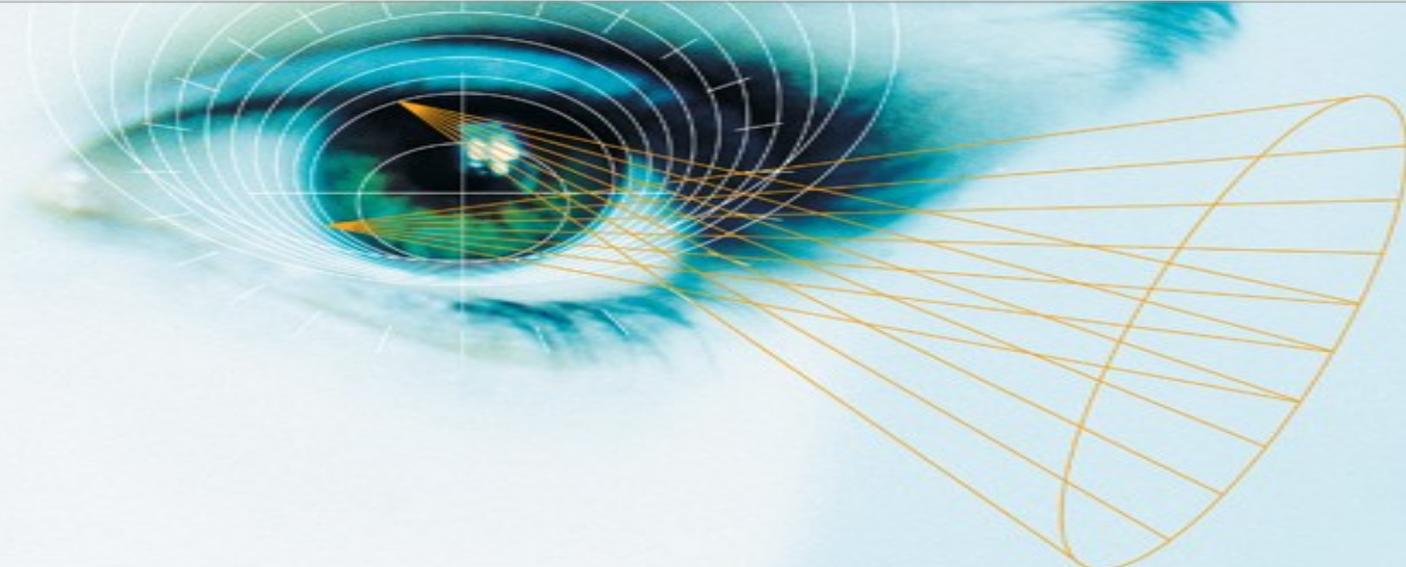# Chapter 2
MAJOR BUSINESS INITIATIVES
Gaining Competitive Advantage with IT

