Chapter 1

IT Support of Organizational Performance

Information Technology For Management 6th Edition

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Learning Objectives

- Describe the digital economy and digital enterprises
- Recognize the relationship between performance, organizational pressures, and responses and technology
- Define IS and IT
- Understand what the adaptive enterprise is

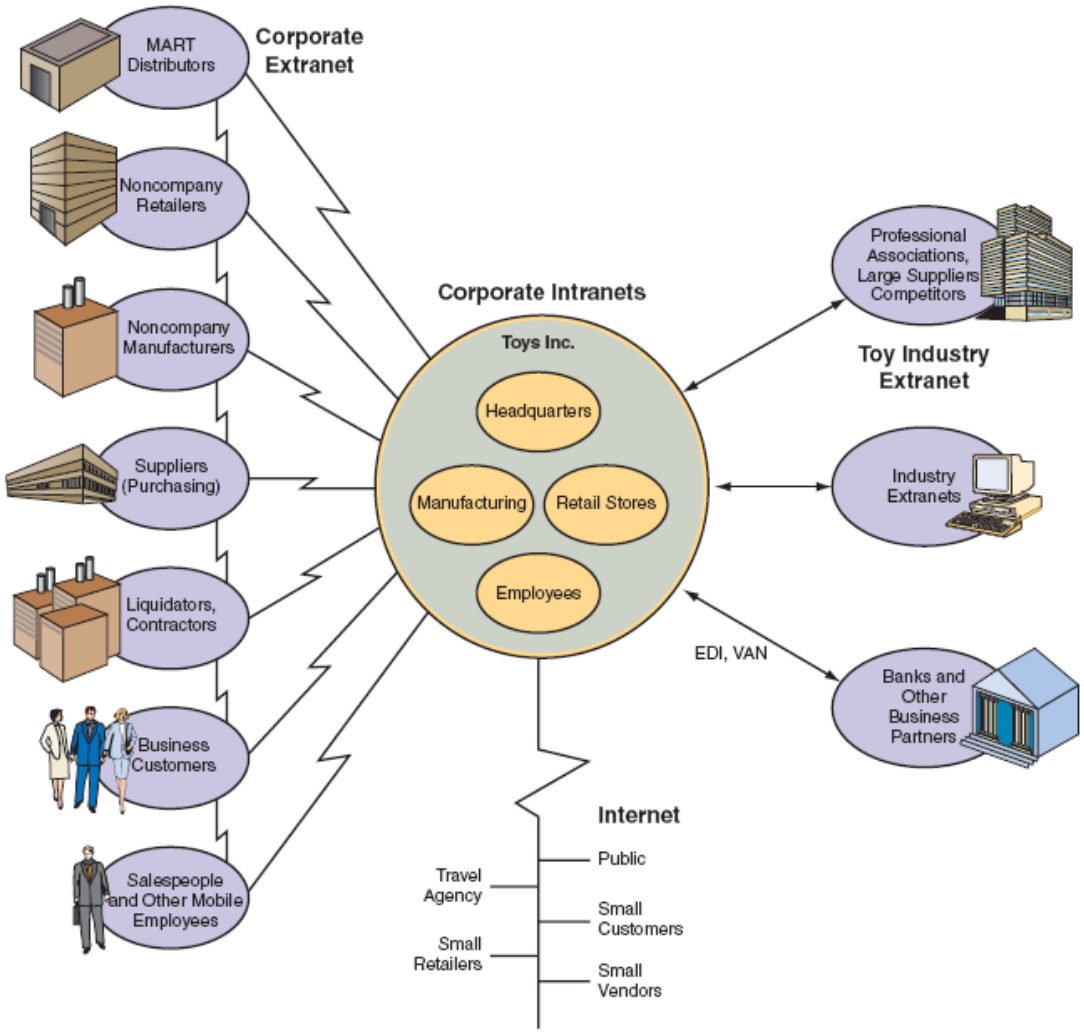
Learning Objectives (Continued)

- Understand the support role that IS and IT play in the organization
- Understand the importance of learning about IT

