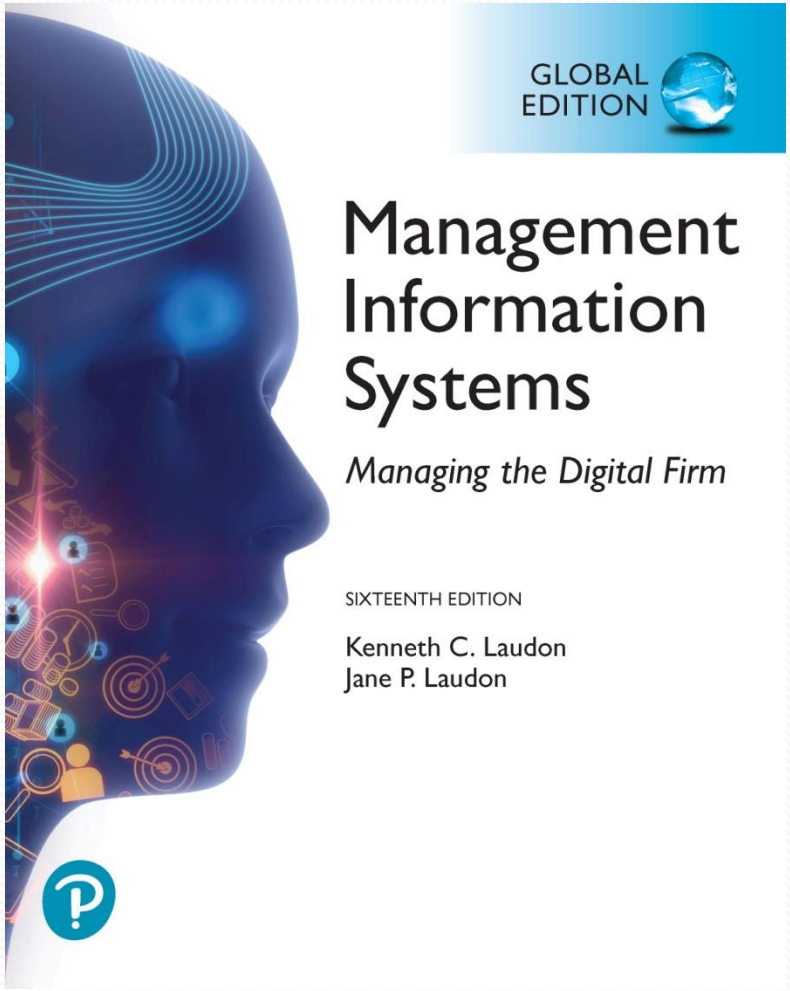
Management Information Systems: Managing the Digital Firm

Sixteenth Edition • Global Edition



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Chapter 1

Information Systems in Global Business Today

Learning Objectives

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

1.2 What is an information system? How does it work? What are its management, organization, and technology components? Why are complementary assets essential for ensuring that information systems provide genuine value for organizations?

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

1.4 How will MIS help my career?

Video Cases

- Case 1: Business in the Cloud: Facebook Google, and eBay Data Centers
- (Facebook Data Center.mp4)

- 1. Why does Facebook's data center specialist argue that "The Internet is not a cloud?"
- 2. What are some of the techniques Facebook uses to cool its data centers?

Video Cases

- Case 1: Business in the Cloud: Facebook Google, and eBay Data Centers

(Google Data Center Efficiency Best Practices -- Full Video.mp4)

- 3. Describe the five methods recommended by Google for reducing power consumption.
- 4. Based on the Google video, how much of the world's global greenhouse gases are the result of computing?

Video Cases

- Case 1: Business in the Cloud: Facebook Google, and eBay Data Centers

  （Triton Unveiled.mp4）

- 5. What are some of the benefits to using Dell's Triton water cooling technology?

Chapter Cases

Premier League: The Power of IT Analytics (1 of 2)

The English Premier League is one of the world's most popular and competitive football tournaments. As a business, the League has become extremely successful and continues to show strong growth, posting record year-on-year revenues and profits generated through multiple channels: ticket sales, merchandising, and—in particular—television rights, including advertising and sponsorship. Of the 20 teams in the league, some are internationally renowned, such as Liverpool, Manchester United, Arsenal, and Chelsea. All League and football club business is underpinned by information technologies, including full-blown interactive websites and mobile apps.

Chapter Cases

Over the years, the stars of the League have invested heavily in new players and have amassed the resources necessary to sustain what seem like permanent positions at or near the top of this competition. They have also invested increasingly in data-driven, statistical approaches to team coaching and player performance; at the same time, they have demystified many of the coaches' and players' decisions. Lesser-known teams who have recently joined the top flight include Leicester City and Watford. Although promotion to the ultimate league in English—and worldwide—football is in its own right a fantastic achievement for clubs such as these, they usually lack the critical mass necessary to sustain their position, and moving up the league can be extremely difficult—even membership can often be volatile.

Chapter Cases

Nevertheless, a remarkable upset took place at the end of the competition season in the summer of 2016 as Leicester City amazed and delighted fans worldwide by emerging triumphant as Premier League Champions. They accumulated more points than any other team, including the League giants, thanks to a unique combination of fast counter-attacking and optimum use of their club's limited talent pool, which included minimizing the number of player injuries. Although a number of factors have emerged that explain the football club's success, prominent among these are reports of the manager's use of IT analytics.

Although 19 of the 20 Premier League clubs used big data and analytics to enhance teams' performances, Leicester City had the advantage of having accumulated match data from 10 previous football seasons, so analysis and use of data in coaching and training processes were well established and representative of how the team played. Across the spectrum of analytics

Chapter Cases

technologies used, from player-wearable devices to camera and satellite game-tracking sensors, the club was considered the most highly developed in this regard in the League. From recruitment and induction of young talent to monitoring and feedback processes during, after, and as preparation for matches, Leicester City was able to optimize its players' performances and thus enable maximum impact—or points accumulation—against their adversaries.

The Football Manager game simulation maintains a very large database of 140 leagues in 51 countries, comprising in excess of 300,000 current players with 250 statistics on each. The players range from those who are in the earliest stages of their careers to those who are well established. To maintain the currency of player data, a large network of 1,300 club scouts continually update the players' performance statistics, and this data is analyzed by clubs, who also try to identify new talent for their teams, especially those exhibiting the lowest cost and highest impact attributes.

Chapter Cases

Leicester used a number of IT analytics apps, including Prozone and OptimEye, to monitor its players' performances and provide feedback that would inform coaching, training, and in-game decisions. Prozone features a tracking function that records metrics concerning player fitness in areas such as sprinting, distance run, and intensity. Using GPS data and player-wearable technology, OptimEye enables a risk assessment of players' injuries and provides alerts when a player has exceeded their normal workload, which was a key component of Leicester's championship success using IT analytics.

Sources: João Medeiros, "How Data Analytics Killed the Premier League's Long Ball Game," www.wired.co.uk, August 9, 2017, accessed December 4, 2017; "Foxy Leicester City FC Won Premiership with Data Analytics," www.computerweekly.com, accessed December 4, 2017; Anil Valluri, "Big Data: The Game Changer," www.livemint.com, September 25, 2016, accessed December 4, 2017; Jonathan Sullivan, "Beautiful and Mathematical: Football as a Numbers Game," www.bbc.co.uk, September 14, 2016, accessed December 4, 2017.

Chapter Cases

Premier League: The Power of IT Analytics (1 of 2)

- Problem
  - Improving revenue and player training through Big Data.

Chapter Cases

Premier League: The Power of IT Analytics (1 of 2)

- Solutions
  - The Football Manager game simulation as a database
  - A system of player-performance-enhancing IT analytics apps

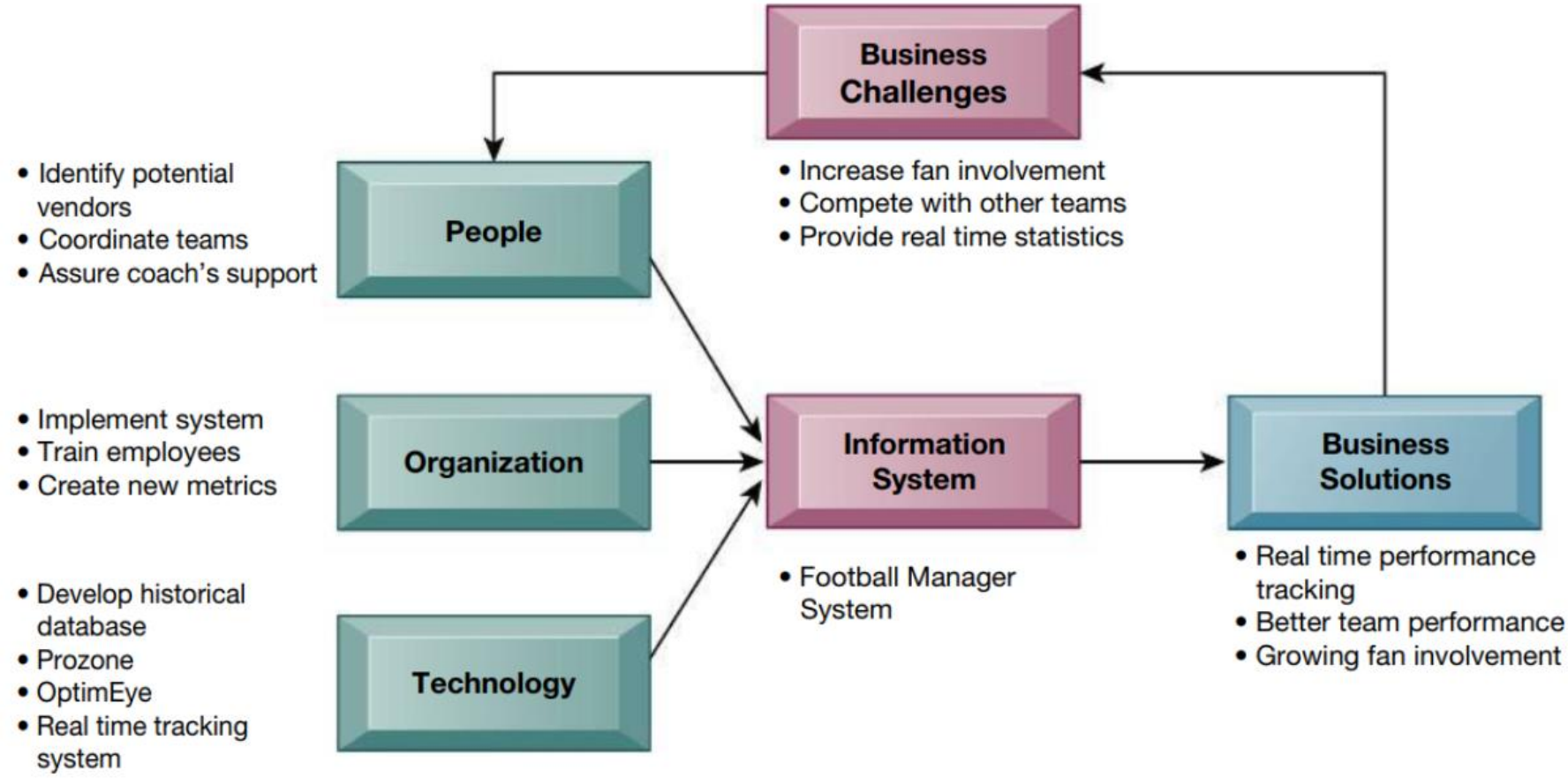
Chapter Cases

Premier League: The Power of IT Analytics (2 of 2)

