Chapter 1: Introduction to Project Management

Information Technology Project Management, Seventh Edition

ĐẶNG THỊ THU HÀ – SE
dtthuha79@gmail.com
https://lms.iuh.edu.vn
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Learning Objectives

- Understand the growing need for better project management, especially for information technology (IT) projects

- Explain what a project is, provide examples of IT projects, list various attributes of projects, and describe the triple constraint of project management

- 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

Learning Objectives

▸ Discuss the relationship between project, program, and portfolio management and the contributions each makes to enterprise success

▸ Understand the role of project managers by describing what they do, what skills they need, and career opportunities for IT project managers

▸ Describe the project management profession, including its history, the role of professional organizations like the Project Management Institute (PMI), the importance of certification and ethics, and the advancement of project management software

Introduction

▸ Many organizations today have a new or renewed interest in project management

▸ Computer hardware, software, networks, and the use of interdisciplinary and global work teams have radically changed the work environment

▸ The world as a whole spends nearly $10 trillion of its $40.7 trillion gross product on projects of all kinds

▸ More than 16 million people regard project management as their profession

What Is a Project?

- A **project** is "a temporary endeavor undertaken to create a unique product, service, or result" (PMBOK® Guide, Fifth Edition, 2012)

- Projects end when their objectives have been reached or the project has been terminated

- Projects can be large or small and take a short or long time to complete

Examples of IT Projects

- A team of students creates a smartphone application and sells it online

- A company develops a driverless car

- A small software development team adds a new feature to an internal software application for the finance department

- A college upgrades its technology infrastructure to provide wireless Internet access across the whole campus

Project and Program Managers

- **Project managers** work with project sponsors, project team, and other people involved in a project to meet project goals

- **Program managers** oversee programs; often act as bosses for project managers

Program

▸ A **program** is "a group of related projects, subsidiary programs, and program activities managed in a coordinated manner to obtain benefits and control not available from managing them individually."

