Academic Year: 2020/2021

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IT IN BUSINESS AND SOCIETY

ORGANIZATIONS, MANAGEMENT, AND THE NETWORKED ENTERPRISE

Learning Goals

Students will be able to:

- **Describe and analyse IT in the context of society and organizations**

- Propose, select, choose and build solutions of IT infrastructure and IT applications

- Reflect and evaluate IT management and development

1. Information Systems in Global Business Today

1. How are information systems transforming business, and why are they so essential for running and managing a business today?

   - Number of sites increasing

   - On-line purchasing

   - Facebook and other social network: increase visitors

   - Need to store data (mandatory)

   Firms invest heavily in information systems to achieve

1. Information Systems in Global Business Today

Firms invest heavily in information systems to achieve **six strategic business objectives**:
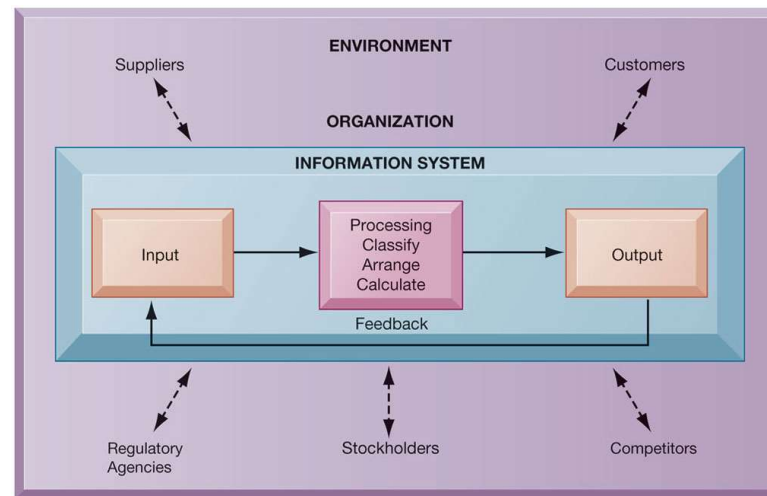
- Operational excellence
- New products, services, and business models
- Customer and supplier intimacy
- Improved decision making
- Competitive advantage
- Survival

1. Information Systems in Global Business Today

2. What is an information system? How does it work?

IS: interrelated components that manage information
(Collect, Process, store and distribute information) to:
   Support decision making and control
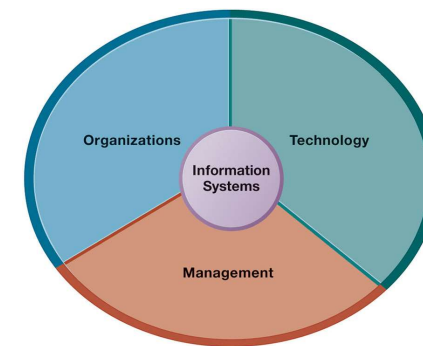   Help with analysis, visualization, and product creation

1. Information Systems in Global Business Today

2. What are its management, organization, and technology components?

Management: Setting strategy, create products, re-create organization

Organization: hierarchy of authority, responsibility

Technology: HW, SW, DB, networks..

