

project management as a way of life. Indeed, companies in such diverse industries as construction, heavy manufacturing, insurance, health care, finance, public utilities, and software are becoming project savvy and expecting their employees to do the same.

## 1.1 WHAT IS A PROJECT?

Although there are a number of general definitions of the term **project**, we must recognize at the outset that projects are distinct from other organizational processes. As a rule, a **process** refers to ongoing, day-to-day activities in which an organization engages while producing goods or services. Processes use existing systems, properties, and capabilities in a continuous, fairly repetitive manner.<sup>5</sup> Projects, on the other hand, take place outside the normal, process-oriented world of the firm. Certainly, in some organizations, such as construction, day-to-day processes center on the creation and development of projects. Nevertheless, for the majority of organizations, project management activities remain unique and separate from the manner in which more routine, process-driven work is performed. Project work is continuously evolving, establishes its own work rules, and is the antithesis of repetition in the workplace. As a result, it represents an exciting alternative to business as usual for many companies. The challenges are great, but so are the rewards of success.

First, we need a clear understanding of the properties that make projects and project management so unique. Consider the following definitions of projects:

A project is a unique venture with a beginning and end, conducted by people to meet established goals within parameters of cost, schedule, and quality.<sup>6</sup>

Projects [are] goal-oriented, involve the coordinated undertaking of interrelated activities, are of finite duration, and are all, to a degree, unique.<sup>7</sup>

A project can be considered to be any series of activities and tasks that:

- Have a specific objective to be completed within certain specifications
- Have defined start and end dates
- Have funding limits (if applicable)
- Consume human and nonhuman resources (i.e., money, people, equipment)
- Are multifunctional (i.e., cut across several functional lines)<sup>8</sup>

[A project is] [o]rganized work toward a predefined goal or objective that requires resources and effort, a unique (and therefore risky) venture having a budget and schedule.<sup>9</sup>

Probably the simplest definition is found in the Project Management Body of Knowledge (PMBoK) guide of the Project Management Institute (PMI). PMI is the world's largest professional project management association, with more than 450,000 members worldwide as of 2014. In the PMBoK guide, a project is defined as "a temporary endeavor undertaken to create a unique product, service, or result" (p. 553).<sup>10</sup>

Let us examine the various elements of projects, as identified by these set of definitions.

- **Projects are complex, one-time processes.** A project arises for a specific purpose or to meet a stated goal. It is complex because it typically requires the coordinated inputs of numerous members of the organization. Project members may be from different departments or other organizational units or from one functional area. For example, a project to develop a new software application for a retail company may require only the output of members of the Information Systems group working with the marketing staff. On the other hand, some projects, such as new product introductions, work best with representation from many functions, including marketing, engineering, production, and design. Because a project is intended to fulfill a stated goal, it is temporary. It exists only until its goal has been met, and at that point, it is dissolved.
- **Projects are limited by budget, schedule, and resources.** Project work requires that members work with limited financial and human resources for a specified time period. They do not run indefinitely. Once the assignment is completed, the project team disbands. Until that point, all its activities are constrained by limitations on budget and personnel availability. Projects are "resource-constrained" activities.
- **Projects are developed to resolve a clear goal or set of goals.** There is no such thing as a project team with an ongoing, nonspecific purpose. The project's goals, or **deliverables**,

define the nature of the project and that of its team. Projects are designed to yield a tangible result, either as a new product or service. Whether the goal is to build a bridge, implement a new accounts receivable system, or win a presidential election, the goal must be specific and the project organized to achieve a stated aim.

- **Projects are customer-focused.** Whether the project is responding to the needs of an internal organizational unit (e.g., accounting) or intended to exploit a market opportunity external to the organization, the underlying purpose of any project is to satisfy customer needs. In the past, this goal was sometimes overlooked. Projects were considered successful if they attained technical, budgetary, and scheduling goals. More and more, however, companies have realized that the primary goal of a project is customer satisfaction. If that goal is neglected, a firm runs the risk of “doing the wrong things well”—pursuing projects that may be done efficiently but that ignore customer needs or fail commercially.

### General Project Characteristics

Using these definitional elements, we can create a sense of the key attributes that all projects share. These characteristics are not only useful for better understanding projects, but also offer the basis for seeing how project-based work differs from other activities most organizations undertake. Projects represent a special type of undertaking by any organization. Not surprisingly, the challenges in performing them right are sometimes daunting. Nevertheless, given the manner in which business continues to evolve on a worldwide scale, becoming “project savvy” is no longer a luxury: It is rapidly becoming a necessity.

