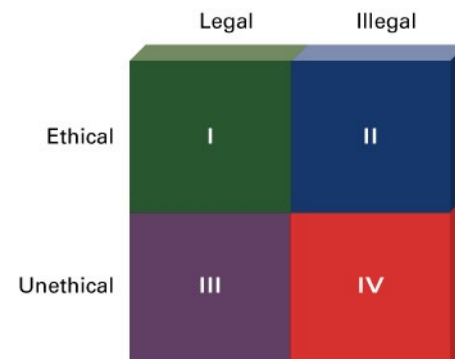
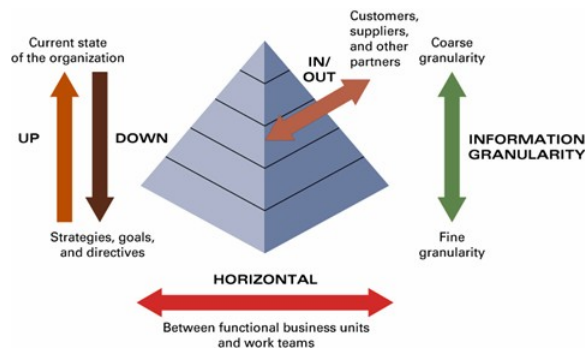
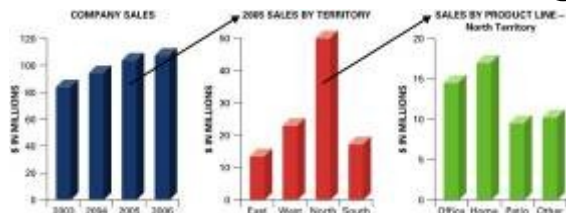