> Management Information Systems
for the Information Age >>>

/// / Seventh Edition // // /

_Stephen Haag / Maeve Cummings

STUDENT LEARNING OUTCOMES

1. Define supply chain management (SCM) systems and describe their strategic and competitive opportunities

2. Define customer relationship management (CRM) systems and describe their strategic and competitive opportunities

3. Define e-collaboration and describe its strategic and competitive opportunities

STUDENT LEARNING OUTCOMES

1. Discuss the impact IT culture has on technology choices and their implementations within an organization.

2. Explain the significance of enterprise resource planning (ERP) software as the integration of functional software systems.
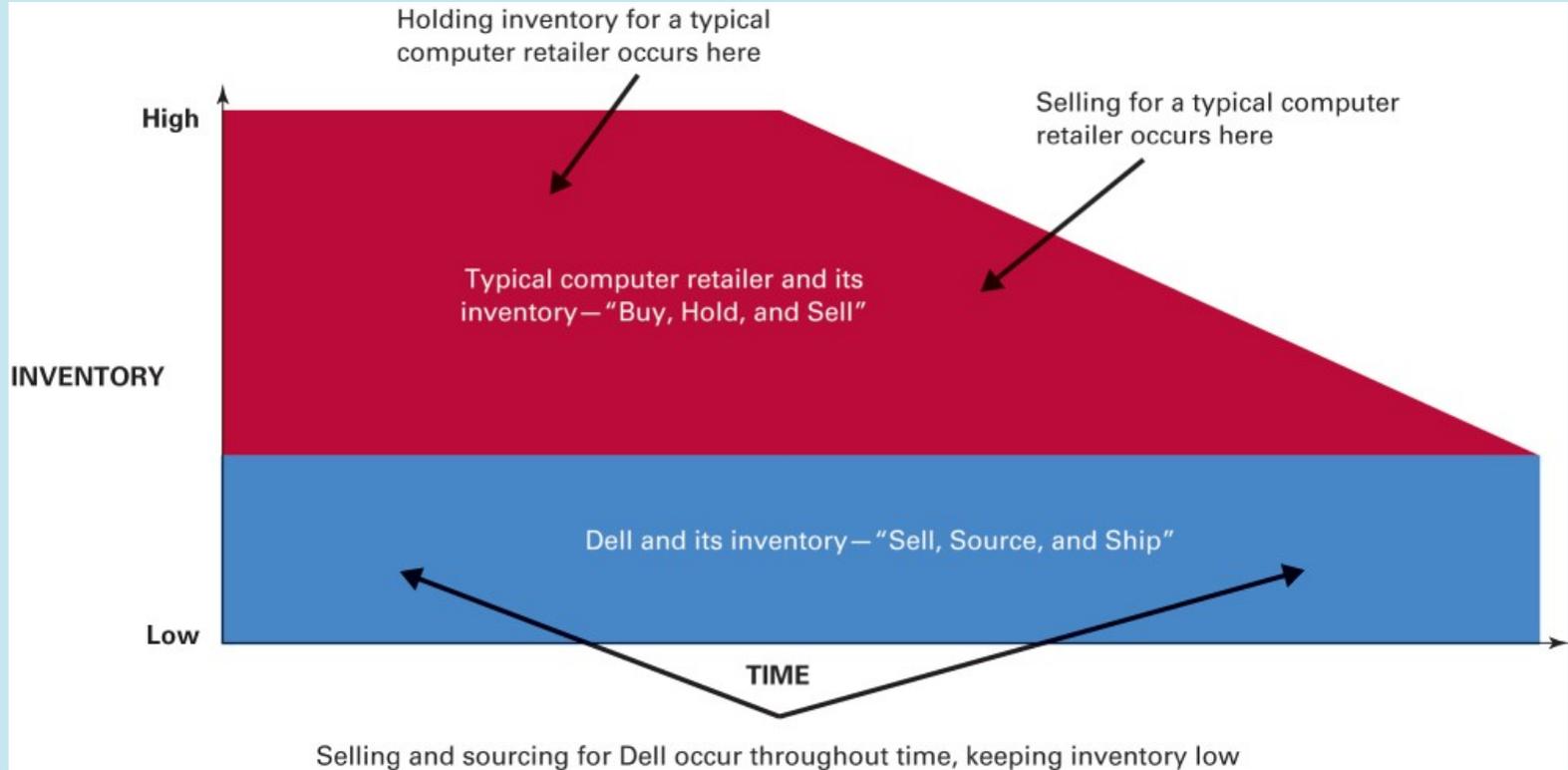
CHAPTER ORGANIZATION

1. Supply Chain Management

   - Learning Outcome #1

2. Customer Relationship Management

   - Learning Outcome #2

3. E-Collaboration

   - Learning Outcome #3

4. IT Culture

   - Learning Outcome #4

5. Enterprise Resource Planning

   - Learning Outcome #5

SUPPLY CHAIN MANAGEMENT

- ***Supply chain management (SCM)*** – tracks inventory and information among business processes and across companies

- ***Supply chain management (SCM) system*** – IT system that supports supply chain management

- ***Just-in-time (JIT)*** – method for producing or delivering a product or service just at the time the customer wants it

  - Key feature of effective SCM

  - Dell uses JIT to deliver custom computers

Dell's Effective SCM Through JIT

Holding inventory for a typical computer retailer occurs here

Selling for a typical computer retailer occurs here

High

Typical computer retailer and its inventory—"Buy, Hold, and Sell"

INVENTORY

Dell and its inventory—"Sell, Source, and Ship"

Low

TIME

Selling and sourcing for Dell occur throughout time, keeping inventory low

Supply Chain Management

- Most supply chains use *inter-modal transportation*, multiple transportation channels (railway, truck, etc) to move products from origin destination