- Use of networked sensors and powerful analytics to drive business operations and management decisions
- Illustrates why information systems are so essential today

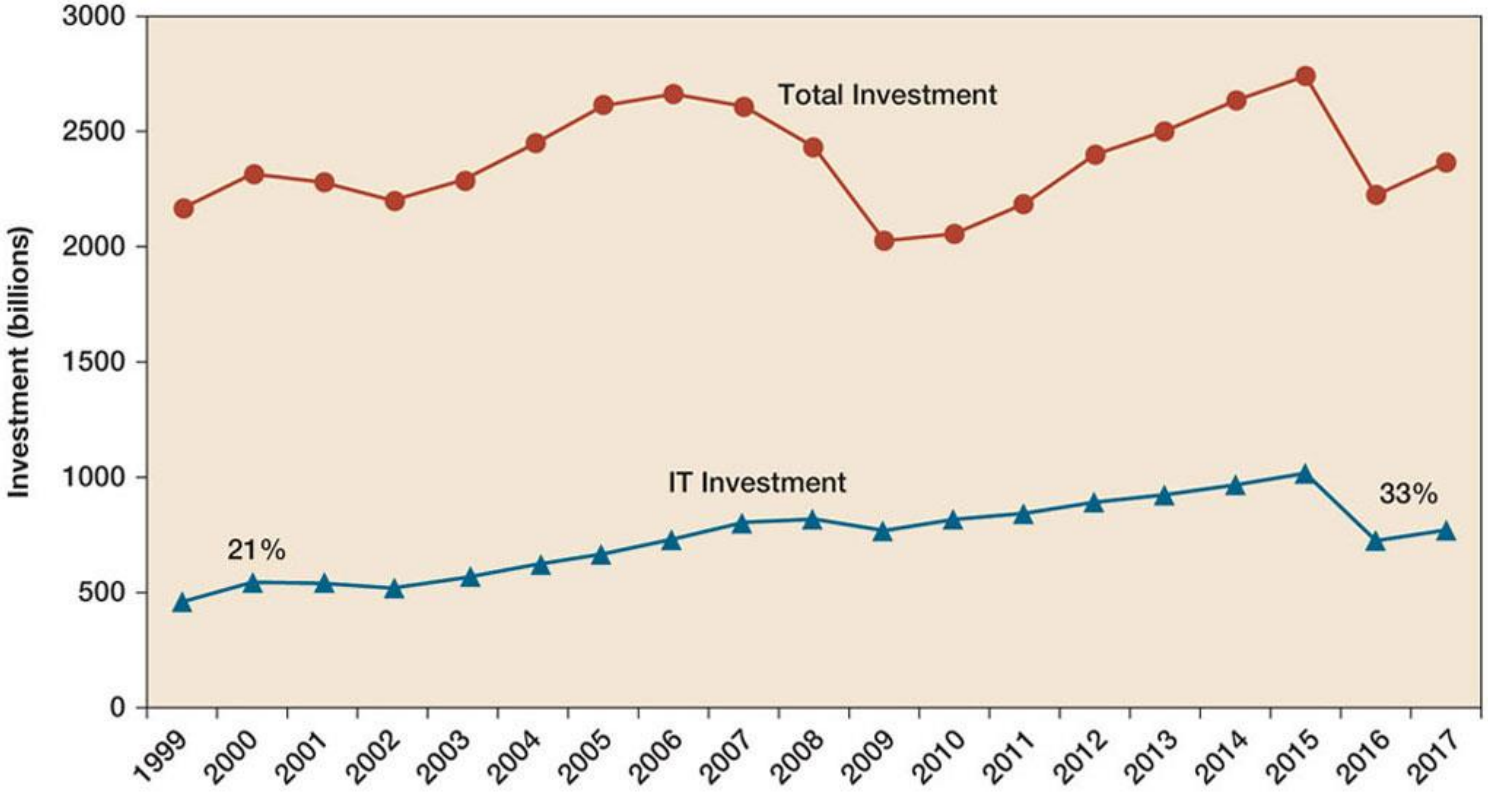
Chapter Cases

Premier League: The Power of IT Analytics (2 of 2)



1.1 HOW ARE INFORMATION SYSTEMS TRANSFORMING BUSINESS, AND WHY ARE THEY SO ESSENTIAL FOR RUNNING AND MANAGING A BUSINESS TODAY?

Figure 1.1 Information Technology Capital Investment



- Information technology capital investment, defined as hardware, software, and communications equipment.

How Information Systems Are Transforming Business (1 of 3)

- Some 2.7 billion people worldwide have smartphones and an estimated 1.3 billion use their smartphones for Internet access.
- An estimated 2.46 billion people now use social networks, with Facebook attracted more than 2 billion monthly visitors worldwide.
- Smartphones, social networking, texting, e-mailing, and webinars have all become essential tools of business because that's where your customers, suppliers, and colleagues can be found.

How Information Systems Are Transforming Business (2 of 3)

- By June 2018, more than 160 million businesses worldwide had dot-com Internet sites registered.
- Online commerce is growing at 23% percent annually, four times the growth of traditional offline retail.
- Nearly all of the Fortune 2000 global firms now have Facebook pages, Twitter accounts, and Pinterest sites.
- Google's online ad revenues reached more than $327 billion in revenues in 2018.
- Businesses are using information technology to sense and respond to rapidly changing customer demand, reduce inventories to the lowest possible levels, and achieve higher levels of operational efficiency.

How Information Systems Are Transforming Business (3 of 3)

- New laws require businesses to store more data for longer periods.
- New federal security and accounting laws that require companies to store e-mail for 5 years have spurred the growth of digital information, which is increasing at a rate of 5 exabytes annually.
- Changes in business result in changes in jobs and careers

What's New in Management Information Systems (1 of 3)

- IT Innovations
  - Cloud computing, big data, Internet of Things
  - Mobile digital platform
  - AI and machine learning
- New Business Models
  - Online streaming music and video
  - Only use Internet rather than TV for entertainment

What's New in Management Information Systems (2 of 3)

- E-commerce Expansion
  - E-commerce expands to nearly $1 trillion in 2018
  - Online services now approach online retail in revenue
  - Online mobile advertising now larger than desktop
- Management Changes
  - Management is going mobile.
  - Management no longer operate in a fog of confusion.

What's New in Management Information Systems (3 of 3)

- Firms and Organizations Change
  - More collaborative, less emphasis on hierarchy and structure
  - Greater emphasis on competencies and skills rather than positions in the hierarchy
  - Higher-speed/more accurate decision making based on data and analysis
  - More willingness to interact with consumers (social media)
  - Better understanding of the importance of IT

Chapter Cases

Interactive Session: Management: Can You Run the Company with Your iPhone? (1 of 2)

- Class Discussion
  - What kinds of applications are described here? What business functions do they support? How do they improve operational efficiency and decision making?

Chapter Cases

Interactive Session: Management: Can You Run the Company with Your iPhone? (1 of 2)

- Class Discussion
  - Identify the problems that the business in this case study solved by using mobile digital devices.

Chapter Cases

Can You Run the Company with Your iPhone? (2 of 2)

- Class Discussion
  - What kinds of businesses are most likely to benefit from equipping their employees with mobile digital devices such as iPhones and iPads?

Chapter Cases

Can You Run the Company with Your iPhone? (2 of 2)

- Class Discussion
  - One company deploying iPhones has stated, "The iPhone is not a game changer, it's an industry changer. It changes the way that you can interact with your customers" and "with your suppliers." Discuss the implications of this statement.

主观题 10分

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Class Discussion

- One company deploying iPhones has stated, “The iPhone is not a game changer, it’s an industry changer. It changes the way that you can interact with your customers” and “with your suppliers.” Discuss the implications of this statement.

