Systems Analysis and Design 11th Edition

Chapter 2
Analyzing the Business Case

Chapter Objectives

- Explain the concept of a business case and how a business case affects an IT project
- List reasons for systems projects and factors that affect such projects
- Describe systems requests and the role of the systems review committee
- Define operational, technical, economic, and schedule feasibility

What Is a Business Case?

- **Business case**: Justification for a proposal
  - Requires consideration of the organization's:
    - Overall mission
    - Objectives
    - IT needs
- Systems development process
  - Systems request
  - Preliminary investigation
  - Findings are submitted to management

What Is a Business Case?

- A business case should:
  - Be comprehensive and easy to understand
  - Describe the project clearly, provide the justification to proceed, and estimate the project's financial impact
- Questions answered by a business case
  - Why are we doing this project?
  - How much will it cost and how long will it take?
  - Are there any risks involved?
  - How will we measure success?
  - What alternatives exist?

Information Systems Projects

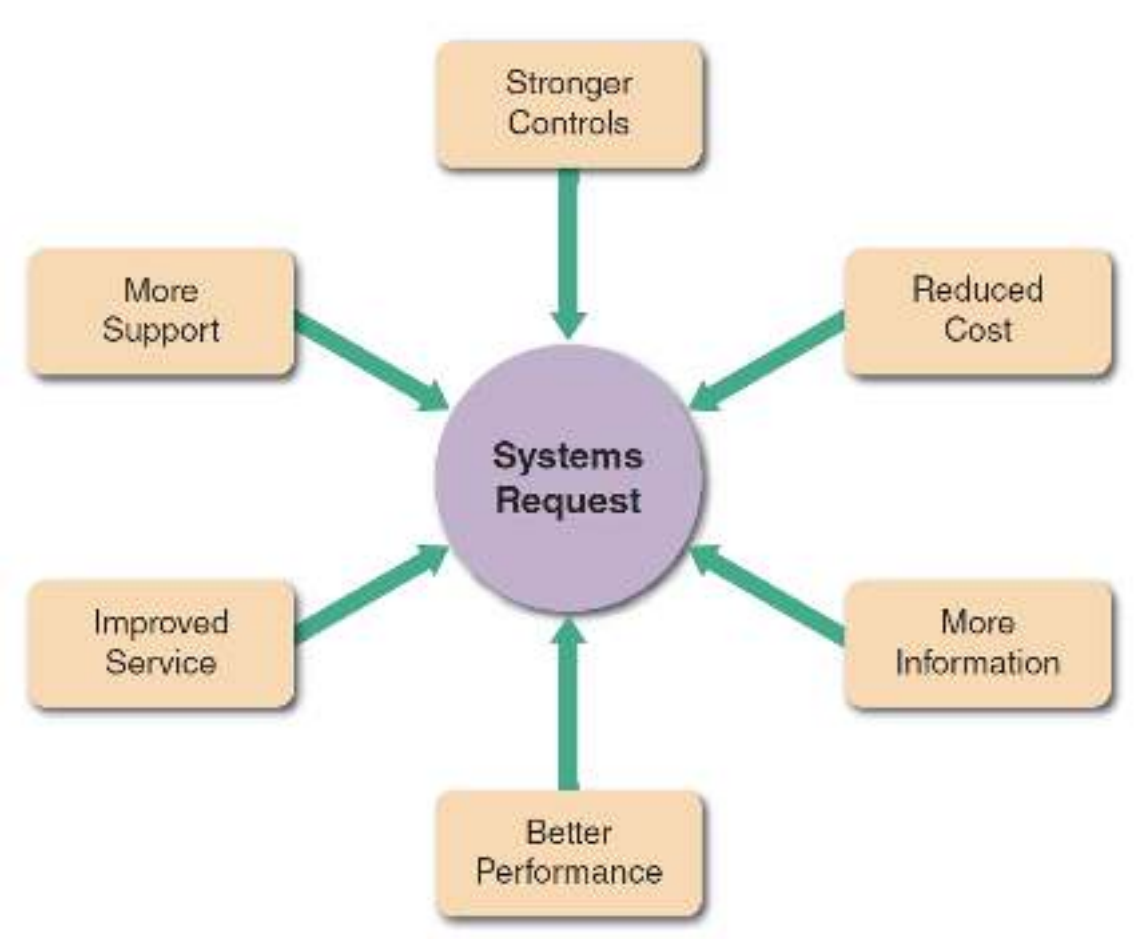

FIGURE 2-4 Six main reasons for systems requests.

Information Systems Projects (Cont.)

