Outcomes after this class you should be able to:

- Identify the key components of e-commerce business models
- Describe how supply chain management and collaborative commerce support business
- Understand the four types of NET marketplaces
- Understand the role of private industrial networks in supporting e-commerce

E-commerce Business Models—Definitions

- Business model: set of planned activities designed to result in a profit in a marketplace
- Business plan: document that describes a firm’s business model
- E-commerce business model: aims to use and leverage the unique qualities of Internet and Web
Categorizing E-commerce Business Models: Some Difficulties

- No one correct way
- We categorize business models according to e-commerce sector (B2C, B2B, C2C)
- Type of e-commerce technology used can also affect classification of a business model
- Some companies use multiple business models

B2C Business Models:

- Portal
  - Offers powerful search tools plus an integrated package of content and services
  - Typically utilizes a combines subscription/advertising revenues/transaction fee model
  - May be general or specialized (vortal)

B2C Business Models:

- E-tailer
  - Online version of traditional retailer
  - Types include:
    - Virtual merchants
    - Bricks-and-cricks
    - Catalog merchants
    - Manufacturer-direct
B2C Business Models:

Content Provider
- Information and entertainment companies that provide digital content over the Web
- Typically utilizes a subscription, pay for download, or advertising revenue model
- Syndication a variation of standard content provider model

B2C Business Models:

Transaction Broker
- Processes online transactions for consumers
- Primary value proposition—saving of time and money
- Typical revenue model—transaction fee
- Industries using this model include:
  - Financial services
  - Travel services
  - Job placement services

B2C Business Models:

Market Creator
- Uses Internet technology to create markets that bring buyers and sellers together
- Examples:
  - Priceline.com
  - eBay.com
- Typically uses a transaction fee revenue model
B2C Business Models:
Service Provider
- Offers services online
- Value proposition: valuable, convenient, time-saving, low-cost alternatives to traditional service providers
- Revenue models: subscription fees or one-time payment

B2C Business Models:
Community Provider
- Sites that create a digital online environment where people with similar interests can transact, communicate, and receive interest-related information.
- Typically rely on a hybrid revenue model
- Examples:
  - iVillage.com
  - Friendster.com
  - About.com

B2B Business Models:
E-distributor
- Company that supplies products and services directly to individual businesses
- Owned by one company seeking to serve many customers
- Example: Grainger.com
B2B Business Models:
E-procurement Companies
- Create and sell access to digital electronic markets
- B2B service provider is one type: offer purchasing firms sophisticated set of sourcing and supply chain management tools
- Application service providers: a subset of B2B service providers
  - Example: Ariba

B2B Business Models:
Exchanges
- An electronic digital marketplace where suppliers and commercial purchasers can conduct transactions
- Usually owned by independent firms whose business is making a market
- Generate revenue by charging transaction fees
- Usually serve a single vertical industry
- Number of exchanges has fallen to around 200 in 2005

B2B Business Models:
Industry Consortia
- Industry-owned vertical marketplaces that serve specific industries
- Horizontal marketplaces, in contrast, sell specific products and services to a wide range of industries
- Example: Exostar
B2B Business Models: Private Industrial Networks

- Digital networks (usually, but not always Internet-based) designed to coordinate the flow of communications among firms engaged in business together
- Single firm network: the most common form (Example: Walmart)
- Industry-wide networks: often evolve out of industry associations (Example: Agentrics)

Business Models in Emerging E-commerce Areas

- Consumer to Consumer (C2C): Provides a way for consumers to sell to each other, with the help of an online marketmaker such as eBay.com
- Peer-to-Peer (P2P): Links users, enabling them to share files and common resources without a common server
- M-commerce: Takes traditional e-commerce business models and leverages emerging new wireless technologies

E-commerce Enablers: The Gold Rush Model

- Internet infrastructure companies: Companies whose business model is focused on providing infrastructure necessary for e-commerce companies to exist, grow, and prosper
- Provide hardware, software, networking, security, e-commerce software systems, payment systems, databases, hosting services, etc.
How the Internet and the Web Change Business: Strategy, Structure, and Process

- Important to understand how Internet and Web have changed business environment, including industry structures, business strategies, and industry and firm operations.

