Chapter 3:
The Project Management Process Groups:
A Case Study

Information Technology Project Management

Learning Objectives

- Describe the five project management (PM) process groups, the typical level of activity for each, and the interactions among them
- Understand how the PM process groups relate to the PM knowledge areas
- Discuss how organizations develop information technology PM methodologies to meet their needs

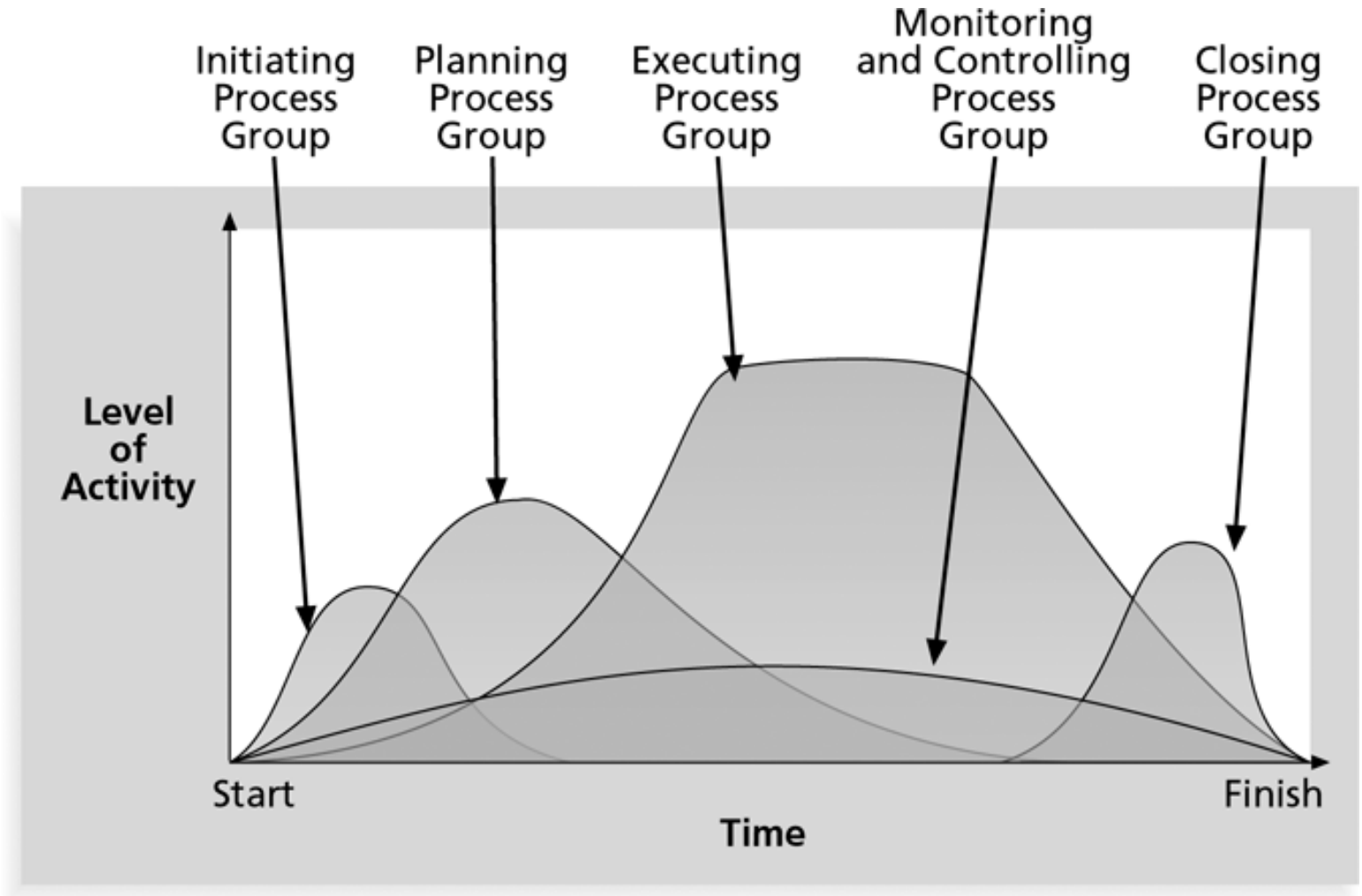
Learning Objectives (continued)

- Review a case study of an organization applying the PM process groups to manage an information technology project, and understand the contribution that effective project initiation, project planning, project execution, project monitoring and controlling, and project closing make to project success

Project Management Process Groups

- A **process** is a series of actions directed toward a particular result
- Project management can be viewed as a number of interlinked processes
- The project management process groups include:
  - Initiating processes
  - Planning processes
  - Executing processes
  - Monitoring and controlling processes
  - Closing processes

Figure 3-1: Level of Activity and Overlap of Process Groups Over Time



What Went Wrong?