- This creates supply chain complexities
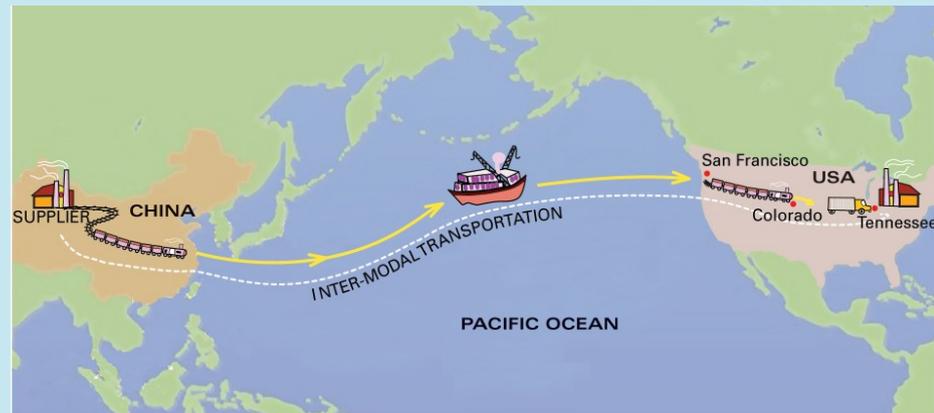
Opportunities of SCM

- Business strategy
  - Overall cost leadership
  - Bottom-line initiative
  - Running the organization (RGT) framework
- Goal is to squeeze out every penny of cost possible in the supply chain
- This will optimize fulfillment, logistics, production, revenue and profit, and cost and price

IT Support for SCM

- SCM systems pioneered by specialist companies
- SCM is now part of ERP software (discussed later)
- Learn more
    - Supply Chain Knowledge Base
    - Supply Chain Management Review
    - i2 Technologies
    - *CIO Magazine*
    - About Inc.
    - Oracle/PeopleSoft Supply Chain

CUSTOMER RELATIONSHIP MANAGEMENT

- ***Customer relationship management (CRM) system*** – uses information about customers to gain insight into their needs, wants, and behaviors in order to serve them better

- Includes ***multi-channel service delivery***, multiple ways in which customers can interact with a business

- Focuses on
  1. Sales force automation
  2. Customer service and support
  3. Marketing campaign management and analysis

Customer Relationship Management
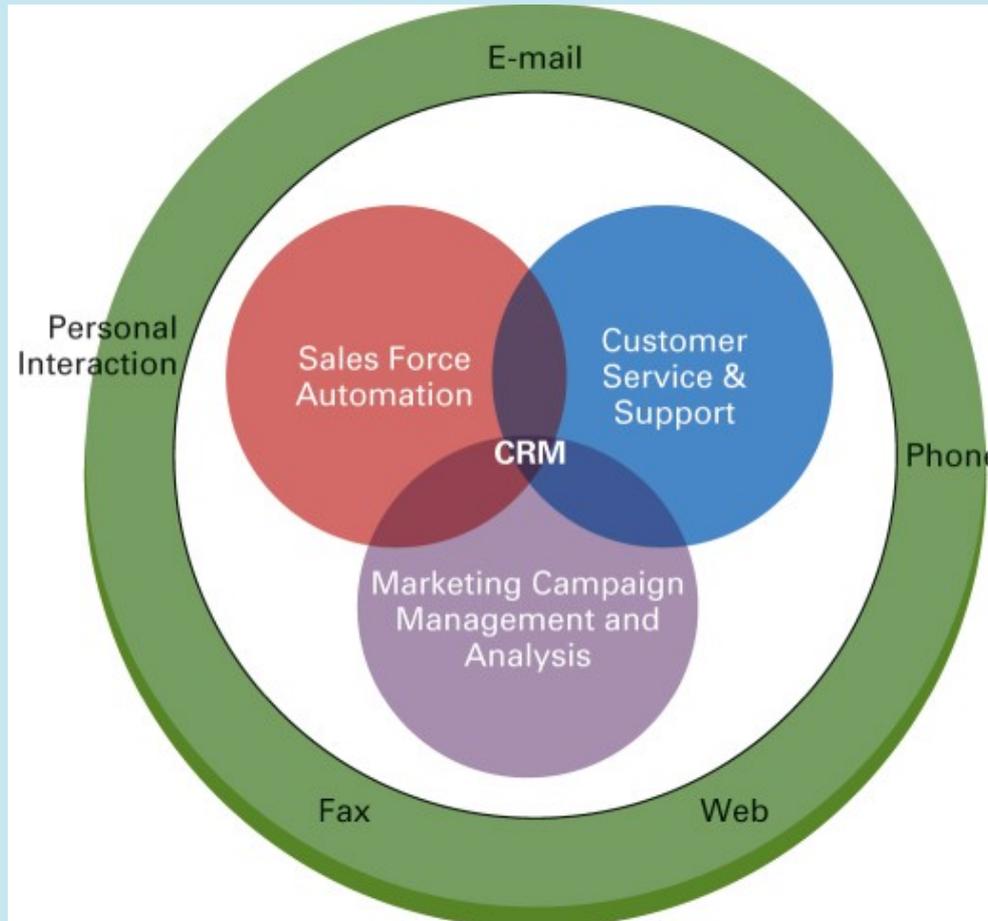
Customer Relationship Management

