chapter
1

the missing pieces of the project management puzzle

PICTURE THE MEMBERS OF a project team exchanging comments during the lunch break of a recent management course. They are fuming over their latest debacle: a project to select and tee up a location to produce hi-tech vehicle components for a major partner. After eight months of scouting the available workforce, persuading home-office employees to relocate, estimating labor costs, submitting proposals to the local zoning board, and detailed planning for the construction and start-up of the new site, the project was abruptly terminated. Here's why: A senior manager at the partner organization suddenly decided, for reasons unknown to the project team, that the location just wouldn't do.

PROJECT MANAGEMENT AS THE NEW IMPERATIVE

Why wasn't the senior manager involved in the selection process from the beginning? What other work didn't get done while the organization devoted significant resources to the project? And what was the true cost of the eight months of wasted work?

The costs of such failed projects are tremendous, and they fall into two categories. The first—direct costs such as wasted materials, overtime, additional manpower, and the continual revision of plans—are relatively easy to calculate. Take the case of "The Big Dig," a Boston, Massachusetts, public works project aimed at improving the driving conditions in one of America's most congested major cities by dramatically overhauling its roadways and tunnels. The project has been going on for 17 years and involves politicians, contractors, designers, engineers, and residents. In a 2003 article, the *Boston Globe* documented $2 billion in overrun costs by the company responsible for the project.[1]

Boston is not alone. In a watershed study of 7,000 IT projects initiated by U.S. corporations and government agencies in 1998, the Standish Group found that 88 percent are behind schedule, over budget, or both. *The direct cost of these project failures is over $145 billion each year!*[2]

The second category, which goes beyond the direct costs, includes indirect costs, such as missed opportunities, sullied reputations, and the loss of competitive advantage and employee and customer goodwill. Consider the much ballyhooed Constitution Center in downtown Philadelphia. The tourist attraction opened its doors on the weekend of July 4, 2003, with a ceremony that included political and civic dignitaries. In the middle of the proceedings, a large steel plank collapsed onto the stage, sending Mayor John Street to the hospital and nearly hitting a supreme court justice. Philadelphia became front-page news, but for the wrong reasons. Although it's impossible to calculate the number of tourists who have stayed away as a result of the mishap, the loss for the city of Philadelphia has been very real.

Failed projects engender fear. Organizations that miss the mark time and again lose their willingness to take risks and commit to new endeavors, no matter how attractive the project or how obviously it is needed. This "projectitis" can lead to lost opportunities and risk

[1] Eileen McNamara, "The Big Dig and Blame Games," *Boston Globe,* December 17, 2003.

[2] Jimmie West, "Show Me the Value," *Training,* September 1, 2003.

aversion, the costs of which can never be calculated (but are surely significant).

Then there's morale. Employee satisfaction is closely tied to feelings of accomplishment. Dragging a project out indefinitely or killing it in midstream is a real demotivator. Members of the project team begin to leave or transfer, decimating the organization's talent base and likely increasing the organization's toxicity level, as former team members spread the word far and wide. And the first to exit are often the organization's high performers—the ones who gave their all, contributed a high degree of expertise and skills, took risks, and were frustrated once too often.

So the costs for failed projects are significant. But what about organizations that execute consistently? Successful organizations use projects to create value . . . and turn that value into customer satisfaction and bottom-line results. To succeed in an increasingly complex business environment, they must consistently complete work on time, within budget, and, most importantly, achieve their project goals. As the major platform for value creation in today's organizations, projects are too important to be left to chance. Each must be managed, from start to finish, using a consistent, sound, agreed-upon process.

PROJECT MANAGEMENT UNPLUGGED

Project management, in today's business environment, usually entails the use of multiple calendars, complex schedules, financial data, PERT and Gantt charts, and various reporting systems. A review of the project management literature reveals the existence of a wide variety of techniques and approaches to planning and executing a project. Competing software packages abound, although 75 percent of the organizations that use project management software say that Microsoft Project® is their software package of choice.[3]

The existence of all these tools and techniques has created a de facto working definition for the term *project management:* the use of a set of tools and techniques to manage a combination of money, time,

[3] James J. Jiang, Gary Klein, and T. Selwyn Ellis, "A Measure of Software Development Risk," *Project Management Journal,* September 2002.

people, and work. Given this definition, many organizations base their project management approach on the notion that, with money, time, and people, work will get done effectively. But this definition misses the mark. Many of today's popular project management tools and techniques were created years ago by military engineers seeking a tighter grip on the time and cost of accomplishing work, as well as how to best report their findings in a meaningful way. These can be hugely valuable tools, but project management is far more than just documenting work, costs, and adherence to schedules.

