Information Technology Project Management – Fifth Edition

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The Nature of Information Technology Projects

Chapter 1

Learning Objectives

- Understand why information technology (IT) projects are organizational investments..

- Understand why projects are planned organizational change and why they must align with an organization's business strategy.

- Define what a project is and describe the attributes of a project.

- Define the discipline called project management.

- Understand the relationship among project portfolios, programs, and projects.

- Understand how the disciplines of information technology and project management have evolved together and have led to how we manage projects today

- Understand the current state of IT project management.

- Understand why some projects fail and how to improve the likelihood of success.

Introduction

▶ Information Technology (IT) projects are organizational investments that require

  ▶ Time

  ▶ Money

  ▶ And other resources such as people, technology, facilities, etc.

▶ Organizations expect some type of value in return for this investment

▶ IT projects enable the integration of technology in new products, services, or processes that can change existing relationships between an organization and its customers and suppliers as well as among the people within the organization.

The PMBOK® Guide's Definitions for …

- A *project* is a temporary endeavor undertaken to create a unique product, service, or result.

- A *project manager* is the person assigned by the performing organization to achieve the project objectives.

Project Attributes

- Time Frame
- Purpose (to provide value!)
- Ownership
- Resources (the triple constraint)
- Roles
  - Project Manager
  - Project Sponsor
  - Subject Matter Expert (SME)
  - Technical Expert (TE)
- Risk & Assumptions
- Interdependent Tasks
  - *progressive elaboration* – steps & increments
- Planned Organizational Change
- Operate in Environments Larger than the Project Itself

What is Project Management?

▸ *Project Management* is the application of knowledge, skills, tools and techniques to project activities to meet project requirements.

▸ *Project Portfolio* – a collection of diverse projects managed collectively to align with the organization's strategy and overall plan to achieve competitive advantage.

▸ *Program* – a collection of projects within a project portfolio whose activities are coordinated so that the benefits of the program are great than the sum of the benefits of the individual projects.

Project Management and Information Technology

1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s

First Electronic Computer

EDP Era

PC Era

Network Era

Globalization

The State of IT Project Management

▸ The Standish Group (the CHAOS studies) and others have studied IT project success and failure.

▸ In general, a successful project is defined as one that is completed on time, within budget, and including all of the features or requirements envisioned.

▸ The bottom line is that, on a percentage basis, failed or challenged projects greatly exceed successful projects.

Why Many Projects Fail: Project Failure can be grouped into four categories –

▸ People – The stakeholders of a project with varied roles and interests in the project's success or failure.

▸ Processes – This includes having a set of project management and product management processes.

▸ Technology – Only three percent of IT project failures can be attributed to technical challenges but this percentage can be increased if obsolete, unproven, or incompatible technologies are used.

▸ Organization – Organizational issues can lead to project failure. A lack of clear direction, improper strategy, rapidly changing business environment and/or customer needs can create a moving target for the product's product or service.

Why Many Projects Fail: Project Failure can be grouped into four categories – Examples

People	Processes	Technology	Organization
• Lack of Top Management Support • Ineffective User Involvement • Lack of Skills • Lack of Experience • Poor Communication • Poorly Defined Roles and Responsibilities • Lack of Accountability • Unrealistic Expectations • Conflicting Stakeholder Goals • Poor Decisions	• Poorly Defined Goals & Objectives • Poor Planning • Lack of Controls • Poorly Defined Requirements • Changing Requirements • Inadequate Testing • Project Management & Product Development Processes Nonexistent or Not Followed • Poor Execution	• Obsolete • Unproven • Incompatible	• Lack of Direction • Changing Priorities • Lack of Funding • Competition for Funding • Organizational Politics • Bureaucracy • Lack of Oversight • Poor Change Management

Improving the likelihood of success

- ## A Value-Driven Approach
  - Plain & Simple: IT Projects must provide value to the organization

- ## Socio-technical Approach
  - It's not just about the technology or building a better mouse trap

- ## Project Management Approach
  - processes and infrastructure (Methodology)
  - resources
  - expectations
  - competition
  - efficiency and effectiveness

- ## Knowledge Management Approach
  - lessons learned, best practices & shared knowledge