- *Sales force automation (SFA) systems* – automatically track all the steps in the sales process
  - Sales lead tracking
  - Listing potential customers
  - Market and customer analysis
  - Product configuration
  - Getting repeat customers

# GM's Sales Force Automation (Purchase Funnel)

Opportunities of CRM

- Business strategy
  - Differentiation and focus
  - Top-line initiative
  - Growing the organization
- Classic goals
  - Treating customers better
  - Understanding their needs and wants
  - Tailoring offerings
  - Providing "delightful" experiences

IT Support for CRM

- ***Front-office systems*** – primary interface to customers and sales channels
- ***Back-office systems*** – fulfill and support customer orders
- Both interface to CRM database and analysis and reporting systems

IT Support for CRM
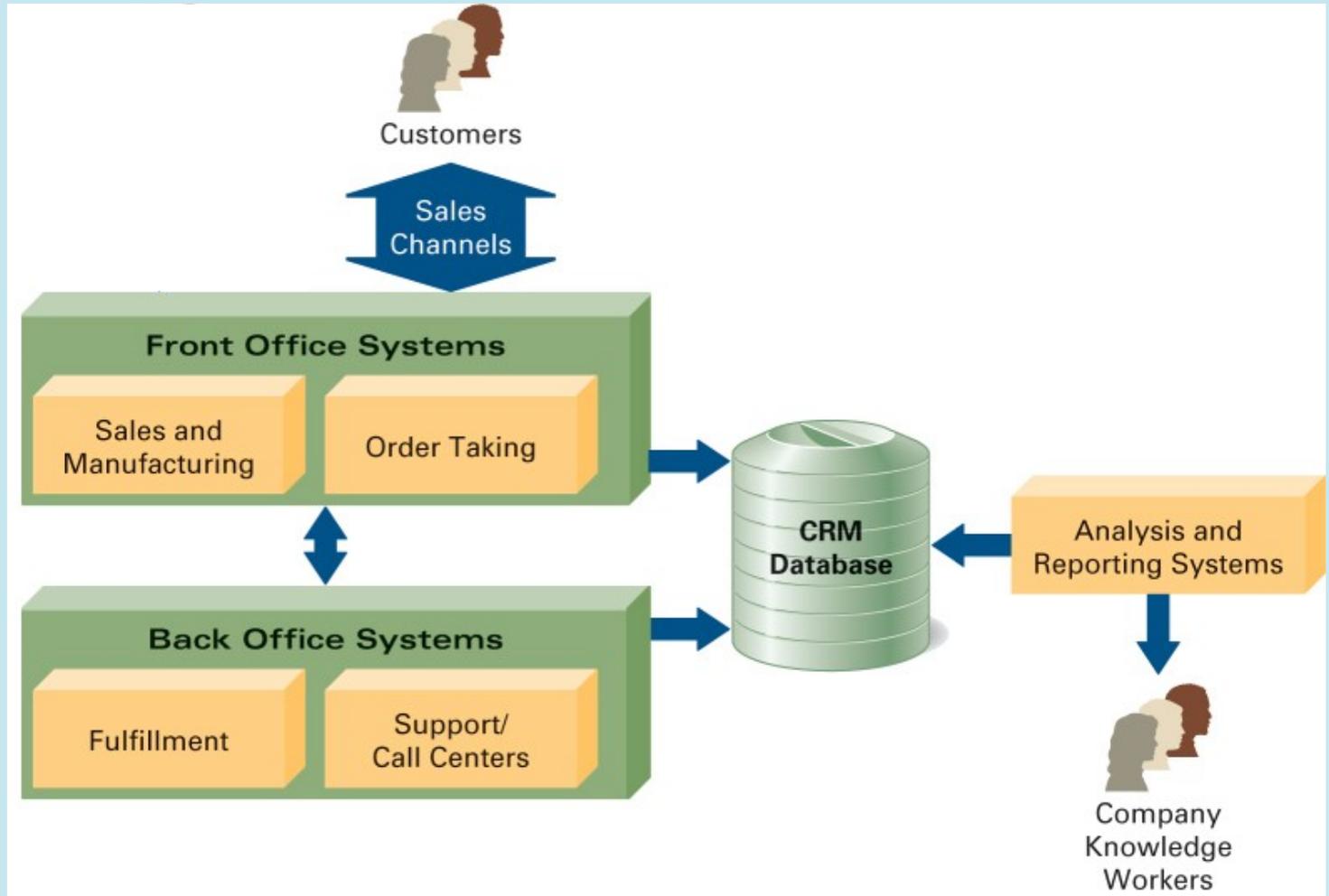
IT Support for CRM

- Like, SCM systems, CRM was pioneered by specialist companies
- Like SCM, CRM is now part of ERP software (discussed later)
- Learn more
  - Siebel Systems
  - Salesforce.com
  - *CIO Magazine*
  - CRM Today
  - destinationCRM.com

E-COLLABORATION

- ***E-collaboration*** is the use of technology to support
  1. Work activities with integrated collaboration environments
  2. Knowledge management with knowledge management systems
  3. Social networking with social networking systems
  4. Learning with e-learning tools
  5. Informal collaboration to support open-source information

Integrated Collaboration Environments

- *Integrated collaboration environment (ICE)* – environment in which virtual teams do their work
- *Virtual team* – team whose members are located in varied geographical locations
- An ICE can be as basic as e-mail or more sophisticated as in
  - *Workflow system* – automation and management of business processes (processing a loan in a bank, processing a sales order, etc)
  - *Document management system* – manages a document through all stages of processing

Knowledge Management Systems

