

# Chapter 5

B2B E-Commerce:  
Selling and Buying  
in Private E-Markets



# Learning Objectives



1. Describe the B2B field.
2. Describe the major types of B2B models.
3. Discuss the characteristics of the sell-side marketplace, including auctions.
4. Describe the sell-side intermediary models.
5. Describe the characteristics of the buy-side marketplace and e-procurement.
6. Explain how reverse auctions work in B2B.

# Learning Objectives



7. Describe B2B aggregation and group purchasing models.
8. Describe other procurement methods.
9. Explain how B2B administrative tasks can be automated.
10. Describe infrastructure and standards requirements for B2B.
11. Describe Web EDI, XML, and Web Services.

# Concepts, Characteristics, and Models of B2B EC



- Basic B2B Concepts

- business-to-business e-commerce (B2B EC)**

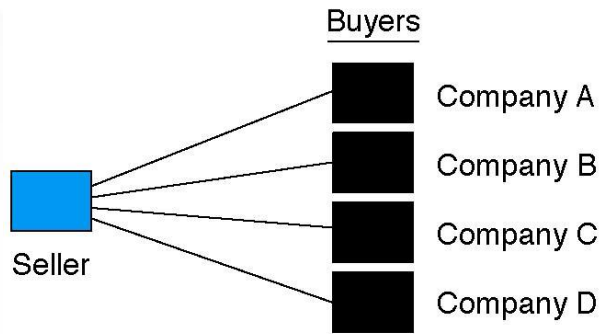
- Transactions between businesses conducted electronically over the Internet, extranets, intranets, or private networks; also known as *eB2B* (*electronic B2B*) or just *B2B*

# Concepts, Characteristics, and Models of B2B EC

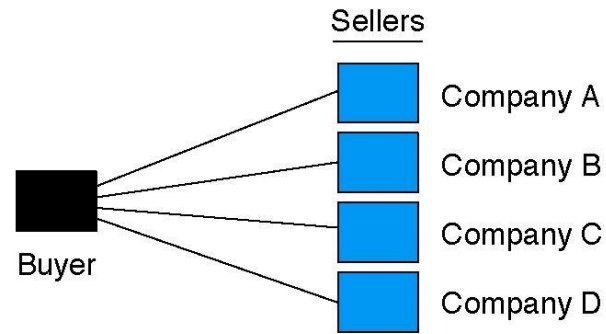


- Key business drivers for B2B:
  - The availability of a secure broadband Internet platform and private and public B2B e-marketplaces;
  - The need for collaborations between suppliers and buyers;
  - The ability to save money, reduce delays, and improve collaboration; and
  - The emergence of effective technologies for intra- and interorganizational integration.

