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 greater than the sum of the benefits of the individual projects.
Project Management and Information Technology

<table>
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<th>1940s</th>
<th>1950s</th>
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<th>1980s</th>
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<tr>
<td>First Electronic Computer</td>
<td>EDP Era</td>
<td>PC Era</td>
<td>Network Era</td>
<td>Globalization</td>
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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

<table>
<thead>
<tr>
<th>People</th>
<th>Processes</th>
<th>Technology</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Lack of Top Management Support</td>
<td>Poorly Defined Goals &amp; Objectives</td>
<td>Obsolete</td>
<td>Lack of Direction</td>
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<td>Ineffective User Involvement</td>
<td>Poor Planning</td>
<td>Unproven</td>
<td>Changing Priorities</td>
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<td>Lack of Skills</td>
<td>Lack of Controls</td>
<td>Incompatible</td>
<td>Lack of Funding</td>
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<td>Lack of Experience</td>
<td>Poorly Defined Requirements</td>
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<td>Competition for Funding</td>
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<td>Poor Communication</td>
<td>Changing Requirements</td>
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<td>Organizational Politics</td>
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<td>Poorly Defined Roles and Responsibilities</td>
<td>Inadequate Testing</td>
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<td>Bureaucracy</td>
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<td>Lack of Accountability</td>
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<td>Lack of Oversight</td>
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<td>Unrealistic Expectations</td>
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<td>Poor Change Management</td>
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<td>Conflicting Stakeholder Goals</td>
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<td>Poor Decisions</td>
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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