- ***Knowledge management (KM) system*** – IT system that supports the capturing, organizing, and dissemination of knowledge throughout the organization
  - Knowledge of facts
  - Sources of information
  - Solutions, patents, and trademarks
  - Best-practice processes

Social Networking Sites & Systems

- ***Social networking site*** – site on which you post information about yourself, create a network of friends, read about other people, share content such as photos and videos, and communicate with other people (e.g., Myspace, Facebook, etc)

- ***Social networking system*** – IT system that links you to people you know and, from there, to people your contacts know

  - More business focused

E-Learning Tools

- Facilitate learning on IT-enabled platforms
- WebCT, Blackboard, and e-College
- Used in education environments and also in business environments

Informal Collaboration

- Previous e-collaboration tools have "organizational" focus

- Information collaboration tools focus on "informal" groups of people getting together

- *Wiki* – allows you – as a visitor – to create, edit, change, and often eliminate content

- Such content is called **open-source information**, content that is publicly available, free of charge, and most often updateable by anyone

Opportunities of E-Collaboration

- Good for just about every type of business strategy
    - Focus, differentiation, and overall cost leadership
    - Top line and bottom line
    - Run, grow, and transform

IT Support for E-Collaboration

| Type	Basic Functions	Example	Web Site
Collaboration	Real-time collaboration and conferencing	LiveMeeting	www.microsoft.com
Workflow	Business process management	Metastorm	www.metastorm.com
Document management	Enterprise content management	FileNet	www.filenet.com
Peer to peer	Desktop and mobile collaboration	Groove	www.groove.net
Knowledge management	Knowledge capture, organization, location, and reuse	IBM Knowledge Discovery	www-306.ibm.com/software/lotus/knowledge/
Social network	Leveraging your personal and professional network	Linkedin	www.linkedin.com