THE INFORMATION AGE IN WHICH YOU LIVE

Changing the Face of Business

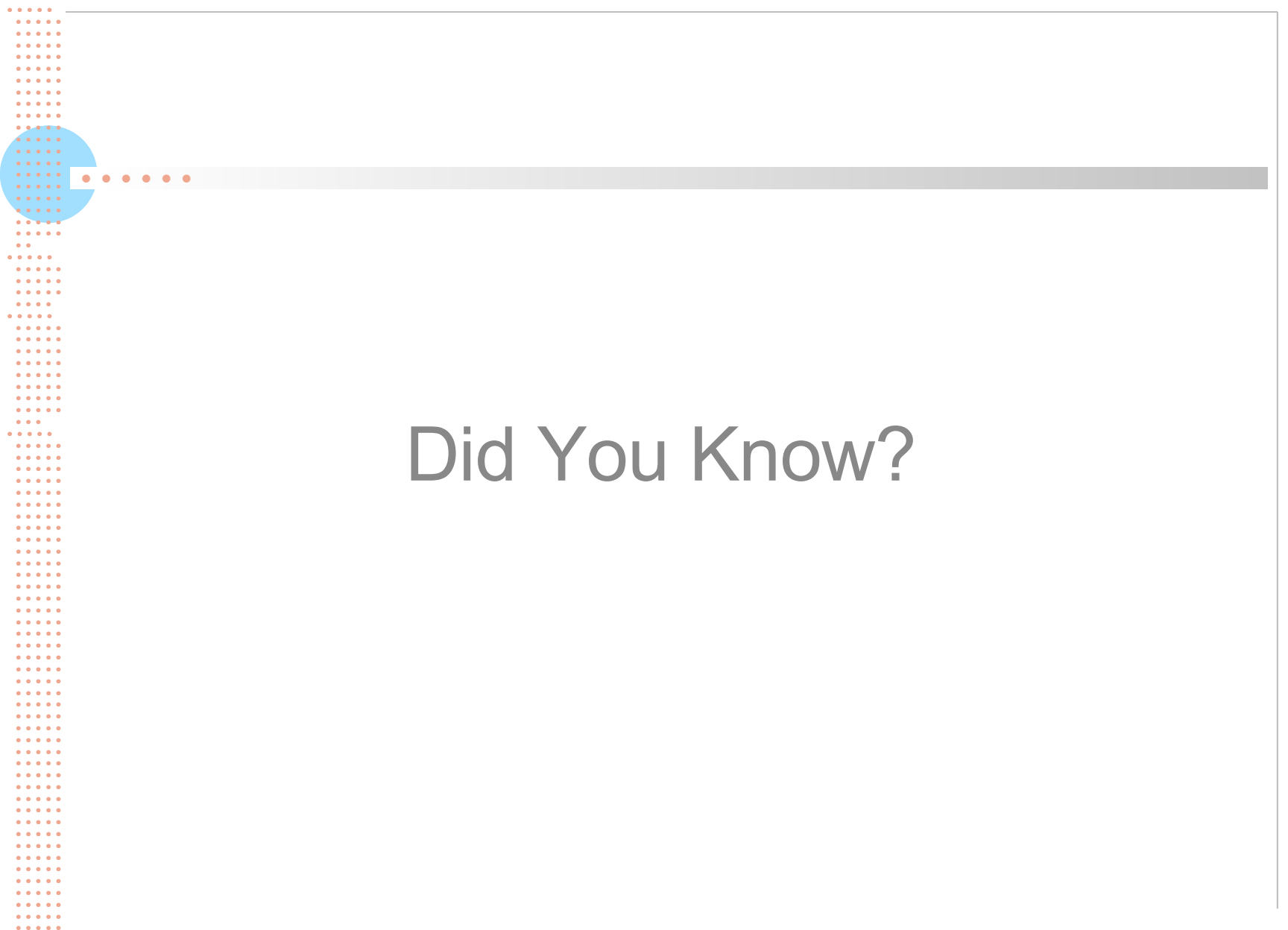


Student Learning Outcomes

1. Define MIS and IT
2. Validate information as a key resource and describe both personal and organizational dimensions of information
3. Explain why people are the most important organizational resource, define their information and technology literacy challenges, and discuss their ethical responsibilities

Student Learning Outcomes

1. Describe the important characteristics of IT as a key organizational resource
2. Define competitive advantage and illustrate the role of IT in supporting competitive advantages and business vision
3. Discuss the impacts IT can and will have on your life



Did You Know?

Introduction

- ***Information age:*** a time when knowledge is power
- ***Knowledge worker:*** you; works with and produces information as a product
 - Knowledge workers outnumber all others by at least a 4-to-1 margin

Introduction

- ***MIS (Management Information Systems):*** planning for, developing, managing, and using IT tools to help people perform their work
- ***IT (Information Technology):*** computer-based tools that people use to work with information



Introduction

- Three key resources in MIS

1. **Information**

2. **People**

3. **Technology**



- This text is about information, people, and technology working together to create a competitive advantage