- Philip A. Pell, PMP, commented on how the U.S. IRS needed to improve its project management process. "Pure and simple, good, methodology-centric, predictable, and repeatable project management is the SINGLE greatest factor in the success (or in this case failure) of any project… The project manager is ultimately responsible for the success or failure of the project."*
- In 2006, the IRS lost over $320 million due to a botched fraud-detection system project

*Comments posted on CIO Magazine Web site on article "For the IRS, There's No EZ Fix," (April 1, 2004).

Media Snapshot

Just as information technology projects need to follow the project management process groups, so do other projects, such as the production of a movie. Processes involved in making movies might include screenwriting (initiating), producing (planning), acting and directing (executing), editing (monitoring and controlling), and releasing the movie to theaters (closing). Many people enjoy watching the extra features on a DVD that describe how these processes lead to the creation of a movie… This acted "…not as promotional filler but as a serious and meticulously detailed examination of the entire filmmaking process."* Project managers in any field know how important it is to follow a good process.

*Jacks, Brian, "Lord of the Rings: The Two Towers Extended Edition (New Line)", Underground Online (accessed from *www.ugo.com* August 4, 2004).

Mapping the Process Groups to the Knowledge Areas

- You can map the main activities of each PM process group into the nine knowledge areas using the PMBOK® Guide 2004
- Note that there are activities from each knowledge area under the planning and monitoring and controlling process groups
- All initiating activities are part of the project integration management knowledge area

Table 3-1: Relationships Among Process Groups and Knowledge Areas (PMBOK® Guide 2004, p. 69)

KNOWLEDGE AREA	PROJECT MANAGEMENT PROCESS GROUPS				
	INITIATING	PLANNING	EXECUTING	MONITORING & CONTROLLING	CLOSING
Project Integration Management	Develop project charter, Develop preliminary project scope statement	Develop project management plan	Direct and manage project execution	Monitor and control project work, Integrated change control	Close project
Project Scope Management		Scope planning, Scope definition, Create WBS		Scope verification, Scope control	
Project Time Management		Activity definition, Activity sequencing, Activity resource estimating, Activity duration estimating, Schedule development		Schedule control	
Project Cost Management		Cost estimating, Cost budgeting		Cost control	

Table 3-1: Relationships Among Process Groups and Knowledge Areas (continued)

KNOWLEDGE AREA	PROJECT MANAGEMENT PROCESS GROUPS				
	INITIATING	PLANNING	EXECUTING	MONITORING & CONTROLLING	CLOSING
Project Quality Management		Quality planning	Perform quality assurance	Perform quality control	
Project Human Resource Management		Human resource planning	Acquire project team, Develop project team	Manage project team	
Project Communications Management		Communications planning	Information distribution	Performance reporting, Manage stakeholders	
Project Risk Management		Risk management planning, Risk identification, Qualitative risk analysis, Quantitative risk analysis, Risk response planning		Risk monitoring and control	
Project Procurement Management		Plan purchases and acquisitions, Plan contracting	Request seller responses, Select sellers	Contract administration	Contract closure

PMBOK® Guide Third Edition, 2004, p. 69

Developing an IT Project Management Methodology

- Just as projects are unique, so are approaches to project management
- Many organizations develop their own project management methodologies, especially for IT projects; a **methodology** describes how things should be done
- Blue Cross Blue Shield of Michigan used the PMBOK as a guide in developing their IT project management methodology
- Six Sigma projects and the Rational Unified Process (RUP) framework use project management methodologies

What Went Right?

Jordan Telecom (JT), Jordan's only telecom operator, introduced new customized project management processes to improve efficiency and reduce costs in its Information Technology department…JT created three lines of processes based on the size of the project: high, medium, or low. ..Rula Ammuri, JT's Chief Information Officer, believes this new methodology will result in a 40-50 percent increase in productivity."*

*Al-Tamimi, Fairooz, "Jordanian Company Uses PMI Methods to 'Go Global,' Improve Productivity," PMI Today (August 2004).