Just a few of the literally hundreds of e-collaboration tools

IT CULTURE

- ***IT culture*** – refers to
    1. How the IT function is placed structurally within an organization
    2. The organization's philosophical approach to the development, deployment, and use of IT
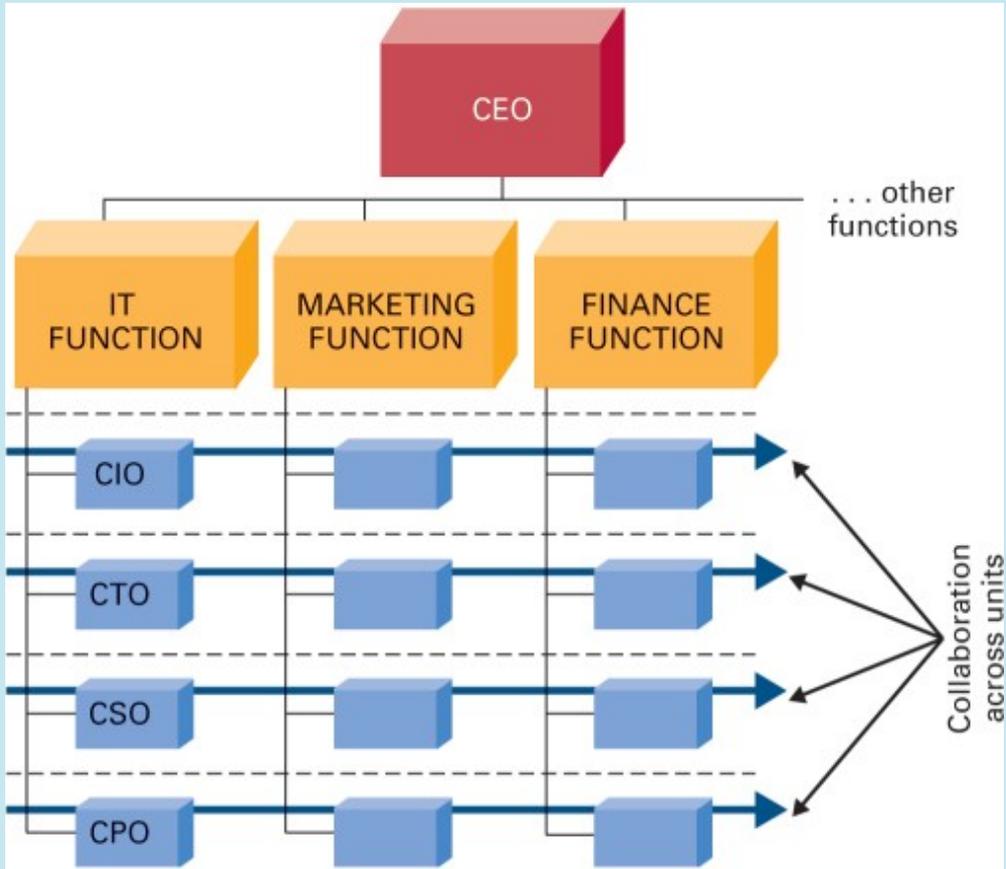
IT Function Structural Placement