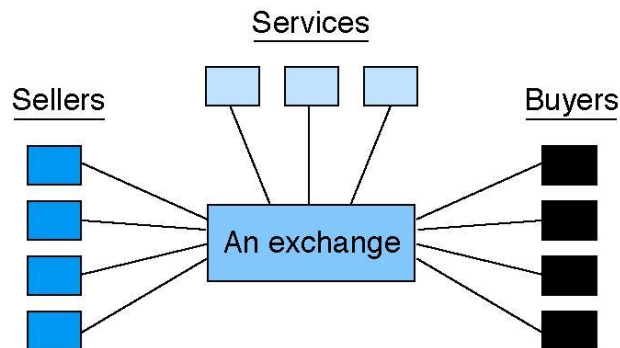
# Exhibit 5.2 Types of B2E EC



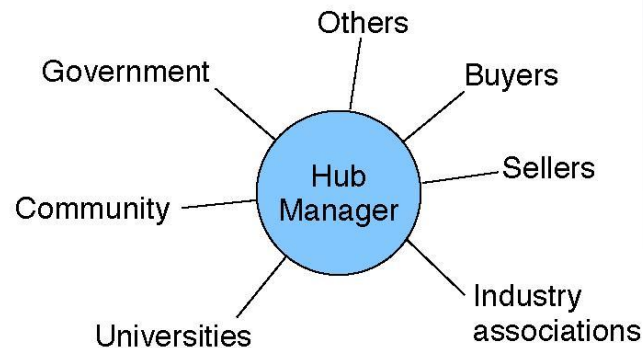
**(a) Sell-Side B2B**



**(b) Buy-Side B2B**



**(c) Electronic Exchange**



**(d) Collaborative Commerce**

# Concepts, Characteristics, and Models of B2B EC



- Basic Types of B2B E-Marketplaces
  - One-to-Many and Many-to-One: Private E-Marketplaces

## **company-centric EC**

E-commerce that focuses on a single company's buying needs (many-to-one, or buy-side) or selling needs (one-to-many, or sell-side)

## **private e-marketplaces**

Markets in which the individual sell-side or buy-side company has complete control over participation in the selling or buying transaction

# Concepts, Characteristics, and Models of B2B EC



- Intermediaries are frequently used
  - Conducting auctions
  - Aggregating buyers
  - Complex transactions
- Many-to-Many: Exchanges
  - exchanges (trading communities or trading exchanges)**

Many-to-many e-marketplaces, usually owned and run by a third party or a consortium, in which many buyers and many sellers meet electronically to trade with each other; also called *trading communities* or *trading exchanges*



# Concepts, Characteristics, and Models of B2B EC



- Many-to-Many: Exchanges  
**public e-marketplaces**

Third-party exchanges that are open to all interested parties (sellers and buyers)

## **B2B2C**

A business sells to a business, but delivers small quantities to individuals or business customers

## **online intermediary**

An online third party that brokers a transaction online between a buyer and a seller; may be virtual or click-and-mortar

# Concepts, Characteristics, and Models of B2B EC



- Types of Transactions

- spot buying**

- The purchase of goods and services as they are needed, usually at prevailing market prices

- strategic systematic sourcing**

- Purchases involving long-term contracts that usually are based on private negotiations between sellers and buyers

# Concepts, Characteristics, and Models of B2B EC



- Types of Materials Traded

## **direct materials**

Materials used in the production of a product (e.g., steel in a car or paper in a book)

## **indirect materials**

Materials used to support production (e.g., office supplies or light bulbs)

## **MRO (maintenance, repair, and operation)**

Indirect materials used in activities that support production

# Concepts, Characteristics, and Models of B2B EC



- Direction of Trade

## **vertical marketplaces**

Markets that deal with one industry or industry segment (e.g., steel, chemicals)

## **horizontal marketplaces**

Markets that concentrate on a service, materials, or a product that is used in all types of industries (e.g., office supplies, PCs)

# Concepts, Characteristics, and Models of B2B EC



- Supply Chain Relationships in B2B
  - B2B private e-marketplace provides a company with high supply chain power and high capabilities for online interactions
  - A public e-marketplace provides a business with high buying and selling capabilities, but results in low supply chain power
  - Using an intermediary results in low supply chain power and buying/selling capabilities

# Concepts, Characteristics, and Models of B2B EC



- Virtual Services Industries in B2B
  - Travel and entertainment services
  - Real estate
  - Financial services
  - Online stock trading
  - Online financing
  - Other online services

# Concepts, Characteristics, and Models of B2B EC



- Benefits of B2B
  - Creates new sales (purchase) opportunities
  - Eliminates paper and reduces administrative costs
  - Expedites processing and reduces cycle time
  - Lowers search costs and time for buyers to find products and vendors
  - Increases productivity of employees dealing with buying and/or selling
  - Reduces errors and improves quality of services
  - Makes product configuration easier

# Concepts, Characteristics, and Models of B2B EC



- Benefits of B2B (continued)
  - Reduces marketing and sales costs (for sellers)
  - Reduces inventory levels and costs
  - Enables customized online catalogs with different prices for different customers
  - Increases production flexibility, permitting just-in-time delivery
  - Reduces procurement costs (for buyers)
  - Facilitates mass customization
  - Provides for efficient customer service
  - Increases opportunities for collaboration



