CHAPTER 1

Project Management Concepts

Chapter Concepts

- Definition of a project and its attributes
- Key constraints within which a project must be managed
- Life cycle of a project
- Definition of project management
- Elements of the project management process
- Identification and engagement of stakeholders
- Implications of global project management
- Project Management Institute
- Benefits of project management

Learning Outcomes

- Define what a project is
- List and discuss the attributes of a project
- Explain what is meant by project objective
- Define what is meant by project deliverable
- Provide examples of projects
- Discuss project constraints
- Describe the phases of the project life cycle
- Define and apply project management

- Discuss the steps of the planning process
- Identify the three elements of the executing process
- Create a stakeholder register
- Discuss stakeholder engagement
- Discuss some implications of global project management
- Discuss the Project Management Institute
- List benefits of project management techniques

Project Management Knowledge Areas from *PMBOK® Guide*

Project Integration Management

Project Attributes

- Clear objective
- Series of interdependent activities
- Various resources
- Specific time frame
- Unique, one-time endeavor
- Sponsor or customer
- Degree of uncertainty
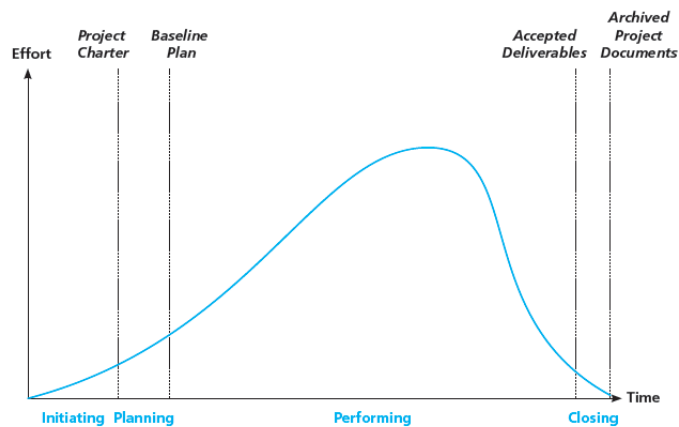
Balancing Project Constraints

FIGURE 1.1 Factors Constraining Project Success

Project Manager Actions

- Prevent, anticipate, overcome
- Have good planning and communication
- Be responsible

The Project Life Cycle

FIGURE 1.2 Project Life Cycle Effort

Initiating Phase

- First phase
- Identify need, problem, or opportunity
- Determine if select project
- Develop project charter
  - Rationale
  - Project objective
  - Expected benefits
  - General requirements and conditions
- Decide if RFP needed
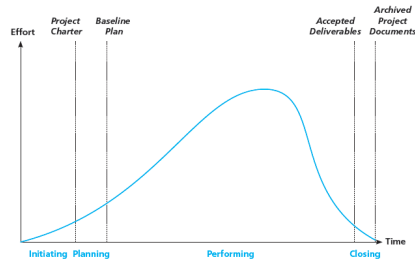
FIGURE 1.2 Project Life Cycle Effort

Planning Phase

- Second Phase
- Show how project scope will be accomplished
- Plan the work and work the plan
- Develop baseline plan
  - *What needs to be done* -- scope, deliverable
  - *How it will get done* -- activities, sequence
  - *Who will do it* -- resources, responsibilities
  - *How long it will take* -- durations, schedule
  - *How much it will cost* -- budget
  - *What the risks are*
- Have actual resources plan the work
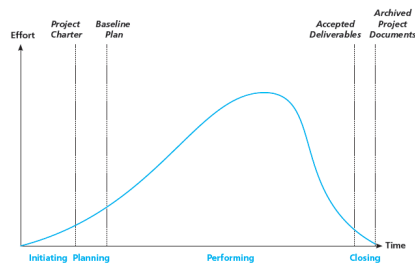
FIGURE 1.2 Project Life Cycle Effort

Performing Phase

- Third phase
- Accomplish project objectives
  - Project manager leads
  - Project team completes the project
- Increase pace as more resources are added
- Monitor and control progress
- Take corrective action as needed
- Manage and control changes with sponsor approval
- Achieve customer satisfaction with acceptance of deliverable
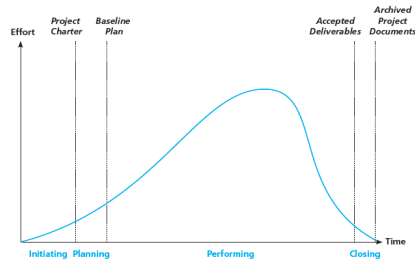
FIGURE 1.2   Project Life Cycle Effort