- <u>Top-down silo</u> – IT function handles all IT needs; strong "command and control" structure
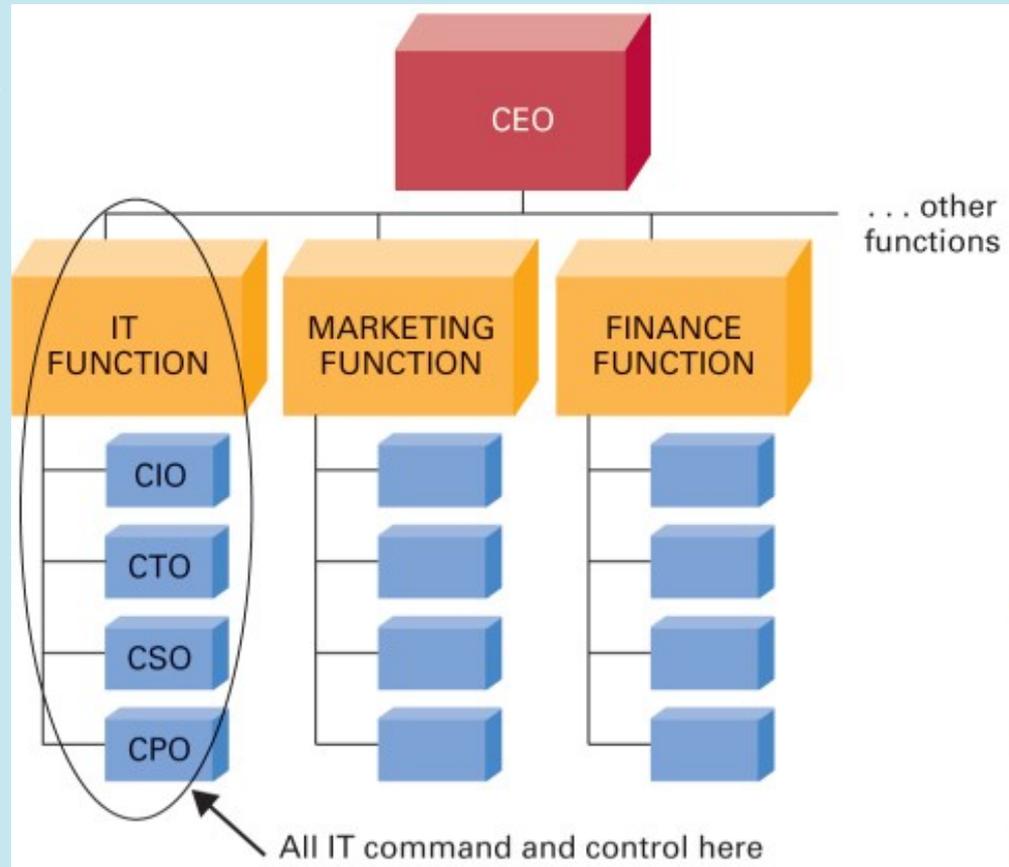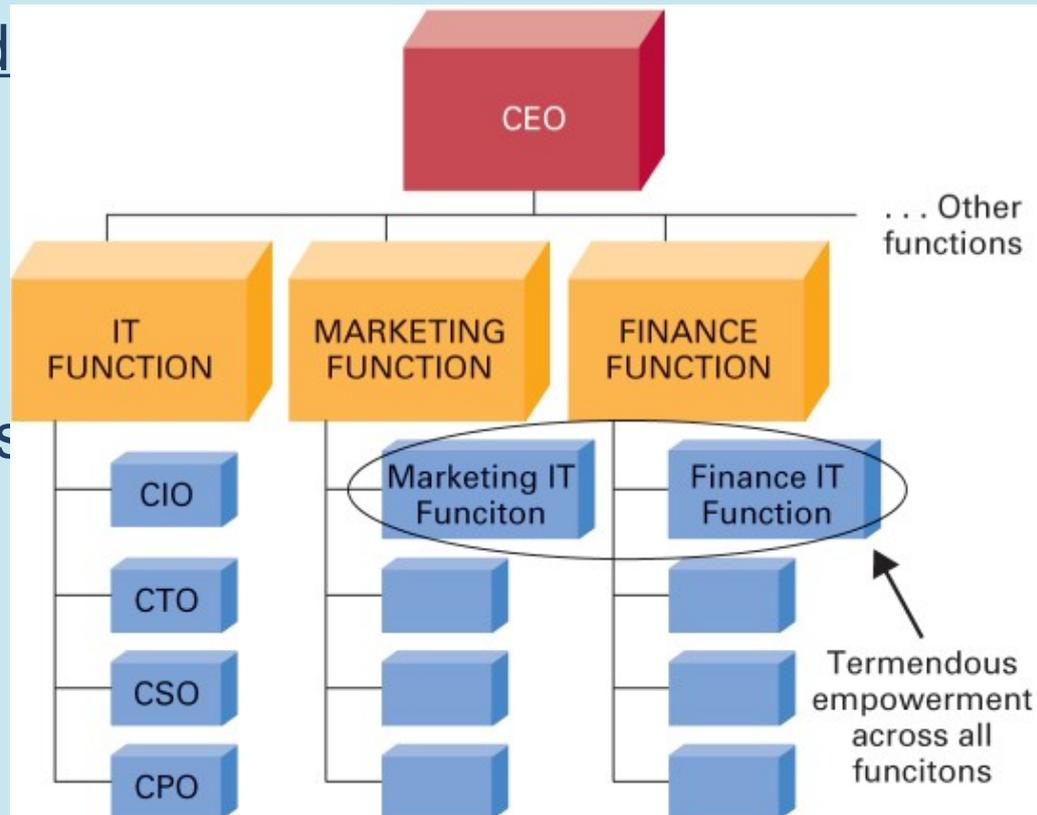
IT Function Structural Placement

- <u>Matrix</u> – Separate IT department but decision making is "matrixed" across the organization

IT Function Structural Placement

- <u>Fully integrated</u> separate IT function but IT personnel are placed within functional areas tremendous empowerment

IT Culture Philosophical Approach

- Ranging from…
  - "Wait and see"
    - Must prove ROI before adopting technologies
  - Early adopters
    - Support **technology innovation failure**, a reward system for trying new technologies even if they prove to be unsuccessful