Case Study: JWD Consulting's Project Management Intranet Site

- This case study provides an example of what's involved in initiating, planning, executing, controlling, and closing an IT project
- You can download templates for creating your own project management documents from the companion Web site for this text
- Note: This case study provides a big picture view of managing a project; later chapters provide detailed information on each knowledge area

Project Initiation

- Initiating a project includes recognizing and starting a new project or project phase
- Some organizations use a pre-initiation phase, while others include items like developing a business case as part of initiation
- The main goal is to formally select and start off projects
- Key outputs include:
  - Assigning the project manager
  - Identifying key stakeholders
  - Completing a business case
  - Completing a project charter and getting signatures on it

Project Initiation Documents

- Business case: see pp. 91-93
- Charter: see pp. 94-95
- Note: Every organization has its own variations of what documents are required for project initiation
  - It's important to identify the need for projects, who the stakeholders are, and what the main goals are for the project

Project Planning

- The main purpose of project planning is to guide execution
- Every knowledge area includes planning information (see Table 3-5 on pp. 96-97)
- Key outputs included in the JWD project include:
  - A team contract
  - A project scope statement
  - A work breakdown structure (WBS)
  - A project schedule, in the form of a Gantt chart with all dependencies and resources entered
  - A list of prioritized risks (part of a risk register)
- See sample documents on pp. 99-106