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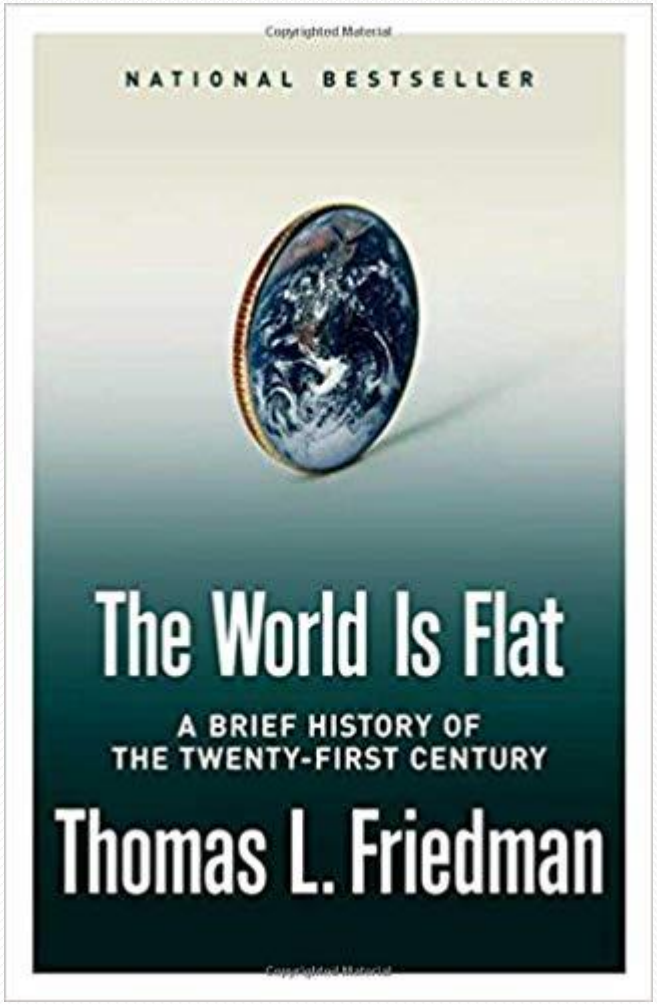
作答

Globalization Challenges and Opportunities: A Flattened World (1 of 3)

- **2005, Thomas Fridman, "Flat"**
  - The Internet and global communications had greatly reduced the economic and cultural advantages of developed countries.
  - Globalization.



Globalization Challenges and Opportunities: A Flattened World (2 of 3)

- Global economy depends on imports and exports.
- Tech companies are particularly dependent on offshore revenue.
- Not just goods but also jobs move across borders. Many of the jobs are in less-skilled information system occupations.
- In US, Employment in information systems and the other service occupations is expanding rapidly.
- Business students need develop high-level skills and experience that cannot be outsourced.

Globalization Challenges and Opportunities: A Flattened World (3 of 3)

- **Internet and global communications have greatly changed how and where business is done**
  - Drastic reduction of costs of operating and transacting on global scale
  - Firms producing goods and services on a global scale achieve extraordinary cost reductions.
  - Information systems enable globalization of commerce.

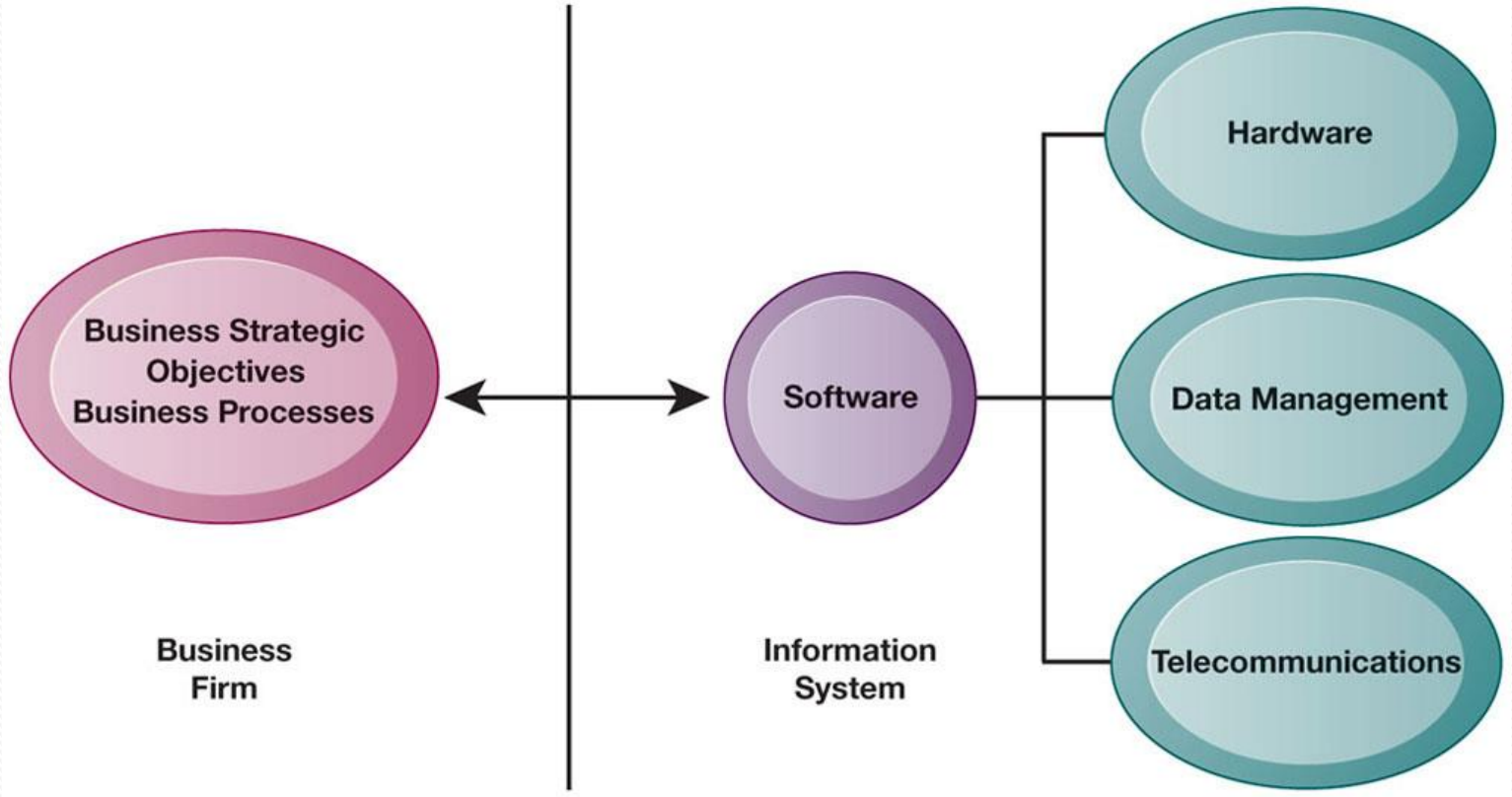
The Emerging Digital Firm

- In a fully digital firm:
  - Significant business relationships are digitally enabled and mediated
  - Core business processes are accomplished through digital networks
  - Key corporate assets are managed digitally
- Digital firms offer greater flexibility in organization and management
  - Time shifting, space shifting

Strategic Business Objectives of Information Systems (1 of 2)

- Growing interdependence between:
  - Ability to use information technology
  - Ability to implement corporate strategies and achieve corporate goals
  - What a business would like to do in five years often depends on what its systems will be able to do.

Figure 1.2 The Interdependence Between Organizations and Information Systems



Strategic Business Objectives of Information Systems (2 of 2)

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

Operational Excellence

- Improved efficiency results in higher profits
- Information systems and technologies help improve efficiency and productivity
- Example: Walmart
  - Power of combining information systems and best business practices to achieve operational efficiency—and over $485 billion in sales in 2017
  - Most efficient retail store in world as result of digital links between suppliers and stores

New Products, Services, and Business Models

- Information systems and technologies enable firms to create new products, services, and business models
- Business model: how a company produces, delivers, and sells its products and services
- Example: Apple
  - Transformed old model of music distribution with iTunes
  - Constant innovations—iPod, iPhone, iPad, etc.

Customer and Supplier Intimacy

- Customers who are served well become repeat customers who purchase more
  - Example: Mandarin Oriental Hotel
  - Uses IT to foster an intimate relationship with its customers, keeping track of preferences, etc.
- Close relationships with suppliers result in lower costs
  - Examples: JC Penney
  - These systems reduce inventory costs, and ensure that items customers want are actually on the shelves

Improved Decision Making (1 of 2)

- Without accurate information:
  - Managers must use forecasts, best guesses, luck
  - Results in:
    - Overproduction, underproduction
    - Misallocation of resources
    - Poor response times
    - Poor outcomes raise costs, lose customers

Improved Decision Making (2 of 2)

- Real-time data improves ability of managers to make decisions.
- Example: Privi Organics Ltd. uses Oracle Human Capital Management system for real-time insight into individual employee information.
  - performance rating
  - compensation history
  - integrats all employee records across the organization
  - A digital dashboard helps management view and monitor hiring status in multiple locations

Competitive Advantage

- Often results from achieving previous business objectives
- Advantages over competitors
- Charging less for superior products, better performance, and better response to suppliers and customers
- Higher profits
- Examples: Apple, Walmart, UPS are industry leaders because they know how to use information systems for this purpose

Survival

- Businesses may need to invest in information systems out of necessity; simply the cost of doing business
- Keeping up with competitors
  - Citibank's introduction of ATMs
- Federal and state regulations and reporting requirements
  - Toxic Substances Control Act

单选题 1分

设置

Which of the following is not one of the six strategic business objectives of information systems?

A New products and services

B Improved decision making

C Improved community relations

D Competitive advantage

E Survival

提交

单选题 1分

设置

Which of the following may lead to competitive advantage?

1. New products, services, and business models;
2. Charging less for superior products;
3. Responding to customers in real time

A 1 only

B 1 and 2

C 2 and 3

D 1 and 3

E 1,2, and 3

提交

单选题 1分

设置

A firm that invests in an information system because it is a necessity of doing business does so because it is seeking to achieve which of the following business objectives?

A Operational excellence

B Improved decision making

C Competitive advantage

D Customer intimacy

E Survival

提交

单选题 1分

设置

The Mandarin Oriental's use of computer systems to keep track of guests' preferences is an example of which of the following?

A Improved flexibility

B Improved decision making

C Improved efficiency

D Customer intimacy

E Operational excellence

提交

单选题 1分

设置

Walmart exemplifies the power of information systems coupled with state-of-the-art business practices and supportive management to achieve which of the following?

A New products and services

B Operational efficiency

C Survival

D Customer intimacy

E Competitive advantage

提交

单选题 1分

设置

Which of the following statements about digital firms is *not* true?