# Concepts, Characteristics, and Models of B2B EC



- Limitations of B2B
  - Channel conflict
  - Operation of public exchanges
  - Elimination the distributor or the retailer

# One-to-Many: Sell-Side E-Marketplaces



- Sell-Side Models and Activities

- sell-side e-marketplace**

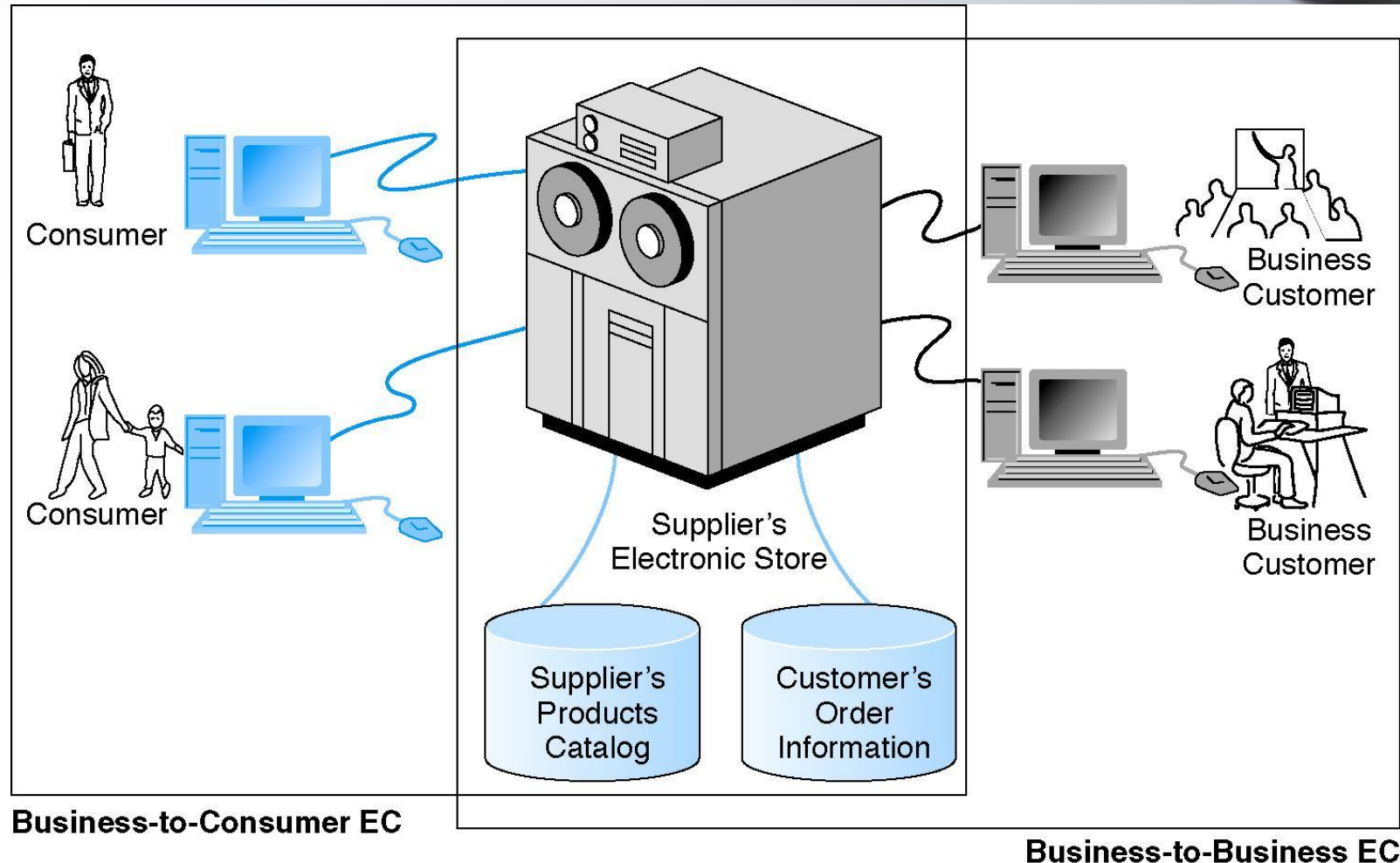
- A Web-based marketplace in which one company sells to many business buyers from e-catalogs or auctions, frequently over an extranet

