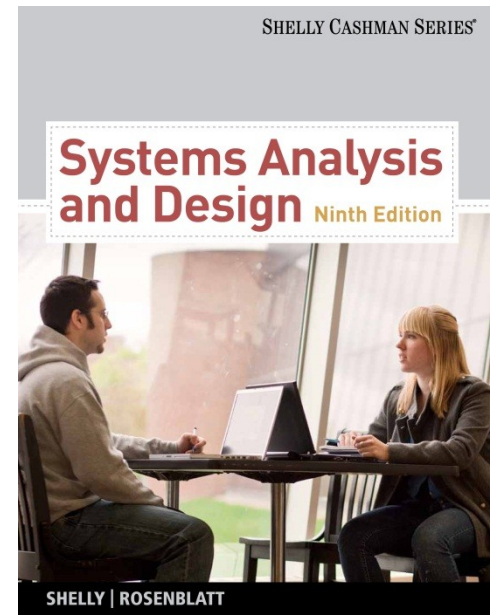


Systems Analysis and Design 9th Edition

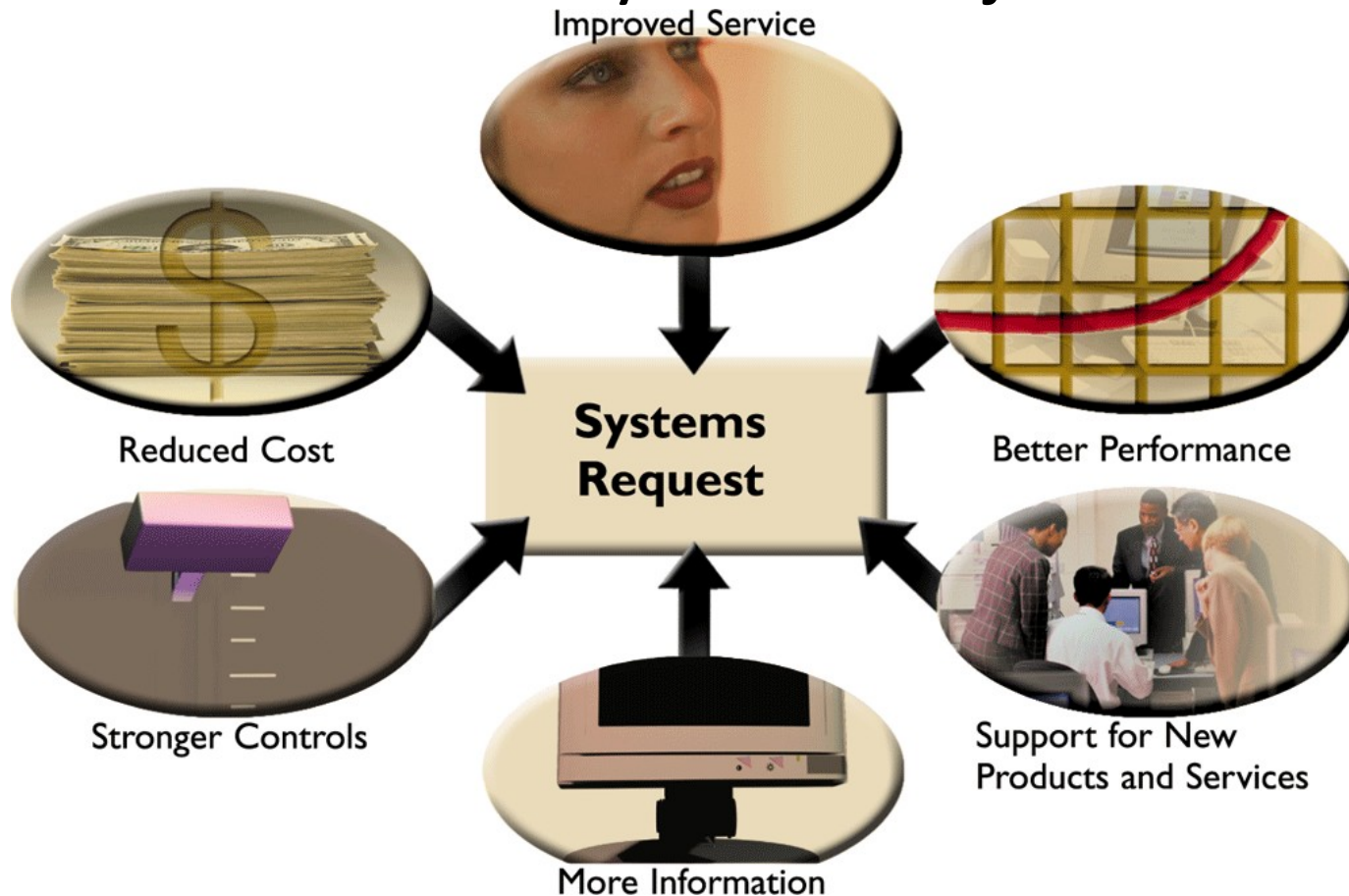
Chapter 2 (in part)

Analyzing the Business Case



Information Systems Projects

- Main Reasons for Systems Projects



Information Systems Projects

- Factors that Affect Systems Projects



Information Systems Projects

- Project Management
 - If the project is approved, it can be planned, scheduled, monitored and controlled, and reported upon
 - Individual analysts or IT staff members often handle small projects, but companies usually designate a project manager to coordinate the overall effort for complex projects

