Clarify what project management is and "is not"
(it's likely more than you think)

Learn why projects are challenging to manage

Understand why project management is the key to
the future growth of any organization

Learn why the future of project management
is bright and why becoming a certified project
manager might be a wise career move

Review the latest trends in project management that
might impact your first opportunity

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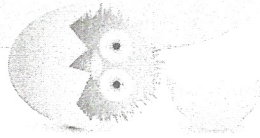
PROJECT MANAGEMENT OVERVIEW

Since your perceptions surrounding project management will vary depending on work experiences, education, industry, and roles, it's important to establish some "common ground" before we venture down the road of learning what a project manager must do to be successful in his first opportunity.

This chapter provides the common ground by clarifying what constitutes project management and why project management is important to both your future and the future of your organization.

What Is Project Management...Exactly?

If you are like most people, you are "pretty sure" you know what projects are, and you "think" you know what project management is (and what a project manager does), but there's always a varying amount of uncertainty in those perceptions. So, let's start off by clarifying some key concepts.

Project management is simply the process of managing projects (and you thought this was going to be difficult). Although this definition is not particularly helpful, it does illustrate three key points:

- Project management is not "brain surgery." Yes, it covers a vast array of subjects, processes, skills, and tools, but the key fundamentals of project management are straightforward and are consistent across industries.

- To better understand project management, we need to understand what a project is. The nature of a project provides insights into the scope and challenges of project management.

- To better understand project management, we need to understand what is implied by the term *managing* and how this compares against traditional business management.

What Is a Project Exactly?

A *project* is the work performed by an organization one time to produce a unique outcome. By *one time*, we mean the work has a definite beginning and a definite end, and by *unique*, we mean the work result is different in one or more ways from anything the organization has produced before. Examples of projects include the following:

- Building a new house

- Developing a new software application

- Performing an assessment of current manufacturing processes

- Creating a new radio commercial

This is in contrast to the operations of an organization. The operational work is the ongoing, repetitive set of activities that sustain the organization. Examples of ongoing operations include the following:

- Processing customer orders
- Performing accounts receivable and accounts payable activities
- Executing daily manufacturing orders

To further explain the nature of projects (and project management) and how they compare to the ongoing operations of an organization, please review the summary in Table 1.1.

TABLE 1.1   Comparing Projects and Operations

Feature	Projects	Operations
Key Similarities	Planned, executed, and controlled	Planned, executed, and controlled
	Performed by people	Performed by people
	Resource constrained	Resource constrained
Purpose	Attain objectives and terminate	Sustain the organization
Time	Temporary	Ongoing
	Definite beginning and end points	
Outcome	Unique product, service, or result	Non-unique product, service, or result
People	Dynamic, temporary teams formed to meet project needs	Functional teams generally aligned with organizational structure
	Generally not aligned with organizational structure	
Authority of Manager	Varies by organizational structure	Generally formal, direct line authority
	Generally minimal, if any, direct line authority	

NOTE   The Project Management Institute (PMI) definition of *project* is a temporary endeavor to produce a unique product or service.

After reviewing this comparison, you are beginning to see the inherent challenges involved with project management. Projects are less predictable and are constantly impacted by the dynamic, uncertain nature of most organizational environments. We will detail the typical challenges later in this chapter. For now, let's better define project management.

Managing Projects

What do we mean when we say "managing projects"?

- We mean applying both the science and art to planning, organizing, implementing, leading, and controlling the work of a project to meet the goals and objectives of the organization.

- We mean the process of defining a project, developing a plan, executing the plan, monitoring progress against the plan, overcoming obstacles, managing risks, and taking corrective actions.

- We mean the process of managing the competing demands and trade-offs between the desired results of the project (scope, performance, quality) and the natural constraints of the project (time and cost).

> **NOTE**   The PMI definition of *project management* is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.

- We mean the process of leading a team that has never worked together before to accomplish something that has never been done before in a given amount of time with a limited amount of money.

Sounds like fun, doesn't it? We will explain each of these key aspects of project management in subsequent chapters, and we will discuss many of the specific tasks and responsibilities performed by the project manager in Chapter 2, "The Project Manager," but for now we just want to align our general understanding of project management.

An Academic Look

To further assist this alignment process, let's look at project management from a more academic level. PMI, the globally recognized standards organization for project management (www.pmi.org), defines project management as a set of five process groups (see Table 1.2) and nine knowledge areas (see Table 1.3). These references are taken from the PMI's *A Guide to the Project Management Body of Knowledge*, Fourth Edition (*PMBOK® Guide* – Fourth Edition).