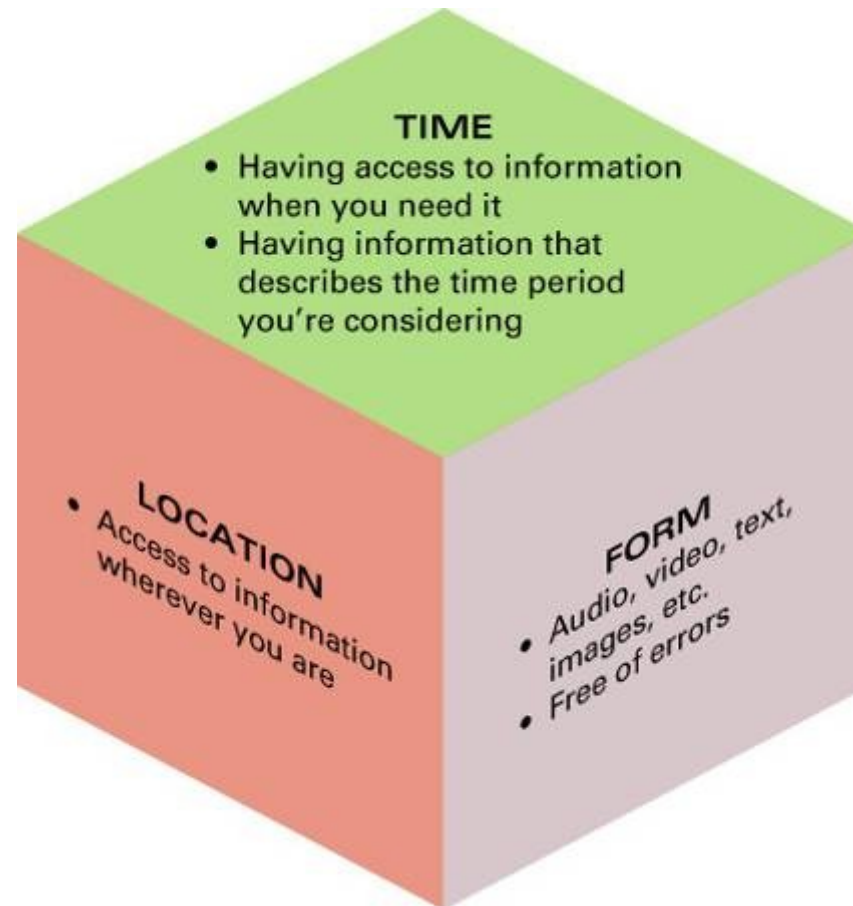
Information as a Key Resource

- **Data:** raw facts
- **Information:** data that has meaning
- **Business intelligence:** knowledge about competitors, suppliers, your own internal operations, etc
 - Combined forms of information to create real knowledge
 - Encompasses everything that affects your business
 - Helps you make strategic business decisions

