Chapter 1
General Introduction

1.1 Meaning and Definition of Project

Def n: **Project** is an investment activity in which specific resources are committed with in a given time period, to create capital assets over an extended period of time in expectation of benefits that exceed the committed resources.

Def n: **Project** is a *temporary* endeavor undertaken to create a *unique* product or service.

- ***Temporary***- has a definite end.
- ***Unique***- the product or service is different in some distinguishing way from all similar product or services.

Many people and organizations today have a new or renewed interest in project management. In the past, project management primarily focused on providing schedule and resource data to top management in just a few industries, such as the military and construction industries. Today's project management involves much more, and people in every industry and every country manage projects. New technologies have become a significant factor in many businesses, and the use of interdisciplinary and global work teams has radically changed the work environment.

Before we start talking about the specific and technical issues of project management, it is worthwhile to cover some basic concepts and general overview of project issues and aspects. This chapter will start with the definition of project and cruises through other important concepts that are the spring boards for the discussion of practical issues in project management that will be covered in subsequent chapters. Topics to be

addressed include; project life cycle, the distinction between project and program, constraints of project management.

After covering this chapter, you will be able to:

- Understand the growing need for better project and program management
- Explain what a project is, provide examples of projects
- List various attributes of projects, and describe project constraints
- Identify the different models and phases of project life-cycle
- Identify the different project success criteria
- Describe project management and discuss key elements of the project management framework, including project stakeholders, the project management knowledge areas, common tools and techniques, and project success factors
- Discuss the relationship between project and program management and their contribution to enterprise success
- Describe the project management profession, including suggested skills for project and program managers

Outline of the unit

1.1. Definition of project
1.2. Characteristics of project
1.3. Project success criteria
1.4. Project stakeholders
1.5. Project Vs Program

1.1 Definition of Project

The term project may be used to define any endeavor that is temporary in nature and with a beginning or an end. The project must create something unique whether it is a product, service or result and must be progressively elaborated. As the definition implies, not every task can be considered a project. It would be worthwhile to keep this definition in mind when categorizing projects and studying their role in the success of the organization. With the above definition of the project, one gets a clear idea on what a project is.

Operations and projects differ primarily in its repeatability. Operations are ongoing and repetitive whereas projects are temporary and unique. A project is thus defined in terms of its distinctive characteristics—a project is a temporary endeavor undertaken to create a unique product or service. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all other products or services. For many organizations, projects are a means to respond to requests that cannot be addressed within the organization’s normal operational limits.

Projects are undertaken at all levels of the organization. They may involve a single person or many thousands. Their duration ranges from a few weeks to a few years. Projects may involve a single unit of one organization or may cross-organizational boundaries. As projects are often implemented as a means of achieving an organization’s strategic plan they are critical for the organizations growth.

You have been handed a project by your organization. Your job now is to effectively manage the project to completion. For your project to be successful, you need to understand what exactly constitutes a project, and which criteria are used to determine whether a project is successful or not.

1.2 Characteristics of projects

The following attributes help to define a project further:

A project has a unique purpose. Every project should have a well-defined objective. For example, many people hire firms to design and build a new house, but each house, like each person, is unique.

A project is temporary. A project has a definite beginning and a definite end. For a home construction project, owners usually have a date in mind when they'd like to move into their new homes.

A project is developed using progressive elaboration or in an iterative fashion. Projects are often defined broadly when they begin, and as time passes, the specific details of the project become more clear. For example, there are many decisions that must be made in planning and building a new house. It works best to draft preliminary plans for owners to approve before more detailed plans are developed.

A project requires resources, often from various areas. Resources include people, hardware, software, or other assets. Many different types of people, skill sets, and resources are needed to build a home.

A project should have a primary customer or sponsor. Most projects have many interested parties or stakeholders, but someone must take the primary role of sponsorship. The project sponsor usually provides the direction and funding for the project.

A project involves uncertainty. Because every project is unique, it is sometimes difficult to define the project's objectives clearly, estimate exactly how long it will take to complete, or determine how much it will cost. External factors also cause uncertainty,

such as a supplier going out of business or a project team member needing unplanned time off. This uncertainty is one of the main reasons project management is so challenging.

1.3 Project success criteria

Every project is constrained in different ways. Some project managers focus on scope, time, and cost constraints. These limitations are sometimes referred to in project management as the triple constraint. To create a successful project, a project manager must consider scope, time, and cost and balance these three often-competing goals. He or she must consider the following:

Scope: What work will be done as part of the project? What unique product, service, or result does the customer or sponsor expect from the project?

Time: How long should it take to complete the project? What is the project's schedule?

Cost: What should it cost to complete the project? What is the project's budget? What resources are needed?

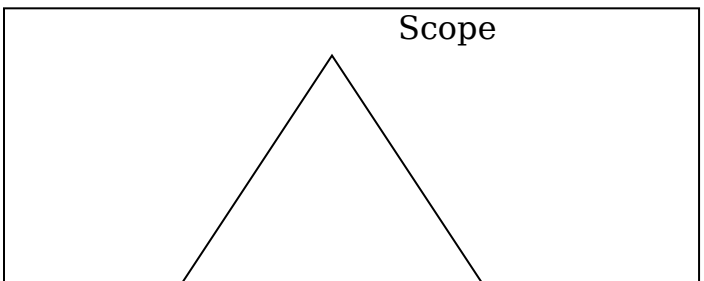
Other people focus on the quadruple constraint, which adds quality as a fourth constraint.