Projects are characterized by the following properties:<sup>11</sup>

1. **Projects are ad hoc endeavors with a clear life cycle.** Projects are nontraditional; they are activities that are initiated as needed, operate for a specified time period over a fairly well understood development cycle, and are then disbanded. They are temporary operations.
2. **Projects are building blocks in the design and execution of organizational strategies.** As we will see in later chapters, projects allow organizations to implement companywide strategies. They are the principal means by which companies operationalize corporate-level objectives. In effect, projects are the vehicles for realizing company goals. For example, Intel’s strategy for market penetration with ever newer, smaller, and faster computer chips is realized through its commitment to a steady stream of research and development projects that allows the company to continually explore the technological boundaries of electrical and computer engineering.
3. **Projects are responsible for the newest and most improved products, services, and organizational processes.** Projects are tools for innovation. Because they complement (and often transform) traditional process-oriented activities, many companies rely on projects as vehicles for going beyond conventional activities. Projects are the stepping-stones by which we move forward.
4. **Projects provide a philosophy and strategy for the management of change.** “Change” is an abstract concept until we establish the means by which we can make real alterations in the things we do and produce. Projects allow organizations to go beyond simple statements of intent and to achieve actual innovation. For example, whether it is Chevrolet’s Volt electric car or Apple’s newest iPhone upgrade, successful organizations routinely ask for customer input and feedback to better understand their likes and dislikes. As the vehicle of change, the manner in which a company develops its projects has much to say about its ability to innovate and commitment to change.
5. **Project management entails crossing functional and organizational boundaries.** Projects epitomize internal organizational collaboration by bringing together people from various functions across the company. A project aimed at new product development may require the combined work of engineering, finance, marketing, design, and so forth. Likewise, in the global business environment, many companies have crossed organizational boundaries by forming long-term partnerships with other firms in order to maximize opportunities while emphasizing efficiency and keeping a lid on costs. Projects are among the most common means of promoting collaboration, both across functions and across organizations.
6. **The traditional management functions of planning, organizing, motivation, directing, and control apply to project management.** Project managers must be technically well versed,

proficient at administrative functions, willing and able to assume leadership roles, and, above all, goal-oriented: The project manager is the person most responsible for keeping track of the big picture. The nature of project management responsibilities should never be underestimated because these responsibilities are both diverse and critical to project success.

7. *The principal outcomes of a project are the satisfaction of customer requirements within the constraints of technical, cost, and schedule objectives.* Projects are defined by their limitations. They have finite budgets, definite schedules, and carefully stated specifications for completion. For example, a term paper assignment in a college class might include details regarding form, length, number of primary and secondary sources to cite, and so forth. Likewise, in the Disney's Expedition Everest case example at the end of the chapter, the executive leading the change process established clear guidelines regarding performance expectations. All these constraints both limit and narrowly define the focus of the project and the options available to the project team. It is the very task of managing successful project development within such specific constraints that makes the field so challenging.
8. *Projects are terminated upon successful completion of performance objectives*—or earlier in their life cycle, if results no longer promise an operational or strategic advantage. As we have seen, projects differ from conventional processes in that they are defined by limited life cycles. They are initiated, completed, and dissolved. As important alternatives to conventional organizational activities, they are sometimes called "temporary organizations."<sup>12</sup>

Projects, then, differ from better-known organizational activities, which often involve repetitive processes. The traditional model of most firms views organizational activities as consistently performing a discrete set of activities. For example, a retail-clothing establishment buys, stocks, and sells clothes in a continuous cycle. A steel plant orders raw materials, makes steel, and ships finished products, again in a recurring cycle. The nature of these operations focuses our attention on a "process orientation," that is, the need to perform work as efficiently as possible in an ongoing manner. When its processes are well understood, the organization always seeks better, more efficient ways of doing the same essential tasks. Projects, because they are discrete activities, violate the idea of repetition. They are temporary activities that operate outside formal channels. They may bring together a disparate collection of team members with different kinds of functional expertise. Projects function under conditions of uncertainty, and usually have the effect of "shaking up" normal corporate activities. Because of their unique characteristics, they do not conform to common standards of operations; they do things differently and often reveal new and better ways of doing things. Table 1.1 offers some other distinctions between project-based work and the more traditional, process-based activities. Note a recurring theme: Projects operate in radical ways that consistently violate the standard, process-based view of organizations.

Consider Apple's development of the iPod, a portable MP3 player that can be integrated with Apple's popular iTunes site to record and play music downloads. Apple, headed by its former chairman, the late Steven Jobs, recognized the potential in the MP3 market, given the enormous popularity (and, some would say, notoriety) of file-sharing and downloading music through

**TABLE 1.1 Differences Between Process and Project Management<sup>13</sup>**

Process	Project
Repeat process or product	New process or product
Several objectives	One objective
Ongoing	One shot—limited life
People are homogenous	More heterogeneous
Well-established systems in place to integrate efforts	Systems must be created to integrate efforts
Greater certainty of performance, cost, schedule	Greater uncertainty of performance, cost, schedule
Part of line organization	Outside of line organization
Bastions of established practice	Violates established practice
Supports status quo	Upsets status quo

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