A. In digital firms, time shifting and space shifting are the norm.

B. Today, most firms are fully digital.

C. Digital firms offer extraordinary opportunities for flexible global organization and management.

D. Digital firms sense and respond to their environments more rapidly than traditional firms.

E. Digital firms have more flexibility to survive in turbulent times.

提交

单选题 1分

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Which of the following is *not* one of the current changes taking place in information systems technology?

A Growing business use of big data

B Growth in cloud computing

C Growth in the PC platform

D Emerging mobile digital platform

E Increased usage of data generated by the Internet of Things

提交

单选题 1分

设置

Thomas Friedman's description of the world as "flat" refers to:

A the flattening of economic and cultural advantages of developed countries.

B the use of the Internet and technology for instantaneous communication.

C the reduction in travel times and the ubiquity of global exchange and travel.

D the growth of globalization.

E the increased use of global currencies.

提交

单选题 1分

设置

All of the following describe the effects of globalization *except*:

A significant decreases in operating costs.

B reduction of labor costs through outsourcing.

C ability to find low-cost suppliers.

D increases in transaction costs.

E replication of business models in multiple countries.

提交

单选题 1分

设置

In order to be considered a digital firm, all of the firm's significant business relationships and core business processes must be digitally enabled.

A True

B False

提交

单选题 1分

设置

A business model describes how a company produces, delivers, and sells a product or service to create wealth.

A True

B False

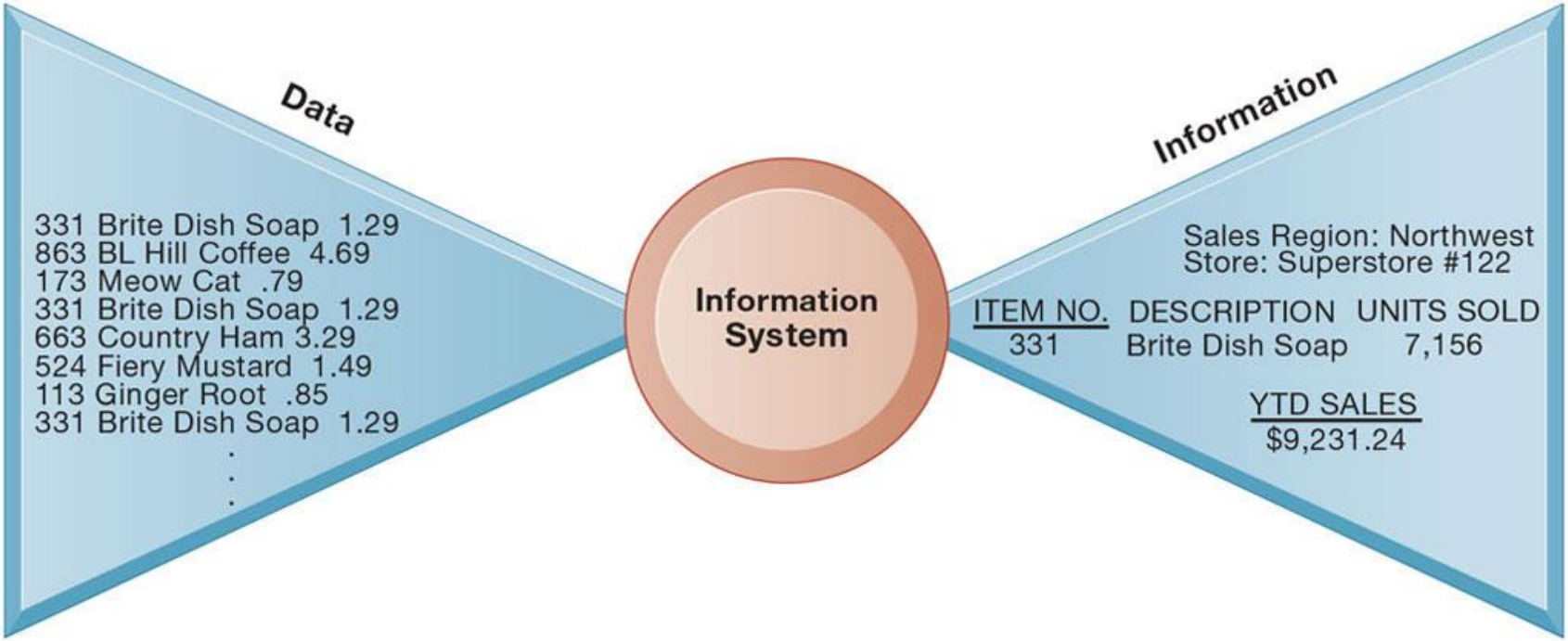
提交

1.2 WHAT IS AN INFORMATION SYSTEM? HOW DOES IT WORK? WHAT ARE ITS MANAGEMENT, ORGANIZATION, AND TECHNOLOGY COMPONENTS? WHY ARE COMPLEMENTARY ASSETS ESSENTIAL FOR ENSURING THAT INFORMATION SYSTEMS PROVIDE GENUINE VALUE FOR ORGANIZATIONS?

What Is an Information System?
(1 of 4)

- Information technology: the hardware and software a business uses to achieve objectives
- Information system: interrelated components that manage information to:
  - Support decision making and control
  - Help with analysis, visualization, and product creation
- Data: streams of raw facts
- Information: data shaped into meaningful, useful form

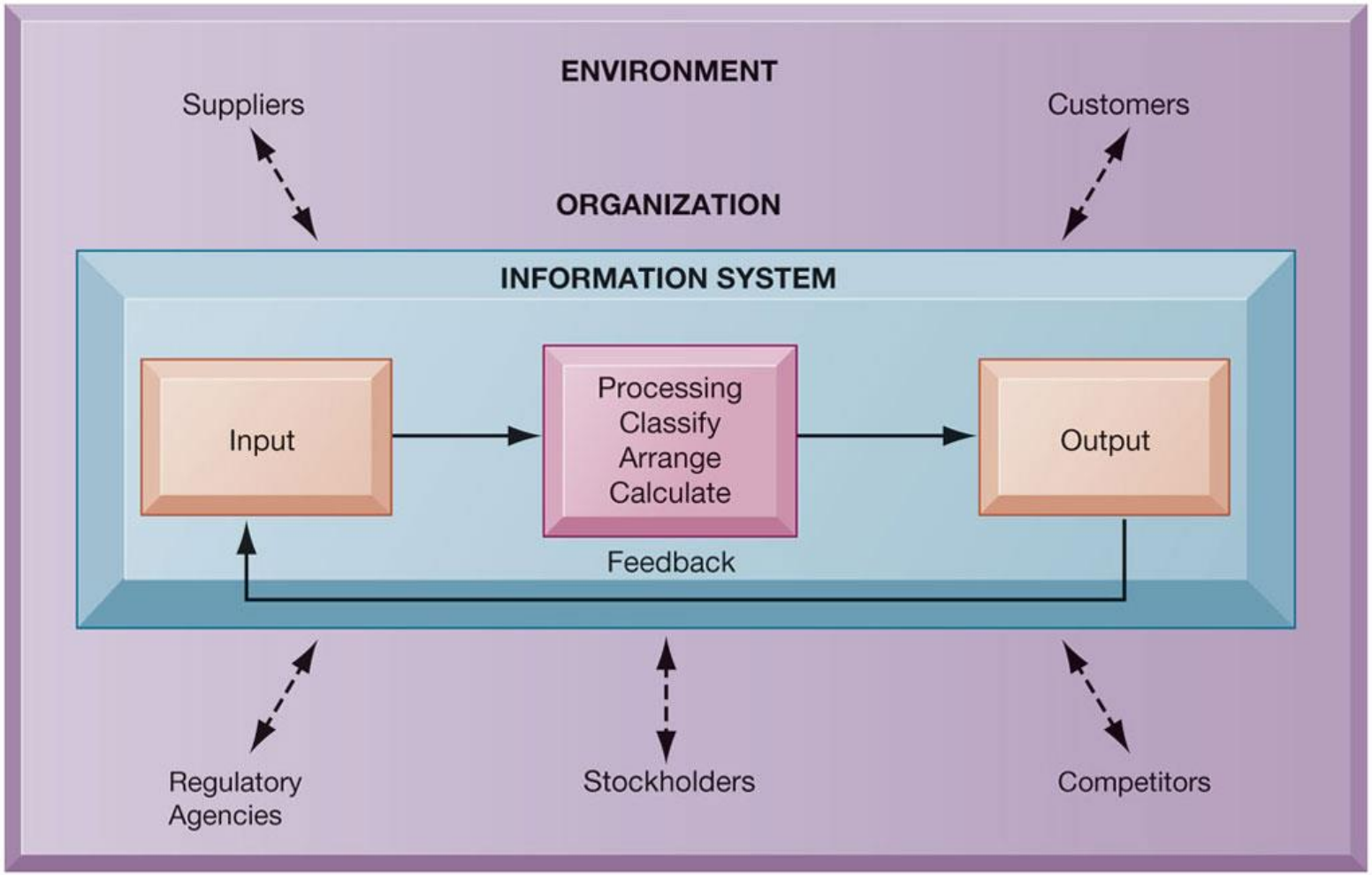
Figure 1.3 Data and Information



What Is an Information System?
(2 of 4)

- *Three* Activities in an information system that produce information:
  - **Input** captures or collects raw data from within the organization or from its external environment.
  - **Processing** converts this raw input into a meaningful form.
  - **Output** transfers the processed information to the people who will use it or to the activities for which it will be used.
- Feedback
  - Output is returned to appropriate members of organization to help evaluate or correct input stage

Figure 1.4 Functions of an Information System



What is an Information System?
(3 of 4)

- Example: A sports team's system for selling tickets
  - raw **input** consists of order data for tickets
  - Another **input** would be the ticket price
  - Computers store these data and **process** them to calculate order totals, to track ticket purchases, and to send requests for payment to credit card companies.
  - The **output** consists of tickets to print out, receipts for orders, and reports on online ticket orders.
  - The system provides *meaningful information*, such as the number of tickets sold for a particular game or at a particular price, the total number of tickets sold each year, and frequent customers.

