LECTURE 2 PROJECT INITIATION

Summary
- Project initiation involves creating and assessing goals and expectations for a new system
- Identifying the business value of the new project is a key to success
- Feasibility study is concerned with insuring that technical, economic, and organizational benefits outweigh costs and risks

PROJECT INITIATION -- IDENTIFYING PROJECTS WITH BUSINESS VALUE

How Do Projects Begin?
- Business needs should drive projects.
- Project sponsor recognizes business need for new system and desires to see it implemented.
- Business needs determine the system's functionality (what it will do).
- The project's business value should be clear.

Initial System Request
- A document describing business reasons for project and system's expected value.
- Lists project's key elements
  - Project sponsor
  - Business need
  - Business requirements
  - Business value
  - Special issues or constraints

System Request Examples
- Project sponsor – VP of Marketing
- Business need – Reach new customers and improve service to existing customers
- Business requirements – Provide web-based shopping capability
- Business value - $750,000 in new customer sales; $1.8M in existing customer sales
- Special issues or constraints – System must be operational by holiday shopping season

Preliminary Project Acceptance
- System request is reviewed by approval committee
- Based on information provided, project merits are assessed.
- Worthy projects are accepted and undergo additional investigation – the feasibility analysis.

FEASIBILITY ANALYSIS

Feasibility Analysis
- Detailed business case for the project
  - Six Categories
- Compiled into a feasibility study
- Feasibility is reassessed throughout the project

Assessing Project Feasibility
- Six Categories
  - Economic
  - Operational
  - Technical
  - Schedule
  - Legal and contractual
  - Political

Economic Feasibility -- Should We Build It?
- Identify costs and benefits
- Assign values to costs and benefits
• Determine cash flow
• Assess financial viability
  – Net present value
  – Return on investment
  – Break even point

**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
        • Increased management planning and control
  – 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 on-going use of the system
      – Includes:
        • Application software maintenance
        • Incremental data storage expense
        • New software and hardware releases
        • Consumable supplies
  – Time value of money (TVM)
    • The process of comparing present cash outlays to future expected returns.

**Assign Cost and Benefit Values**
• Difficult, but essential to estimate
• Work with people who are most familiar with the area to develop estimates
• Intangibles should also be quantified
• If intangibles cannot be quantified, list and include as part of supporting material

Assess Financial Viability – *Net Present Value*
• NPV = \( \sum \text{PV}(\text{future cash inflows}) - \sum \text{PV}(\text{future cash outflows}) \)

\[
\text{PV} = \frac{\text{Cash flow amount}}{(1+\text{Interest Rate})^n}
\]
– interest rate = required return
– \( n \) = number of years in future

Assess Financial Viability – *Return on Investment*
- \[ \text{ROI} = \frac{\text{NPV}}{\sum \text{PV(Cash Outflow)}} \]

Assess Financial Viability – *Break Even Point*
• How long before the project’s returns match the amount invested
• The longer it takes to break even, the higher the project’s risk.

Technical Feasibility -- *Can We Build It?*
• Users’ and analysts’ familiarity with the business application area
• Familiarity with technology
  – Have we used it before? How new is it?
• Project size
  – Number of people, time, and features
• Compatibility with existing systems

Assessing Other Project Feasibilities
• Operational Feasibility
  – Assessment of how a proposed system solves business problems or takes advantage of opportunities
• Schedule Feasibility
  – Assessment of timeframe 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 view of key stakeholders in organization toward proposed system

Organizational Feasibility -- *If we build it, will they come?*
• Strategic alignment
  – How well do the project goals align with business objectives?
• Stakeholder analysis
  – Project champion(s)
  – Organizational management
  – System users

**RISK FACTORS**

Factors Affecting Project Risk
• Each of the 11 factors below is rated as:
  – Low risk → -1
  – Medium risk → 0
  – High risk → +1
• The total of these 11 factors is the overall risk measure for the project
Factors Affecting Project Risk

- Characteristics of the System Environment
  - Stable, well-defined objectives
  - Structured, clear procedures

- Characteristics of the Information System
  - Model available or requirements stable and readily specifiable?
  - Procedures addressed are routine and well-structured?
  - Only one existing system affected by proposed system?
  - Project can be completed within one year?

- Characteristics of the Users
  - Users have functional expertise?
  - Users have experience participating in systems development?
  - Users are committed to the project?

- Characteristics of the development team
  - Developers have experience developing similar systems?
  - Developers are skilled at eliciting requirements?