

Chapter

2

Basic Skills for Project Managers

Be not afraid of greatness; some are born great; some achieve greatness—others have greatness thrust upon them.

William Shakespeare
Twelfth Night

► Introduction

Before now, we had discussed project management in the broad sense, that is, from the perspective that any type of project—industrial assembly line, new construction, or technology implementation—operated by the same sets of rules and processes. For the remainder of this book, we focus on the last type of project and its leader—the IT project manager.

Project managers are a very special breed of people. They are in much demand and will be increasingly so as the need for effective technologists continues to soar. Good technology project managers are trained, not born. They develop skills through experience and education. They become better project managers each time they successfully deliver a project. They learn new techniques and apply them on their projects. They learn lessons—sometimes the hard way—to be better managers in the future.

► What Does a Project Manager Do?

Briefly, technology project managers fulfill the following broad requirements:

- Define and review the business case and requirements by regular reviews and controls to ensure that the client receives the system that he or she wants and needs.
- Initiate and plan the project by establishing its format, direction, and base lines that allow for any variance measurements and change control.
- Partner with the end users, work with project sponsors and other management to establish progress and direction of the project by achieving goals, reaching targets, solving problems, mitigating risks.
- Manage the technology, people, and change in order to achieve goals, reach targets, and deliver the project on time and within budget.
- Manage the project staff by creating an environment conducive to the delivery of the new application in the most cost-effective manner.
- Be able to manage uncertainty, rapid change, ambiguity, surprises, and a less defined environment.
- Manage the client relationship by using an adequate direct yet complete and formal reporting format that compliments a respected and productive relationship.
- Drive the project by leading by example, and motivating all-concerned until the project accomplishes its goal.

Now let us examine the skills and qualities needed to meet these requirements.

► Necessary Skills

The skills that a good project manager possesses are many and varied, covering the entire spectrum of the human personality. We can divide these skills into a number of specific categories, namely:

Personal Skills

Project Managers must be able to motivate and sustain people. Project team members will look to the project manager to solve problems and help with removing obstacles. Project managers must be able to address and solve problems within the team, as well as those that occur outside the team. There are numerous ways, both subtle and direct, in which project managers can help team members.

Some examples include the following:

- Manage by example (MBE). Team members will be closely watching all actions of the project manager. Therefore, project managers must be honest, direct, straightforward, and knowledgeable in all dealings with people and with the project. A good manager knows how to work hard and have fun, and this approach becomes contagious.
- A positive attitude. Project managers must always have a positive attitude, even when there are substantial difficulties, problems, or project obstacles. Negative attitudes erode confidence, and a downward spiral will follow.
- Define expectations. Managers who manage must clearly define what is expected of team members. It is important to do this in writing—get agreement from the individual team members. This leaves no room for problems later, when someone states “It’s not my job.” Performance expectations *must* be defined at the start of the project.
- Be considerate. Project management is a demanding job with a need for multiple skills at many levels. Above all, be considerate and respectful, and give people and team members the time and consideration they deserve. Make people aware that their efforts are appreciated and the work that they do is important, because it is. A letter, personal word, or e-mail of appreciation goes a long way.
- Be direct. Project managers are respected if they are direct, open, and deal with all types of problems. Never conceal problems or avoid addressing them. If a problem is bigger than the project manager or the team can deal with, escalate it to senior management. Never make commitments that cannot be delivered.
- Finally, a favorite and personal rule of the author: “Under-promise, then over-deliver.”

Technical Skills

There are two schools of thought about the level needed for technical skills. Some project managers prefer to have little technical knowledge about the projects they manage, preferring to leave the technical management to other junior managers, such as programming managers or network managers. Others have detailed technical skills of computer languages, software, and networks.

There is no hard and fast rule. It really depends on the type and size of projects, their structure, resources available, and the project environment.

Questions that project managers should ask include the following:

1. What types of technical problems require management?
2. Who will solve them?
3. Is it done with quality and satisfaction?
4. Who can I rely on in my project team?
5. What outside resources, if any, can I draw on for assistance?

As with all employees, project managers should have the technical knowledge and skills needed to do their jobs. If managers lack these skills, training is one option; being mentored or coached by a more experienced individual is another. Senior management should ask the question, Do your project managers need more technical skills than they already possess?

On larger complex projects, such as systems integration projects or multiple-year projects, there are frequently too many complex technologies for the project manager to master. Technical training that provides breadth may be useful. On smaller projects, the project manager may also be a key technical contributor. In this case, technical training may enhance the abilities of project managers to contribute technically, but it is unlikely to improve their management skills.

One thing is abundantly clear—the project manager is *ultimately* responsible for the entire management of the project, technical or otherwise, and will require solutions to the technical issues that will occur.