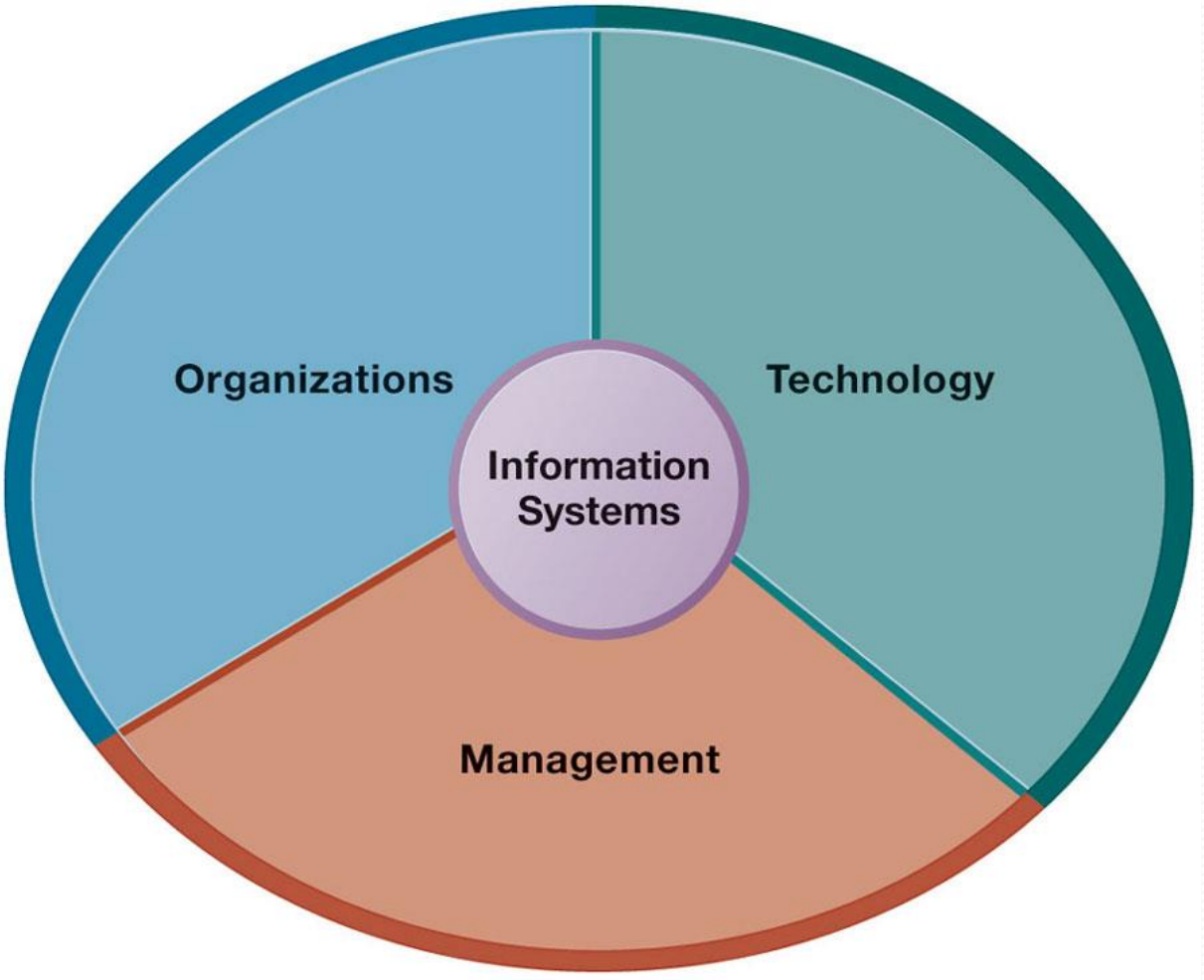
What is an Information System? (4 of 4)

- Sharp distinction between computer or computer program versus information system
- Computer/computer program vs. information system
  - Computers and software are technical foundation and tools and the material of a information system
  - To understand information systems, you must understand the problems they are designed to solve, their architectural and design elements, and the organizational processes that lead to the solutions.

Dimensions of Information Systems

- Organizations
- Management
- Technology
- The field of **management information systems** (**MIS**) tries to achieve this broader understanding of information systems, which encompasses an understanding of these three dimensions.

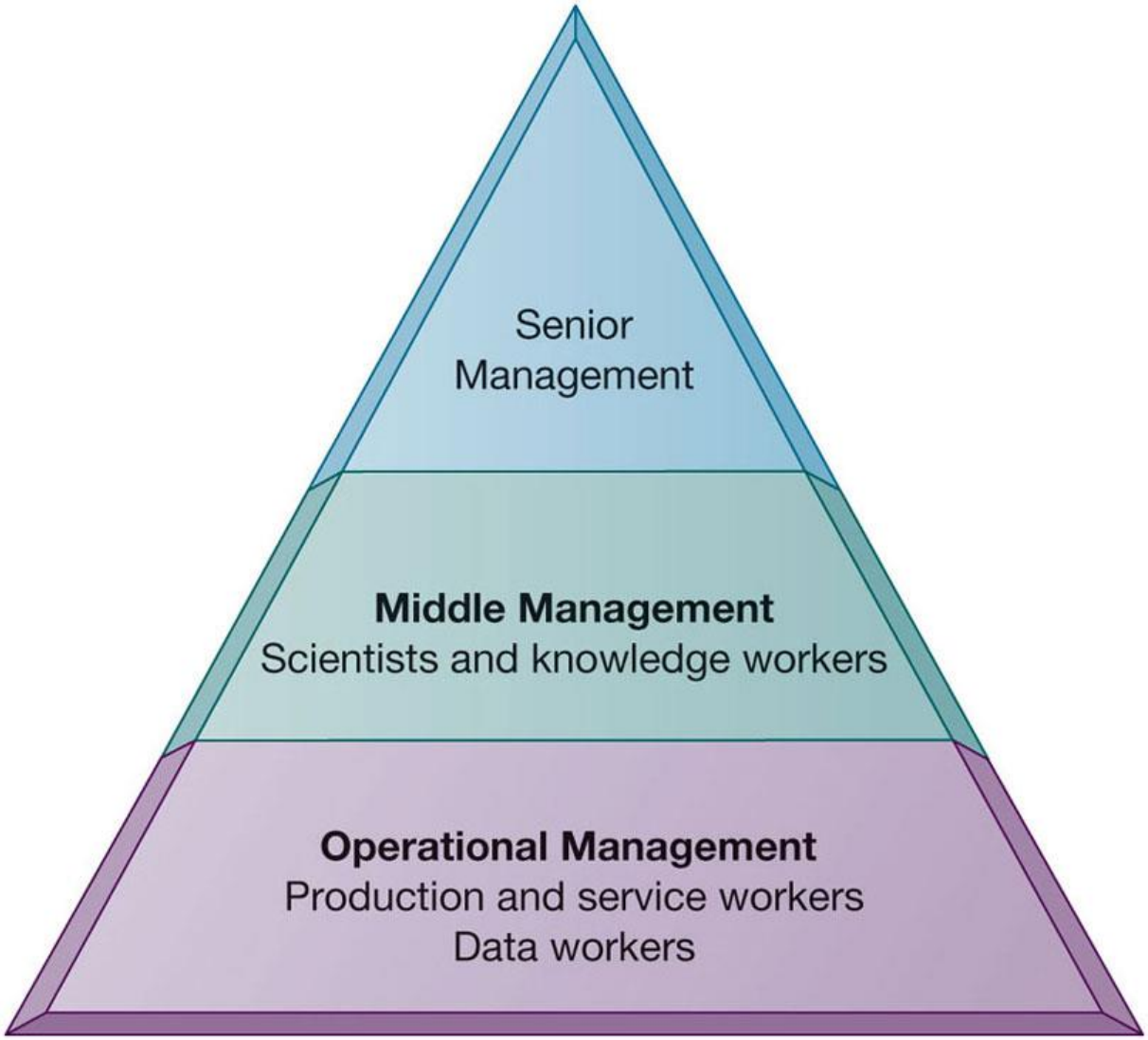
Figure 1.5 Information Systems Are More Than Computers



Dimensions of Information Systems: Organizations (1 of 2)

- The key elements of an **organization** are its people, structure, business processes1 politics, and culture.
- **Hierarchy** of authority, responsibility
  - Senior management
  - Middle management
  - Operational management
  - Knowledge workers
  - Data workers
  - Production or service workers

Figure 1.6 Levels in a Firm



Dimensions of Information Systems: Organizations (2 of 2)

- The major **business functions** or specialized tasks performed by business organizations consist of

FUNCTION	PURPOSE
Sales and marketing	Selling the organization's products and services
Manufacturing and production	Producing and delivering products and services
Finance and accounting	Managing the organization's financial assets and maintaining the organization's financial records
Human resources	Attracting, developing, and maintaining the organization's labor force; maintaining employee records

- Most organization's **business processes** include formal rules that have been developed over a long time for accomplishing tasks.
- Each organization has a unique **culture** , or fundamental set of assumptions, values and ways of doing things, that has been accepted by most of its members.

Dimensions of Information Systems: Management

- Managers
  - **perceive** business challenges in the environment
  - **set** organizational **strategy** for responding to business challenges
  - **allocate** the human and financial resources to coordinate the work
  - set goals and achieve success
- In addition, managers must act creatively
  - Creation of new *products and services*
  - Occasionally re-creating the *organization*

Dimensions of Information Systems: Technology

- Computer hardware and software
- Data management technology
- Networking and telecommunications technology
  - Networks, the Internet, intranets and extranets, World Wide Web
- IT infrastructure: provides platform that system is built on

Chapter Cases

Interactive Session – Technology: Healthcare at Singapore's JurongHealth Services

- Class Discussion
  - What technologies are used by JurongHealth? What purpose do they serve?

Chapter Cases

Interactive Session – Technology: Healthcare at Singapore's JurongHealth Services

- Class Discussion
  - What information systems are implemented by JurongHealth? Describe the input, processing, and output of any one such system.

