, who can often help influence all of these factors to improve the probability of project success, led 97 percent of successful projects, based on an earlier CHAOS study in 2001.

TABLE 1-2 What helps projects succeed?

1. User involvement
2. Executive support
3. Clear business objectives
4. Emotional maturity
5. Optimizing scope
6. Agile process
7. Project management expertise
8. Skilled resources
9. Execution
10. Tools and infrastructure

Source: The Standish Group, "CHAOS Activity News" (August 2011).

A 2011 U.S. government report listed the top three reasons why federal technology projects succeed:

1. Adequate funding
2. Staff expertise
3. Engagement from all stakeholders

Notice that the CHAOS study list does not include adequate funding. Most nongovernment companies must either find adequate funds for important projects or cancel projects if they cannot be funded or get an adequate return. Government projects often require that funds be allocated a year or more before they even start, and estimates often fall short. "The government has struggled when acquiring technology thanks to the convoluted nature of the federal contracting process and the shortage of qualified contracting officers and technical personnel. Critics argue that federal agencies get little return for the \$80 billion the government spends annually on IT. ... 'History has shown that government IT projects frequently face challenges of meeting cost, schedule or performance goals,' said Sen. Susan Collins (R-Maine) in a statement."¹⁷ It is interesting to compare success factors for IT projects in the United States with those in other countries. A 2004 study summarizes the results of a survey of 247 information systems project practitioners in mainland China. One of the study's key findings was that relationship management is viewed as a top success factor for information systems in China, while it is not mentioned in U.S. studies. The study also

suggested that having competent team members is less important in China than in the United States. The Chinese, like the Americans, included top management support, user involvement, and a competent project manager as vital to project success.¹⁸

It is also important to look beyond individual project success rates and focus on how organizations as a whole can improve project performance. Research comparing companies that excel in project delivery—the “winners”—from those that do not found four significant best practices. The winners:

1. *Use an integrated toolbox.* Companies that consistently succeed in managing projects clearly define what needs to be done in a project, by whom, when, and how. They use an integrated toolbox, including project management tools, methods, and techniques. They carefully select tools, align them with project and business goals, link them to metrics, and provide them to project managers to deliver positive results.
2. *Grow project leaders.* The winners know that strong project managers—referred to as project leaders—are crucial to project success. They also know that a good project leader needs to be a business leader as well, with strong interpersonal and intrapersonal skills. Companies that excel in project management often grow or develop their project leaders internally, providing them with career opportunities, training, and mentoring.
3. *Develop a streamlined project delivery process.* Winning companies have examined every step in the project delivery process, analyzed fluctuations in workloads, searched for ways to reduce variation, and eliminated bottlenecks to create a repeatable delivery process. All projects go through clear stages and clearly define key milestones. All project leaders use a shared road map, focusing on key business aspects of their projects while integrating goals across all parts of the organization.
4. *Measure project health using metrics.* Companies that excel in project delivery use performance metrics to quantify progress. They focus on a handful of important measurements and apply them to all projects. Metrics often include customer satisfaction, return on investment, and percentage of schedule buffer consumed.¹⁹

Project managers play an important role in making projects, and therefore organizations, successful. Project managers work with the project sponsors, the project team, and other stakeholders to meet project goals. They also work with sponsors to define success for particular projects. Good project managers do not assume that their definition of success is the same as the sponsors'. They take the time to understand their sponsors' expectations and then track project performance based on important success criteria.

PROGRAM AND PROJECT PORTFOLIO MANAGEMENT

As mentioned earlier, about one-quarter of the world's gross domestic product is spent on projects. Projects make up a significant portion of work in most business organizations or enterprises, and managing those projects successfully is crucial to enterprise success. Two important concepts that help projects meet enterprise goals are the use of programs and project portfolio management.

Programs

A **program** is “a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually.”²⁰ As you can imagine, it is often more economical to group projects together to help streamline management, staffing, purchasing, and other work. The following are examples of common programs in the IT field.

- *Infrastructure:* An IT department often has a program for IT infrastructure projects. This program could encompass several projects, such as providing more wireless Internet access, upgrading hardware and software, and developing and maintaining corporate standards for IT.
- *Applications development:* This program could include several projects, such as updating an enterprise resource planning (ERP) system, purchasing a new off-the-shelf billing system, or developing a new capability for a customer relationship management system.
- *User support:* In addition to the many operational tasks related to user support, many IT departments have several projects to support users. For example, a project might provide a better e-mail system or develop technical training for users.

A **program manager** provides leadership and direction for the project managers heading the projects within a program. Program managers also coordinate the efforts of project teams, functional groups, suppliers, and operations staff supporting the projects to ensure that products and processes are implemented to maximize benefits. Program managers are responsible for more than the delivery of project results; they are change agents responsible for the success of products and processes developed by those projects. For example, the NASA International Space Station Program is led by a program manager who oversees all U.S. projects involved with the station and is accountable for achieving their objectives, funding, and contribution to scientific knowledge.

