

CHAPTER 5

Planning For Information Systems

The Process of Information System Planning

What Is an Information Systems Plan?

- Information systems planning should be an **integral part of business planning**
 - Business planning – the process of identifying the firm's goals, objectives, and priorities + developing action plans for accomplishing them.
 - Information systems planning – the part of business planning concerned with developing the firm's information systems resources

Why Plan?

- To obtain resources
 - Financial
 - Facilities – “Capacity planning”
 - Staff
- To align Information System with the business
- To identify needed applications
- To establish goal, schedule, and milestone in order to track progress
- To provide an opportunity for communication with top management and user management

IS Planning Process

- Establish a mission statement
- Assess the environment
- Set goals and objectives
- Derive strategies and policies
- Develop long-, medium-, and short-range plans
implement plans and monitor results

Challenges in Business Planning

- Foreseeing and assessing opportunities
- Assuring consistency with organizational plans and objectives
- Building systems
- Maintaining information system performance
- Collaborating with IT professionals



Principles for IS Planning

- Support the firm's business strategy with appropriate technical architecture
- Evaluate technology as a component of a larger system
- Recognize life cycle costs, not just acquisition costs

- Design information systems to be maintainable
- Recognize the human side of technology use
- Support and control the technical system

Planning Role of the IS and User Departments

- The IS department is responsible for producing the IS plan *in conjunction* with the user departments
- Chief information officer (CIO)
 - Leads the IS function, and is responsible for making sure that the IS plan supports the firm's business plan

- User roles in IS planning – roles:
 - **Sponsors** – senior managers who make sure resources are allocated for building and maintaining the system
 - **Champions** – individuals that recognize the importance of an IS, and exert effort to make sure that others share that recognition
 - **IS steering committees** – make sure that the IS reflects business priorities

Allocating Resources Between New and Old ISs

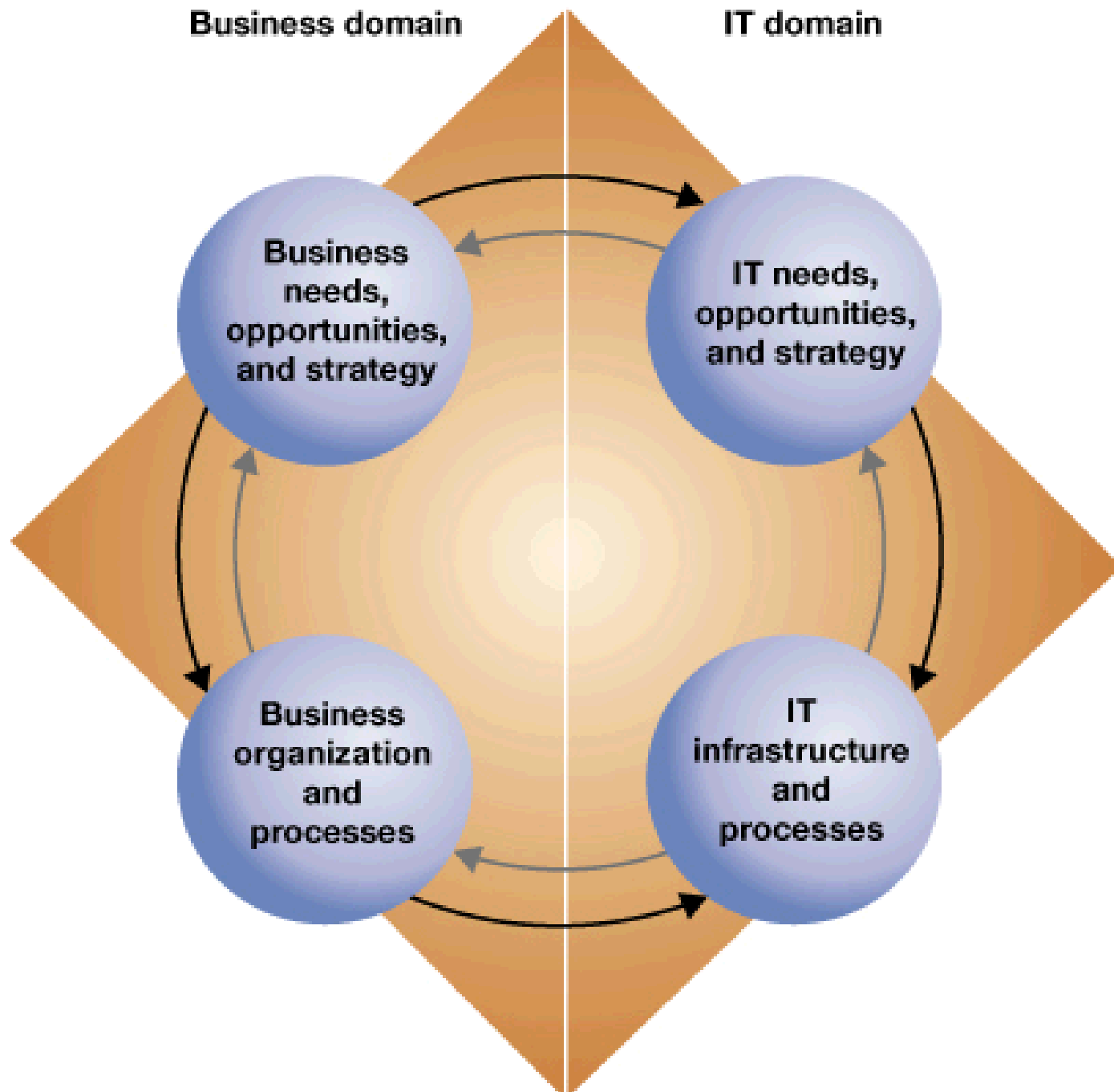
- Maintaining existing ISs and supporting users
 - User support projects
 - Enhancements
 - Bug fixes