TABLE 1.2   Description of Project Management Process Groups

#	Process Group	Description per *PMBOK Guide* – Fourth Edition	Common Terms
1	Initiating	Authorizing the project or phase.	"preliminary planning" "kicking off"
2	Planning	Defining and refining objectives of the project and selecting the best course of action to attain those objectives.	"defining" "developing the plan" "setting the stage"
3	Executing	Coordinating the people and resources to implement the plan.	"making it happen" "getting it done" "coordinating"
4	Controlling	Ensuring project objectives are met by monitoring and measuring progress regularly to identify variances from the plan so that corrective actions can be taken.	"tracking progress" "keeping on course"
5	Closing	Formalizing acceptance of project or phase and bringing to an orderly end.	"client acceptance" "transition" "closeout"

Figure 1.1 summarizes the relationships among the project management process groups, which is based on *PMBOK Guide* – Third Edition (Figure 3-2, page 40).
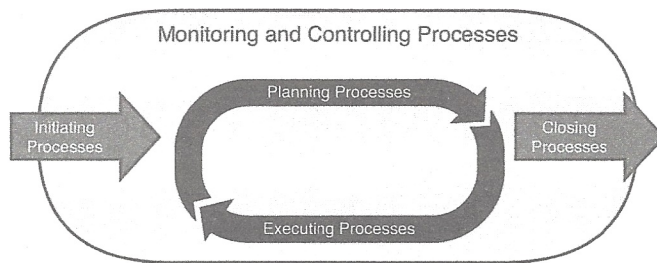

FIGURE 1.1

Project management process relationships.

TABLE 1.3   Description of PMBOK Knowledge Areas

#	Knowledge Area	Description per *PMBOK Guide – Fourth Edition*	Common Deliverables
1	Project Integration Management	Processes required to ensure the elements of the project are properly coordinated.	Project Charter Project Plan Change Requests Work Results
2	Project Scope Management	Processes required to ensure that project includes all the work that is required and only the work that is required to complete the project successfully.	Scope Statement Work Breakdown Structure Formal Acceptance
3	Project Time Management	Processes required to ensure timely completion of the project.	Network Diagram Task Estimates Project Schedule
4	Project Cost Management	Processes required to ensure the project is completed within the approved budget.	Resource Requirements Cost Estimates Project Budget
5	Project Quality Management	Processes required to ensure the project will satisfy the needs for which it was undertaken.	Quality Management Plan Checklists Quality Reviews
6	Project Human Resources Management	Processes required to make the most effective use of the people involved with the project.	Role and Responsibility Matrix Organization Chart Performance Evaluations
7	Project Communications Management	Processes required to ensure the timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information.	Communication Plan Status Reports Presentations Lessons Learned
8	Project Risk Management	Processes concerned with identifying, analyzing, and responding to project risk.	Risk Management Plan Risk Response Plan Risk Log
9	Project Procurement Management	Processes required to acquire goods and services outside the performing organization.	Procurement Plan Statement of Work Proposals Contracts

NOTE   *PMBOK Guide* – Fourth Edition was officially released on December 31, 2008. Consistent with PMI's plan to issue an update every four years, the Fifth Edition is expected out before the end of 2012.

NOTE Project management is a broad field with great potential for specialized and in-depth study. There are entire books and training classes focused solely on advanced analysis of individual process groups and knowledge areas.

Again, depending on your experiences, you might not have realized that project management consisted of all this, and you might not actually perform all these activities as a project manager in your organization. However, it is important and helpful to understand how big your playing field is when learning something new. This book will not completely educate you on each of these process groups nor each of the nine knowledge areas, but it will provide you with the knowledge, essential tools, and "real-world" insights to improve your effectiveness on your first project management assignment.

What Is the Value of Project Management?

As the organizational operating environment continues to become more global, more competitive, and more demanding, organizations must adapt. They must become more efficient, more productive—they must "do more with less." They must continually innovate. They must respond rapidly to a fast-changing environment. *How can they do this? How can they do this in a strategic manner? How can they do this and still have the proper management controls?* They can do this with effective project management. The strategic value points that effective project management can offer an organization include, but are not limited by, the following:

- Provide a controlled way to rapidly respond to changing market conditions and new strategic opportunities

- Maximize the innovative and creative capabilities of the organization by creating environments of focus and open communication

- Enable organizations to accomplish more with less costs

- Enable better leverage of both internal and external expertise

- Provide key information and visibility on project metrics to enable better decision-making management

- Increase the pace and level of stakeholder acceptance for any strategic change

- Reduce financial losses by "killing off" poor project investments early in their life cycles

NOTE *Stakeholder* is the term used to describe individuals and organizations who are actively involved in the project or whose interests might be impacted by the execution or completion of the project.