True, software and paper-based tools that track the expenditure of resources and time are often integral to the communication and documentation of important project data. And money and time are essential pieces in the project management puzzle. However, there are more important processes and ideas that lie at the heart of a complete definition of project management.

Project management comes down to getting people to do "stuff"—hopefully "valuable stuff"—and to do that stuff in an effective, timely manner. The stuff is a one-time series of interrelated tasks that must be completed within a budget, by a specific time, to achieve desired results or meet a specified need: moving corporate headquarters, upgrading a telecommunications infrastructure, implementing a corporate strategy, reengineering a business process, launching a new product, investigating and correcting a deviation. These are all examples of projects. They represent change that will be defined, planned, implemented, and, most importantly, managed.

PROJECT MANAGEMENT IN ACTION

Think about superior watches, luxury clothing, and elaborate lighters. Now think about selling these products to high-end consumers around the globe and maintaining, if not improving, a reputation for precision and class.

It's not your typical project management story. But, one year, preparing for the annual industry trade show in Geneva, Switzerland, became a top priority for a luxury producer of men's fashion and accessories. The company's leadership had decided that trade-

show sales should constitute the lion's share of overall sales in watches, lighters, and cufflinks. For the first few years, substantial company resources, from people to money, had been devoted to the preparation for and operation of the show. Sales had been solid during that time, but every year shipping delays, unavailable stock items, and other last-minute problems left those in charge with persistent concerns.

Granted, preparing for the show was a complex project, especially when shipping, customs procedures, and trade regulations for both the display goods and those that would be sold on site were considered. In addition, measuring success against goals like "improved reputation" and "competitive advantage" was difficult. But management felt that the show should run more smoothly and attain even loftier goals with respect to sales and company image.

Wisely, before sinking additional resources into the project, management took a step back and looked closely at the problems they had encountered in past years. Their conclusion: The overall approach to planning for the show had always lacked direction and consistency. Individual managers had approached their pieces of the project with different tools and techniques. Depending on which function they represented, members of the planning group had differing ideas about what success should look like. Scarce resources and competing priorities had made it difficult for the planners to remain focused on goals. Even more worrisome, the investigation of past trade shows revealed that it wasn't just that things seemed out of sync at times: Sales had actually been lost due to the chaos.

Preparing for the show was a complex minuet that involved a number of departments—marketing, product development, logistics, hospitality, and sales—over an eight-month period of preparation. This led management to make two key changes in planning for the next show.

First, they swallowed hard and made one person responsible for the overall management of the project, which in previous years had been managed by an ad hoc committee. As a dedicated resource, the new project manager had time to approach the project more rationally. She was temporarily relieved of all other responsibilities, freeing

her up to develop a set of project management practices that could be put to use immediately. For example, with input from leadership, she created a project statement, a set of objectives, and a project plan that included over 375 separate tasks. At this point, her team was poised to begin its work in a well-ordered, sequential fashion.

The second change involved project communication. The project objectives and plan served as the basis for all meetings and decisions. As a result, meetings were no longer a rehash of what everyone already knew. Instead, they were held to resolve predefined concerns with the project, make modifications to the plan, and list next steps.

By making these key changes, the company went back to the fundamentals and, more importantly, defined and planned the project before any work began. Morale rose, as project-team members appreciated the more buttoned-up approach. Few last-minute problems surfaced. And the new approach brought tangible results: Average meeting time was slashed from three hours to 45 minutes; six weeks were cut from the overall time required to prepare for the show; the $655,000 budget was met; and sales spiked by 50 percent.

THE STUFF OF PROJECTS

Project management isn't a new phenomenon. Human beings were getting "stuff" done as far back as the beginnings of America. Think back to the days when Native Americans were hunting buffalo. Or even farther back, to the building of pyramids in ancient Egypt. Although it didn't carry an official term, a one-time series of interrelated tasks was at the core of the work accomplished by each of these groups.

Picture a group of Native Americans preparing for a buffalo hunt, which at first glance may not appear to fit the definition of a project. Using a method known as the *piskin,* large piles of rocks, tree stumps, and buffalo dung formed two converging walls, each over a mile in length. The open end was a grazing area; the closed end narrowed to a low hill, with spears around the fence. The piskin construction and hunt were monitored by a leader; there was a set goal (a dead buffalo); there were required resources for building the temporary walls; there was a set time (the tribe could only go so long without food); and there

was a carefully thought-out plan of work, with each person having an assigned role and responsibility (like the "caller," who wore a buffalo robe and lured the buffalo into the trap). A piskin usually resulted in a kill, and, in this regard, it was not just a project, but a successfully managed one.

