BCA 3rd Semester(TU)

Managing the Information System

Unit – 3

Managing the Information System

After studying this unit, you should be able to

- Explain the process of managing an information systems project, including project initiation, project planning, project execution, and project closedown,
- Describe how to represent and schedule project plans using Gantt charts and network diagrams, and
- Explain how commercial project management software packages can be used to assist in representing and managing project schedules

Introduction

- In this chapter, we focus on the systems analyst's role in managing information systems projects and will refer to this role as the **project manager**.
- We will then be provided with an understanding of the project manager's role and the project management process.
- The discussion then turns to techniques for reporting project plans using Gantt charts and network diagrams.
- The chapter will conclude with a discussion of the use of commercially available project management software that can be used to assist with a wide variety of project management activities.

Managing the Information System Project

- Project management is an important aspect of the development of information systems and a critical skill for a systems analyst.
- The focus of project management is to ensure that systems development projects meet customer expectations and are delivered within budget and time constraints.
- The **project manager** is a systems analyst with a diverse set of skills— management, leadership, technical, conflict management, and customer relationship—who is responsible for initiating, planning, executing, and closing down a project.

Managing the Information System Project

- As a project manager, your environment is one of continual change and problem solving.
- In some organizations, the project manager is a very experienced systems analyst, whereas in others, both junior and senior analysts are expected to take on this role, managing parts of a project or actively supporting a more senior colleague who assumes the project manager role.
- Understanding the project management process is a critical skill for your future success.

Managing the Information System Project

- Creating and implementing successful projects requires managing the resources, activities, and tasks needed to complete the information systems project.
- A project is a planned undertaking of a series of related activities to reach an objective that has a beginning and an end.
- Project management is a controlled process of initiating, planning, executing, and closing down a project.

Activities Project Manager

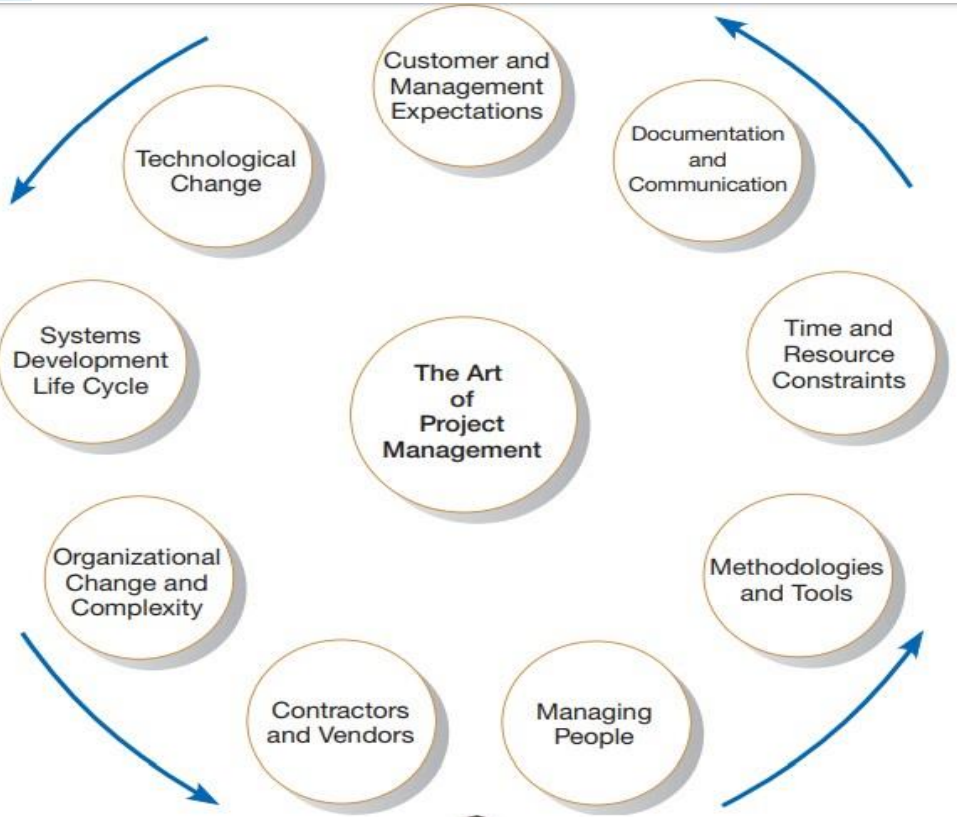


FIGURE 3-4
A project manager juggles numerous activities
Source: ra2 studio/Fotolia

