

1. Introduction to Project Management

Introduction

Realization of these objectives requires systematic planning and careful implementation. To this effect, application of knowledge, skill, tools and techniques in the project environment, refers to project management. Project management in recent years has proliferated, reaching new heights of sophistication. It has emerged as a distinct area of management practices to meet the challenges of new economic environment, globalization process, rapid technological advancement, and quality concerns of the stakeholders.

Project Definition

Project in general refers to a new endeavor with specific objective and varies so widely that it is very difficult to precisely define it. Some of the commonly quoted definitions are as follows. Project is a temporary endeavor undertaken to create a unique product or service or result. (AMERICAN National Standard ANSI/PMI99-001-2004)

Project is a unique process, consist of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time cost and resource.

(ISO10006)

Examples of project include Developing a watershed, Creating irrigation facility, Developing new variety of a crop, Developing new breed of an animal, Developing agro-processing centre, Construction of farm building, sting of a concentrated feed plant etc. It may be noted that each of these projects differ in composition, type, scope, size and time.

Project Characteristics

Despite above diversities, projects share the following common characteristics.

- Unique in nature.
- Have definite objectives (goals) to achieve.
- Requires set of resources.
- Have a specific time frame for completion with a definite start and finish.
- Involves risk and uncertainty.
- Requires cross-functional teams and interdisciplinary approach.

Project Performance Dimensions

Three major dimensions that define the project performance are scope, time, and resource. These parameters are interrelated and interactive. The relationship generally represented as an equilateral triangle. The relationship is shown in figure 1.

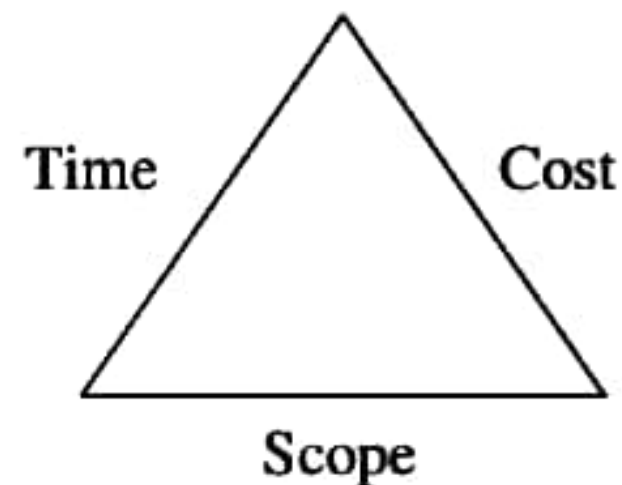


Figure 1. Project performance dimensions

It is evident that any change in any one of dimensions would affect the other. For example, if the scope is enlarged, project would require more time for completion and the cost would also go up. If time is reduced the scope and cost would also be required to be reduced. Similarly any change in cost would be reflected in scope and time. Successful completion of the project would require accomplishment of specified goals within scheduled time and budget. In recent years a fourth dimension, stakeholder satisfaction, is added to the project. However, the other school of management argues that this dimension is an inherent part of the scope of the project that defines the specifications to which the project is required to be implemented. Thus the performance of a project is measured by the degree to which these three parameters (scope, time and cost) are achieved.

Mathematically

$$\text{Performance} = f(\text{Scope, Cost, Time})$$

In management literature, this equilateral triangle is also referred as the "Quality triangle" of the project.