The Egyptian pyramids are an even more visible example. To this day, the structures continue to draw scholars and tourists to study the engineering marvel and disciplined work that produced them. One of the most compelling aspects of the pyramids is the management required to complete them. Designs for the final structure, even when constructed on a grand scale, were extremely accurate. Enormous numbers of human resources volunteered—or were volunteered—to toil on the project. And feeding the mass of humanity was a project in and of itself. Workers received three meals a day, delivered on time. An angry and hungry workforce was a major detriment to project success.

The Native Americans and the ancient Egyptians carried out their "stuff" in an organized, timely way. They accomplished their work using the most basic management practices. And they accomplished their goals, time and time again.

TODAY'S PROJECTS: WHAT MAKES THEM DIFFERENT?

Today's organizations sport an arsenal of tools and high-powered software, and project management—as a term and a practice—has never generated as much insight and interest as it does right now. (A recent Google search turned up over two million hits for the term *project management.*) There is even an organization dedicated to gathering and disseminating an official body of project management knowledge: The Project Management Institute. Membership has grown over 22 percent in the past year alone, and the PMI claims nearly 84,302 certified, active project management professionals (PMPs).[4]

Why all the commotion over the current project management environment? As we've pointed out, organizations exist to accomplish

[4] "PMI Fact File: Statistics Through June 2004," *PMI Today,* September 2004.

work—work that will deliver value and achieve the goals of the organization. Most of today's work gets done in projects and on project teams. (An estimated 10 trillion dollars a year is spent on projects around the globe.) Completing this work in the designated amount of time, within a budget, and with desired results has never been more important; it's the price of admission for today's lean, dynamic organization. Yet, the nature of work has become dramatically more challenging than when it consisted of killing buffalo and building pyramids. Today's projects are far more varied and complex, and they require a far more sophisticated system of project management.

Think about it: How do you manage a project when it will be planned by one function and implemented by another? When it's entirely new work, requiring new capabilities? When a customer wants a different result this time? When competition demands rapid innovation? No question, today's organizations must be more dynamic, dialectical—and, some may say, diabolical—when it comes to managing projects.

TODAY'S GAME IS SPEED

Fast forward to the modern project and consider the case of a large consumer products company that discovered how to produce a mature product with an exceptional new twist. Not only was the product itself "invented," but so was the equipment needed to produce the new feature. The work was extremely complex, and the launch deadline called for the project to be completed in half the usual time. What's more, the company knew that a fierce rival planned a similar product launch for the following year. The opportunity to capture coveted market share was now or never.

Under pressure to carve out a unique competitive advantage, today's companies must scamper for new ideas and services; embark on technological upgrades; attack quality issues with a vengeance; and redesign their strategy, business processes, policies, procedures, and responsibilities to support the economy's new demands. And, as never before, managers are being asked to complete these jobs in geographically scattered, highly networked organizations,

with outsourced and/or shrinking resources—all while aiming at ever-loftier goals.

What's left is a matrixed structure of intertwined functional groups, departments, and people who are asked to navigate the complexity to accomplish the work, and to accomplish the work in the form of projects.

DISEMBODIED GOALS

Today's typical goals—implementing a new strategy or completing competitor research, for example—are not nearly as easy to define as they were in the old days. A dead buffalo and a monumental pyramid are tangible, visible targets that people can see, touch, and smell. A partially implemented strategy, on the other hand, does not stand out quite as much as a half-completed pyramid.

Take the case of a long-time manufacturer of home goods. As the 1990s came to an end, the company realized that, like many other American businesses, it had slowly moved away from production as a competitive advantage. By 2003, the company's leaders recognized and consciously decided to focus on what could become a true strength: brand image and customer satisfaction. But there was a flaw in the plan: Using its existing production methods, the company was unable to meet its newly ratcheted-up delivery and quality goals. To succeed in its new strategy, a major shift in manufacturing methods would be required. The company took a deep breath and began a massive project to overhaul its antiquated systems.