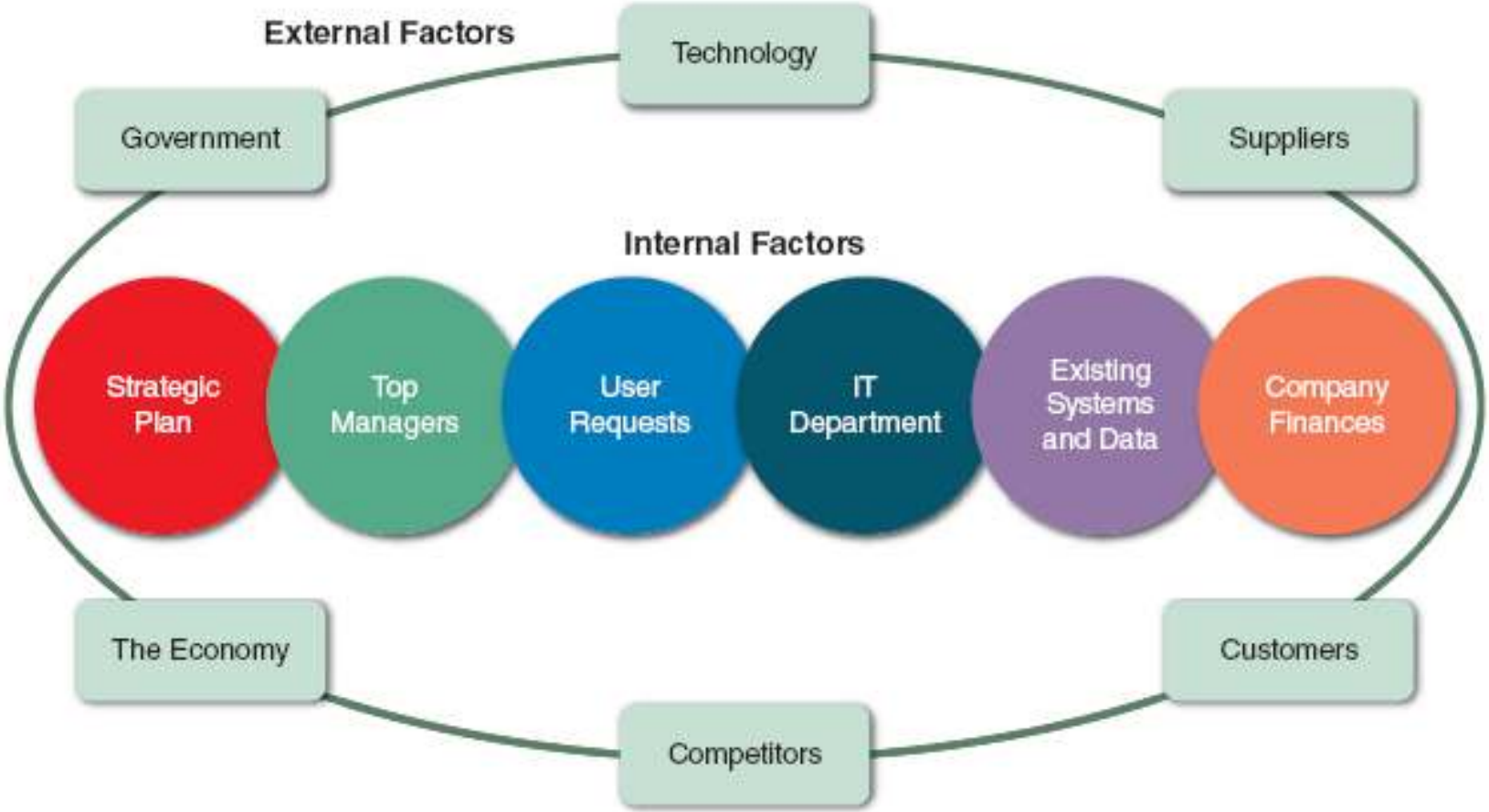

FIGURE 2-6 Internal and external factors that affect IT projects.

Evaluation of Systems Requirements

- Systems requests are evaluated by a **systems review committee** or a **computer resources committee**
- **Systems Request Forms**
  - Streamline the request process
  - Ensure consistency
  - Easy to understand
  - Include clear instructions
  - Indicate the required supporting documents
  - Submitted electronically

Evaluation of Systems Requirements (Cont. 1)