- New development, infrastructure, and other projects
 - Major new applications projects
 - IT infrastructure
 - Research projects
 - Pilot project

Project Roles of IT Professionals

- Project managers
- Application programmers
- System analysts
- Programmer-analyst
- Technical writers
- Computer operators
- Database administrators
- System managers
- System programmers
- User support staff

Strategic Alignment of Business and IT



Consistency With Business Priorities

- **Critical success factors (CSF)** – the things that must go right for a business to succeed
 - Identify the firm's primary mission and the objectives that determine satisfactory overall performance
 - Executives identify a relatively small number of CSFs

Reengineering and Downsizing

- Business process reengineering (BPR) – the fundamental rethinking and radical redesign of business processes to achieve *dramatic improvements in critical measures of performance*
 - Difficult and risky
- Downsizing – improve process efficiency by reducing the number of people involved in the process

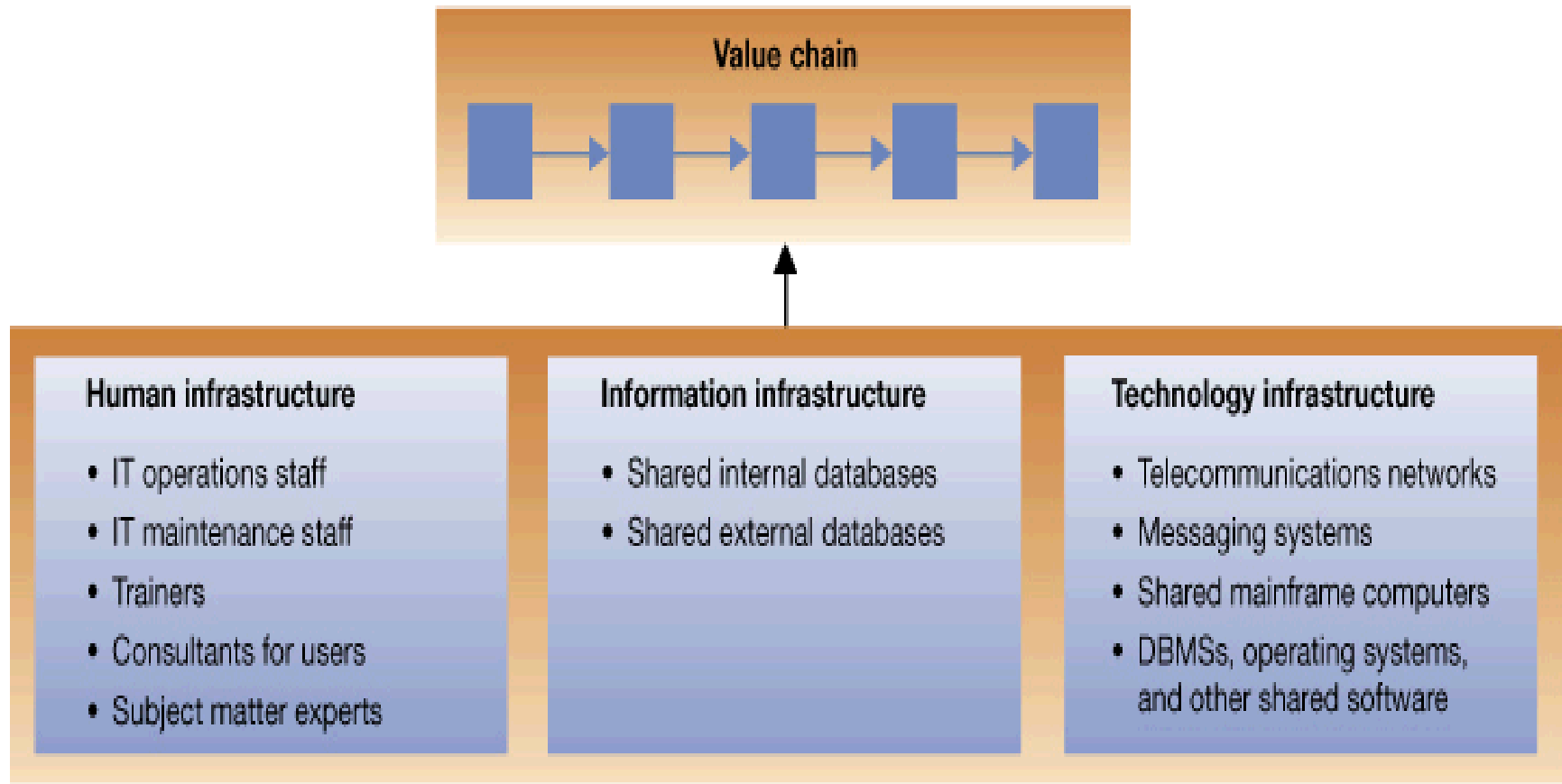
Information System Architecture

- The basic *blueprint* showing how the firm's data processing systems, networks, and data are integrated
- Must incorporate legacy systems
 - Old, and often obsolete systems that are still in use
- Computing platform
 - The basic types of computers, operating system, and network

Centralization vs. Decentralization

- Location of hardware and data
 - Corporate headquarters
 - Regional processing centers
 - Site processing centers
 - Department processors
 - Work group processors
 - Individual workstations

Describing a Business-driven Infrastructure



Selecting Systems to Invest In

Cost/Benefit Analysis

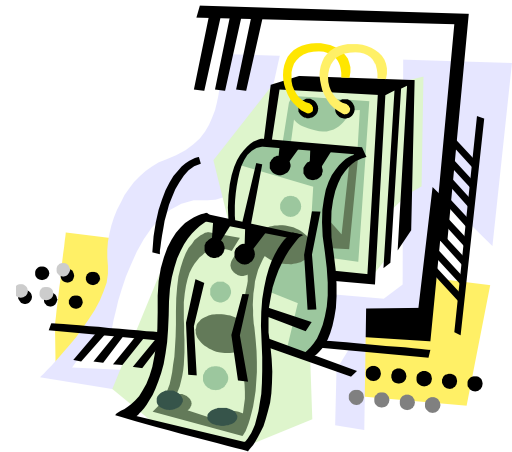
- The process of evaluating proposed projects by comparing estimated benefits and costs
- Key issues:
 - Tangible and intangible benefits
 - Tendency to understate costs
 - Timing of costs and benefits