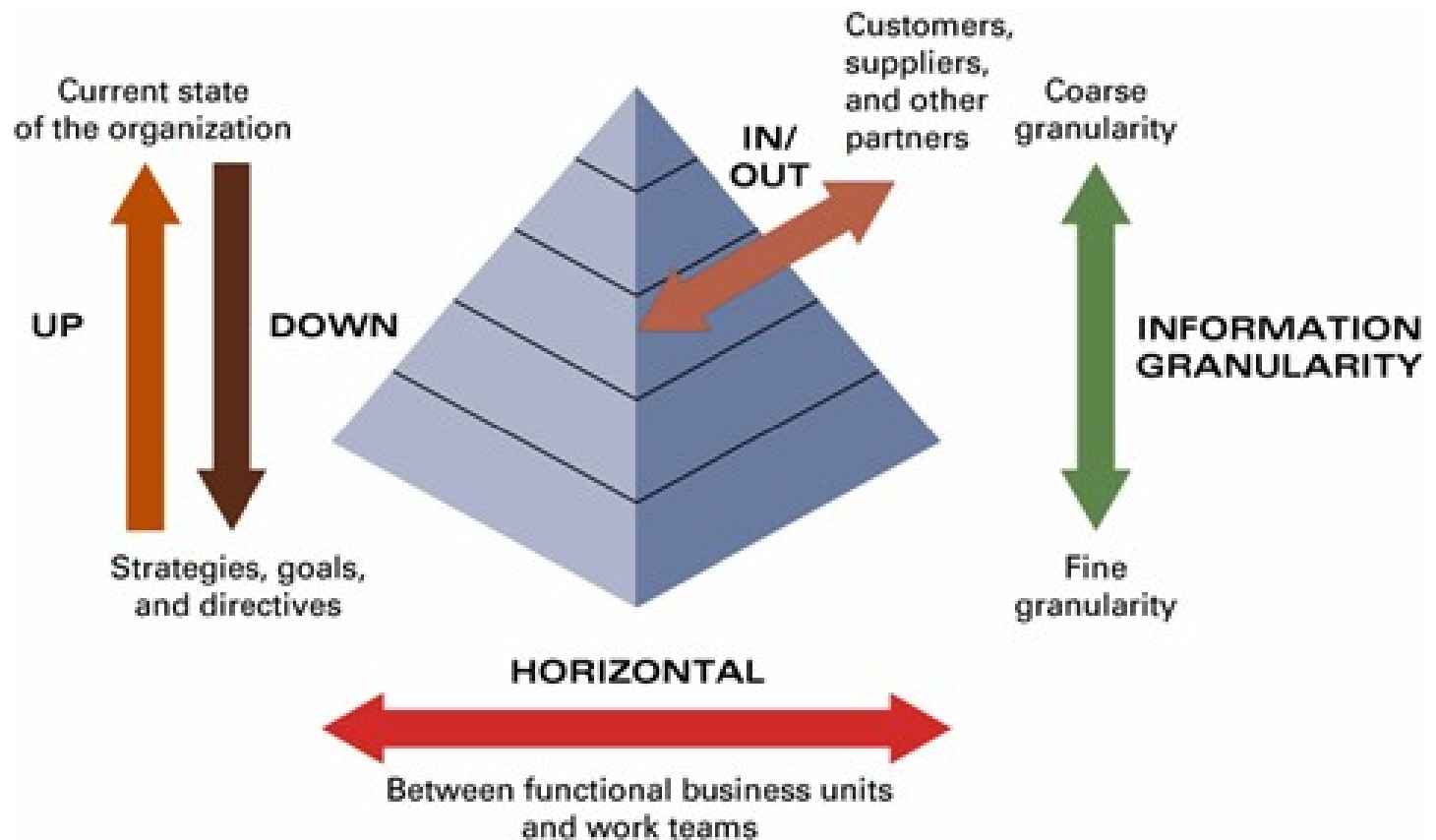
Information as a Key Resource

- Perspectives
 1. Personal dimensions of information
 2. Organizational dimensions of information

Personal Dimensions of Information



Organizational Dimensions of Information



Information Flows within an Organization

- *Upward*: current state of organization based on transactions
- *Downward*: Strategies, goals, directives
- *Horizontal*: between functional units, work teams
- *Outward/inward*: to/from suppliers, customers, distributors, etc

Information Granularity

- ***Information granularity:*** extent of detail within information
- Lower organizational levels: tremendous detail (fine)
 - *Transaction processing systems*
- Upper organizational levels: summarized information (coarse)
 - *Executive information systems*

Organizational Dimensions of Information

- **Internal:** information from inside the organization
- **External:** information from outside the organization
- **Objective:** information that does not depend on the perceptions of an individual (title and price of a book)
- **Subjective:** information that relies on the judgment of an individual (a stock analyst's expectations of sales for a company)

People as a Key Resource

- You
- Using technology to work with information
- Technology-literate knowledge worker
- Information-literate knowledge worker
- Your ethical responsibilities

Technology-Literate Knowledge Worker

- ***Technology-literate knowledge worker:*** knows how and when to apply technology
- This book
 - Chapters help you with “when”
 - Modules help you with “how”