Management Skills

Project managers need other key skills besides those that are purely technical to lead and deliver on their projects successfully. A good project manager needs to understand many facets of the *business* aspect of running a project, so critical skills touch on expertise in the areas of organization, communication, finance, and human resources.

The following are examples of the management topics used in training effective project managers:

- Project planning, initiation, and organization
- Recruiting people and keeping them
- Effective project negotiation
- Software tools for project management
- Accurate estimating and cost control
- Project execution and control
- Developing powerful project presentations and reports
- Personal and project leadership
- Managing risk and making decisions
- Effective problem management
- Performance management
- Managing the projects within the organization
- Project management professional (PMP) exam review
- Growing and sustaining a high-performance team
- Managing change within an organization

This last skill cannot be over-emphasized. Although we worry about whether the technology selected is the correct one for the organization and will lead to success, projects do not generally fail because of lack of adequate technology. Statistically, most projects fail because the “soft science” portions of the project have not received enough attention—the human factor has not been adequately addressed. Change, whether for good or for bad, is stressful on an organization and its personnel. The ability to manage this change is one area in which any good project manager would do well to hone skills.

Coping Skills

A good project manager has to acquire a number of skills to cope with different situations, conflicts, uncertainty, and doubt. This means:

- Being flexible
- Being persistent and firm when necessary
- Being creative, even when the project does not call for it
- Absorbing large volumes of data from multiple sources
- Being patient but able to differentiate between patience and action
- Being able to handle large amounts of continuous, often unremitting stress

Additionally, good project managers have high tolerance for surprises, uncertainty, and ambiguity. Projects rarely progress the way that they are defined, and managers need to manage the uncertainty that comes with that.

► Manage One Project—or Many?

There is no simple answer to this question: some managers are able to juggle multiple projects and disparate deadlines successfully, and others are not. In these days of multiple projects that have to be delivered quickly, it is very possible that management will require managing multiple projects. However, this brings a risk. Will project managers be stretched too thin? Again, there is no single, reliable answer. Project managers and senior management need to ask themselves some basic questions:

- How much support will be provided?
- How many people are on the project? Are they part-time or full-time?
- What are the management challenges? An adequately budgeted project may require less effort to manage than one that is extremely thin.

- Are all the projects in the same physical location or will the project manager spend a lot of time traveling?
- Do all the projects involve the same technology? The same business cultures? The same set of stakeholders?
- How many of the projects have important deadlines that are close together?

The answers to these questions will aid in determining whether multiple projects can share a management resource. The more complex the projects from the standpoints of staffing, budgeting, and technology, the more likely it is that they will need a dedicated resource to manage them adequately.

► Project Management Skills Development

One of the surest ways to align strategies and work force competencies with enterprise vision is to create a road map from vision to execution. A skills management process starts in the future and works its way back to the present. An IT skills management process, for example, links the enterprise vision to a technology forecast. The technology forecasts to required skills, the required skills to the IT skills inventory, the skills inventory to the IT staff's competence levels, and the competence levels to gaps and to the time frame during which those gaps need to be filled. Leadership, team building, marketing, business savvy, project management, manufacturing know-how, functional expertise, and institutional knowledge all are part of the skills picture.

Skills management serves as an order for managing the work force (see Figure 2-1). It lays out a road map for skills development, work role definition, career tracks, resource management, staffing allocation, workload balancing, and learning. With a road map, all members of the work force can fit their strengths, weaknesses, and alternatives into the enterprise's plans.

Skills management is becoming a lifeline in a turbulent IT labor market. Midsize and large enterprises, businesses in the private and public sectors, aggressive and conservative companies—all are looking at skills management with renewed interest. Many enterprises now recognize that the combined lack of enterprise planning, imagination, and