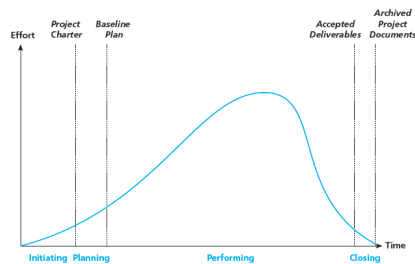## Closing Phase

- Final phase
- Collect and make final payments
- Recognize and evaluate staff
- Conduct post project evaluation
- Document lessons learned
- Archive project documents
- Record lessons learned

FIGURE 1.2   Project Life Cycle Effort

Project Planning Process

- Establish project objective
- Define scope
- Create WBS
- Assign responsibility
- Define specific activities
- Sequence activities
- Estimate activity resources
- Estimate activity durations
- Develop project schedule
- Estimate activity costs
- Determine budget
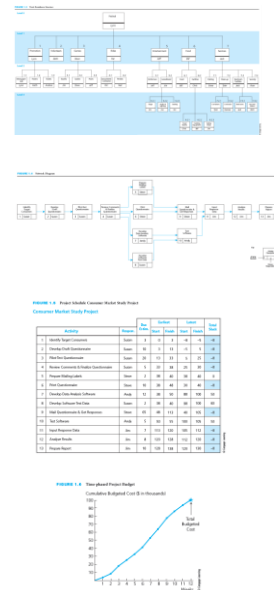
Create WBS and Assign Responsibility

FIGURE 1.3 Work Breakdown Structure

Sequence Activities

FIGURE 1.4   Network Diagram
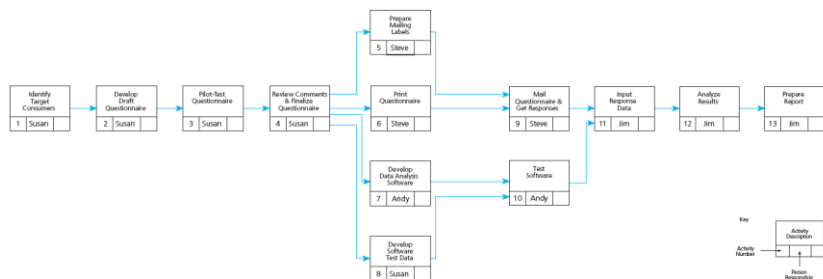
Develop the Project Schedule

FIGURE 1.5   Project Schedule Consumer Market Study Project

Consumer Market Study Project

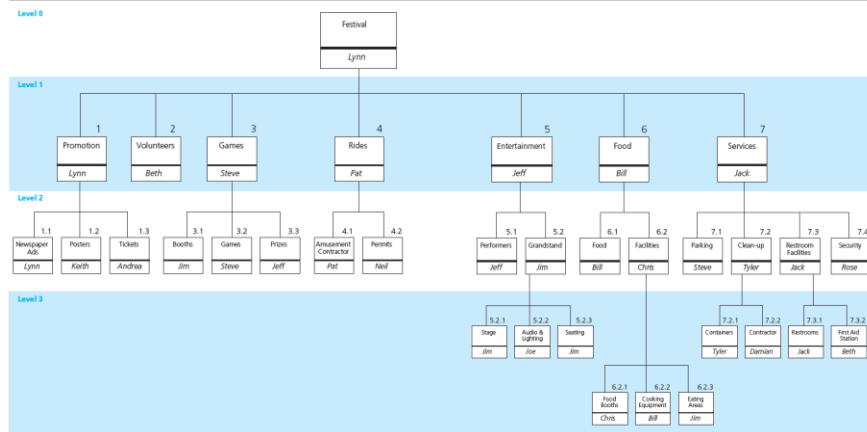|	Activity	Respon.	Dur. Estim.	Earliest		Latest		Total Slack
				Start	Finish	Start	Finish	
1	Identify Target Consumers	Susan	3	0	3	−8	−5	−8
2	Develop Draft Questionnaire	Susan	10	3	13	−5	5	−8
3	Pilot-Test Questionnaire	Susan	20	13	33	5	25	−8
4	Review Comments & Finalize Questionnaire	Susan	5	33	38	25	30	−8
5	Prepare Mailing Labels	Steve	2	38	40	38	40	0
6	Print Questionnaire	Steve	10	38	48	30	40	−8
7	Develop Data Analysis Software	Andy	12	38	50	88	100	50
8	Develop Software Test Data	Susan	2	38	40	98	100	60
9	Mail Questionnaire & Get Responses	Steve	65	48	113	40	105	−8
10	Test Software	Andy	5	50	55	100	105	50
11	Input Response Data	Jim	7	113	120	105	112	−8
12	Analyze Results	Jim	8	120	128	112	120	−8
13	Prepare Report	Jim	10	128	138	120	130	−8