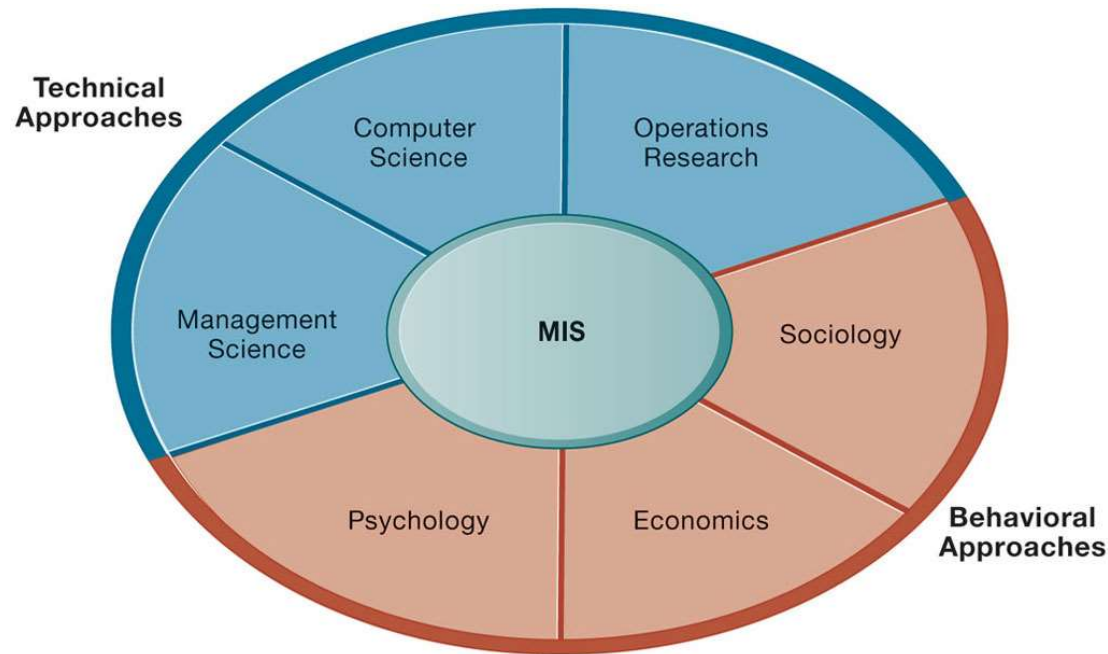# 1. Information Systems in Global Business Today

2. Why are complementary assets essential for ensuring that information systems provide genuine value for organizations?

- Assets required to derive value from a primary investment
- Firms supporting technology investments with investment in complementary assets receive superior returns
  - Organizational assets
  - Managerial assets
  - Social Assets

1. Information Systems in Global Business Today

3. What academic disciplines are used to study information systems, and how does each contribute to an understanding of information systems?

2. Global E-business and Collaboration

1 What are business processes?

Business processes
- Flows of material, information, knowledge
- Logically related set of tasks that define how specific business tasks are performed
- May be tied to functional area or be cross-functional

Businesses: Can be seen as collection of business processes
Business processes may be assets or liabilities

2. Global E-business and Collaboration

1 How are business processes related to information systems?

IT Improves business Processes:

Increasing efficiency of existing processes
   Automating steps that were manual
Enabling entirely new processes
   Changing flow of information
   Replacing sequential steps with parallel steps
   Eliminating delays in decision making
   Supporting new business models

2. Global E-business and Collaboration

2 How do systems serve the different management groups in a business, and how do systems that link the enterprise improve organizational performance?

- Transaction processing systems

- Systems for business intelligence

- Management information systems
- Decision support systems
- Executive support systems

2. Global E-business and Collaboration

3 Why are systems for collaboration and social business so important, and what technologies do they use?

Collaboration
    Short lived or long term
    Informal or formal (teams)
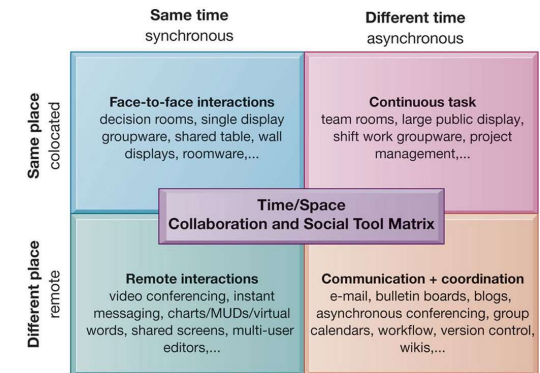Growing importance of collaboration
    Changing nature of work
    Growth of professional work—"interaction jobs"
    Changing organization of the firm
    Changing scope of the firm
    Emphasis on innovation
    Changing culture of work