Information-Literate Knowledge Worker

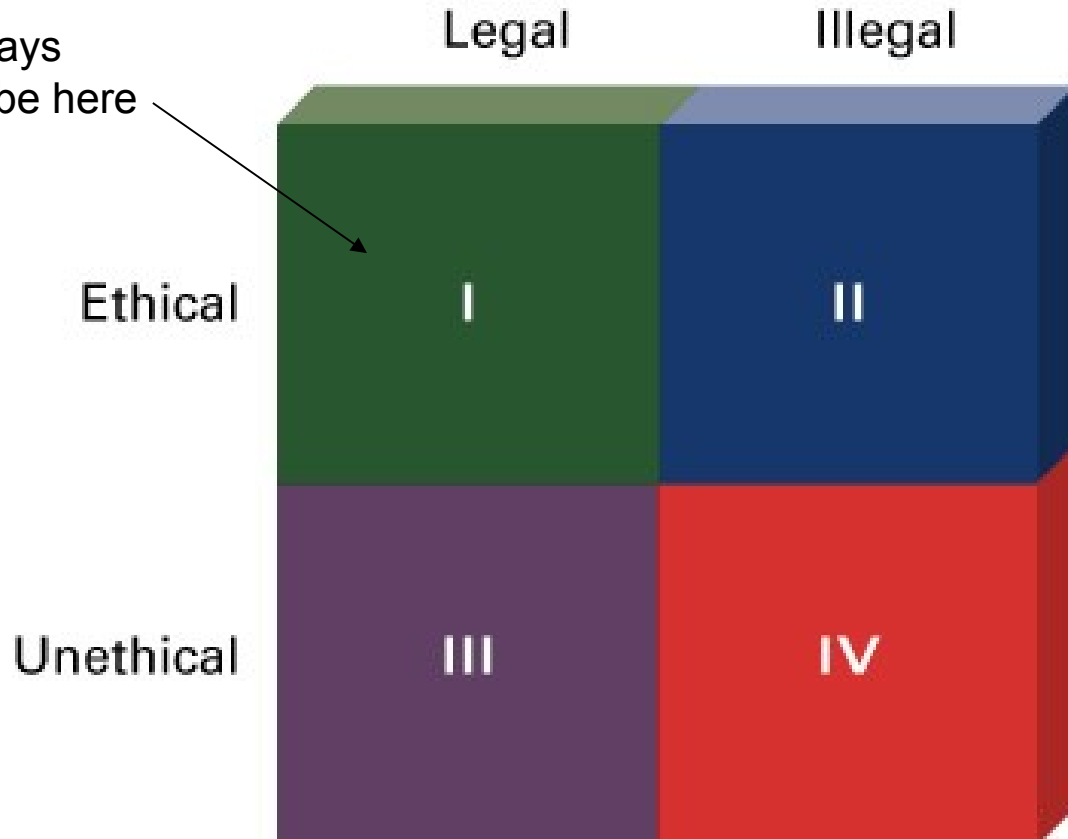
- ***Information-literate knowledge worker...***
 - Defines what information is needed
 - Knows how and where to obtain information
 - Understands information
 - Acts appropriately based on information

Your Ethical Responsibilities

- ***Ethics:*** principles and standards that guide behavior toward other people
- Ethics and laws are different
 - Laws: require/prohibit action
 - Ethics: matter of personal interpretation

Your Ethical Responsibilities

You always
want to be here



Class Activity

- Get in groups of 3-4 and come up with at least one example for each quadrant of the ethics graph.
 - Ethical and Legal
 - Ethical and Illegal
 - Unethical and Legal
 - Unethical and Illegal



Ethics Example

Neighbor One to Neighbor Two:

“Your son stole a pencil from my son.”

Neighbor Two:

“I can’t believe that; are you sure?”

Neighbor One:

“Yes, I’m sure. Now understand; it’s not the cost of the pencil that concerns me – I can bring plenty of them home from work.

It’s the principal of the thing.”

IT and Ethics

- Forwarding an email containing confidential information about another individual without their permission
- Copying and using copyrighted software that you do not own
- Releasing software that has not been thoroughly tested and debugged
- Creating a computer virus
- Hacking into an organizations computer system

IT as a Key Resource

- ***Ubiquitous computing:*** concept; technology support anytime, anywhere, with access to any needed information
 1. Decentralized computing
 2. Telecommuting
 3. Shared information
 4. Mobile computing