Digital Economy – "New" Economy

- E-Business: The use of electronic technologies to transact business
- Collaboration: People and Organizations interact, communicate, collaborate, and search for information
- Information Exchange: Storing, processing and transmission of information

Digital Business



The Old Economy – Taking Photo's

1. Buy film in a store
2. Load your camera
3. Take pictures
4. Take roll of film to store for processing
5. Pickup the film when ready
6. Select specific photos for enlargement
7. Mail to family and friends

The New Economy – Taking Photo's

- 1st Generation Digital Photography
  - Old economy (except 6 and 7) were replaced by using a scanner and emailing
- 2nd Generation Digital Photography
  - Use a Digital Camera, no film, no processing
- 3rd Generation Digital Photography
  - Your Digital Camera is now in your mobile phone, your binoculars, or palmtop computer.

Business Models

- A **business model** is a method of doing business by which a company can generate revenue to sustain itself. The model spells out how the company adds value to create a product or service. (**Value Chain**)
  - Nokia makes and sells cell phones
  - A TV station provides free broadcasting. Its survival depends on a complex model involving advertisers and content providers
  - Internet portals, such as Yahoo, also use a complex business model.

Digital Age Business Models

- Name-Your-Own Price
- Reverse Auctions
- Affiliate Marketing
- E-Marketplaces and Exchanges
- Electronic aggregation (buying groups)