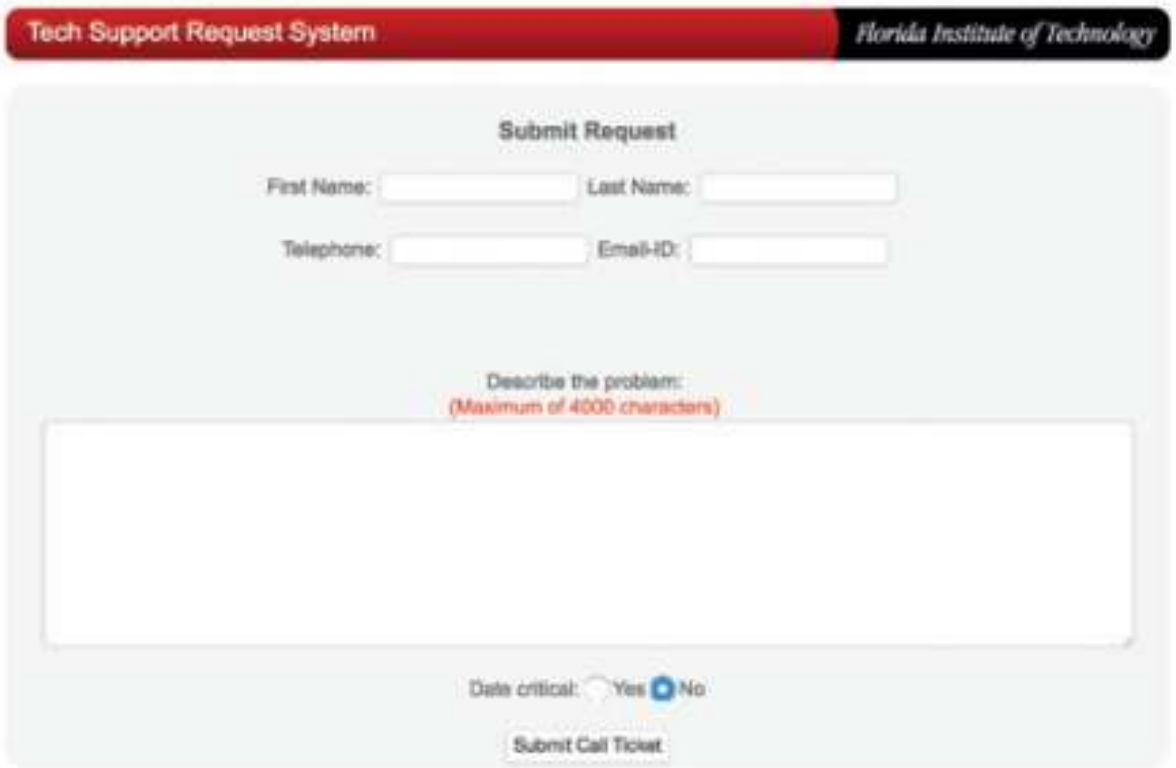

FIGURE 2-10 Example of an online systems request form.
Source: Florida Institute of Technology

Evaluation of Systems Requirements (Cont. 2)

- **Systems Review Committee**
  - A broader viewpoint enables a committee to establish priorities more effectively than an individual
    - One person's bias is less likely to affect decisions
  - Disadvantages
    - Action on requests must wait until the committee meets
    - Members might favor projects requested by their own departments
    - Internal political differences could delay important decisions

Overview of Feasibility

- Feasibility studies can be simple or exhaustive
- Effort required depends on the nature of the request
- Initial fact-finding involves:
  - Studying organizational charts
  - Performing interviews
  - Reviewing current documentation
  - Observing operations
  - Surveying users

Overview of Feasibility (Cont. 1)

FIGURE 2-11 A feasibility study examines operational, technical, economic, and schedule factors.

Overview of Feasibility (Cont. 2)

- **Operational Feasibility**
  - A proposed system will be used effectively after it has been developed
  - Can be affected by organizational culture
  - Cannot be accurately measured but requires careful study
  - Questions that can help predict a system's operational feasibility
    - Is the project supported by management and users?
    - Will the new system result in a workforce reduction?
    - Do legal or ethical issues need to be considered?

Overview of Feasibility (Cont. 3)

- **Economic Feasibility**
  - Projected benefits of a proposed system out-weigh **total cost of ownership (TCO)**
  - Determination of TCO requires cost analysis of:
    - People, including IT staff and users
    - Hardware and equipment
    - Software
    - Formal and informal training
    - Licenses and fees
    - Consulting expenses
    - Facility costs

Overview of Feasibility (Cont. 4)

- **Tangible costs** are measured in dollars
- **Intangible costs** can significantly affect organizational performance
- **Tangible benefits** can result from a decrease in expenses or an increase in revenues
- **Intangible benefits** are important to the company despite the inability to measure them in dollars

Overview of Feasibility (Cont. 5)

- **Technical Feasibility**
  - Technical resources required to acquire and use the system
  - Questions analysts should ask
    - Does the company have the necessary hardware, software, and network resources?
    - Does the company have the required technical expertise?
    - Does the proposed platform have sufficient capacity for future needs?
    - Will a prototype be required?

Overview of Feasibility (Cont. 6)

- **Schedule Feasibility**
  - A project can be implemented in an acceptable time frame
  - Issues that can affect schedule feasibility
    - Interaction between time and costs
    - Can the company or the IT team control the factors that affect schedule feasibility?
    - Has management established a firm timetable for the project?
    - What conditions must be satisfied during the development of the system?
    - Will an accelerated schedule pose any risks?

Chapter Summary

- Systems planning is the first phase of the systems development life cycle
- A business case should:
  - Describe the project clearly
  - Provide the justification to proceed
  - Estimate the project's financial impact
- Factors that affect systems projects
  - User requests, top management directives, existing systems, the IT department, software and hardware vendors, technology, customers, competitors, the economy, and government

Chapter Summary (Cont.)

- Analysts evaluate the systems request and determine whether the project is feasible from an operational, technical, economic, and schedule standpoint