Common Activities

TABLE 3-1 Common Activities and Skills of a Project Manager

Activity	Description	Skill
Leadership	Influencing the activities of others toward the attainment of a common goal through the use of intelligence, personality, and abilities	Communication; liaison between management, users, and developers; assigning activities; monitoring progress
Management	Getting projects completed through the effective utilization of resources	Defining and sequencing activities; communicating expectations; assigning resources to activities; monitoring outcomes
Customer relations	Working closely with customers to ensure that project deliverables meet expectations	Interpreting system requests and specifications; site preparation and user training; contact point for customers
Technical problem solving	Designing and sequencing activities to attain project goals	Interpreting system requests and specifications; defining activities and their sequence; making trade-offs between alternative solutions; designing solutions to problems
Conflict management	Managing conflict within a project team to assure that conflict is not too high or too low	Problem solving; smoothing out personality differences; compromising; goal setting
Team management	Managing the project team for effective team performance	Communication within and between teams; peer evaluations; conflict resolution; team building; self-management
Risk and change management	Identifying, assessing, and managing the risks and day-to-day changes that occur during a project	Environmental scanning; risk and opportunity identification and assessment; forecasting; resource redeployment

Project Management Phases

- The remainder of this chapter will focus on the project management process, which involves four phases:
- 1. Initiating the project
- 2. Planning the project
- 3. Executing the project
- 4. Closing down the project

Initiating a Project

- The first phase of the project management process in which activities are performed to assess the size, scope, and complexity of the project and to establish procedures to support later project activities.
- During project initiation, the project manager performs several activities to assess the size, scope, and complexity of the project and to establish procedures to support subsequent activities.
- Depending on the project, some initiation activities may be unnecessary and some may be very involved.
- The types of activities you will perform when initiating a project are summarized as follows:

Activities during Project Initiation

- 1. Establishing the project initiation team.
- 2. Establishing a relationship with the customer
- 3. Establishing the project initiation plan
- 4. Establishing Management Procedures
- 5. Establishing the Project Management Environment and Project Workbook
- 6. Developing the Project Charter

Planning The Project

- The second phase of the project management process that focuses on defining clear, discrete activities and the work needed to complete each activity within a single project.
- The next step in the project management process is project planning. Research has found a positive relationship between effective project planning and positive project outcomes.
- Project planning involves defining clear, discrete activities and the work needed to complete each activity within a single project.
- It often requires you to make numerous assumptions about the availability of resources such as hardware, software, and personnel.

Activities during Project Planning

- 1. Describing Project Scope, Alternatives, and Feasibility
- 2. Dividing the Project into Manageable Tasks
- 3. Estimating Resources and Creating a Resource Plan
- 4. Developing a Preliminary Schedule
- 5. Developing a Communication Plan
- 6. Determining Project Standards and Procedures
- 7. Identifying and Assessing Risk
- 8. Creating a Preliminary Budget
- 9. Developing a Project Scope Statement
- 10. Setting a Baseline Project Plan

Executing the Project

- The third phase of the project management process in which the plans created in the prior phases (project initiation and planning) are put into action.
- Project execution puts the Baseline Project Plan into action.
- Within the context of the SDLC, project execution occurs primarily during the analysis, design, and implementation phases.

Activities During Project Execution

- 1. Executing the Baseline Project Plan
- 2. Monitoring Project Progress against the Baseline Project Plan
- 3. Managing Changes to the Baseline Project Plan
- 4. Maintaining the Project Workbook
- 5. Communicating the Project Status

Closing Down the Project

- The final phase of the project management process that focuses on bringing a project to an end.
- The focus of project closedown is to bring the project to an end.
- Projects can conclude with a natural or unnatural termination. A natural termination occurs when the requirements of the project have been met—the project has been completed and is a success.
- An unnatural termination occurs when the project is stopped before completion

Activities during Project Closing

- 1. Closing down the project.
- 2. Conducting post project reviews.
- 3. Closing the customer contract.

Representing and Scheduling Project Plans

- A project manager has a wide variety of techniques available for depicting and documenting project plans.
- These planning documents can take the form of graphical or textual reports, although graphical reports have become most popular for depicting project plans.
- The most commonly used methods are Gantt charts and network diagrams. Because Gantt charts do not (typically) show how tasks must be ordered (precedence) but simply show when a task should begin and when it should end, they are often more useful for depicting relatively simple projects or subparts of a larger project, showing the activities of a single worker, or monitoring the progress of activities compared to scheduled completion dates