Drivers Forcing Changes In Business Models

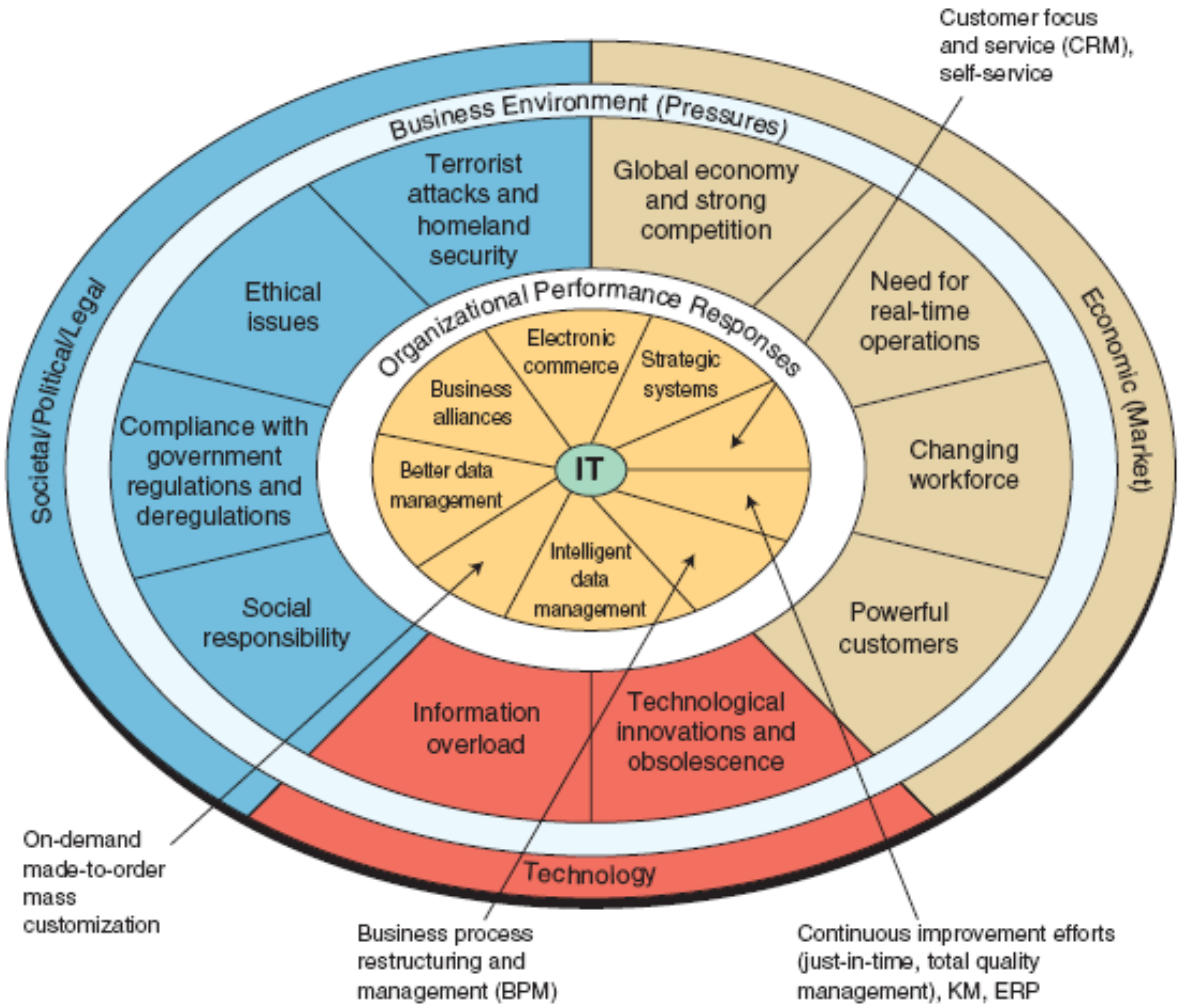
Business Pressures

- Environmental, organizational, and technological factors
- React frequently and quickly to both the *threats* and the *opportunities* resulting from this new business environment

Business Critical Response Activities

- A response can be a reaction to a pressure already in existence, an initiative intended to defend an organization against future pressures, or an activity that exploits an opportunity created by changing conditions

The Drivers of Change (Continued)



Business Pressures, Organizational Responses, and IT Support

- **Business Pressure** - The business environment is the combination of social, legal, economic, physical, and political factors that affect business activities

- Significant changes in any of these factors are likely to create business pressure on the organization

- The three types of business pressures faced are: *market*, *technology*, and *societal pressures*.

Three Types of Business Pressures

- **Market Pressures**:
  - The Global Economy and Strong Competition
  - The Changing Nature of the Workforce
  - Powerful Customers

Business Pressures (Continued)

- **Technology Pressures**:
  - Technological Innovation and Obsolescence
  - Information Overload

Business Pressures (Continued)

- **Societal Pressures**:
  - Social Responsibility
  - Government Regulation and Deregulation
  - Protection Against Terrorist Attacks
  - Ethical Issues

Organizational Responses

- **Strategic Systems:** enable organizations to increase market share and/or profits.

- **Customer Focus** enable organizations to provide superb customer service and prevent losing customers to competitors.

Organizational Responses (Continued)

- **Make-to-Order** is a strategy of producing customized products and services
- **Mass Customization** is producing a large quantity of items, but customizing them to fit the desire of each customer
- **E-business** and **E-commerce** is the strategy of doing business electronically

Why Study Information Systems?

- You will be more effective in your chosen career if you understand how successful information systems are built, used, and managed
- You also will be more effective if you know how to recognize and avoid unsuccessful systems and failures
- According to the US Bureau of Labor Statistics, the “top seven fastest growing occupations fall within IT or computer related field”
- Developing “Computer” Literacy will only enhance your “Information” Literacy

Doing Business in the Digital Economy

- The **digital economy** is an economy based on digital technologies, including communication networks (the Internet, intranets, and extranets), computers, software, and other related technologies
- Also called the *Internet economy*, the *new economy*, or the *Web economy*
- Digital infrastructures provide a **global platform** over which people and organizations interact, communicate, collaborate, and search for information.

The Global Platform of the New Economy

- A huge number of digitizable products; that is products that can be converted to digital format. Most common are: books, movies, magazines, TV and radio programming, electronic games, music CDs, and computer software.

- Consumers and firm conducting financial transaction digitally.

- Physical goods such as home appliances and automobiles that contain embedded computer chips and connectivity capabilities.