Industry Structure Figure 2.5, Page 91

- E-commerce changes the nature of players in an industry and their relative bargaining power by changing:
  - the basis of competition among rivals
  - the barriers to entry
  - the threat of new substitute products
  - the strength of suppliers
  - the bargaining power of buyers

Defining B2B Commerce

- Before Internet, B2B transactions called just trade or procurement process
- Total inter-firm trade: Total flow of value among firms
- B2B commerce: All types of computer-enabled inter-firm trade
- B2B e-commerce (Internet-based B2B commerce): That portion of B2B commerce that is enabled by the Internet
The Evolution of B2B Commerce

- B2B commerce has evolved over a 35-year period
- 1970s: Automated order entry systems used telephone modems to send digital orders (e.g., Baxter Healthcare)
  - Seller-side solution (owned by suppliers, seller-biased, show goods only from single seller)
- Late 1970s: Electronic data interchange (EDI): communications standard for sharing business documents and settlement information among a small number of firms
  - Buyer-side solution (owned by buyers, buyer-biased, aim to reduce procurement costs for buyer)
  - Often referred to as hub-and-spoke system
  - Generally serves a vertical market

The Evolution of B2B Commerce (cont’d)

- 1990s: B2B electronic storefronts (online catalogs of products made available to the public marketplace by a single supplier)
- Late 1990s: Net marketplaces (bring hundreds to thousands of suppliers and purchasers into a single Internet-based environment to conduct trade)
- Late 1990s: Private industrial networks (Internet-based communication environments that extend beyond procurement to encompass collaborative commerce)

Potential Benefits of B2B E-commerce

- Lower administrative costs
- Lower search costs for buyers
- Reduced inventory costs by increasing competition among suppliers and reducing inventory carried
- Lower transaction costs by eliminating paperwork, automation
- Increased production flexibility by ensuring just-in-time parts delivery
- Improved quality of products by increasing cooperation among buyers and sellers
- Decreased product cycle time by sharing of designs and production schedules
- Increased opportunities for collaborating with suppliers and distributors
- Greater price transparency
The Procurement Process and the Supply Chain

- **Procurement process:** The way firms purchase the goods they need to produce the goods they sell
- **Supply chain:** Firms that purchase goods, their suppliers, and their suppliers’ suppliers
- Includes not just the firms themselves, but also the relationships among them and the processes that connect them

Steps in the Procurement Process (Figure 12.4, Page 689)

- Search for suppliers of specific products
- Qualify both seller and products they sell
- Negotiate prices, credit terms, escrow, quality, schedule
- Issue purchase order
- Invoice issued
- Goods shipped
- Payment

Types of Procurement

- **Types of goods purchased**
  - Direct goods: Goods integrally involved in the product process
  - Indirect goods: All other goods not directly involved in production process (sometimes called MRO goods)
- **Methods of purchasing**
  - Contract purchasing: Involves long-term written agreements to purchase specified products, with agreed upon terms and quality
  - Spot purchasing: Involves purchase of goods based on immediate needs in larger marketplaces that involve many suppliers
Multi-tier Supply Chains  Figure 12.5, Page 691

- Involves a complex series of transactions that exists between a single firm with multiple primary suppliers, the second suppliers who do business with those primary suppliers, and the tertiary suppliers who do business with the secondary suppliers.

Trends in Supply Chain Management and Collaborative Commerce

- To understand B2B e-commerce, you must also understand developments in supply chain management.
- Supply chain management (SCM): Refers to a wide variety of activities that firms and industries use to coordinate the key players in their procurement process.
- Major developments in supply chain management:
  - Supply chain simplification
  - Electronic data interchange
  - Supply chain management systems
  - Collaborative commerce

Supply Chain Simplification

- Firms work closely with a strategic group of suppliers to reduce product and administrative costs, while improving quality.
- Typically involves purchasing under long-term contracts that contain pre-specified product quality requirements and pre-specified timing goals.
- Often involve tight coupling (method of ensuring that suppliers precisely deliver ordered parts at specific time and to particular location, to ensure production process is not interrupted).
Electronic Data Interchange (EDI)

- EDI: Broadly defined communications protocol for exchanging documents among computers
- Has evolved significantly
  - 1970s-1980s: Originally focused on document automation (Stage 1)
  - Early 1990s: Began to focus on document elimination (Stage 2)
  - Mid 1990s: Movement toward a continuous replenishment/access model
- Today: should be viewed as a general enabling technology that provides for the exchange of critical business information between computer applications supporting a wide variety of business processes

Supply Chain Management Systems

- Continuously link the activities of buying, making, and moving products from suppliers to purchasing firms, as well as integrating the demand side of the business equation by including the order entry system in the process
- Example: Hewlett Packard

Collaborative Commerce

- An extension of supply chain management systems and supply chain simplification
- Involves the use of digital technologies to permit organizations to collaboratively design, develop, build, and manage products through their life cycles
- Involves a move from a transaction focus to a relationship focus
- Example: Group Dekko
Main Types of Internet-Based B2B Commerce

