Business drivers

What are Business Drivers?

- Business drivers are **the key inputs and activities that drive the operational and financial results of a business**.
- Common examples of business drivers are salespeople, number of stores, website traffic, number and price of products sold, units of production, etc

Business Drivers for Today's Information Systems

- Globalization of the Economy
- Electronic Commerce and Business
- Security and Privacy
- Collaboration and Partnership
- Knowledge Asset Management
- Continuous Improvement and Total Quality Management
- Business Process Redesign

Globalization of the Economy

Global Economy brings

- New and expanded international markets
- New international competitors

Impact on information systems

- Require support of multiple languages, currency exchange rates, business cultures
- Require consolidation of international data
- Demand for players who can communicate, orally and in writing, with management and users that speak different languages

Electronic Commerce and Business

E-Commerce – the buying and selling of goods and services by using the Internet.

E-Business – the use of the Internet to conduct and support day-to-day business activities.

Types of e-commerce and e-business

- Marketing of corporate image, products, and services
- Business-to-consumer (B2C)
- Business-to-business (B2B)

Impact on information systems

- Most new information systems are being designed for an Internet (or intranet) architecture
- Since the only client-side software is a web browser, the choice of client operating system is becoming less important

Security and Privacy

Security

- How will the business continue in the even of a security breach, terrorist attack, or disaster?
- How can the business protect its digital assets from outside threats?

Privacy

- Consumer demands for privacy in e-commerce transactions
- Government requirements

Impact on information systems

- Need to incorporate stringent security and privacy controls

Collaboration and Partnership

Organizations seek to break down the walls that separate organizational departments and functions.

Organizations collaborate with outside business partners and even competitors.

Impact on information systems

- Need to provide secure, external access
- Need to pass data between different information systems

Knowledge Asset Management

Data – raw facts about people, places, events, and things that are of importance in an organization.

Information – data that has been processed or reorganized into a more meaningful form for someone.

Knowledge – data and information that is further refined based on the facts, truths, beliefs, judgments, experiences, and expertise of the recipient.

Knowledge Asset Management

- Recognizes that data, information, and knowledge are critical business resources
- Asks: "How can the organization manage and share knowledge for competitive advantage?"
- Strives to integrate the data and information that can create and preserve knowledge

Continuous Improvement and Total Quality Management

Business Processes – Tasks that respond to business events (e.g., an order). Business processes are the work, procedures, and rules required to complete the business tasks, independent of any information technology used to automate or support them.

Continuous process improvement (CPI) – The continuous monitoring of business processes to effect small but measurable improvements in cost reduction and value added.

Total quality management (TQM) – a comprehensive approach to facilitating quality improvements and management within a business.

Business Process Redesign

Business process redesign (BPR) is the study, analysis, and redesign of fundamental business processes to reduce costs and/or improve value added to the business.

- More substantial changes and improvements than CPI
- Usually complemented by CPI

Technology Drivers for Today's Information Systems

- Networks and the Internet
- Mobile and Wireless Technologies
- Object Technologies
- Collaborative Technologies
- Enterprise Applications

Networks and the Internet

Networks include mainframe time-sharing systems, network servers, and a variety of desktop, laptop, and handheld client computers.

The most pervasive networking technologies are based on the Internet.

- XHTML and XML
- Scripting languages
- Web-specific programming languages
- Intranets
- Extranets
- Portals
- Web services

Mobile and Wireless Technologies

Some mobile and wireless technologies

- PDAs
- Smart phones
- Bluetooth
- Wireless networking

Impact on information systems

- Wireless connectivity must be assumed
- Limitations of mobile devices and screen sizes must be accommodated

Object Technologies

Object technology – a software technology that defines a system in terms of objects that consolidate data and behavior (into objects).

- Objects are reusable
- Objects are extensible
- Object-oriented programming languages include C++, Java, Smalltalk, and .NET

Object-oriented analysis and design – a collection of tools and techniques for systems development that will utilize object technologies to construct a system and its software.

Agile development – a system development strategy in which system developers are given the flexibility to select from a variety of tools and techniques to best accomplish the tasks at hand.