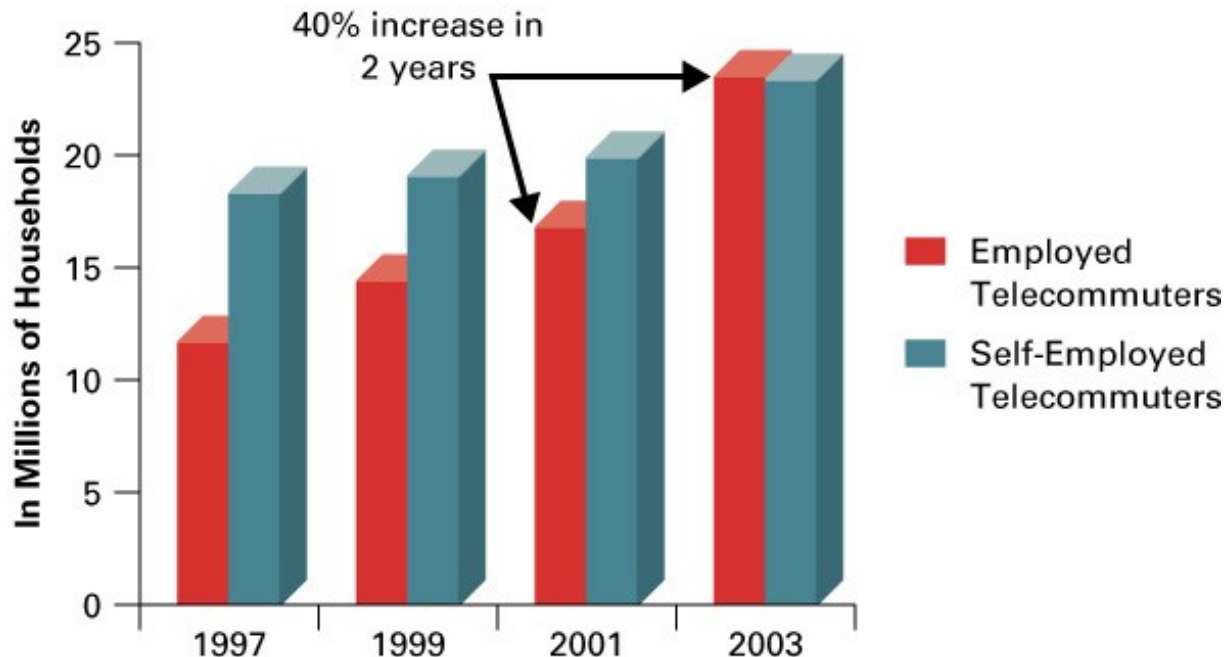
Decentralized Computing

- ***Decentralized computing:*** an environment in which an organization distributes computing power and locates it in functional business areas as well as on the desktops of knowledge workers
 - Servers
 - Personal computers
 - PDAs
 - Tablet PCs



Introduction

- **Telecommuting:** use of technologies to work outside the office



Mobile Computing

- **Mobile computing:** wireless technology to connect to needed resources and information
- **M-commerce:** electronic commerce conducted wirelessly
 - Apple iPhone



Information Technology Business Vision

- IT use must support business vision
- IT strategy must be integrated with business vision
- ***Competitive advantage:*** providing product/service that customers value more than the product/service offered by the competition

Information Technology Business Vision

- Top line versus bottom line
- Database support
- Decision-making support
- Business initiative support
- Run, grow, transform



Top Line Versus Bottom Line

INCOME STATEMENT

Sales:

_____	\$ _____
_____	\$ _____
_____	\$ _____
Total Sales	\$ _____

Top Line

Reach new customers, offer new products, cross-sell services, offer complementary products

Expenses:

Cost of Goods Sold	\$ _____
Admin Expense	\$ _____
Payroll	\$ _____
Total Expenses	\$ _____

Bottom Line

Optimize manufacturing processes, decrease transportation costs, reduce cost of human capital, minimize errors in a process

Top Line Versus Bottom Line

- Top line: competitive advantage focus to increase revenue
- Bottom line: competitive advantage focus to decrease costs
- IT can support both top-line and bottom-line initiatives