2. Global E-business and Collaboration

4 What is the role of the information systems function in a business?

Often headed by chief information officer (CIO)
    Other senior positions include
    chief security officer (CSO),
    chief knowledge officer (CKO),
     chief privacy officer (CPO),
    chief data officer (CDO)
Programmers
Systems analysts
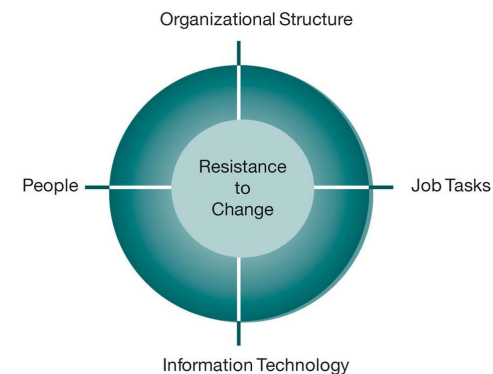Information systems managers
End users

IT governance: Strategies and policies for using IT in the organization, Decision rights, Accountability, Organization of information systems function (Centralized, decentralized, and so on)

3. Information Systems, Organizations, and Strategy

1 Which features of organizations do managers need to know about to build and use information systems successfully?

- Information systems become bound up in organizational politics because they influence access to a key resource—information
- Information systems potentially change an organization's structure, culture, politics, and work
- Four factors
  - Nature of the innovation
  - Structure of organization
  - Culture of organization
  - Tasks affected by innovation

3. Information Systems, Organizations, and Strategy

2 What is the impact of information systems on organizations?

Transaction Cost theory (IT lower costs of transaction)

Agency Theory (IT reduction of costs of agency)
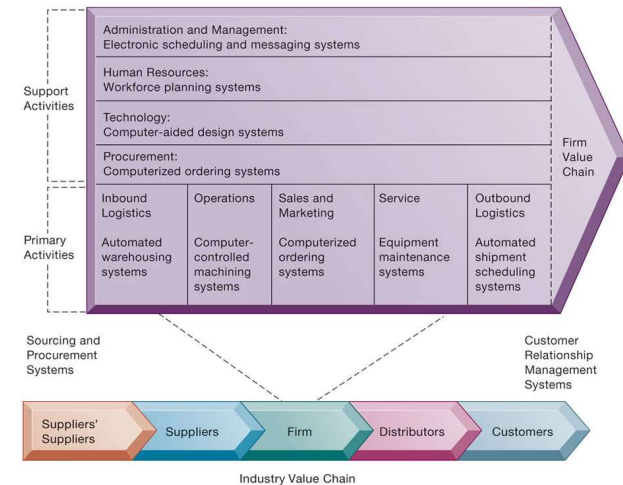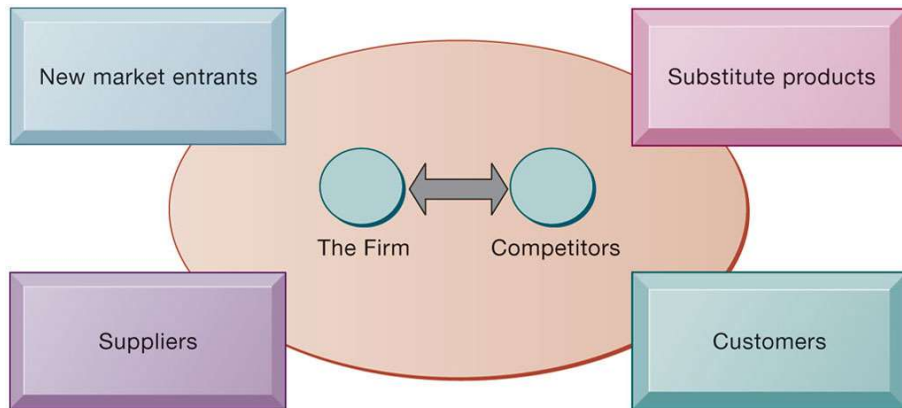
Flattening organization

RPA (Robotic Process Automation)

Collaborative intelligence

3. Information Systems, Organizations, and Strategy

3 How do Porter's competitive forces model, the value chain model, synergies, core competencies, and network economics help companies develop competitive strategies using information systems?