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Determine Budget

FIGURE 1.6 Time-phased Project Budget
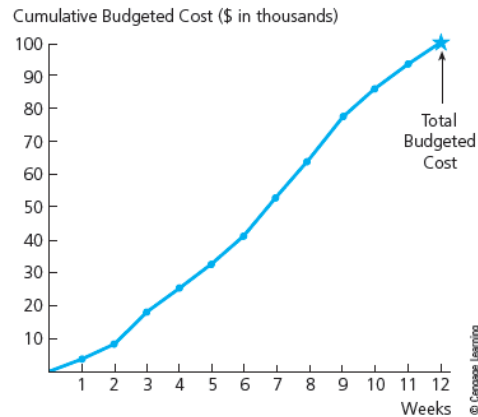
Execute the Project Plan

- Perform the work
- Monitor and control progress
- Control changes
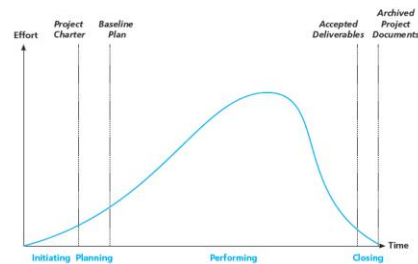
FIGURE 1.2 Project Life Cycle Effort

Stakeholder Engagement

Who are Stakeholders?

- Customer/sponsor
- Project team including subcontractors and suppliers
- Organizations or groups
  - Supportive or adversarial
  - Want to be kept informed because of potential impact

What to Create

- Stakeholder register
  - Created as identify stakeholders
  - Include
    - Key contact information
    - Role or specific topics of interest
    - Expectations
    - Any known issues
    - Areas of potential influence
- Issue log

Global Project Management

Globalization

- Adds a dimension of complexity
- Changes project dynamics
- Requires awareness of factors
  - Cultural differences
  - Currency
  - Codes and regulations
  - Business organization
  - Political relations
  - Workforce availability

Helpful Competencies

- Foreign language skills
- Knowledge of
  - Cultures
  - Geography
  - World history and contemporary events
  - International economics
- Awareness of
  - Customs and etiquette
  - Geopolitical environment
- Technology adoption and translation software

Project Management Associations

Project Management Institute

- Worldwide not-for-profit association of practitioners
  - ~500,000 members in nearly 200 countries
  - ~270 chapters in >80 countries
- >30 online communities for collaboration
- *PMBOK® Guide*
- *PMI Code of Ethics and Professional Conduct*
- Certifications
- www.pmi.org

Global Associations

- Links available at www.cengagebrain.com
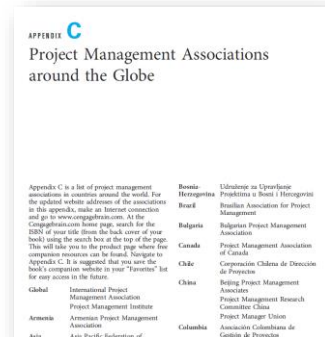
APPENDIX **C**
Project Management Associations around the Globe

Critical Success Factors

- **Planning and communication** are critical to successful project management. They prevent problems from occurring or minimize their impact on the achievement of the project objective when they do occur.
- Taking the time to develop **a well thought-out plan** before the start of the project is critical to the successful accomplishment of any project.
- A project must have **a clear objective** of what is to be accomplished and defined in terms of end product or deliverable, schedule, and budget; and is agreed upon by the customer.
- **Involve the sponsor** or customer as a partner in the successful outcome of the project through active participation during the project.
- Achieving customer satisfaction requires **ongoing communication** with the customer to keep the customer informed and to determine whether expectations have changed.
- The key to effective project control is **measuring actual progress** and comparing it to planned progress on a timely and regular basis and taking any needed corrective action immediately.
- After the conclusion of a project, the **project performance** should be evaluated to learn what could be improved if a similar project were to be undertaken in the future. **Feedback** should be obtained from the sponsor or customer and the project team.
- **Learning and understanding the culture and customs** of other project participants will demonstrate respect, help build trust, and aid in developing an effective project team; and it is critical for successful global project management.

Summary

- A project is an endeavor to accomplish a specific objective through a unique set of interrelated activities and the effective utilization of resources.
- The successful accomplishment of the project objective could be constrained by many factors, including scope, quality, schedule, budget, resources, risks, customer satisfaction, and stakeholder support.
- The project life cycle has four phases: initiating, planning, performing, and closing the project.
- Project management is planning, organizing, coordinating, leading, and controlling resources to accomplish the project objective. The project management process involves two major functions: first establishing a plan and then executing that plan to accomplish the project objective.
- Globalization changes the dynamics of a project and adds a layer of complexity that can adversely affect the project outcome if the project participants are not aware of what they can encounter regarding cultural differences and multinational economic transactions.
- The Project Management Institute is a premier worldwide not-for-profit association for practitioners in the project management profession.
- The ultimate benefit of implementing project management techniques is having a satisfied customer—whether you are the customer of your own project or a business (contractor) being paid by a customer to perform a project.