Collaborative Technologies

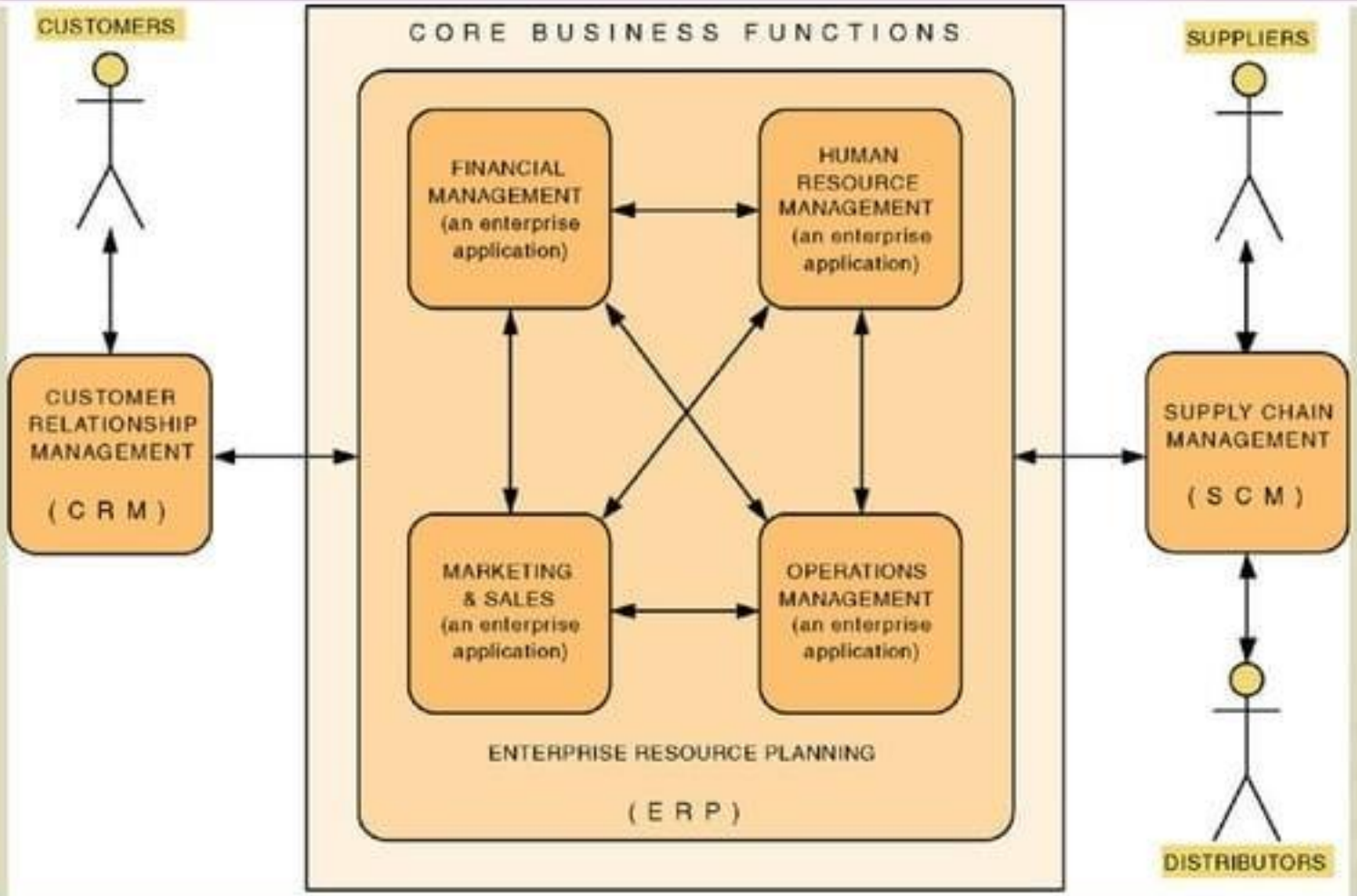
Collaborate technologies are those that enhance interpersonal communications and teamwork.

- E-mail
- Instant messaging
- Groupware
- Work flow

Enterprise Applications

- Virtually all organizations require a core set of enterprise applications
  - Financial mgmt, human resources, sales, etc.
  - Frequently purchased
  - Frequently need to have custom elements added
- **Systems Integration** - the process of building a unified information system out of diverse components of purchases software, custom-built software, hardware, and networking.

Enterprise Applications



Enterprise Applications - ERP

Enterprise Resource Planning (ERP) – a software application that fully integrates information systems that span most or all of the basic, core business functions.

An ERP solution is built around a common database shared by common business functions.

Representative ERP vendors:

- SSA
- Oracle/Peoplesoft
- SAP AG

Enterprise Applications - SCM

Supply Chain Management (SCM) – a software application that optimizes business processes for raw material procurement through finished product distribution by directly integrating the logistical information systems of organizations with those of their suppliers and distributors.

Representative SCM vendors:

- i2 Technologies
- Manugistics
- SAP
- SCT

Supply Chain