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Project Definition and Context

LEARNING OBJECTIVES

1. Describe two defining characteristics of a project.
2. Understand project levels and organization priorities.
3. Describe the organizational options for managing projects.

Before elaborating further on project management, let's first identify what a project is and how projects come about. PMI defines a project by its two key characteristics: it is temporary and undertaken to create a product, service, or result that is unique.¹ Projects are undertaken by various organizations to better fulfill their purposes.

Organizational Priorities

Organizations fulfill societal functions (e.g. economic, religious, community support, government, etc.) Local factories, churches, and hospitals are all organizations that provide some social or community need. Factories create wealth and jobs, churches provide spiritual and common social needs for communities, and government organizations provide regulations and services that allow for an orderly society. These organizations have different views of time and each organization develops an operational approach to accomplishing the

purpose of the organization over that time horizon. For example, a religious group might begin construction of a cathedral that would take several lifetimes to complete, government performance is reviewed at election time, and a publicly owned company must justify its use of money each year in the annual report.

Organizations operate to effectively and efficiently produce the product or service that achieves the organization's purpose and goals as defined by the key **stakeholders**—those who have a share or interest in the organization. An organization seeks to develop stable and predictable work processes and then improve those work processes over time through increased quality, reduced costs, and shorter delivery times. Total quality management, lean manufacturing, and several other management philosophies and methodologies have focused on providing the tools and processes for increasing the effectiveness and efficiency of the organization. Historically, these methodologies focused on creating incremental and continuous improvement in work processes. More recently, organizations are increasingly focused on *step changes* that take advantage of new technologies to create a significant improvement in the effectiveness or efficiency of the organization.

Often, these initiatives to increase organizational effectiveness or efficiency are identified as projects. Economic organizations might initiate a project to produce a new product, to introduce or revamp work processes to significantly reduce product costs, or to merge with other organizations to reduce competition or lower costs and generate additional profits. A social organization, such as a hospital, may build a new wing, introduce a new service, or design new work processes to reduce costs. A government organization may introduce a new software program that handles public records more efficiently, build a new road to reduce congestion, or combine departments to reduce costs.

Each of the initiatives meets our definition of a project. Each is a

temporary endeavor and produces a unique product or service. Projects are also defined within the context of larger projects as the following example illustrates.

National Energy Saving Education Plan

The National Energy Technology Laboratory laid out a plan for a national energy saving education plan that had a clear and identifiable outcome—helping consumers efficiently find and use reliable, affordable, and environmentally sound energy.² The details of this plan will be revised and updated, but the general goals are likely to remain unchanged. To accomplish these goals, the project requires the development of educational materials related to new technologies, coordination of a large number of instructional designers, and skillful stakeholder management. Development of each of the major components became a project for the instructional design teams within the larger project of providing educational materials to consumers related to finding and using reliable, affordable, and environmentally sound energy. Each project has to develop materials related to new technologies, and manage the stakeholders at the Department of Energy. Each instructional design team becomes a project for that organization. The project is defined by the scope of work. In the energy materials area, the scope of work included all activities associated with educating consumers on ways to reduce use of fossil fuels and reliance on imported energy. Using our definition that a project is a temporary endeavor that creates a unique product or service, implementation of the energy education materials would be a project that consisted of other projects. These projects could develop into creating education materials related to wind power, solar power, electricity transmission, biofuels, environmental protection, etc.

Organizing to Manage Projects

Because project management is different from operations (organizational) management, projects are handled best by people who are trained in project management. This expertise can be obtained by hiring an outside consulting firm that specializes in project management or by developing an in-house group.

Some organizations are designed to execute specific projects. Often entities contract with engineering and construction companies to design and build their facilities, or hire software companies to develop a software solution. The major work processes within these organizations are designed to support the acquisition and execution of those projects. Similarly, there are instructional design firms who have the specialized skills to effectively and efficiently design valuable instruction for their clients. The ability of these types of organizations to successfully manage projects in house becomes a competitive advantage for them in the marketplace.

Organizations designed to produce products or services also use projects. Major activities outside the normal work of the organization's department or functional units or major activities that cross functional boundaries become a project. As economic pressures increase the speed in which organizations must change and adapt to new environmental conditions, leaders are increasingly chartering projects to enable the organization to adapt more quickly. The application of a project management approach increases the likelihood of success as organizations charter a project to facilitate organizational change, to increase the development and introduction of new products or support the merger or divestiture of organizational units.



Image by antgirl

Project management offices (PMOs) have emerged within organizations to facilitate development of organizational knowledge, skills, and tools to internally charter and manage projects. The PMO varies in structure and responsibility depending on the project management approach of the parent organization. On one end of the spectrum, the PMO has complete responsibility for projects within an organization from the criteria and selection of appropriate projects to accountability for project performance. In organizations that make a large investment in the PMO, a large number of new product or process improvement projects are submitted, and the project office develops a portfolio of projects to manage over a given period that maximizes the use of organizational resources and provides the greatest return to the organization.

PMOs can provide various functions for an organization. Some possible functions include the following:

- Project management. Some organizations maintain the project manager within the PMO, assign project managers from other departments, procure contract project managers, or practice a combination of all three.
- Center of excellence. The project office can maintain the organization's project management policies and procedures, maintain a historical database, maintain best practices, and provide training and specialized expertise when needed.
- Portfolio management. The project office actually supervises the project managers and monitors project performance. Portfolio management also includes prioritizing projects on the basis of value to the organization and maintains an inventory of projects. Portfolio management balances the number and type of projects to create the greatest return from the entire portfolio of projects.
- Functional support. The project office maintains project management expertise to support the project. Estimating, project scheduling, and project cost analysis are examples of functional support.

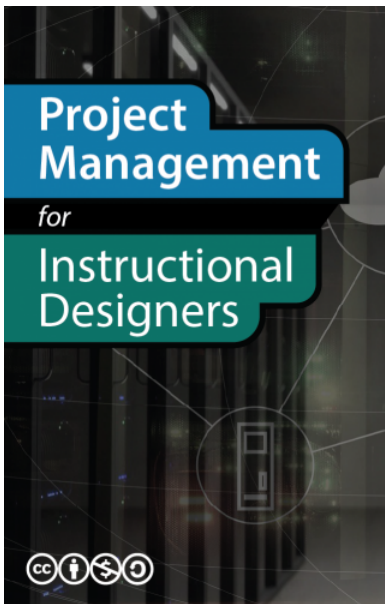
KEY TAKEAWAYS

- All projects are temporary and undertaken to create a product, service, or result that is unique.
- In an organization, project management can be used to make step changes to take advantage of new technologies or make significant improvements in effectiveness or efficiency.
- Projects can be handled by outside contractors or by an internal group in a PMO.

[1] Project Management Institute, Inc., A Guide to the Project

Management Body of Knowledge (PMBOK Guide), 4th ed. (Newtown Square, PA: Project Management Institute, Inc., 2008), 5.

[2] National Energy Technology Laboratory, "Reliable, Affordable, and Environmentally Sound Energy for America's Future," The Energy Lab, 2001, <https://edtechbooks.org/-NTPw> (accessed June 18, 2009).



Wiley, D. et al. (2018). Project Management for Instructional Designers. EdTech Books.
<https://edtechbooks.org/pm4id>



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