Pokok Bahasan:
Selecting and Developing System Development Project

Tujuan Instruksional Khusus:
Explain the relationship between corporate strategic planning and information systems planning

Referensi:
Learning Objectives

✓ Describe the project identification and selection process
✓ Describe the corporate strategic planning and information systems planning process
✓ Explain the relationship between corporate strategic planning and information systems planning
Learning Objectives

✓ Describe how information systems planning can be used to assist in identifying and selecting systems development projects

✓ Analyze information systems planning matrices to determine affinity between information systems and IS projects and to forecast the impact of IS projects on business objectives

✓ Describe the three classes of Internet electronic commerce applications: Internet, Intranets and Extranets
Identifying and Selecting IS Development Projects

1. Sources of projects
   – Management and business units
   – Managers who want to make a system more efficient or less costly
   – Formal planning groups
Identifying and Selecting IS Development Projects...Cont..

2. Projects are identified by
   – Top management
   – Steering committee
   – User departments
   – Development group or senior IS staff

3. Top-Down Identification
   – Senior management or steering committee
   – Focus is on global needs of organization
The Process of Identifying and Selecting IS Development Projects

1. Bottom-up Identification
   – Business unit or IS group
   – Don’t reflect overall goals of the organization
2. Classifying and Ranking IS Development Projects

- Performed by top management, steering committee, business units of IS development group

- Value chain analysis is often used
  
  • Method to analyze an organization’s activities to determine where value is added and costs are incurred
3. Selecting IS Development Projects

- Process of considering short and long-term projects
- Projects most likely to achieve business objectives are selected
- Decision requires consideration of:
  - Perceived and real needs
  - Potential and ongoing projects
  - Current organizational environment
  - Existing and available resources
  - Evaluation criteria
4. Selecting IS Development Projects
   – Outcomes
   • Project Acceptance
   • Project Rejection
   • Delay
   • Refocus
   • End-User Development
   • Proof of Concept
4. Deliverables and Outcomes

– Primary Deliverable
  • Schedule of specific IS development projects

– Outcomes
  • Assurance that careful consideration was given to project selection
  • Clear understanding of project’s relation to organizational objectives
5. Knowledge of overall organizational business strategy
   – Improves project selection and identification process
   – Provides sound guidance throughout the systems development life cycle
Corporate and Information Systems Planning

1. Traditional Project Identification and Selection
   - Solves isolated problems
   - Focuses on business processes
   - Does not easily allow for organizational change

2. Planning-Based Approach to Project Identification and Selection
   - Focuses on present and future information needs
   - Information needs change slower than business processes
3. Need for planning

- Improperly planned projects result in systems that cannot be shared across an organization

- As business processes change, lack of integration will hamper strategy and business process changes
4. Corporate Strategic Planning
   – Process of developing and refining models of the current and future enterprise as well as a transition strategy
   – Planning results in several outcomes
     • Mission Statement
     • Objective Statement
     • Competitive Strategy
5. Corporate Strategic Planning

– Mission Statement
  • A statement that makes it clear what business a company is in

– Objective Statement
  • A series of statements that express an organization’s qualitative and quantitative goals for reaching a desired future position
  • Objectives are critical success factors
6. Corporate Strategic Planning
   – Competitive Strategy
   • The method by which an organization attempts to achieve its mission and objectives
7. Information Systems Planning (ISP)

– An orderly means of assessing the information needs of an organization and defining the systems, databases and technologies that will best satisfy those needs

– Three key activities:
  a. Describe the Current Situation
  b. Describe the Target (or Future) Situation
  c. Develop a Transition Plan and Strategy
Information Systems Planning

1. Describing the Current Situation
   – Top-down Planning
     • Generic methodology that attempts to gain a broad understanding of the information system needs of the entire organization
   – Bottom-up Planning
     • Generic methodology that identifies and defines IS development projects based upon solving operational business problems or taking advantage of some business opportunities
a. Describing the Current Situation (Continued)
   – Planning team is chartered to model existing situation
   – Identification of Organizational:
     • Locations
     • Units
     • Functions
     • Processes
     • Data
     • Information Systems
b. Describing the Target Situation

– Update list of organizational locations, functions, etc. to reflect desired locations, functions, etc.