Evaluation of Systems Requests

- Systems review committee or a computer resources committee evaluate systems requests
- Systems Requests Forms
 - A properly designed form streamlines the request process and ensures consistency
 - Occasionally a situation will arise that requires an immediate response

Evaluation of Systems Requests

- Systems Review Committees
 - Most large companies use a systems review committee to evaluate systems requests
 - Many smaller companies rely on one person to evaluate systems requests instead of a committee
 - The goal is to evaluate the requests and set priorities

Overview of Feasibility

- A systems request must pass several tests, called a feasibility study, to see whether it is worthwhile to proceed further
- Operational Feasibility
 - Depends on several vital issues



Overview of Feasibility

- Technical Feasibility
- Economic Feasibility
 - Total cost of ownership (TCO)
 - Tangible benefits
 - Intangible benefits
- Schedule Feasibility

Evaluating Feasibility

- The first step in evaluating feasibility is to identify and weed out systems requests that are not feasible
- Even if the request is feasible, it might not be necessary
- Feasibility analysis is an ongoing task that must be performed throughout the systems development process

Setting Priorities

- Factors that Affect Priority
 - Will the proposed system reduce costs? Where? When? How? How much?
 - Will the system increase revenue for the company? Where? When? How? How much?

Setting Priorities

- Factors that Affect Priority
 - Will the systems project result in more information or produce better results? How? Are the results measurable?
 - Will the system serve customers better?
 - Will the system serve the organization better?

Setting Priorities

- Factors that Affect Priority
 - Can the project be implemented in a reasonable time period? How long will the results last?
 - Are the necessary financial, human, and technical resources available?
 - Whenever possible, the analyst should evaluate a proposed project based on tangible costs and benefits that represent actual (or approximate) dollar values

Setting Priorities

- Discretionary and Nondiscretionary Projects
 - Projects where management has a choice in implementing them are called discretionary projects
 - Projects where no choice exists are called nondiscretionary projects

Preliminary Investigation Overview

- Preliminary investigation
- Interaction with Managers and Users
 - Let people know about the investigation and explain your role
 - Employee attitudes and reactions are important and must be considered
 - Be careful in your use of the word problem
 - Question users about additional capability they would like to have

Preliminary Investigation Overview

- Planning the Preliminary Investigation
 - During a preliminary investigation, a systems analyst typically follows a series of steps
 - The exact procedure depends on the nature of the request, the size of the project, and the degree of urgency

Preliminary Investigation Overview

- Step 1: Understand the Problem or Opportunity
 - A popular technique for investigating causes and effects is called a fishbone diagram, or Ishikawa diagram

Preliminary Investigation Overview

- Step 2: Define the Project Scope and Constraints
 - Project scope
 - Project creep
 - Constraint

Preliminary Investigation Overview

- Step 2: Define the Project Scope and Constraints
 - Present versus future
 - Internal versus external
 - Mandatory versus desirable
 - Regardless of the type, all constraints should be identified as early as possible to avoid future problems and surprises

Preliminary Investigation Overview

- Step 3: Perform Fact-Finding
 - Fact-finding involves various techniques
 - Depending on what information is needed to investigate the systems request, fact-finding might consume several hours, days, or weeks
 - Analyze Organization Charts
 - Obtain organization charts to understand how the department functions and identify individuals you might want to interview

Preliminary Investigation Overview

- Step 3: Perform Fact-Finding
 - Conduct interviews
 - Review documentation
 - Observe operations
 - Conduct a user survey



Preliminary Investigation Overview

- Step 4: Analyze Project Usability, Cost, Benefit, and Schedule Data
 - Before you can evaluate feasibility, you must analyze this data carefully
 - What information must you obtain, and how will you gather and analyze the information?
 - What sources of information will you use, and what difficulties will you encounter in obtaining information?

Preliminary Investigation Overview

- Step 4: Analyze Project Usability, Cost, Benefit, and Schedule Data
 - Will you conduct interviews? How many people will you interview, and how much time will you need to meet with the people and summarize their responses?
 - Will you conduct a survey? Who will be involved? How much time will it take people to complete it? How much time will it take to prepare it and tabulate the results?

Preliminary Investigation Overview

- Step 4: Analyze Project Usability, Cost, Benefit, and Schedule Data
 - How much will it cost to analyze the information gathered and to prepare a report with findings and recommendations?

Preliminary Investigation Overview

- Step 5: Evaluate Feasibility
 - Start by reviewing the answers to the questions you asked
 - Operational feasibility
 - Technical feasibility
 - Economic feasibility
 - Schedule feasibility

Preliminary Investigation Overview

- Step 6: Present Results and Recommendations to Management
 - The final task in the preliminary investigation is to prepare a report to management
 - The format of the preliminary investigation report varies from one company to another

Preliminary Investigation Overview

- Step 6: Present Results and Recommendations to Management
 - Introduction
 - Systems request summary
 - Findings
 - Case for action



Preliminary Investigation Overview

- Step 6: Present Results and Recommendations to Management
 - Project Roles
 - Time & cost estimates
 - Expected benefits
 - Appendix