Chapter Cases

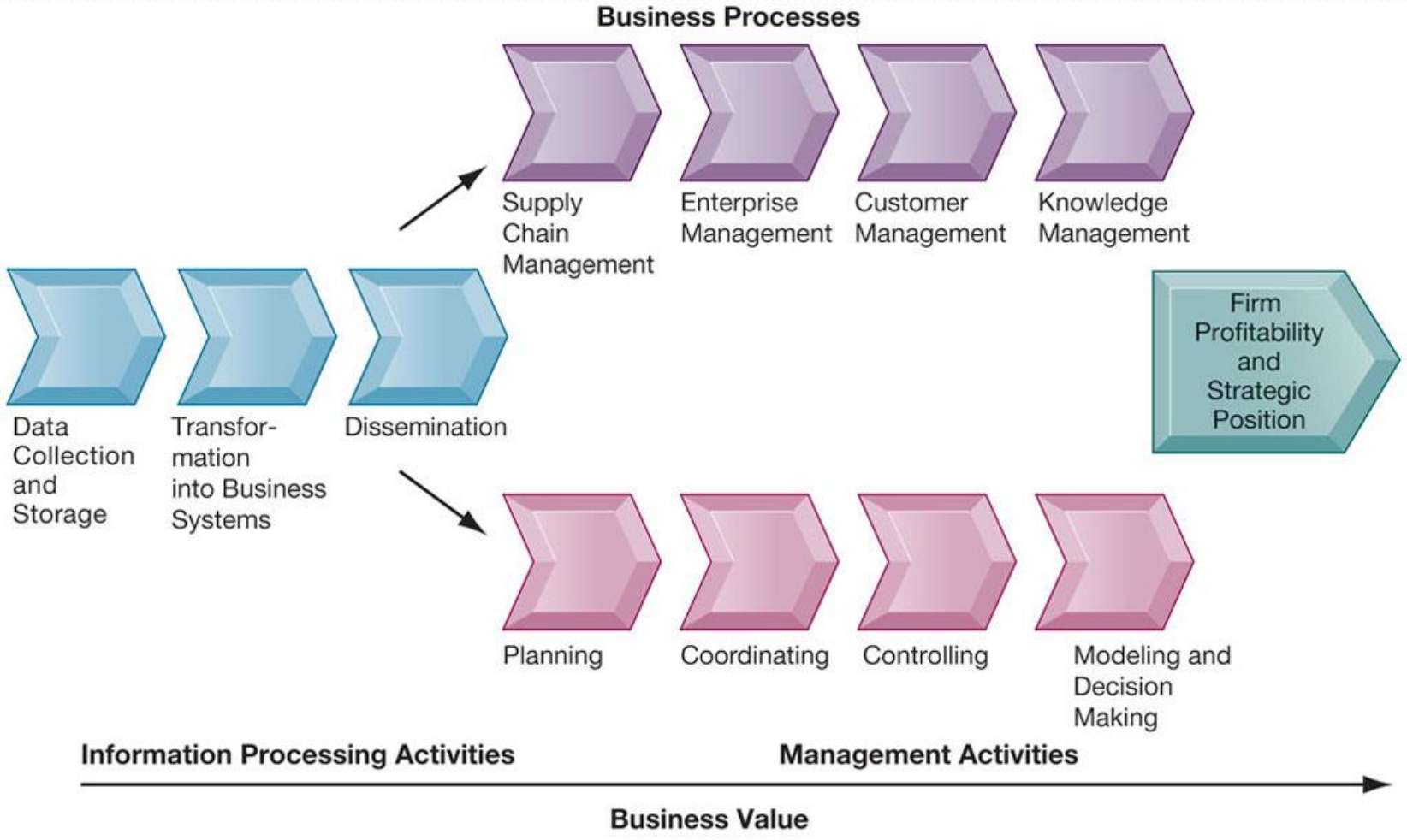
Interactive Session – Technology: Healthcare at Singapore's JurongHealth Services

- Class Discussion
  - Why are information systems important for JurongHealth?

It Isn't Just Technology: A Business Perspective on Information Systems (1 of 3)

- Information system is instrument for creating value, enables the firm
  - to increase its revenue
  - decrease its costs
  - by providing information that helps managers make better decisions
  - by improving the execution of business processes
- Investments in information technology will result in superior returns
  - Productivity increases
  - Revenue increases
  - Superior long-term strategic positioning

Figure 1.7 The Business Information Value Chain



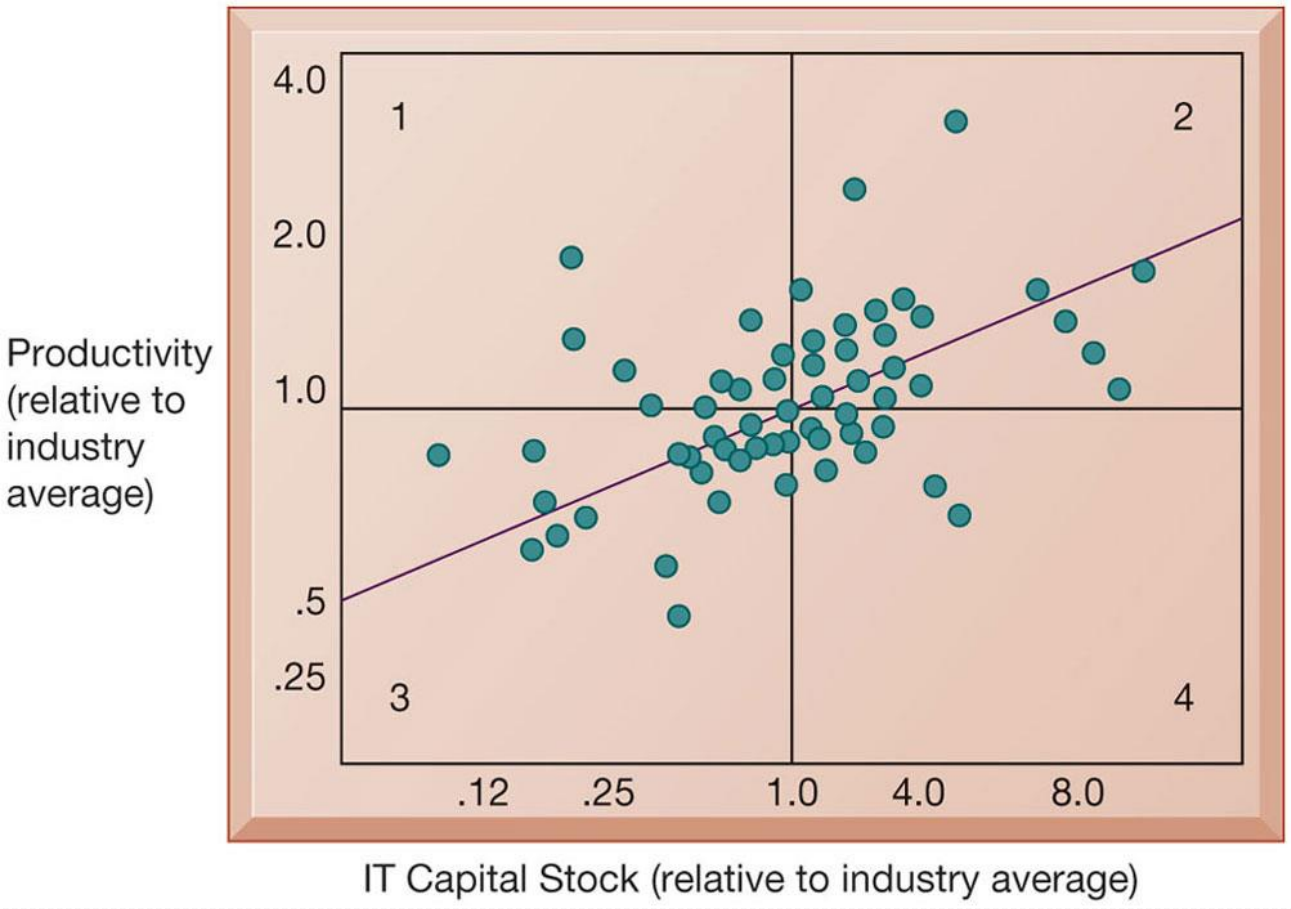
It Isn't Just Technology: A Business Perspective on Information Systems (2 of 3)

- Business information value chain
  - Raw data acquired and transformed through stages that add value to that information
  - Value of information system determined in part by the extent to which it leads to better decisions, greater efficiency, and higher profits
- Business perspective
  - An information system represents an *organizational* and *management solution*, based on information technology, to a challenge or problem posed by the environment.

It Isn't Just Technology: A Business Perspective on Information Systems (3 of 3)

- Investing in information technology does not guarantee good returns
- There is considerable variation in the returns firms receive from systems investments

Figure 1.8 Variation in Returns on Information Technology



It Isn't Just Technology: A Business Perspective on Information Systems (3 of 3)

- Factors
  - Adopting the right business model
  - Investing in complementary assets

Complementary Assets: Organizational Capital and the Right Business Model (1 of 2)

- Assets required to derive value from a primary investment
- Firms supporting technology investments with investment in **complementary assets** receive superior returns
  - new business models
  - new business processes1
  - management behavior
  - organizational culture
  - training
- **organizational and management capital**

Complementary Assets: Organizational Capital and the Right Business Model (2 of 2)

Organizational assets	Supportive organizational culture that values efficiency and effectiveness
	Appropriate business model
	Efficient business processes
	Decentralized authority
	Distributed decision-making rights
	Strong IS development team
Managerial assets	Strong senior management support for technology investment and change
	Incentives for management innovation
	Teamwork and collaborative work environments
	Training programs to enhance management decision skills
	Management culture that values flexibility and knowledge-based decision making.
Social assets	The Internet and telecommunications infrastructure
	IT-enriched educational programs raising labor force computer literacy
	Standards (both government and private sector)
	Laws and regulations creating fair, stable market environments
	Technology and service firms in adjacent markets to assist implementation

单选题 1分

设置

The three activities in an information system that produce the information organizations use to control operations are:

A information, research, and analysis.

B input, output, and feedback.

C data, information, and analysis.

D data analysis, processing, and feedback.

E input, processing, and output.

提交

单选题 1分

设置

The total number of food items with storage temperature problems is an example of which of the following?