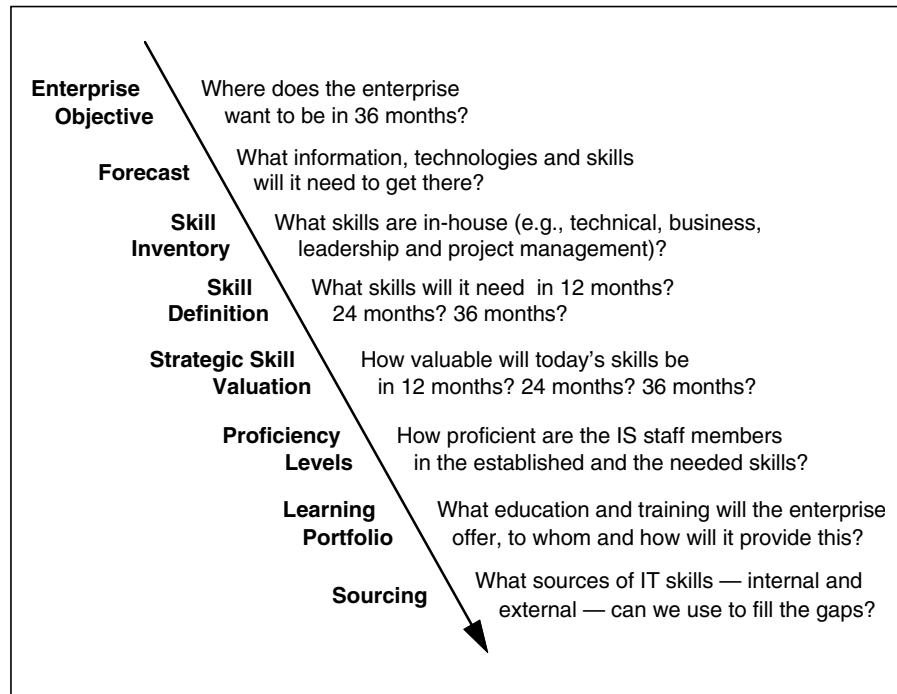


Figure 2-1 Skills Management—A Road Map for the Work Force
(Source: Gartner Group, Inc.).

foresight are as much to blame for today's labor crunch as is the shortage of relevant IT skills. In that climate, skills management can be a powerful tool for bringing discipline, rationale, and cross-pollination to an underused process. Even more enticing, many IT professionals, under the mantle of career "entrepreneurism," will throw in their lot with enterprises that have clearly committed to and funded skills management programs. Having a road map with which to guide career development is more meaningful than wandering until serendipity strikes.

Three years ago, when large organizations first began covering the area of skills management, it was a process reserved for the most progressive enterprises. By methodically and meticulously forecasting, classifying, analyzing, and taking inventory of skills, progressive enterprises could identify the urgency and volume of skills gaps, create focused training programs, and add some rational thinking to their sourcing strategies. Skills management continues to satisfy those needs, even fos-

tering a niche market of consultants and software developers that are eager to bring order to IT Human Resource management.

Before moving on, it is beneficial to make sure that everybody is speaking the same language. In the Gartner Group's definition of perspective, skills management is *a robust and systematic approach to forecasting, identifying, cataloguing, evaluating, and analyzing the work force skills, competencies and gaps that enterprises face*. Although many programs and initiatives adopt the label *skills management*, most of them focus on skills inventory and fall short in analysis and forecasting. A well-designed skills management process injects a stronger dose of discipline, coordination, and planning into work force planning, strategic planning, professional training and development programs, resource allocation maneuvering, and risk analysis and assessment.

Enterprises can reap several lessons from skills management. Skills management works if it:

- Defines skills for roles
- Forces forward thinking
- Forces some documentation of what makes an IT professional especially proficient
- Strengthens the organization
- Leads to focused training, risk assessment, sourcing strategy, and resource allocation via gap identification
- Attracts high-level endorsement

Skills management does not work if it:

- Does not define work roles
- Lacks plans or incentive for refreshment
- Communicates its purpose poorly
- Provides differing language and terminology
- Force-fits skills and work roles to policies, rather than driving new frameworks

Skills Management Case Study

A North American manufacturing company set a goal to boost revenue by \$300 million within three years. Key to the growth was a new way of dealing with information and IT. First, hoarding of information by divisions had to give way to enterprise ownership of information. Second, ubiquitous access to information required a managed and enterprise-wide migration to standards, interoperability, common platforms, and client/server technology. Finally, the vision of ubiquitous access depended on substantially upgrading the IT organization's skill base, supplementing and supplanting mainframe skills with skills associated with distributed processing and client/server application development.

The company embarked on an ambitious initiative designed to cultivate the technical skills and business understanding of the IT professionals. The initiative—notably, company-wide skill identification and continuous training—will help the company to raise its skills level and will give IT employees control of their professional development.

Elements of the IT professional development initiative included:

- Identifying eight areas of IT professional skills, technical skills being only one area (a detailed discussion on the eight areas identified follows this list)
- Assigning company values to skills for the near term, short term, and long term
- Evaluating employee competence levels within the eight areas of IT professional skills
- Providing continuous training in critical skills, both technical and non-technical
- Establishing an IT mentor program
- Supervisors providing performance planning and coaching
- Establishing team and peer feedback
- Flattening the IT organization from 18 to 5 titles

-
- Mapping skills and performance values to “salary zones” within the flatter organization

With the help of outside experts, IT executives identified more than 125 skills in eight areas of IT professional development. The eight areas of focus for IT professional development and a sampling of associated skills include:

- *Customer focus*—employee possesses knowledge of customers’ business needs and expectations; delivers constructive qualitative feedback to customers, meets deadlines, and works with customers to set requirements and schedules
- *Technical skills*—employee possesses skills related to programming, computer-aided software engineering, desktop client services, enterprise infrastructure applications, technical software, and hardware support
- *Product or technology evaluation and expertise*—employee analyzes and compares products, makes sound recommendations within the company architecture, understands and recognizes limitations of technologies, can communicate the fundamentals of technology to others, and uses technical team resources to resolve or avoid technology-based problems
- *Business and application expertise*—employee possesses knowledge of business-specific applications, knows company’s business and local operations, knows the broad application environments (e.g., order entry and accounting), and understands general concepts of business management
- *Project management*—employee handles projects of certain size and complexity, estimates project costs and schedules with a degree of accuracy, executes project to plan, manages multiple projects at once, builds teams and organizes team resources, and knows project management tools
- *Interpersonal skills*—employee performs as team member or team leader, contributes knowledge to the team and to the organization, and communicates effectively
- *Administrative skills*—employee has understanding of budgeting, interviewing, economics of the business, and salary and review process

-
- *Soft skills*—employee displays leadership, forward thinking, initiative, drive for education, and commitment to organizational structure and development.

Each skill receives a weighting factor based on its strategic significance to the company during the next 12 months, the next 12 to 24 months, and the next 24 to 60 months. A skill considered critical to the company earns a weight of 6; a skill with no value to the company earns a weight of 0. After the company skills are identified and their weights assigned, employee skills are crosschecked against the company skills and assigned a score based on the employee's competence level. Employee competence levels range from 6 to 1, that is, from mastery to basic understanding. (A competence score of zero is reserved for skills that are either not applicable or not possessed by the employee.) Employees then compare their competence scores with those they receive from their peers, team leaders, and supervisors.

To see the scoring mechanism in action, assume that the company assigns COBOL programming skills a weight of 4 for the next 12 months and a weight of 3 for the following 12 to 24 months. At the same time, an IT employee earns a score of 3 for average skills in COBOL programming. Given the framework, the value of those skills to the employee will be 12 during the next 12 months, but the value will decline to 9 during the next 12 to 24 months.

Continuous training is considered essential to the program's success. Here, the IT executives are seeking to develop an implicit promise between the company and the employees. The company promises to provide the resources and opportunities for training—time, funding, and identification and valuation of strategic skills—if the employees promise to use the training to bridge gaps in the company skills base and in their own skill levels. Armed with the company skills inventory and personal competence scores, employees who take the appropriate training will see their value to the company rise. Employees who choose to forgo appropriate training will see their value diminish.

On the plus side, the skills and training program has forced the company to view the IT organization in terms of skills and long-term corporate objectives, not simply in terms of head count. Moreover, employees have responded positively to a program that puts professional development in their hands. On the negative side, skills identification and buy-in from IT managers take so long that the initiative risks losing momentum.

► Keys to a Successful Skills Management Endeavor

Three areas must be worked out for a skills management initiative to be successful:

1. Employees have to adopt the program as their own, rather than as a management dictate, including the employees assuming control of their own professional development
2. Supervisors have to surrender some control over employee development
3. Executives must ensure that employees use metrics as a tool for professional development, not as a weapon in cutthroat competition

As enterprises turn to technology to reach the next level of corporate performance, IT organizations should identify the skills they need to meet the corporate objectives. Through a program of skills identification, IT organizations can see the holes in their coverage, set priorities for projects, define which training is required, and determine which skills may need third-party coverage. A commitment to funding for training is essential.

► Conclusions

Rarely has a professional field evolved as rapidly as project management. It is totally different from what it was even 10 years ago. The struggle to stay abreast of new and rapidly evolving technologies, to deal with accumulated development and maintenance backlogs, and to cope with people issues has become a treadmill race as software groups work hard just to stay in place. A key goal of disciplined project managers is to avoid the surprises that can occur when these surprises almost always lead to bad news: canceled projects, late delivery, cost overruns, dissatisfied customers, outsourcing, termination, and unemployment. Indeed, we need to develop management by surprise (MBS) as a project management technique!

As we have discussed in this chapter, project managers are a special breed of people. The skills that they develop are a cross between a diplomat, ballet dancer, and a Marine Corps drill sergeant—all while having the patience of Job. These skills will serve them well for future higher-level positions as Vice Presidents, Chief Information Officers (CIOs), and Chief Executive Officers (CEOs) of the corporations for which they work.

The culture of an organization is a critical success factor in its efforts to survive, improve, and flourish. A culture based on a commitment to project management and delivering quality projects and effective management differentiates a team that practices excellent project management from a flock of individual programmers doing their best to ship code.

Projects rarely fail—but people do.