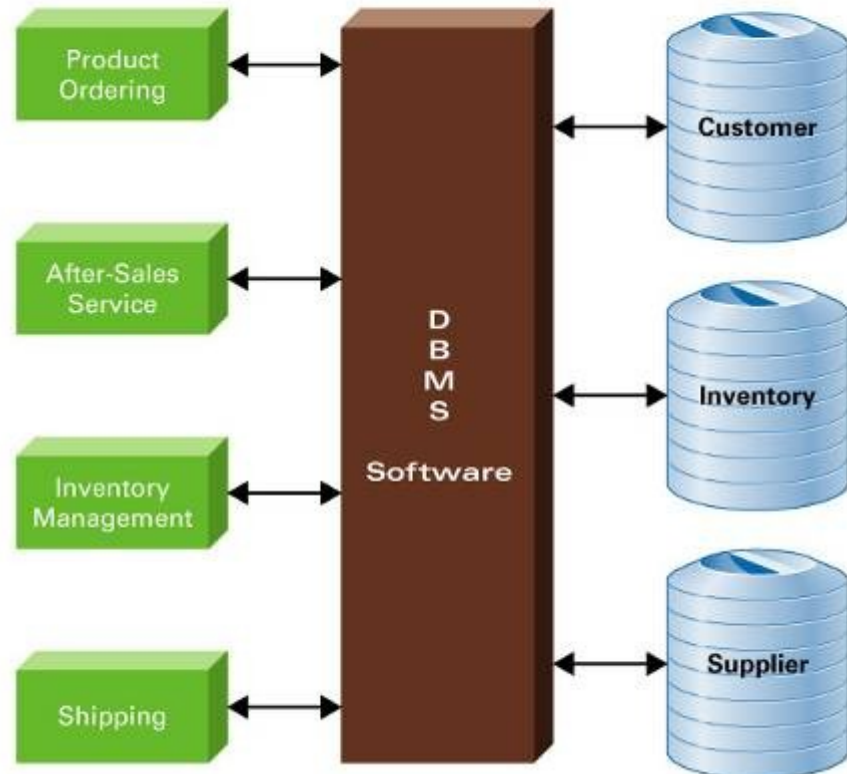
Top Line Versus Bottom Line

- ***Customer self-service system:*** technology in hands of customers to enable them to process their own transactions
 - ATMs – attract new customers with free use (top line)
 - ATMs – reduce costs of tellers (bottom line)
- ***Transaction processing system (TPS):*** system that processes transactions

Database Support

TRANSACTION
PROCESSING AND
CUSTOMER SELF-
SERVICE SYSTEMS

DATABASES



Database Support

- **Database:** stores tremendous detail on every transaction/event
- **DBMS:** software bridge between information system and you
- You need knowledge of databases and DBMSs for your career
 - Chapter 3: database concepts
 - ELM C: how to design a database

Decision-Making Support

- ***Online transaction processing (OLTP)***: gathering, processing, and updating information for a transaction
- ***Online analytical processing (OLAP)***: manipulating information to support decision making (focus of Chapters 3 & 4)
 - Executive information system
 - Collaboration system
 - Artificial intelligence

Decision-Making Support

- ***Executive information system (EIS)***: supports “drilling down” in information to find problems/opportunities
- ***Collaboration system***: improves team performance by supporting sharing and flow of information
- ***Artificial intelligence (AI)***: science of imitating human thinking and behavior

Business Initiative Support

- IT use in business is all about enabling initiatives
 - This is the focus of Chapter 2
- Examples
 - **Supply chain management (SCM)**: tracks inventory and information
 - SCM systems support EDI
 - **Electronic data interchange (EDI)**: computer-to-computer transfer of information without human intervention

Run, Grow, Transform

- Framework for percentage allocation of IT dollars
 - Run: optimizing activity execution (bottom line)
 - Grow: increasing market reach, product offerings, etc (top line)
 - Transform: innovating business processes
- Application of this framework in Chapter 2

IT In Your Life

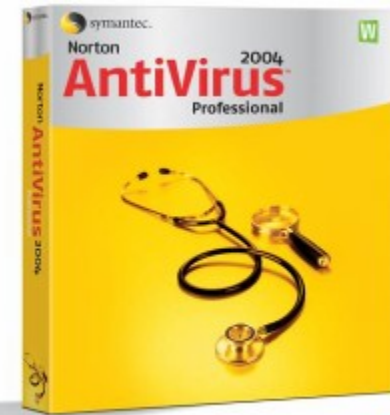
- IT is pervasive
- You need IT knowledge to succeed (your career)
 - Share information and work wirelessly
 - Support your decision-making efforts
 - Increase personal productivity
- You need IT knowledge to protect yourself as well (ethics, security, & privacy)
 - Spyware and identity theft
 - Focus of Chapter 8 and ELM H

Ethics, Security, & Privacy

- Keep anti-virus software up to date
- Use only secure Web sites for financial transactions
- Never give out personal information on Web
- Change your password frequently
- Never assume high ethical standards of other people

Free Norton Antivirus for GSU Community

- Every student, faculty member, and employee can download free copies of the Corporate Edition of Norton AntiVirus
- Go to <http://nav.gsu.edu/>



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