Program managers often have review meetings with all their project managers to share important information and coordinate important aspects of each project. Many program managers worked as project managers earlier in their careers, and they enjoy sharing their wisdom and expertise with their project managers. Effective program managers recognize that managing a program is much more complex than managing a single project. They recognize that technical and project management skills are not enough—program managers must also possess strong business knowledge, leadership capabilities, and communication skills.

Project Portfolio Management

In many organizations, project managers also support an emerging business strategy of **project portfolio management** (also called just **portfolio management** in this text), in which organizations group and manage projects and programs as a portfolio of investments that contribute to the entire enterprise’s success. Portfolio managers help their organizations make wise investment decisions by helping to select and analyze projects from a strategic perspective. Portfolio managers may or may not have previous experience as project or program managers. It is most important that they have strong financial and analytical skills and understand how projects and programs can contribute to meeting strategic goals.

Figure 1-3 illustrates the differences between project management and project portfolio management. Notice that the main distinction is a focus on meeting tactical or strategic goals. Tactical goals are generally more specific and short-term than strategic goals, which

emphasize long-term goals for an organization. Individual projects often address tactical goals, whereas portfolio management addresses strategic goals. Project management addresses questions like “Are we carrying out projects well?”, “Are projects on time and on budget?”, and “Do project stakeholders know what they should be doing?”



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FIGURE 1-3 Project management compared to project portfolio management

Portfolio management addresses questions like “Are we working on the right projects?”, “Are we investing in the right areas?”, and “Do we have the right resources to be competitive?” Pacific Edge Software’s product manager, Eric Burke, defines project portfolio management as “the continuous process of selecting and managing the optimum set of project initiatives that deliver maximum business value.”²¹

Many organizations use a more disciplined approach to portfolio management by developing guidelines and software tools to assist in it. The Project Management Institute (described later in this chapter) first published the *Organizational Project Management Maturity Model (OPM3) Knowledge Foundation* in 2003.²² OPM3 describes the importance not only of managing individual projects or programs well, but the importance of following organizational project management to align projects, programs, and portfolios with strategic goals. OPM3 is a standard that organizations can use to measure their organizational project management maturity against a comprehensive set of best practices.



BEST PRACTICE

A **best practice** is “an optimal way recognized by industry to achieve a stated goal or objective.”²³ Rosabeth Moss Kanter, a professor at Harvard Business School and well-known author and consultant, says that visionary leaders know “the best practice secret:

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Stretching to learn from the best of the best in any sector can make a big vision more likely to succeed."²⁴ Kanter also emphasizes the need to have measurable standards for best practices. An organization can measure performance against its own past, against peers, and even better, against potential. Kanter suggests that organizations need to continue to reach for higher standards. She suggests the following exercise regime for business leaders who want to adapt best practices in an intelligent way to help their own organizations:

- Reach high. Stretch. Raise standards and aspirations. Find the best of the best and then use it as inspiration for reaching full potential.
- Help everyone in your organization become a professional. Empower people to manage themselves through benchmarks and standards based on best practice exchange.
- Look everywhere. Go far afield. Think of the whole world as your laboratory for learning.

Robert Butrick, author of *The Project Workout*, wrote an article on best practices in project management for the *Ultimate Business Library's Best Practice* book. He suggests that organizations need to follow basic principles of project management, including these two mentioned earlier in this chapter:

- Make sure your projects are driven by your strategy. Be able to demonstrate how each project you undertake fits your business strategy, and screen out unwanted projects as soon as possible.
- Engage your stakeholders. Ignoring stakeholders often leads to project failure. Be sure to engage stakeholders at all stages of a project, and encourage teamwork and commitment at all times.²⁵

As you can imagine, project portfolio management is not an easy task. Figure 1-4 illustrates one approach for project portfolio management in which one large portfolio exists for the entire organization. This allows top management to view and manage all projects at an enterprise level. Sections of the portfolio are then broken down to improve the management of projects in each sector. For example, a company might have the main portfolio categories shown in the left part of Figure 1-4—marketing, materials, IT, and human resources (HR)—and divide each of those categories further to address its unique concerns. The right part of this figure shows how the IT projects could be categorized in more detail to assist in their management. In this example, there are three basic IT project portfolio categories:

- *Venture*: Projects in this category help transform the business. For example, the large retail chain described in the opening case might have an IT project to provide kiosks in stores and similar functionality on the Internet where customers and suppliers could quickly provide feedback on products or services. This project could help transform the business by developing closer partnerships with customers and suppliers.
- *Growth*: Projects in this category would help the company grow in terms of revenues. For example, a company might have an IT project to provide information on its corporate Web site in a new language, such as Chinese or Japanese. This capability could help the company grow its business in those countries.

