e-Business
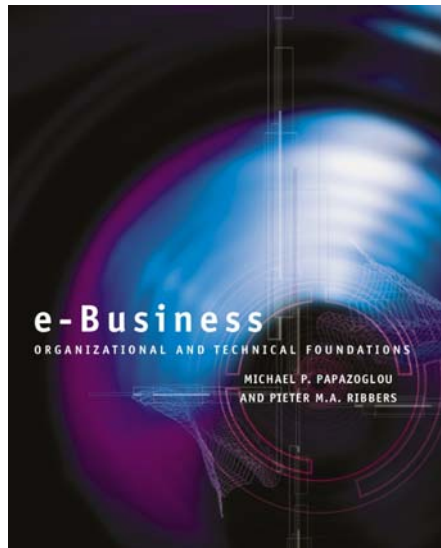
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Chapter 1
The World of E-Business

Definitions

- Electronic-Commerce

  The buying and selling of information, products, and services via computer networks and distributed media, usually the World Wide Web.

Complex Definitions

- There are a number of definitions of electronic commerce dependent on different perspectives:

  – From a *business process perspective* it is the application of IT and communications toward the support and automation of business transactions and workflows

  – From a *service perspective* it is a tool to address the need for cutting service costs while improving service quality and speed of delivery

  – From an *online perspective* EC provides the capability of buying and selling information, goods and services over the Internet and other online services.

Types of e-Commerce

- Business-to-Consumer
  - E-commerce between organizations and individual consumers

- Business-to-business (e-Business)
  - E-commerce between businesses
  - Accounts for a much larger portion of e-commerce than business-to-consumer.

- Business-to-administration

- Consumer-to-administration

Electronic Business: definition

- Electronic-Business:
  The conduct of transactions by means of electronic communications networks (e.g., via the Internet and/or possibly private networks) end-to-end.

e-Commerce vs. e-Business

- Compared with e-Commerce, e-Business is a more generic term; it refers not only to information exchanges related to buying and selling but also to servicing customers and collaborating with business partners, distributors and suppliers.

- e-Business encompasses sophisticated business-to-business interactions and collaboration activities at a level of enterprise applications and business processes.

e-Commerce vs. e-Business
(continued)

- e-Business processes are integrated end-to-end across the company, with key partners, suppliers and customers & can respond with flexibility and speed to customer demands and market opportunities.
  - Companies link their internal and external processes more efficiently & flexibly, work more closely with suppliers to satisfy the needs & expectations of their customers.
  - Internal or back-office processes include distribution, manufacturing and accounting while external or front-office processes include these processes that connect an organization to its customers and suppliers.

Internet-based e-Business

- Reasons for firms to create the ability to exchange transactions over the Internet
  - The Internet is a publicly accessible network with few geographical constraints. Its largest attribute, large-scale connectivity (without the need to have special company networking architecture) is a seedbed for growth of a vast range of business applications.
  - The Internet global inter-network connections offers the potential to reach the widest possible number of trading partners of any viable alternative currently available.

Importance of World Wide Web for e-Business

- WWW is the fastest growing activity on the Internet
  - companies advertising their presence
  - companies searching for information and products
  - companies buying and selling intellectual property, physical goods, and professional services

Characteristics of e-Business

- e-Business is about integrating external company processes with an organization's internal business processes:

  - Collaborative product development.
  - Collaborative planning, forecasting and replenishment.
  - Procurement and order management.
  - Operations and logistics.