Portfolios, Programs, and Projects

- A portfolio organizes programs, projects, sub-portfolios, sub-programs, and operations to facilitate business benefits. The organization groups its initiatives, investments, projects, and programs through portfolios or lines of business aligning to the organization's benefits. The program can have a group of projects or programs under them aligned to the respective portfolio or sub-portfolio
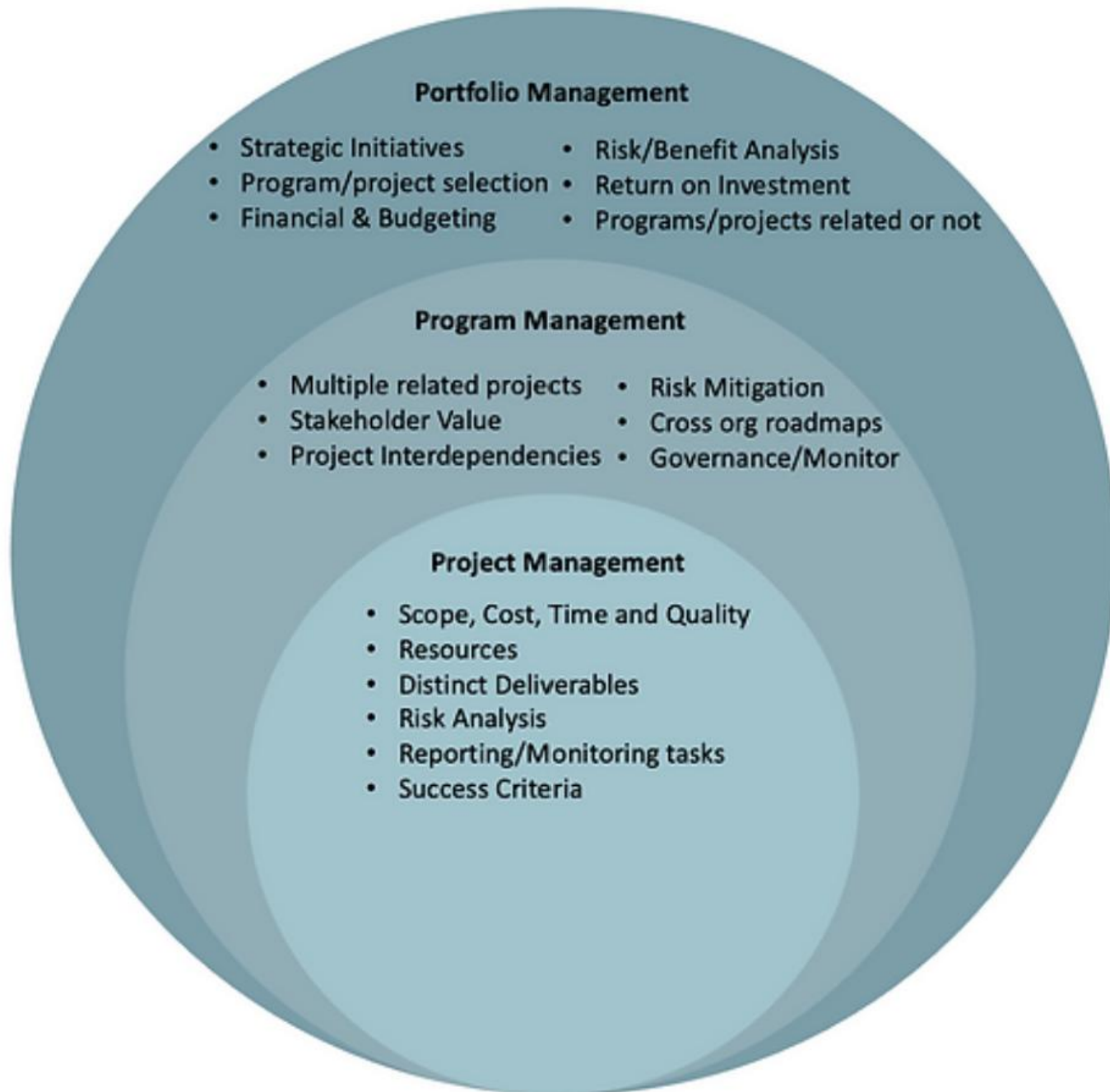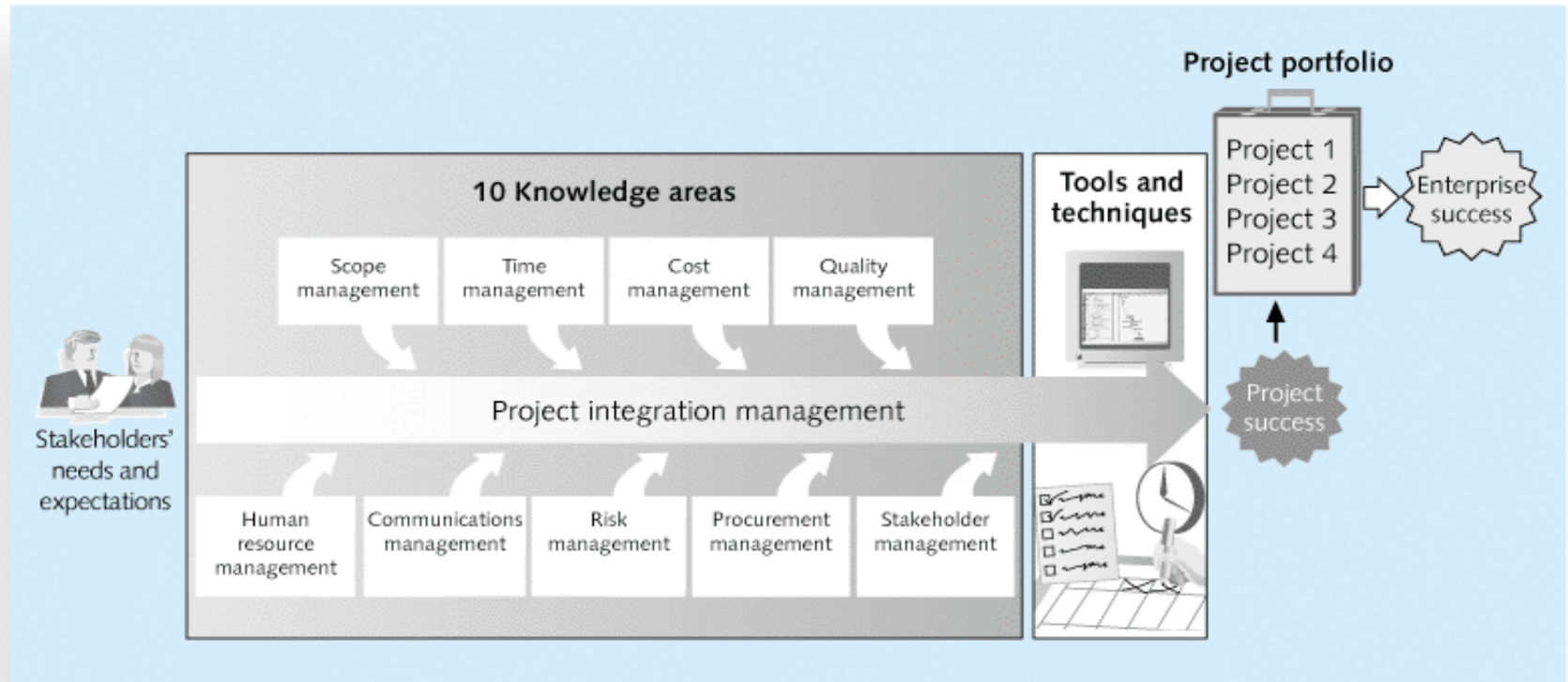
Portfolio Management
- Strategic Initiatives
- Program/project selection
- Financial & Budgeting
- Risk/Benefit Analysis
- Return on Investment
- Programs/projects related or not