– Matrices are updated to reflect future states

– Planners focus on differences between current lists and matrices and future lists and matrices
c. Developing a Transition Strategy and Plans

- Broad, comprehensive document that looks at both short and long-term organizational development needs

- Consists of a series of projects
Summary

• Project Identification and Selection
  – Identifying Potential Development Projects
  – Classifying and Ranking Projects
  – Selecting Projects for Development

• Top-down and Bottom-up identification process

• Corporate strategic planning
  – Process of identifying the mission, objectives and strategies of an organization
Summary

• Information Systems Planning
  – Orderly means for assessing the information needs of an organization and defining the systems and databases that will best satisfy those needs
  – Top-down process

• Electronic Commerce
  – Internet
  – Intranets
  – Extranets
  – Electronic Data Interchange
Initiating and Planning System Development Projects

1. Project Initiation
   - Establishment of project team
   - Development of relationship with customer
   - Project Initiation Plan
   - Establishment of Management Procedures
   - Establishment of Project Workbook and Project Management Environment

2. Project Planning
   - Defining clear, discrete activities and the work needed to complete each activity
3. Deliverables and Outcomes

- Baseline Project Plan (BPP)
  - Scope
  - Benefits
  - Costs
  - Risks
  - Resources

- Statement of Work (SOW)
  - Describes deliverables
  - Outlines work needed to be performed
Assessing Project Feasibility

• Six Categories
  – Economic
  – Technical
  – Operational
  – Schedule
  – Legal and contractual
  – Political
Assessing Economic Feasibility

• Cost – Benefit Analysis
• 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
  • Determine Costs
    – Tangible Costs
      • Can easily be measured in dollars
      – Example: Hardware
• Determine Costs (Continued)
  – Intangible Costs
    • Cannot be easily measured in dollars
    • Examples:
      – Loss of customer goodwill
      – Loss of employee morale
– 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
  – Time value of money (TVM)
    • The process of comparing present cash outlays to future expected returns
• Technical Feasibility
  • Assessment of the development organization’s ability to construct a proposed 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
Assessing Other Project Feasibility Concerns

- **Operational Feasibility**
  - Assessment of how a proposed system solves business problems or takes advantage of opportunities

- **Schedule Feasibility**
  - Assessment of time frame and project completion dates with respect to organization constraints for affecting change

- **Legal and Contractual Feasibility**
  - Assessment of legal and contractual ramifications of new system
• Political Feasibility
  – Assessment of key stakeholders in organization’s view toward proposed system
Building the Baseline Project Plan

1. Objectives
   - Assures that customer and development group have a complete understanding of the proposed system and requirements
   - Provides sponsoring organization with a clear idea of scope, benefits and duration of project
Building the Baseline Project Plan

2. Four Sections
   – Introduction
   – System Description
   – Feasibility Assessment
   – Management Issues
Building the Baseline Project Plan

• Introduction
  – Brief overview
  – Recommended course of action
  – Project scope defined
    • Units affected
    • Who inside and outside the organization would be involved
    • Interaction with other systems
    • Range of system capabilities
2. System Description
   – Outline of possible alternative solutions
   – Narrative format

3. Feasibility Assessment
   – Project costs and benefits
   – Technical difficulties
   – High-level project schedules
4. Management Issues
   – Outlines concerns that management may have about the project
   – Team composition
   – Communication plan
   – Project standards and procedures
Reviewing the Baseline Project Plan

1. Objectives
   - Assure conformity to organizational standards
   - All parties agree to continue with project
2. Walkthrough
   – Peer group review
   – Participants
     • Coordinator
     • Presenter
     • User
     • Secretary
     • Standards Bearer
     • Maintenance Oracle
• Walkthrough (continued)
  – Activities
    • Walkthrough Review Form
    • Individuals polled
    • Walkthrough Action List
  – Advantages
    • Assures that review occurs during project
Summary

• Project Initiation
  – Forming project initiation team
  – Establishing customer relationships
  – Developing a plan to get the project started
  – Setting management procedures
  – Creating an overall project management environment

• Baseline Project Plan (BPP)
  – Created during project initiation and planning
Summary

– Contains:
  • Introduction
  • High-level description of system
  • Outline of feasibility
  • Overview of management issues

• Statement of Work (SOW)
  – Describes what project will deliver
  – Lists all work to be performed
Summary

• Feasibility
  – Economic
  – Operational
  – Technical
  – Schedule
  – Legal
  – Contractual
  – Political
Summary

• Benefits
  – Tangible vs. Intangible

• Costs
  – Tangible vs. Intangible
  – One-time vs. Recurring