

System Planning (Phase-1) Preliminary Investigation

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Reasons for Information System Project

- Improved Service
 - ◆ Improving service to customers or users within the company
- Better Performance
 - ◆ Current system might not meet performance requirements.
- More Information
 - ◆ Current system might produce information that is insufficient, incomplete, or unable to support the company's changing information needs.

Reasons for Information System Project

- Stronger Controls
 - ◆ A system must have effective controls to ensure that data is accurate and secure.
- Reduced Cost
 - ◆ Current system could be expensive to operate or maintain due to technical problems, design weaknesses, or the changing demands of the business.

Factors Affecting Systems Projects

- User Requests
 - ◆ Users rely more heavily on information systems to perform their jobs, they request more IT services and support.
- Top Management Directives
 - ◆ Directives from top managers are a prime source of major systems projects.
- Existing Systems
 - ◆ Errors or problems in existing systems can trigger requests for systems projects.

Factors Affecting Systems Projects

- Information Technology Department
 - ◆ Many systems project requests come from the IT department.
- The Economy
 - ◆ Economic activity has a powerful influence on corporate information management.
- Technology
 - ◆ Changing technology is a basic force in business and society in general.

Factors Affecting Systems Projects

- Government
 - ◆ Federal, state, and local government regulations affect the design of corporate information systems.
- Software and Hardware Vendors
 - ◆ Most companies have a mix of software and hardware that must work together to support information systems requirements.
- Competitors
 - ◆ Competition drives many information systems decisions.

Factors Affecting Systems Projects

- Customers
 - ◆ Customer service is vitally important, and information systems that interact with customers receive top priority in most firms.
- Suppliers
 - ◆ With the growth of Electronic Data Interchange (EDI), relationships with suppliers are critically important.

Systems Request Forms

- Many organizations use a special form for systems requests.
- When a systems request form is received, a systems analyst or IT manager examines it to determine what IT resources are required for the preliminary investigation.

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Evaluation of Systems Requests

- Organizations assign responsibility for evaluating systems requests to a group of key managers and users.
 - ◆ Systems Review Committees
 - ◆ Provides a variety of experience and knowledge in evaluating systems requests.
 - ◆ Evaluate the requests and set priorities.

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Overview of Feasibility

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Overview of Feasibility

- A systems request must meet several tests to see whether it is worthwhile to proceed further.
- A feasibility study uses three major yardsticks to measure, or predict a system's success:
 - ◆ Operational Feasibility
 - ◆ Technical Feasibility
 - ◆ Economic Feasibility

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Operational Feasibility

- A system that has operational feasibility is one that will be used effectively after it has been developed.

Technical Feasibility

- A systems request has technical feasibility if the organization has the resources to develop or purchase, install, and operate the system.
- Project risk can be assessed based upon:
 - ◆ Project size
 - ◆ Project structure
 - ◆ Development group's experience with the application
 - ◆ User group's experience with development projects and the application area

Economic Feasibility

- A systems request has economic feasibility if the projected benefits of the proposed system outweigh the estimated costs involved in acquiring, installing, and operating it.
 - ◆ Cost – Benefit Analysis
 - ◆ Determine Costs
 - ◆ Tangible Costs (can easily be measured in dollars)
 - Example: Hardware
 - ◆ Intangible Costs (cannot be easily measured in dollars)
 - Examples: loss of customer goodwill, loss of employee morale

Economic Feasibility

- ◆ Determine Benefits
 - ◆ Tangible Benefits (Can be measured easily)
 - Examples: Cost reduction and avoidance, Error reduction, Increased flexibility, Increased speed of activity, Improved management planning and control, Opening new markets and increasing sales opportunities
 - ◆ Intangible Benefits (Cannot be measured easily)
 - Examples: Increased employee morale, Competitive necessity, More timely information, Promotion of organizational learning and understanding

Economic Feasibility

- ◆ One-Time Costs
 - ◆ Associated with project startup, initiation and development
 - Includes: System Development, New hardware and software purchases, User training, Site preparation, Data or system conversion
- ◆ Recurring Costs
 - ◆ Associated with ongoing use of the system
 - Includes: Application software maintenance, Incremental data storage expense, New software and hardware releases, Consumable supplies, Incremental communications

Preliminary Investigation Overview

- Interaction with managers and users
 - ◆ Meet with key managers, users, and IT staff to describe the project.

Steps in the Preliminary Investigation

1. Understand the Problem or Opportunity
2. Define the Project Scope and Constraints
3. Perform Fact-Finding
4. Determine Feasibility
5. Estimate Time and Cost to Continue Development
6. Present Results and Recommendations to Management