In addition to providing apparent value to any organization, project management also offers tremendous value to each of us as individuals. At a personal level, the value of effective project management:

- Ensures that our work is put to the best use for the organization and properly recognized

- Provides a career path that offers unique, challenging opportunities on each new project

- Provides a career path that requires all our abilities and knowledge, including our management, business, people, and technical skills

- Provides a career path that is high in demand, and, generally, offers an increase in income

- Provides a career path that prepares you for organizational leadership positions

- Provides a career path that is recognized more each year as excellent preparation for CxO positions (as more CxO positions are filled by individuals with project management experience)

- Provides a career path that enables you to be on the front lines of strategic organizational initiatives and have major impact on the organization's future

Why Are Projects Challenging?

From what we've covered so far, from your own experiences, or from your reading of trade publications, you likely have some appreciation for the difficulty of completing a successful project. Although I address many common challenges in more detail throughout this book, let's review the key reasons why projects are challenging to manage:

- **Uncharted territory**—Each project is unique. The work to be done has likely never been done before by this group of people in this particular environment.

- **Multiple expectations**—Each project has multiple stakeholders that each have their own needs and expectations for the project.

- **Communication obstacles**—Due to natural organizational boundaries, communication channels, and team development stages, communication of project information must be proactively managed to ensure proper flow.

- **Balancing the competing demands**—Every project is defined to produce one or more deliverables (scope) within a defined time period (time), under an approved budget (cost) with a specified set of resources. In addition, the deliverables must achieve a certain performance level (quality) and meet the approval of the key stakeholders (expectations). Each of these factors can affect the others, as Figure 1.2 illustrates. For example, if additional functionality (scope, quality) is desired, the time and cost (resources needed) of the project will increase. This is a key focus of an effective project manager.

> **NOTE**   The competing project demands are often referred to as the *triple constraint of project management*. Time and Cost (or Resources) are always two sides of the triangle. Depending on where you look, the third side is either Scope, Performance, or Quality. In either case, it's the "output" of the project. Additionally, many recent variations of this model have included the additional demand of Client Expectations.
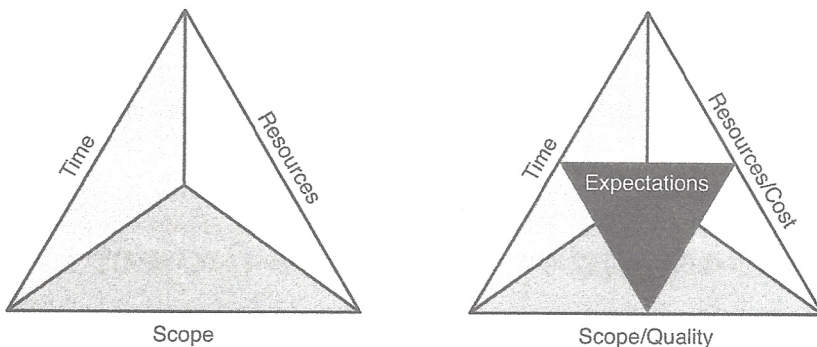
FIGURE 1.2

Competing project demands (traditional model on left, modern model on right), summarizing the relationships between the natural competing demands of projects.

- **Cutting edge**—Often, projects have a strategic, innovative focus. As a result, they often deal with new, leading-edge technologies. In these cases, the project has more risks, more unknowns, and is much more difficult to estimate accurately.

- **Organizational impacts**—In addition to overcoming natural communication obstacles created by the project structure, the project manager must also manage overlaps in organizational approval and authority domains, contend with competing priorities for shared resources, deal with annual budget cycles that might not be aligned with the project's funding needs, and ensure that the project is aligned with the focus of the organization.

- **Collaboration**—Depending on the strategic level and scope of your project, your project team will consist of stakeholders across the organization from different functional areas that are likely not accustomed to working together. For project success, these different stakeholders must learn to work together and to understand the others' perspectives to make the best decisions for the project. Often, the project manager plays a key facilitating role in this collaboration process.