Risks

- Desired benefits are not achieved
- The project is late and/or over budget
- The system's technical performance is inadequate
- User acceptance is low
- Shifting priorities reduce the project's importance, etc.

Financial Comparisons

- Some common criteria used for comparing and ranking projects:
 - Net present value (NPV)
 - Internal rate of return (IRR)
 - Payback



Project Management Issues

- Division of labor between the IS department and users
- Keeping the project on schedule
 - Goals, deliverables, schedules
 - Challenges in information system projects

Strategic information system

- Strategic Information System is a system that helps companies alter their business strategy.
- used to accelerate the reaction time to environmental changes and aid the company in achieving a competitive advantage over its competitors.
- They help in producing low cost quality products.
- The strategic role of IS involves using IT to develop products, services, and capabilities that give company major advantages over the competitive forces it faces in the global marketplace

Typical Strategic-Level Job Titles

- Top-level Managers
- CEOs or Presidents
- General Manager
- Corporate Boards
- Steering Committee
- Board of Directors
 - will design and execute strategic plans to paint a picture of the desired future and long-term goals of the organization.

- Essentially, strategic plans look ahead to where the organization wants to be in three, five, even ten years. Strategic plans, provided by top-level managers, serve as the framework for lower-level planning.

Tactical Information System

- IS Tactical plan describes how goals will be met and by when
- Tactical IS Plan performed by middle managers responsible for acquisition and allocation of resources for projects according to tactical plans, set out for one or two years.
- Tactical IS Planning evaluates current and projected information needs of the organization, prioritizes IS development projects, and develops allocation plans for financial and technology resources.

- Important Factors in IS Tactical Planning
 - Flexibility
 - Compatibility
 - Connectivity
 - Scalability
 - Standardization
 - Total Cost of Ownership

Tactical Level Job Titles

- Marketing manager
- Personnel manager
- Creative director
- Manager of information systems
- Communications director
- Chief Financial Officer

Operational Information System

- Operational Plan prepared by a component of an organization that clearly defines actions it will take to support the strategic objectives and plans of upper management.
- Operational IS Planning develops plans such as annual operating budgets and individual IS project plans.
- Operations IS Planning performed by supervisors of smaller work units concerned with planning and control of short-term (typically, a week or six months) budgets and schedules.

STRATEGIC x TACTICAL x OPERATIONAL



Strategic Planning

- Why and When?
- Entrepreneur: President, Partners, Directors.
- Long Term. More Comprehensive.



STRATEGIC



Tactical Plan

- Where and How?
- Administrator: Manager, Coordinator.
- Medium-term. Link between levels.



TACTICAL



Operational Plan

- What?
- Technical: Executor.
- Short Term. Specific.



OPERATIONAL

	Strategic Plans	Tactical Plans	Operational Plans
1. Focus of attention	Strategic Goals	Tactical goals	Operational goals
2. Levles of managers	They are framed by top-level managers	They are framed by middle-level managers	They are framed by lower-level managers.
3. Time frame	They are prepared for a long period of time, normally more than 5 years	They are prepared for intermediate period, ranging between 1 to 5 years	They are prepared for a period of less than one year.
4. Scope	They relate to overall organisational goals	They relate to depart mental goals	They relate to goals for sub-units of each department
5. Environment	They relate organisation with the external environment.	They focus on both external and internal environment	They focus on effective use of resources, thus, focusing the internal environment

- Thank you!