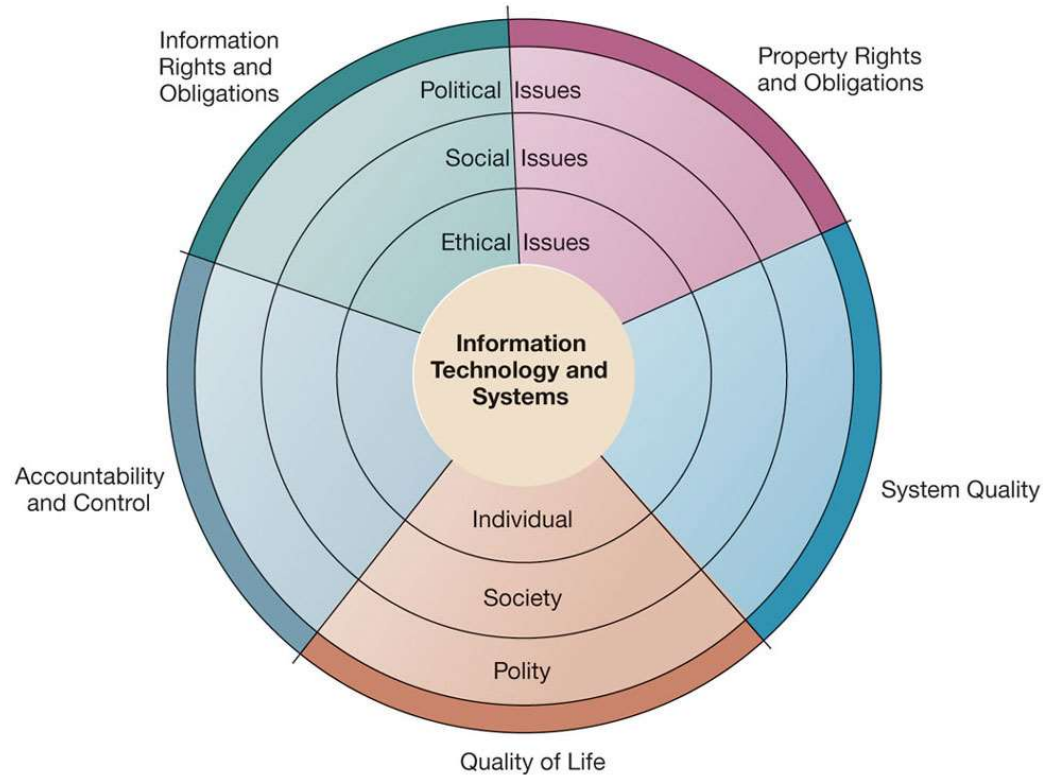# 3. Information Systems, Organizations, and Strategy

4 What are the challenges posed by strategic information systems, and how should they be addressed?

- **Sustaining competitive advantage**
  - Competitors can retaliate and copy strategic systems
  - Systems may become tools for survival
- **Aligning IT with business objectives**
  - Performing strategic systems analysis
    - Structure of industry
    - Firm value chains
- **Managing strategic transitions**
  - Adopting strategic systems requires changes in business goals, relationships with customers and suppliers, and business processes

4. Ethical and Social Issues in Information Systems

1. What ethical, social, and political issues are raised by information systems?

4. Ethical and Social Issues in Information Systems

2. What specific principles for conduct can be used to guide ethical decisions?

Five-step process for ethical analysis
1. Identify and clearly describe the facts.
2. Define the conflict or dilemma and identify the higher-order values involved.
3. Identify the stakeholders.
4. Identify the options that you can reasonably take.
5. Identify the potential consequences of your options.

Ethical perspectives

Professional Codes of Conduct (e.g. ACM)

4. Ethical and Social Issues in Information Systems

3.Why do contemporary information systems technology and the Internet pose challenges to the protection of individual privacy and intellectual property?

Privacy:

    EU General Data Protection Regulation (G D P R)

Intellectual property

    Tangible and intangible products of the mind created by individuals or corporations

Protected in four main ways:

    Copyright

    Patents

    Trademarks

    Trade secret

4. Ethical and Social Issues in Information Systems

4. How have information systems affected laws for establishing accountability and liability and the quality of everyday life?

- Negative social consequences of systems
- Balancing power: center versus periphery
- Rapidity of change: reduced response time to competition
- Maintaining boundaries: family, work, and leisure
- Dependence and vulnerability
- Computer crime and abuse
- Equity and access
- Health risks

Next Session

- IT in Business and Society
- **IT Infrastructure**
- Key Systems Applications
- Build and Manage Systems