- **Estimating the work**—Estimating project work is difficult, yet the time and cost dimensions of the project are built upon these work effort estimates. Given the facts that the work of the project is often unique (never been done before at all, never been done with these tools, and never been done by these people), and most organizations do not maintain accurate historical records on previous projects (that might have similar work components), it is difficult to accurately estimate the effort for individual work items, not to mention the entire project. For the entire project, you need to anticipate the quantity and severity of the issues and obstacles that are likely to surface. We'll cover this in more detail in Chapters 7, "Estimating the Work," and 14, "Managing Project Risks."

Growing Demand for Effective Project Managers

With the value that project management offers any organization, it is easy to understand why more and more industries are adopting project management as the way to do business. As a result, if you check nearly any recent hiring survey or "hot" careers forecast, you will find project management near the top of this list.

With the business trends of global competition and increased worker productivity continuing for the foreseeable future, the demand for successful project managers will only increase. Even in industries and organizations that are experiencing staff reductions, the individuals who have the knowledge, the people skills, and the management competence to solve problems and get projects done are the individuals most valued and retained by the parent organization.

In addition, many organizations have either compliance or competitive drivers requiring them to make process improvements to meet process standards set forth by acts of Congress (Sarbanes-Oxley act), government agencies (such as the Food and Drug Administration or Environmental Protection Agency), industry standards bodies (such as the International Organization for Standards), or industry process models (such as Six Sigma Quality Model or the Capability Maturity Model Integration for software engineering or project management). In all these cases, effective project management is a requirement to ensure these process improvements are made, sustained, and can be repeated.

As the demand for effective project managers continues to grow and organizations continue to experience varying degrees of success with project management, more organizations are requiring their project managers to be certified. Specifically, they are requesting PMI's Project Management Professional (PMP) certification. Much like a master's of business administration (M.B.A.) degree does not guarantee a person can run a profitable, growing business, the PMP certification does not guarantee a person can successfully manage a project. However, it does provide assurance that the individual does have a baseline level of knowledge and experience, and it does indicate that the person takes her profession seriously.

Trends in Project Management

In addition to the focus on organizational process improvements, there are other trends in business and project management that a first-time project manager is likely to encounter (that he might not have just a decade or less ago):

- **Managing vendors**—With the increased outsourcing of non-core activities, more projects leverage one or more vendors (suppliers) to get work done. More on this is explained in Chapter 21, "Managing Vendors."

- **Facilitating a selection process**—To determine which vendors you will partner with to get work done, a selection and evaluation process is normally conducted. More on this is explained in Chapter 24, "When Reality Happens."

- **Change agent**—Because most projects represent a "change" to business as usual, the project manager is expected to play a key role in leading the stakeholders through the change and acceptance process. More on this in Chapter 16, "Leading a Project," and Chapter 18, "Managing Expectations."

- **Servant leadership**—Due to a lack of formal authority, the need to understand the requirements of all stakeholders and the importance of facilitation, collaboration, and managing expectations, there is a growing awareness that a

- **Managing virtual, cross-functional, and multicultural teams**—With the continuous advancements in workgroup and communications tools, the increased integration of processes within an organization, and the continuous drive for increased organizational efficiencies, it is very likely that your project team will consist of members from different physical locations (virtual), different functional departments (cross-functional), or different cultures (multi-cultural, global). More on this is explained in Chapter 20, "Managing Differences," and in Chapter 17, "Managing Project Communications."

- **Quality management**—Much like the factors driving the emphasis on risk management, the link between rigorous quality management procedures and improved project management practices continues to strengthen. More on this is explained in Chapter 15, "Managing Project Quality."

- **Requirements management**—Closely intertwined with managing quality, scope, and stakeholder expectations, the effective definition and the proper management of both a project's and the product's requirements are essential to success. More on this is explained in Chapter 18.

- **Facilitating a testing process**—Because it is paramount to verifying stakeholder satisfaction with the focus of the project, the project manager is best positioned to facilitate the testing process. More on this is explained in Chapter 24.

- **Risk management**—Coinciding with the focus on enterprise-wide process improvements and in response to past project experiences, more organizations are placing additional emphasis and formality on their project risk management processes. More on this is explained in Chapter 14.

- **Working with PMOs and corporate governance processes**—If you are working in any type of corporate or multiple business unit environment, you most likely deal with Project Management Office (PMO) or other corporate governance processes. More on this is explained in Chapter 25, "Managing Special Project Situations."

Additional Resources

In addition to the PMBOK, PMI also provides specific standards documents on the following:

- Program Management

- Portfolio Management

- Organizational Project Management Maturity Management (OPM3)