Ingredients of an e-Business Solution
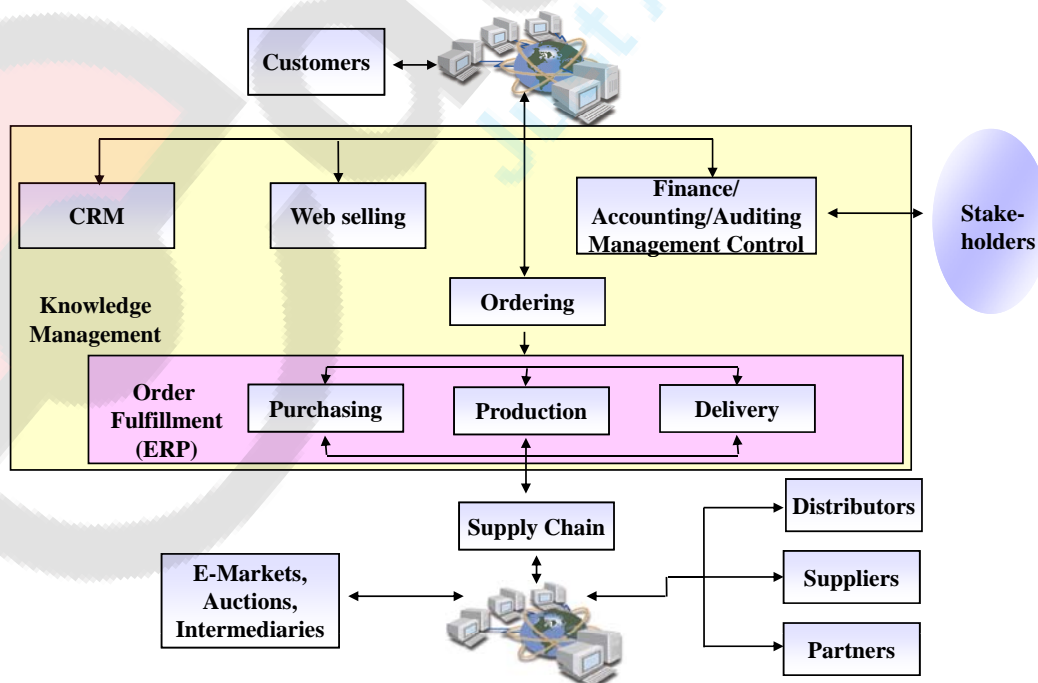
- Customer Relationship Management (CRM) systems: "front-office" systems that help the enterprise deal directly with their customers. CRM integrates & automates customer-serving processes within a company (personal information gathering & processing, and self-service throughout the supplying company in order to create value for the customer).

- Enterprise Resource Planning systems (ERP): management information systems that integrate & automate many of the business practices associated with the operations or production aspects of a company. An ERP system includes:

  – Production: manufacturing resource planning and execution process
  – Buying a product: procurement process
  – Sales of products and services: customer order management process.
  – Costing, paying bills and collecting: financial/management accounting and reporting process.

- Supply Chain Management (SCM): A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials; transformation of these material into intermediate and finished products & distribution of these finished products to customers. A supply chain essentially has three main parts, the supply, manufacturing and distribution.
- Knowledge management: knowledge regarding markets, products, processes, technologies, & organizations that a business owns that enable its business processes to generate profits. Also includes the subsequent planning and control of actions.

- e-Market: an electronic gathering place that brings multiple buyers & sellers together, provides to its participants a unified view of sets of goods & services & enables them to transact via automated means.

e-Business Roles and their Challenges

- e-Business applications have two sides:
  - Buy side: organizations that use e-Business facilities for their buying needs, e.g., spot purchasing and/or enterprise-wide procurement.
  - Sell side: businesses that sell their products via the transaction mechanisms offered in e-Business applications.
    - Manage multiple selling channels.
    - Ability to take multiple types of orders from customers.
    - Ability to differentiate and customise products and services from other suppliers.
    - Ability to adapt and grow the e-Business without dramatic technology changes, organizational restructurings, business processes or radical new investments.
    - Empower suppliers and buyers & enable suppliers of all sizes!

e-Business Requirements

- Identify/measure quantifiable business objectives
- Ensure organizational/operational flexibility
- Re-think entire company supply chains
- Transform the company to a process-centric one
- Define business processes
- Understand security requirements
- Align business organizations with a flexible IT architecture
- Establish ubiquity within standards
  - Efficient process management
  - Efficient enterprise integration technology

Advantages of Electronic Business

- Improved operational efficiency and productivity.
- Reduction in operating costs and costs of goods and services.
- Improved competitive position.
- Penetration into new markets through new channels.
- Improved communications, information and knowledge sharing.
- Harmonisation and standardisation of processes.
- Improved internal information access.
- Improved relationships with suppliers and improved customer service.

Inhibitors of Electronic Business

- Management/Strategy Issues
  - Lack of a clearly defined e-Business strategy
  - Organisational changes required by e-Business
  - Management attitudes and organizational inflexibility
- Cost/Financing
  - Costs of implementation of e-Business
  - Calculating the Return on Investment (ROI)
- Insufficient security & trust
- Legal issues
- Technology Concerns
  - Limited interoperability as most existing applications depend on proprietary solutions which do not interoperate.