**Ch.3**

Business case: justification why a new system is needed (modified).

* Fundamental principles of project management
  + Project success factors
  + Role of project manager
  + Project management knowledge areas
* How information system projects initiated
  + Part of overall strategic plan
  + Respond to immediate business need
* The project planning phase of SDLC
* Project planning examples for RMO

Project Success Factors

* Project management important for success of system development project
* 2000 Standish Group Study
  + Only 28% of system development projects successful
  + 72% of projects cancelled, completed late, completed over budget, and/or limited in functionality
* Thus, project requires careful planning, control, and execution

Reasons for project failure

* Incomplete or changing requirements
* Limited user involvement
* Lack of executive support
* Lack of technical support
* Poor project planning
* Unclear objectives
* Lack of required resources

Reasons for project success

* Clear system requirement definitions
* Substantial user involvement
* Support from upper management
* Thorough and detailed project plans
* Realistic work schedules and milestones

Role of the Project Manager

* Project management – organizing and directing people to achieve a planned result within budget and on schedule
* Success or failure of project depends on skills of the project manager
  + Beginning of project – plan and organize
  + During project – monitor and control
* Responsibilities are both internal and external

Internal Responsibilities

* Identify project tasks and build a work breakdown structure
* Develop the project schedule
* Recruit and train team members
* Assign team members to tasks
* Coordinate activities of team members and subteams
* Assess project risks
* Monitor and control project deliverables and milestones
* Verify the quality of project deliverables

Project Management Tasks

* Beginning of project
  + Overall project planning
* During project
  + Project execution management
  + Project control management
  + Project closeout
* Project management approach differs for
  + Predictive SDLC
  + Adaptive SDLC

Project Management Body of Knowledge (PMBOK)‏

* Scope management
  + Control functions included in system
  + Control scope of work done by team
* Time management
  + Build detailed schedule of all project tasks
  + Monitor progress of project against milestones
* Cost management
  + Calculate initial cost/benefit analysis
  + Monitor expenses

Project planning phase

* Define problem (investigation and scope)‏
* Produce project schedule (WBS)‏
* Confirm project feasibility (evaluate risks)‏
* Staff project (know people’s skills)‏
* Launch project (executive formal approval)‏

Defining the Problem

* Review business needs
  + Use strategic plan documents
  + Consult key users
  + Develop list of expected business benefits
* Identify expected system capabilities
  + Define scope in terms of requirements
* Create system scope document
* Build proof of concept prototype
* Create context diagram

Producing the Project Schedule

* Develop work breakdown structure (WBS)‏
  + List of tasks and duration required for project
  + Similar to outline for research paper
  + WBS is foundation for project schedule
* Build a PERT/CPM chart
  + Assists in assigning tasks
  + Critical path method
  + Gantt chart and tracking GANTT chart

Confirming Project Feasibility  
objective: to establish whether the project is doable with the available resources.

* Risk management
* Economic feasibility
  + Cost/benefit analysis
  + Sources of funds (cash flow, long-term capital)‏
* Organizational and cultural feasibility:
* Will users resist the new system?
* Is there a history of technological setbacks.
* Is the system compatible with the culture of the organization?
* Can the system be used by the users? (easy to use?, user friendly)
* Technological feasibility:
* Is the needed technology available?
* Is it maintainable?
* Is it upgradable?
* Schedule feasibility: can it be done on time?
* Resource feasibility: do i have the necessary man power and machines to do the system?

Intangibles in Economic Feasibility

* Intangible benefits cannot be measured in dollars
  + Increased levels of service
  + Customer satisfaction
  + Survival
  + Need to develop in-house expertise
* Intangible costs cannot be measured in dollars
  + Reduced employee morale
  + Lost productivity
  + Lost customers or sales

Organizational and Cultural Feasibility

* Each company has own culture
  + New system must fit into culture
* Evaluate related issues for potential risks
  + Low level of computer competency
  + Computer phobia
  + Perceived loss of control
  + Shift in power
  + Fear of job change or employment loss
  + Reversal of established work procedures

Technological Feasibility

* Does system stretch state-of-the-art technology?
* Does in-house expertise presently exist for development?
* Does an outside vendor need to be involved?
* Solutions include
  + Training or hiring more experienced employees
  + Hiring consultants
  + Changing scope and project approach

Schedule Feasibility

* Estimates needed without complete information
* Management deadlines may not be realistic
* Project managers
  + Drive realistic assumptions and estimates
  + Recommend completion date flexibility
  + Assign interim milestones to periodically reassess completion dates
  + Involve experienced personnel
  + Manage proper allocation of resources

Resource Feasibility

* Team member availability
* Team skill levels
* Computers, equipment, and supplies
* Support staff time and availability
* Physical facilities

Staffing and Launching the Project

* Develop resource plan for the project
* Identify and request specific technical staff
* Identify and request specific user staff
* Organize the project team into workgroups
* Conduct preliminary training and team building exercises
* Key staffing question: “Are the resources available, trained, and ready to start?”

Launching Project

* Scope defined, risks identified, project is feasible, schedule developed, team members identified and ready
* Oversight committee finalized, meet to give go-ahead, and release funds
* Formal announcement made to all involved parties within organization
* Key launch question: “Are we ready to start?”

Summary

* Project management tasks
  + Start at SDLC project planning phase
  + Continue throughout each SDLC phase
* Organizing and directing other people
  + Achieve planned result
  + Use predetermined schedule and budget
* Knowledge areas needed
  + Scope, time, cost, quality, human resources, communications, risk, procurement
* Project initiation
  + Information system needs are identified and prioritized in strategic plans
* Project planning phase
  + Define problem (investigation and scope)‏
  + Produce project schedule (WBS)‏
  + Confirm project feasibility (evaluate risks)‏
  + Staff project (know people’s skills)‏
  + Launch project (executive formal approval)‏