- Net marketplaces: Bring together potentially thousands of sellers and buyers in a single digital marketplace operated over the Internet
  - Transaction-based
  - Supports many-to-many as well as one-to-many relationships
- Private industrial networks: Bring together a small number of strategic business partner firms that collaborate to develop highly efficient supply chains
  - Relationship-based
  - Support many-to-one and many-to-few relationships
  - Largest form of B2B e-commerce

Net Marketplaces

- 2000—over 1500 Net marketplaces; 2005—an estimated 200
- Many different ways to classify Net marketplaces such as based on:
  - Pricing mechanism
  - Nature of market served
  - Ownership
- Another method: Classify Net marketplaces based on their business functionality
  - What businesses by (direct vs. indirect goods)
  - How business by (spot purchasing vs. long-term sourcing)

E-distributors

- Most common type of Net marketplace
- Provide electronic catalogs that represent the products of thousands of direct manufacturers
- Typically independently owned intermediaries that offer industrial customers a single source from which to order indirect goods on a spot basis
- Typically operate in horizontal markets because they serve many different industries with products from many different suppliers
- Example: W.W. Grainger
E-procurement Figure 12.13, Page 706
- Independently owned intermediaries connecting hundreds of online suppliers offering millions of indirect goods to business firms who pay fees to join the market
- Typically used for long-term contractual purchasing of indirect goods
- Expand on business model of e-distributors
- Typically offer value chain management (VCM) services, such as automation of a firm’s entire procurement process on buyer side, automation of selling business processes on seller side
- Sometimes referred to as a many-to-many market

Exchanges Figure 12.14, Page 714
- Independently owned online marketplaces that connect hundreds to potentially thousands of suppliers and buyers in a dynamic, real-time environment
- Typically vertical markets focusing on spot purchasing requirements of large firms in a single industry
- Make money by charging a commission on transaction
- Variety of pricing models used
- Tend to be buyer-biased
- Many have failed due to low liquidity (typically measured by number of buyers and sellers in a market, the volume of transactions and size of transactions)

Industry Consortia Figure 12.15, Page 717
- Industry-owned vertical markets that enable buyers to purchase direct inputs from a limited set of invited participants
- Emphasize long-term contractual purchasing and development of stable relationships
- Ultimate objective: Unification of supply chains within entire industries through a common network and computing platform
- More than 60 industry consortia now exist, with many industries having more than one
- Make money from transaction and subscription fees
- Offer many different pricing mechanisms
The Long-Term Dynamics of Net Marketplaces

Figure 12.16, Page 721

- Pure Net marketplaces are moving away from simple "electronic marketplace" vision and toward playing a more central role in changing the procurement process.
- Consortia and exchanges beginning to work together in selected markets; e-distributors joining large e-procurement systems and also industry consortia as suppliers.
- Movement from simple transactions involving spot purchasing to longer-term contractual relationships involving both direct and indirect goods.

What Are Private Industrial Networks?

- Web-enabled networks for the coordination of trans-organizational business processes (collaborative commerce).
- Range in scope from a single firm to an entire industry.
- Example: Proctor & Gamble Figure 12.17, Page 724.

Characteristics of Private Industrial Networks

- Objectives of private industrial networks include:
  - Developing efficient purchasing and selling business processes industry-wide.
  - Developing industry-wide resource planning to supplement enterprise-wide resource planning.
  - Creating increasing supply chain visibility.
  - Achieving closer buyer-supplier relationships.
  - Operating on a global scale.
  - Reducing industry risk by preventing imbalances of supply and demand.
- Typically focus on a single sponsoring company that "owns" the network.
Private Industrial Networks and Collaborative Commerce Figure 12.18, Page 728

- Collaboration among businesses can take following forms:
  - Collaborative resource planning, forecasting, and replenishment (CPFR): Involves working with network members to forecast demand, develop production plans, and coordinate shipping, warehousing and stocking activities to ensure that retail and wholesale shelf space is replenished with just the right amount of goods.
  - Demand chain visibility
  - Marketing coordination and product design—closed loop marketing

Implementation Barriers

- Concerns about sharing of proprietary data
- Integration into existing ERP systems and EDI networks; expensive
- Requires change in mindset and behavior of employees

Class Discussion

- Case study – page 100
  - Questions 1 & 3 on page 103
Next Week

- Building an e-Commerce Website
- Case study page 234
  - Question 2
- Group Presentations begin