Quality: How good does the quality of the products or services need to be? What do we need to do to satisfy the customer?

Other also suggests these four constraints plus risk.

Risk: How much uncertainty are we willing to accept on the project?

Whatever its size, a project's success is based on the three main criteria as shown by the following triangle:



Time Budget

Your project will therefore be deemed successful if it:

Delivers the outcome with an agreed upon quality.

Does not overrun its end date.

Remains within budget (cost of resources).

Note however, that outcome, time and budget are interrelated, and during a project you may need to do trade-offs between them. For example, if you want to get something done more quickly, you may have to pump in more money into your project for additional resources.

Today’s highly competitive business environment forces organizations to make high-quality products at a lower cost and in a shorter duration. Organizations therefore are increasingly using project management because it allows you to plan and organize resources to achieve a specified outcome within a given timeframe. The techniques of project management also help you manage and anticipate risks in a structured manner. Surveys of organizations using project management have shown that project management allows for better utilization of resources, shorter development times, reduced costs, interdepartmental cooperation that builds synergies across the organization, and a better focus on results and quality.

1.4 Project Stakeholders

Stakeholders are the people involved in or affected by project activities and include the project sponsor, project team, support staff, customers, users, suppliers, and even opponents to the project. These stakeholders often have very different needs and expectations. For example, there are several stakeholders involved in a home construction project.

The project sponsors would be the potential new homeowners. They would be the people paying for the house and could be on a very tight budget, so they would expect the contractor to provide accurate estimates of the costs involved in building the house. They would also need a realistic idea of when they could move in and what type of home they could afford given their budget constraints. The new homeowners would have to make important decisions to keep the costs of the house within their budget. Can they afford to finish the basement right away? If they can afford to finish the basement, will it affect the projected move-in date? In this example, the project sponsors are also the customers and users for the product, which is the house.

The project manager in this example would normally be the general contractor responsible for building the house. He or she needs to work with all the project stakeholders to meet their needs and expectations.

The project team for building the house would include several construction workers, electricians, carpenters, and so on. These stakeholders would need to know exactly what work they must do and when they need to do it. They would need to know if the required materials and equipment will be at the construction site or if they are expected to provide the materials and equipment. Their work would need to be coordinated since there are many interrelated factors involved. For example, the carpenter cannot put in kitchen cabinets until the walls are completed.

Support staff might include the employers of the homeowners, the general contractor’s administrative assistant, and other people who support other stakeholders. The employers of the homeowners might expect their employees to complete their work but allow some flexibility so they can visit the building site or take phone calls related to building the house. The contractor’s administrative assistant would support the project by coordinating meetings between the buyers, the contractor, suppliers, and other stakeholders.

Building a house requires many suppliers. The suppliers would provide the wood, windows, flooring materials, appliances, and other items. Suppliers would expect exact details on what items they need to provide, where and when to deliver those items, and similar information.

Additional stakeholders would include the city council and mayor, who would be interested in increasing revenues. They might suggest certain guidelines for the minimum value of the homes for providing adequate property taxes. The city may also have regulations to ensure the safety of the public in the area of the construction site. The local housing inspector would also be a stakeholder, concerned with ensuring that everything meets specific codes and regulations. There may or may not be opponents to a project. In this example, there might be a neighbor who opposes the project because the workers are making so much noise that she cannot concentrate on her work at home, or the noise might awaken her sleeping children. She might interrupt the workers to voice her complaints or even file a formal complaint.

Alternatively, the neighborhood might have association rules concerning new home design and construction. If the homeowners did not follow these rules, they might have to halt construction due to legal issues. As you can see from this example, there are many different stakeholders on projects, and they all have different interests. Stakeholders’ needs and expectations are important in the beginning and throughout the life of a project.

Successful project managers develop good relationships with project stakeholders to understand and meet their needs and expectations.

1.5 Project Vs Program

A program is “a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually.” As you can imagine, it is often more economical to group projects together to help streamline management, staffing, purchasing, and other work. The following are examples of programs

A construction firm has programs for building single-family homes, apartment buildings, and office buildings. Each home, apartment building, and office building is a separate project for a specific sponsor, but each type of building is part of a program.. There would be several benefits to managing these projects under one program,. For example, for the single-family homes, the program manager could try to get planning approvals for all the homes at once, advertise them together, and purchase common materials in bulk to earn discounts.

A clothing firm has a program to analyze customer-buying patterns. Projects under this program might include one to send out and analyze electronic surveys, one to conduct several focus groups in different geographic locations with different types of buyers, and a project to develop an information system to help collect and analyze current customers’ buying patterns.

A government agency has a program for children’s services, which includes a project to provide pre-natal care for expectant mothers, a project to immunize newborns and young children, and a project for developmental testing for pre-school children., to name a few.

A program manager provides leadership and direction for the project managers heading the projects within the program. Program managers also coordinate the efforts of project teams, functional groups, suppliers, and

operations staff supporting the projects to ensure that project products and processes are implemented to maximize benefits. Program managers are responsible for more than the delivery of project results; they are change agents responsible for the success of products and processes produced by those projects.

Program managers often have review meetings with all their project managers to share important information and coordinate important aspects of each project. Many program managers worked as project managers earlier in their careers, and they enjoy sharing their wisdom and expertise with their project managers. Effective program managers recognize that managing a program is much more complex than managing a single project. They recognize that technical and project management skills are not enough. In addition to skills required for project managers, program managers must also possess strong business knowledge, leadership capability, and communication skills.