But the expected outcome of the project was murky and, in truth, never fully communicated to the company's employees. At the end of the fiscal year, which turned out to have been a tough one, the project was officially shelved for an undetermined length of time. Some parts of the project had been completed; others had been left unfinished. The company limped along with some effort focused on new goals and some dedicated to running operations the old way. They had invested millions of direct and indirect dollars but never were sure what success would look like—or if it was worth the sacrifice.

THE EBB AND FLOW OF TODAY'S TEAMS

Even if the final outcome is clear in a modern project, the people tapped to contribute to it aren't quite the same as they were in early America or ancient Egypt. The people and skills needed to complete a pyramid were as well defined as the goal itself: engineers to design the structure, an artist to paint the structure or carve some designs, a carpenter to cut the wood, "strong backs" to do the lifting of stones weighing up to 15 tons, and someone to orchestrate the various types of work.

Some modern projects have clearly defined goals, and, therefore, the skills needed to achieve those goals are relatively easy to identify. But, more often than not, today's projects have less tangible end results and, therefore, require more complex skills. Creating 10,000 lines of high-quality usable software code or a redesigned delivery process requires a skill set that may not be easily identifiable and includes such intangibles as creativity, analytic ability, and critical-thinking skills.

In addition, many members of today's project teams come to the task with a set of technical skills but are uncertain as to how those skills will add value to the overall project. As a result, it can be difficult for them to readily appreciate business objectives or customer perspectives. This makes it tough for them to come together as a team and apply their expertise appropriately.

To further complicate matters, project workers often split their time between not just one, but several, projects and their "regular" job. In the case of the home-goods manufacturer turned marketer that we discussed earlier, people were pulled into the project from almost every department and functional group in the company. They were expected to meet the daily demands of their regular job while taking on the additional work generated by the project, and the extent and priority of their contributions were never clearly delineated, nor were the personal consequences to individual team members considered.

THE COMPETITION FOR RESOURCES

Today's project managers must deal with the fact that few, if any, of their resources are under their managerial control. And chances are

that more than one project or business manager is competing for the resources that are needed to successfully complete a particular project. Even when a resource has been assigned to a project manager—for example, one project manager has been promised 25 percent of a programmer's time—it doesn't mean that priorities won't change and promises won't be broken. What's more, what does 25 percent really mean? Two hours a day, every day? The same two hours each day or whenever the programmer has some spare time? One day a week? Every Monday or a different day each week? Whatever the arrangement, it may cause the project to be understaffed at critical times.

THE REVOLVING DOOR

With so much reliance on knowledge and unique roles, many of today's projects are jeopardized when an expert member of the project team departs. In the mid-1990s, organizations lost people because of the booming economy: Knowledge workers became free agents, signing on for the biggest chunk of cash or the most "fun" workplace. Then, after the economic slowdown of 2000, organizations downsized and restructured at a breathtaking pace. Both scenarios made it clear that losing people or moving people into new jobs is a reality, no matter what the economic conditions. Project managers often deal with new people or newly transferred people throughout the life of a project. The notion of an intact work team, reporting to one leader for the entire life of the project, is wishful thinking. There needs to be a method for crisply and effectively bringing people into and out of projects.

THE PENCHANT FOR COMPLEXITY

Today's projects are both a cause of, and a response to, the complexity and do-more-with-less anthem of the modern business enterprise. Starting a new project may be a good or bad decision for an organization. Regardless, it adds to the fabric of complexity because it pulls resources from other projects and activities, crosses departmental and functional boundaries to ask strangers to work together to achieve a goal, and doesn't always start with a clear sense of direction

and priority. Even projects aimed at reducing complexity swallow people and budgets and often require inter- and intradepartmental communication.

Today's business enterprise presents a host of challenges for project managers that were never even dreamed of before: people scattered around the globe who hold critical knowledge and skills for completing tasks; people moving in and out of the organization; increased reliance on contractors and vendors; business groups that tend to adhere in a group rather than cohere as a project team; too much work being attempted at once, by too few people. Consider one public utility's conundrum. At one point, the mid-U.S. utility had 140 projects underway—with a staff of only 125 employees to complete the work!

PROJECTS AREN'T GOING AWAY

Despite the drawbacks, projects remain the pivot point for organizational change. And, if carried out effectively, projects remain the best method for cutting through the complexity to accomplish work. That's why most organizations consider themselves to be project-based: 50 percent use consultants for project management and over 45 percent have implemented a formal project management office.[5] Which is why most organizations need a better understanding of how much failed projects cost and, more importantly, of what they can do to acquire the missing pieces of the project management puzzle.