A Input

B Raw data

C Meaningful information

D Feedback

E Processing

提交

单选题 1分

设置

Converting raw data into a more meaningful form is called:

A capturing

B processing

C organizing

D feedback

E analysis

提交

单选题 1分

设置

Which of the following is an example of raw data from an automobile manufacturer?

A An average of 120 Subarus sold daily in New York in 2017

B 1,200 Subaru Outbacks sold during the first quarter 2017 in New York

C One Subaru Outback sold July 27, 20176 in Mohegan Lake, New York for $24,000

D Annual sales of Subaru Outbacks increased 5.3 percent

E An average sale price of $25,500 for all Subaru Outbacks sold during July 2017 in Mohegan Lake, New York

提交

单选题 1分

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In a hierarchical organization, the upper level consists of:

A scientists

B senior management.

C professional employees.

D data workers.

E knowledge workers.

提交

单选题 1分

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Data management technology consists of which of the following?

A Physical hardware and media used by an organization for storing data

B Detailed, preprogrammed instructions that control and coordinate the computer hardware components in an information system

C Two or more computers to share data or resources

D Hardware and software used to transfer data

E Software governing the organization of data on physical storage media

提交

单选题 1分

设置

Networking and telecommunications technologies, along with computer hardware, software, data management technology, and the people required to run and manage them, constitute an organization's:

A data management environment.

B networked environment.

C information technology (IT) infrastructure.

D information system.

E culture

提交

单选题 1分

设置

All of the following are examples of environmental actors in an information system *except*:

A competitors

B regulatory agencies.

C customers

D suppliers

E sales force.

提交

单选题 1分

设置

Which of the following would *not* be a complementary asset for a solar panel manufacturer?

A International solar equipment certification standards

B Government funding for green technology

C Centralized hierarchical decision making

D Innovation-driven management team

E Subsidies for adoption of solar energy

提交

单选题 1分

设置

In a business hierarchy, which of the following levels is responsible for monitoring the daily activities of the business?

A Middle management

B Service workers

C Production management

D Operational management

E Knowledge workers

提交

单选题 1分

设置

Which of the following is an example of an organizational complementary asset?

A Choosing the appropriate business model

B A collaborative work environment

C Laws and regulations

D The Internet and telecommunications infrastructure

E Strong senior management

提交

单选题 1分

设置

Which of the following is an example of a social complementary asset?

A Technology and service firms in adjacent markets

B Training programs

C Distributed decision-making rights

D Incentives for management innovation

E A strong IS development team

提交

单选题 1分

设置

Which of the following would be used as an input for an information system?

A Sales by region report

B Sales for stores in a region

C Product ID, and price

D Year to date sales of products

E Marketing costs report for each product

提交

单选题 1分

设置

Which of the following is a service provided by the Internet that uses universally accepted standards for storing, retrieving, formatting, and displaying information in a page format?

A HTML

B The World Wide Web

C E-mail

D An extranet

E FTP

提交

单选题 1分

设置

Which field of study focuses on both a behavioral and technical understanding of information systems?

A Sociology

B Operations research

C Economics

D Computer science

E Management information systems

提交

单选题 1分

设置

Computers and programs are the only things required to produce the information an organization needs.

A True

B False

提交

单选题 1分

设置

The three main dimensions of information systems are management, organizations, and information technology.

A True

B False

提交

单选题 1分

设置

There is little variation in returns on IT investment across firms.

A True

B Fale

提交

单选题 1分

设置

Laws and regulations creating fair, stable market environments are examples of complementary social assets required to optimize returns from IT investments.

A True

B False

提交

单选题 1分

设置

The key elements of an organization are its structure, business processes, politics, culture, and people.

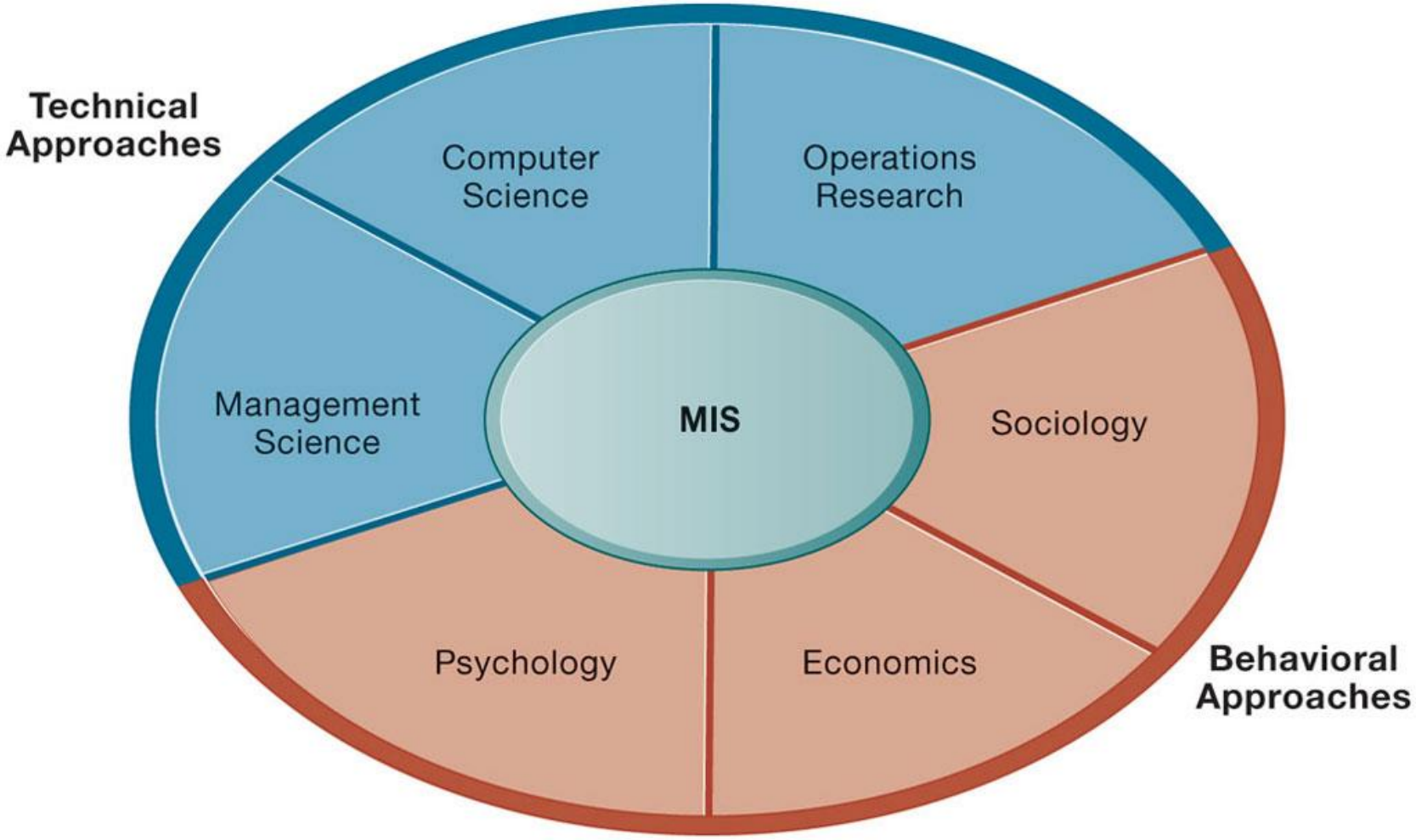
A True

B False

提交

1.3 WHAT ACADEMIC DISCIPLINES ARE USED TO STUDY INFORMATION SYSTEMS, AND HOW DOES EACH CONTRIBUTE TO AN UNDERSTANDING OF INFORMATION SYSTEMS?

Figure 1.9 Contemporary Approaches to Information Systems



Technical Approach

- Emphasize mathematically based models
- **Computer science** is concerned with establishing theories of computability, methods of computation, and methods of efficient data storage and access.
- **Management science** emphasizes the development of models for decision-making and management practices.
- **Operations research** focuses on mathematical techniques for optimizing selected parameters of organizations

Behavioral Approach

- Behavioral concepts ,methods, and issues (strategic business integration, implementation, etc.)
- Psychology, economics, sociology

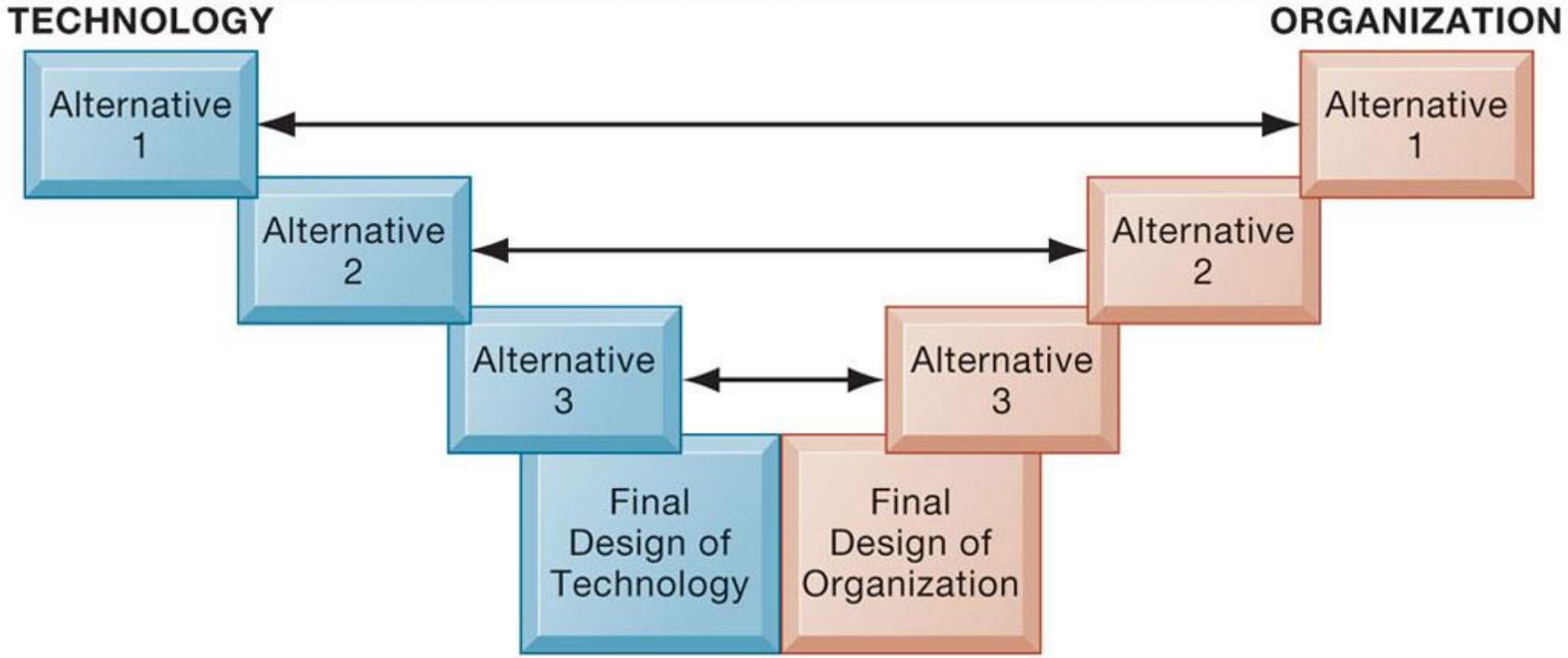
Approach of This lesson: Sociotechnical Systems (1 of 2)