Figure 3-4: JWD Consulting Intranet Site Project Baseline Gantt Chart

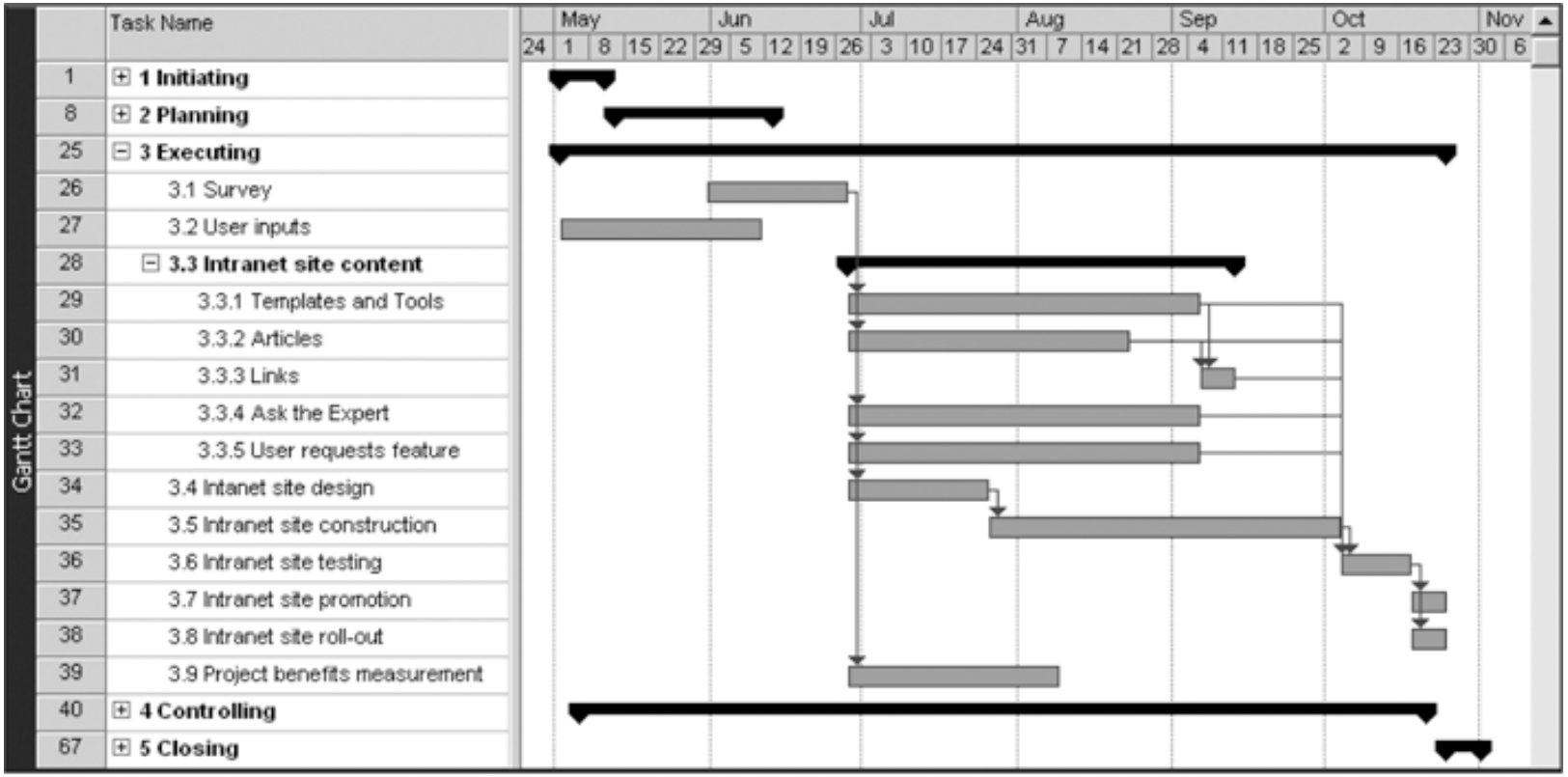


Table 3-8: List of Prioritized Risks

Ranking	Potential Risk
1	Lack of inputs from internal consultants
2	Lack of inputs from client representatives
3	Security of new system
4	Outsourcing/purchasing for the article retrieval and "Ask the Expert" features
5	Outsourcing/purchasing for processing online payment transactions
6	Organizing the templates and examples in a useful fashion
7	Providing an efficient search feature
8	Getting good feedback from Michael Chen and other senior consultants
9	Effectively promoting the new system
10	Realizing the benefits of the new system within one year

Project Executing

- Usually takes the most time and resources to perform project execution
- Project managers must use their leadership skills to handle the many challenges that occur during project execution
- Table 3-9 on pp. 106-107 lists the executing processes and outputs; many project sponsors and customers focus on deliverables related to providing the products, services, or results desired from the project
- A milestone report (example on pp. 108-109) can help focus on completing major milestones

Table 3-1

Milestone	Date	Status	Responsible	Issues/Comments
Initiating				
Project manager determined/assigned	May 2	Completed	Joe	
Business case created	May 6	Completed	Erica	
Project charter signed	May 10	Completed	Erica	
Planning				
Project kickoff meeting held	May 13	Completed	Erica	Went well
Team contract signed	May 13	Completed	Erica	
Scope statement completed	May 27	Completed	Erica	
WBS completed	May 31	Completed	Erica	
List of prioritized risks completed	June 3	Completed	Erica	Reviewed with sponsor and team
Schedule and cost baseline completed	June 13	Completed	Erica	
Executing				
Survey completed	June 28		Erica	Poor response so far!
Intranet site design completed	July 26		Kevin	
Project benefits measurement completed	August 9		Erica	

Best Practice

- One way to learn about best practices in project management is by studying recipients of PMI's Project of the Year award
- The Quartier international de Montreal (QIM), Montreal's international district, was a 66-acre urban revitalization project in the heart of downtown Montreal
- This $90 million, five-year project turned a once unpopular area into a thriving section of the city with a booming real estate market, and generated $770 million in related construction

Project Monitoring and Controlling

- Involves measuring progress toward project objectives, monitoring deviation from the plan, and taking correction actions
- Affects all other process groups and occurs during all phases of the project life cycle
- Outputs include performance reports, requested changes, and updates to various plans

Project Closing

- Involves gaining stakeholder and customer acceptance of the final products and services
- Even if projects are not completed, they should be closed out to learn from the past
- Outputs include project archives and lessons learned, part of organizational process assets
- Most projects also include a final report and presentation to the sponsor/senior management

Templates

- Table 3-16 on pp. 118-119 lists the templates available on the companion Web site (www.course.com/mis/schwalbe5e)

Chapter Summary

- The five project management process groups are initiating, planning, executing, monitoring and controlling, and closing
- You can map the main activities of each process group to the nine knowledge areas
- Some organizations develop their own information technology project management methodologies
- The JWD Consulting case study provides an example of using the process groups and shows several important project documents