THE MISSING PIECES OF THE PROJECT MANAGEMENT PUZZLE

One of the most common mistakes that organizations make is fixing something without fully understanding why it's broken. Taking the time to find out why projects fail to achieve the appropriate results on time and on budget is the first step in improving your organization's project management health.

[5] Norbert Turer, "Tracking the Best Laid Plans—Companies Are Managing Multiple Projects as Diligently as Their Investments and Finding It Pays," *Information Week,* May 19, 2003.

It's easy to dismiss the search for cause with the statement, "Our projects don't finish (insert *on time, on budget, with the desired results* here) because we simply don't have enough people to accomplish the work." Although it may be true that the number of people can't support the number and scope of projects, this is not the *root* problem. Why does your organization take on more projects than it can effectively manage? Is it a conscious decision by top management? Is it the lack of a conscious decision? Is it because company strategy is not clear or not communicated? Is it a failure to execute the strategy rationally?

These high-level concerns are very real and need to be addressed by senior management. The last chapter of this book addresses an organization's inability to place projects in the larger context of the business enterprise. But the lion's share of *The Rational Project Manager* has been written for *you,* the project manager or project contributor. Without strong project management to balance priorities and resources, work will never get done, no matter how strategic it is.

With that in mind, our research—and experience with thousands of projects in hundreds of organizations—suggests that the reasons for project failure fall into three categories:

1. The lack of a common approach to projects that focuses on the fundamentals.
2. Weak thinking about the decisions, problems, potential problems, and complex situations that drive the project.
3. The failure to manage projects within the social context of the organization.

This book focuses on these three fundamental, yet often forgotten, pieces of the project management puzzle: *a world-class, rational process for managing projects; an approach to critical thinking that facilitates the effective resolution of project issues; and a model for encouraging peak performance in people.*

An organization that masters these pieces masters effective project management. But, ultimately, success will be determined by those individuals who stand alone at center stage, responsible for cutting

through the chaos and complexity and for weaving the pieces into an improved picture: project managers.

Faced with tough challenges, project managers—and the key contributors tasked to support them—attempt to hit a fast-moving and often unclear target. They need to understand the specific content of the project they're managing and also be a master of project management skills. They must be able to balance politics, personal motivations, and unforeseen problems while motivating a team and striving to meet tight deadlines and budget restrictions. In short, they're a bit like a referee at a sporting event: Do a good job and nobody notices; make a mistake and the finger pointing begins.

Good project managers use the traditional project tools and techniques to reveal important project data. But they understand that the tools are useless without clear thinking to ensure that the data is relevant and meaningful to the project. They arm their project teams—and in some cases, their organizations—with a rational approach to managing all aspects of a project: from defining the needs to constructing the plan to implementing the plan. In the end, project success hinges on the quality of thinking behind the project management tools.

Good project managers are also more than adept at steering the performance of project contributors while negotiating for resources and communicating status and priorities to upper management. And they pay strict attention to the need to resolve issues quickly and effectively: making decisions, preventing problems, solving unknown problems, breaking down complex situations, and promoting opportunities.

In *The Rational Project Manager,* we push aside theoretical exploration, complex formulas, and software-as-savior deliberations. This book outlines the basic, yet largely ignored, rationale of successful project management. You'll learn a logical, step-by-step methodology for managing all phases of a project. You'll enhance your ability to solve people problems and encourage specific performance by using a tried-and-true behavioral system. And, last, you'll be introduced to a set of analyses designed to help resolve project issues, make decisions, and protect your project.

The project management methodology and critical-thinking skills outlined in this book are the cornerstone of getting "stuff" done in a rational, timely manner. And that "stuff" is what allows organizations to remain dynamic, to compete, and to eventually outpace the competition.

WHAT'S AHEAD

The project management process presented in this book is not difficult. It's broken down into three parts: Definition, Planning, and Implementation. You'll explore each part in depth. In fact, you'll receive special *tips* that further explain how to apply the concepts and *pitfalls* that warn you of common mistakes in certain areas of the process.

From time to time, the critical-thinking processes of Situation Appraisal, Decision Making, and Problem Solving will be referenced in conjunction with a step in the project management process. Complete explanations of these rational techniques are included in Chapter 6. You will also learn the principles of influence, involvement, and communication that are so crucial to a project's success. The "Join Together" sections of Chapters 2 through 4 begin to address managing people in projects, and Chapter 5 is dedicated to the topic. And, in "The More You Know" sections, you'll find techniques that may help you manage your project in unique ways.