Electronic Business

- Businesses increasingly perform their basic functions: buying and selling goods and services, servicing customers, and collaborating with business partners electronically

- This process is known as **electronic business (E-business)** or **electronic commerce (E-commerce)**

New Economy vs. Old Economy

Example	Old	New
Buying and selling textbook	Visit the bookstore	Visit web site for publishers and retailers
Registering for classes	Walk around campus to Departments, Registrar's office, etc.	Access campus web site
Photography	Buy film, use camera, take picture, take it for processing	Use digital camera
Paying for Gasoline	Fill up your car, go inside, pay cash or credit card	Use speed pass token; wave over the sensor and go
Paying for Transportation	Pay cash, metal tokens	Metro cards electronic cards
Paying for goods	Visit store, select item, pay, go	Use self-service kiosks
Supplying commercial photos	Use newspapers, paper, catalog, or online	Use hub-like supply chain with digitized picture

New Economy vs. Old Economy

- Example #1: Registering for Classes
  - Old Economy: You would go to the Registrar's Office on campus with a paper registration document
  - New Economy: You access your campus website, log into registration site, and electronically register for classes from anywhere

New Economy vs. Old Economy

- Example #2: Buying and Selling Textbooks
  - Old Economy: You go to the bookstore in person and buy new or sell used books
  - New Economy: You go online to the Publisher's Web site or to Web-based services such as Amazon.com to buy or sell books

New Economy vs. Old Economy

- Example #3: Photography
  - Old Economy: You use a camera with film, which you have to purchase and have developed; you mail copies of pictures.
  - New Economy: You can scan photos, make copies and e-mail them. Digital cameras require no film or processing. Digital photography and video integrated into cell phones for immediate viewing

New Economy vs. Old Economy

- Example #4: Paying for Gasoline
  - Old Economy: You pump your gas and go inside to pay using cash or credit
  - New Economy: Insert credit card at pump, receive authorization, pump gas, get receipt, drive away. Another example is Speedpass technology.

New Economy vs. Old Economy

- Example #5: Paying for Transportation in New York City
  - Old Economy: Use tokens for bus and subway transportation
  - New Economy: Bus and subway riders now use MetroCards; contactless cards that have a small radio transmitter that transmit account information to a reader

New Economy vs. Old Economy

- Example #6: Paying for Goods, Checkout
  - Old-old Economy: Customer selects goods, waits in line for the cashier to key in price of items, and then pays in cash
  - Old Economy: The clerk swipes the barcode of each item and customer pays in cash, credit, or debit. Information scanned is available for immediate analysis known as *source-data automation*

New Economy vs. Old Economy (Ex. #6 Continued)

- Example #6: Paying for Goods, Checkout continued
  - Old Economy: Shoppers take their items to a self-service kiosk and swipe the barcodes themselves
  - New Economy: Wireless technology affixed to each item. Allows you to select items that pass through a scanner, which reads wireless signal, generates a bill, automatically debits your designated account for payment and you leave

Three Types of Business Pressures

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Business Pressures (Continued)

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Business Pressures (Continued)

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Organizational Responses

- **Strategic Systems** provide advantages that enable organizations to increase market share and/or profits, better negotiate with suppliers, or prevent competitors from entering their markets

- **Customer Focus** is the difference between attracting and keeping customers by providing superb customer service and losing them to competitors

Organizational Responses (Continued)

- **Make-to-Order** is a strategy of producing customized products and services
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Why Should You Learn about Information Technology (IT)?

- IT is essential for work in organizations
- IT will reduce the number of middle managers
- IT will change the manager's job
- IT impacts employees at work
- IT impacts employees' health and safety
- IT is used by all departments

Why Should You Learn about IT? (Continued)

- IT provides opportunities for people with disabilities
- IT provides quality-of-life improvements
- Improvements in health care
- Crime fighting and other benefits

Managerial Issues

- Recognizing opportunities for using IT and Web-based systems.
- Who will build, operate, and maintain the information systems. How much IT?
- How much and HOW important is IT?
- Is the situation going to change?
- Globalization.

Managerial Issues (Continued)

- Ethics and social issues.
- Transforming the organization to the digital economy.

Chapter 1

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