- Management information systems
  - Combing computer science, management science, operations research, and practical orientation with behavioral issues
- Four main actors
  - Suppliers of hardware and software
  - Business firms
  - Managers and employees
  - Firm's environment (legal, social, cultural context)

Approach of This Text: Sociotechnical Systems (2 of 2)

- Sociotechnical view
  - Optimal organizational performance achieved by jointly optimizing both social and technical systems used in production
  - Helps avoid purely technological approach

Figure 1.10 A Sociotechnical Perspective on Information Systems



单选题 1分

设置

Disciplines that contribute to the technical approach to information systems include:

A computer science, engineering, and networking.

B operations research, management science, and computer science.

C engineering, utilization management, and computer science.

D management science, computer science, and engineering.

E economics, sociology, and psychology

提交

Review Questions

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

- Describe how information systems have changed the way businesses operate and their products and services.
- Identify three major new information system trends.
- Describe the characteristics of a digital firm.
- Describe the challenges and opportunities of globalization in a 11flattened" world.
- List and describe six reasons why information systems are so important for business today.

Review Questions

1-2 What is an information system? How does it work?

What are its management, organization, and echnology components? Why are complementary assets essential for ensuring that information systems provide genuine value for organizations?

- Explain the differences between information and data. Why is the former essential to the latter?
- Describe the three activities in an information system that produce the information that organizations need.
- Explain why organizations have a structure composed of different levels and special ties.
- Describe how the parts of an organization's culture can be found embedded in its information systems.
- Describe the features of an organization's information value chain
- Based on what you have read, identify the key elements of organizational and management capital.

Review Questions

1-3 What academic disciplines are used to study information systems, and how does each contribute to an understanding of information systems?

- List and describe each discipline that contributes to a technical approach to information systems.
- List and describe each discipline that contributes to a behavioral approach to information systems.
- Describe the sociotechnical perspective on information systems.

Hands-on MIS Projects

Management Decision Problems

1-7 Magical Toys is a South African toy store chain. The toys are sold in their five stores and from their own web shop. Each Tuesday, management needs sales reports from last week's activities. Work at the stores is hectic, so usually at least one store fails to deliver the report, making it impossible to sum up the previous week's sales. The reports, sent by email as spreadsheets, sometimes have inconclusive or erroneous data, and following up means that employees are unable to give their full focus to the customers. Some errors in the spreadsheets may also cause the purchasing manager to place unnecessary purchase orders. What are the main issues that Magical Toys faces in the absence of an information system? How could an information system be of help, and what issues can an information system not solve?

Hands-on MIS Projects

1-8 Dollar General Corporation operates deep-discount stores offering housewares, cleaning supplies, clothing, health and beauty aids, and packaged food, with most items selling for $1. Its business model calls for keeping costs as low as possible. The company has no automated method for keeping track of inventory at each store. Managers know approximately how many cases of a particular product the store is supposed to receive when a delivery truck arrives, but the stores lack technology for scanning the cases or verifying the item count inside the cases. Merchandise losses from theft or other mishaps have been rising and now represent more than 3 percent of total sales. What decisions have to be made before investing in an information system solution?

Hands-on MIS Projects

Improving Decision Making: Using Databases to Analyze Sales Trends

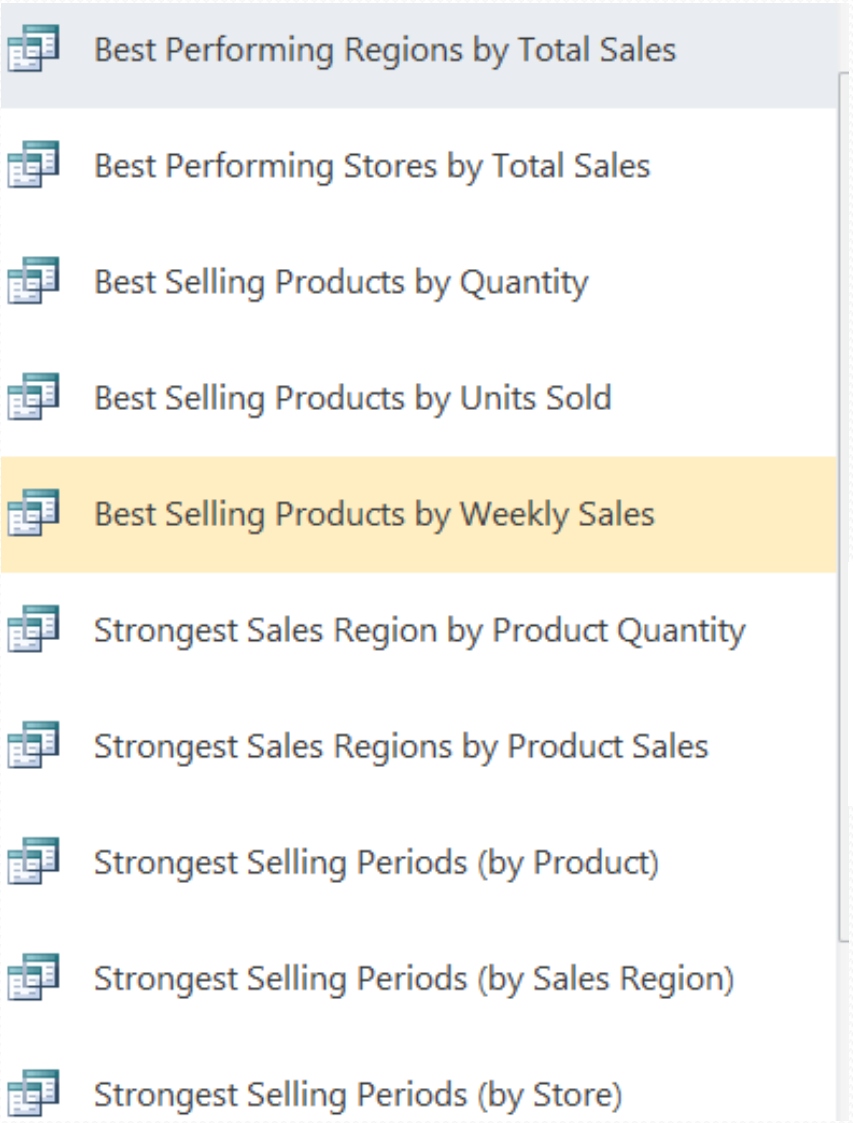
Software skills: Database querying and reporting
Business skills: Sales trend analysis

1-9 In this project, you will start out with raw transactional sales data and use Microsoft Access database software to develop queries and reports that help managers make better decisions about product pricing, sales promotions, and inventory replenishment. In MyLab MIS, you can find a Store and Regional Sales Database developed in Microsoft Access. The database contains raw data on weekly store sales of computer equipment in various sales regions. The database includes fields for store identification number, sales region, item number, item description, unit price, units sold, and the weekly sales period when the sales were made. Use Access to develop some reports and queries to make this information more useful for running the business. Sales and production managers want answers to the following questions:

- Which products should be restocked?
- Which stores and sales regions would benefit from a promotional campaign and additional marketing?
- When (what time of year) should products be offered at full price, and when should discounts be used?

You can easily modify the database table to find and report your answers. Print your reports and results of queries.

https://edu.gcfglobal.org/en/access2010/


Best Performing Regions by Total Sales
Best Performing Stores by Total Sales
Best Selling Products by Quantity
Best Selling Products by Units Sold
Best Selling Products by Weekly Sales
Strongest Sales Region by Product Quantity
Strongest Sales Regions by Product Sales
Strongest Selling Periods (by Product)
Strongest Selling Periods (by Sales Region)
Strongest Selling Periods (by Store)
Strongest Stores by Product Quantity
Strongest Stores by Product Sales

Hands-on MIS Projects

Improving Decision Making: Using the Internet to Locate Jobs Requiring Information Systems Knowledge

Software skills: Internet-based software
Business skills: Job searching

1-10 Visit a job-posting website such as Monster.com. Spend some time at the site examining jobs for accounting, finance, sales, marketing, and human resources. Find two or three descriptions of jobs that require some information systems knowledge. What information systems knowledge do these jobs require? What do you need to do to prepare for these jobs? Write a one- to two-page report summarizing your findings.

Hands-on MIS Projects

Collaboration and Teamwork Project

Selecting Team Collaboration Tools

1-11 Form a team with three or four classmates and review the capabilities of Google Drive and Google Sites for your team collaboration work. Compare the capabilities of these two tools for storing team documents, project announcements, source materials, work assignments, illustrations, electronic presentations, and web pages of interest. Learn how each works with Google Docs. Explain why Google Drive or Google Sites is more appropriate for your team. If possible, use Google Docs to brainstorm and develop a presentation of your findings for the class. Organize and store your presentation using the Google tool you have selected.