IT Culture Philosophical Approach
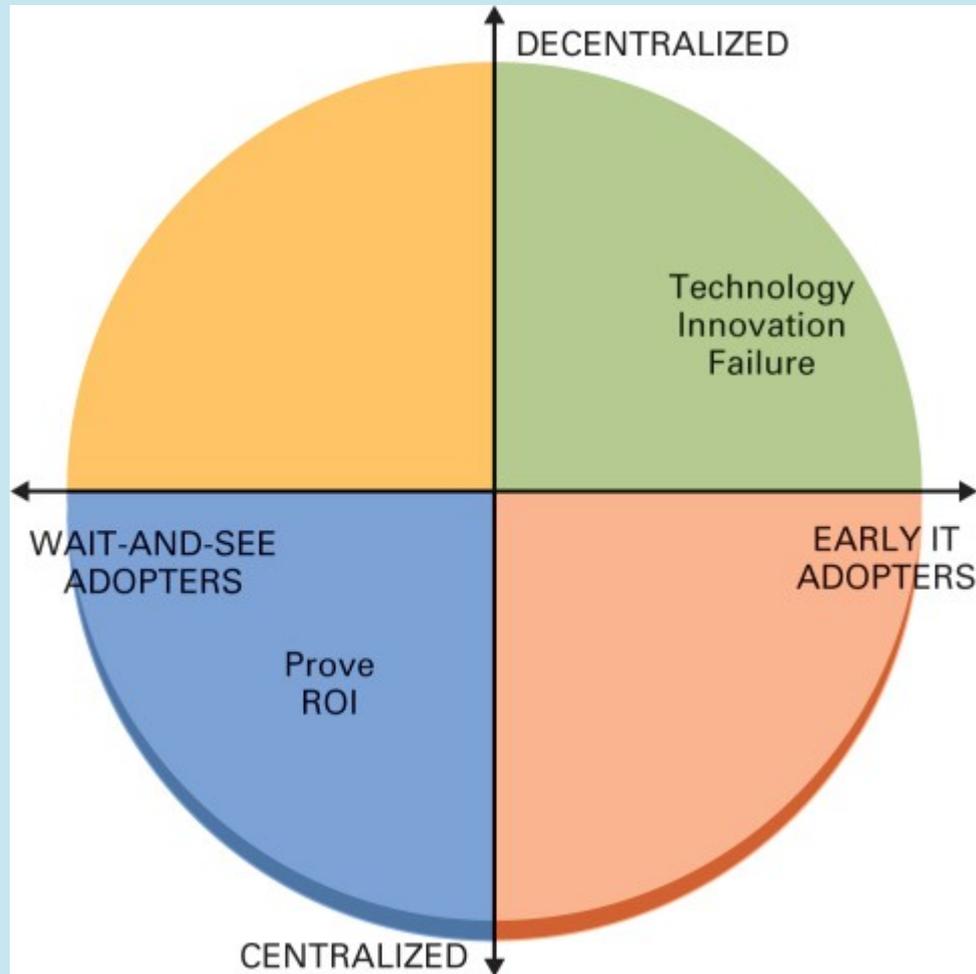
ENTERPRISE RESOURCE PLANNING

- How do you bring together SCM, CRM, and e-collaboration systems? With an ERP system.

- *Enterprise resource planning (ERP) system* – collection of integrated software for business management, accounting, finance, supply chain management, inventory management, customer relationship management, e-collaboration, etc.

ENTERPRISE RESOURCE PLANNING

Major ERP Vendors

Vendor/Web Address	ERP Specialties/Characteristics	Target Market
SAP www.sap.com	Customer relationship management, financial management, human resource management, and supply chain management	Large business
Oracle/PeopleSoft www.oracle.com	Financial management, human resource management, and supply chain management	Large business
SSA Global (Baan) www.ssaglobal.com	Customer relationship management, financial management, human resource management, and supply chain management	Large business
Microsoft (Great Plains) www.microsoft.com	Financial management, distribution, manufacturing, project accounting, human resource management, and business analytics	Small-to-medium business

ERP

- Attempts to integrate everything
  - CRM drives what SCM will produce
  - Everyone works together in e-collaboration
  - The entire organization knows the entire organization
- Think about your school
  - Can you register for class with a bill outstanding?
  - Can you register for a class for which you haven't completed the prerequisite?

ERP Integrates Everything