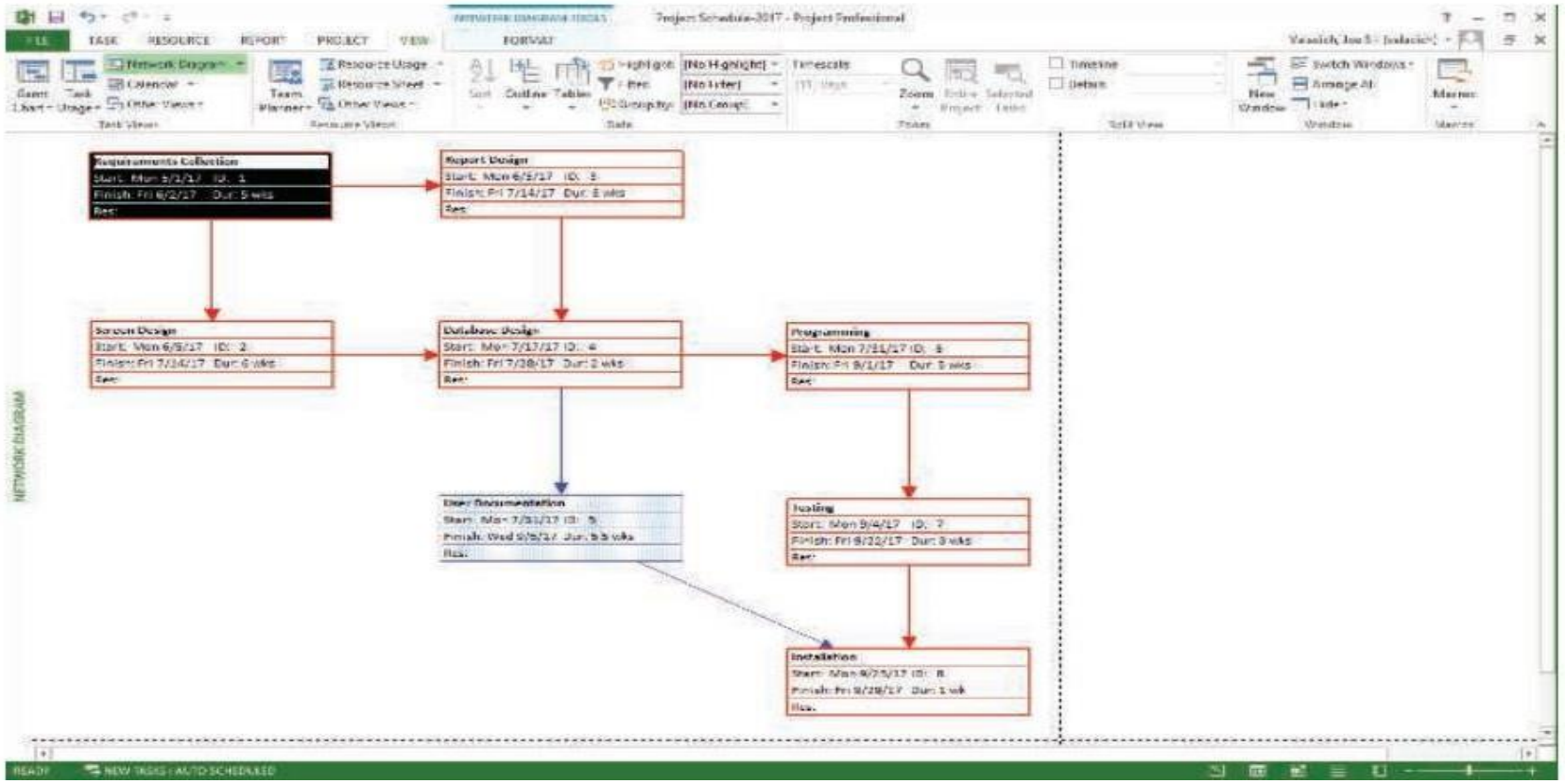
Representing and Scheduling Project Plans

- A network diagram shows the ordering of activities by connecting a task to its predecessor and successor tasks.
- Sometimes a network diagram is preferable; other times a Gantt chart more easily shows certain aspects of a project.

GANTT Chart


Task Name
Q1 2009
Q2 2009
Q3 2009
Dec '08
Jan '09
Feb '09
Mar '09
Apr '09
May '09
Jun '09
Jul '09
Aug
Planning
Research
Design
Implementation
Follow up

Network Diagram



Key Differences between Two Charts

- Here are the key differences between these two charts:
- Gantt charts visually show the duration of tasks, whereas a network diagram visually shows the sequence dependencies between tasks.
- Gantt charts visually show the time overlap of tasks, whereas a network diagram does not show time overlap but does show which tasks could be done in parallel.
- Some forms of Gantt charts can visually show slack time available within an earliest start and latest finish duration. A network diagram shows this by data within activity rectangles.

Key Differences between Two Charts

- A project manager will periodically review the status of all ongoing project task activities to assess whether the activities will be completed early, on time, or late.
- If early or late, the duration of the activity can be updated.
- Once changed, the scheduled start and finish times of all subsequent tasks will also change.
- Making such a change will also alter a Gantt chart or network diagram used to represent the project tasks.


Thank
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