Program Management
- Multiple related projects
- Stakeholder Value
- Project Interdependencies
- Risk Mitigation
- Cross org roadmaps
- Governance/Monitor

Project Management
- Scope, Cost, Time and Quality
- Resources
- Distinct Deliverables
- Risk Analysis
- Reporting/Monitoring tasks
- Success Criteria

Figure 1-1 The Triple Constraint of Project Management

Successful project management means meeting all three goals (scope, time, and cost)—and satisfying the project's sponsor!

Target

Scope goal

Cost goal

Time goal

What is Project Management?

- **Project management** is "the application of knowledge, skills, tools and techniques to project activities to meet project requirements" (PMBOK® Guide, Fourth Edition, 2012)
- Project managers strive to meet the **triple constraint** (project scope, time, and cost goals) and also facilitate the entire process to meet the needs and expectations of project stakeholders

Figure 1-2 Project Management Framework

Project Stakeholders

- **Stakeholders** are the people involved in or affected by project activities
- Stakeholders include
  - the project sponsor
  - the project manager
  - the project team
  - support staff
  - customers
  - users
  - suppliers
  - opponents to the project

Project Management Tools and Techniques

- **Project management tools and techniques** assist project managers and their teams in various aspects of project management
- Some specific ones include
  - Project charter, scope statement, and WBS (scope)
  - Gantt charts, network diagrams, critical path analysis, critical chain scheduling (time)
  - Cost estimates and earned value management (cost)

Super Tools

- "**Super tools**" are those tools that have high use and high potential for improving project success, such as:
  - Software for task scheduling (such as project management software)
  - Scope statements
  - Requirements analyses
  - Lessons-learned reports
- Tools already extensively used that have been found to improve project importance include:
  - Progress reports
  - Kick-off meetings
  - Gantt charts
  - Change requests

Project Success

▸ There are several ways to define project success:

- ◦ The project met scope, time, and cost goals
- ◦ The project satisfied the customer/sponsor
- ◦ The results of the project met its main objective, such as making or saving a certain amount of money, providing a good return on investment, or simply making the sponsors happy

Table 1-2: What Helps Projects Succeed?*

1. User involvement
2. Executive support
3. Clear business objectives
4. Emotional maturity
5. Optimizing scope
6. Agile process
7. Project management expertise
8. Skilled resources
9. Execution
10. Tools and infrastructure

*The Standish Group, "CHAOS Activity News" (August 2011).

The Role of the Project Manager

▸ Job descriptions vary, but most include responsibilities like planning, scheduling, coordinating, and working with people to achieve project goals

▸ Remember that 97% of successful projects were led by experienced project managers, who can often help influence success factors

Suggested Skills for Project Managers

- The Project Management Body of Knowledge
- Application area knowledge, standards, and regulations
- Project environment knowledge
- General management knowledge and skills
- Soft skills or human relations skills

Table 1-3 Ten Most Important Skills and Competencies for Project Managers

1. People skills
2. Leadership
3. Listening
4. Integrity, ethical behavior, consistent
5. Strong at building trust
6. Verbal communication
7. Strong at building teams
8. Conflict resolution, conflict management
9. Critical thinking, problem solving
10. Understands, balances priorities

Importance of Leadership Skills

▸ Effective project managers provide leadership by example

▸ A **leader** focuses on long-term goals and big-picture objectives while inspiring people to reach those goals

▸ A **manager** deals with the day-to-day details of meeting specific goals

▸ **Project managers** often take on the role of both leader and manager

Chapter Summary

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

- Project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements

- A program is a group of related projects managed in a coordinated way

- Project managers play a key role in helping projects and organizations succeed

- The project management profession continues to grow and mature