- Three major pricing methods:

- 1. Selling from *electronic catalogs*;
    - 2. Selling via *forward auctions*; and
    - 3. *One-to-one* selling, usually under a *negotiated* long-term contract.

# Exhibit 5.3 Sell-Side B2B

## E-Marketplace Architecture



# One-to-Many: Sell-Side E-Marketplaces



- Direct Sales from Catalogs
  - A company usually offers both one catalog for all customers and a *customized catalog* for each large customer
  - Offers an opportunity for efficient customization
  - Limitations
    - How to contact would-be buyers online
    - Cost to customer for use of traditional—one solution is to use extranets

# Selling via Intermediaries



- Intermediaries distribute products to a large number of buyers
  - Buy products from many vendors and aggregate them into one catalog from which they sell
  - Also offer their products online via storefronts
- Using Auctions on the Sell-Side
  - Revenue generation
  - Cost savings
  - Increased page views
  - Member acquisition and retention

# Selling via Intermediaries



- Selling from the Company's Own Site
  - Large, well-known companies that frequently conduct auctions, build an auction mechanism on the company's own site
- Using Intermediaries
  - No additional resources are required for the company using the intermediary
  - Enable a company to have a robust, customized auction up-and-running immediately
  - Billing and collection efforts are handled by the intermediary

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



## **buy-side e-marketplace**

A corporate-based acquisition site that uses reverse auctions, negotiations, group purchasing, or any other e-procurement method

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Procurement Methods
  - Conduct bidding or tendering (a reverse auction) in a system in which suppliers compete against each other
  - Buy directly from manufacturers, wholesalers, or retailers from their catalogs and possibly by negotiation
  - Buy from the catalog of an intermediary (e-distributor) that aggregates sellers' catalogs
  - Buy from an internal buyer's catalog, in which company-approved vendors' catalogs, including agreed-upon prices, are aggregated



# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Buy at private or public auction sites in which the organization participates as one of the buyers
- Join a group-purchasing system that aggregates participants' demand, creating a large volume
- Buy at an exchange or industrial mall
- Collaborate with suppliers to share information about sales and inventory, so as to reduce inventory and stock-outs and enhance just-in-time delivery

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Inefficiencies in Traditional Procurement Management

## **procurement management**

The coordination of all the activities relating to purchasing goods and services needed to accomplish the mission of an organization

## **maverick buying**

Unplanned purchases of items needed quickly, often at non-pre-negotiated higher prices

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Benefits of E-Procurement

- e-procurement**

- The electronic acquisition of goods and services for organizations

- By automating and streamlining the laborious routines of the purchasing function, purchasing professionals can focus on more strategic purchases

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Goals of E-Procurement
  - Increasing the productivity of purchasing agents
  - Lowering purchase prices through product standardization, reverse auctions, volume discounts, and consolidation of purchases
  - Improving information flow and management
  - Minimizing the purchases made from noncontract vendors
  - Improving the payment process and saving due to expedited payments (for sellers)

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Establishing efficient, collaborative supplier relations
- Ensuring delivery on time, every time
- Slashing order-fulfillment and processing times by leveraging automation
- Reducing the skill requirements and training needs of purchasing agents
- Reducing the number of suppliers
- Streamlining the purchasing process, making it simple and fast
- Streamlining invoice reconciliation and dispute resolution

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Reducing the administrative processing cost per order by as much as 90%
- Finding new suppliers and vendors that can provide goods and services faster and/or cheaper (improved sourcing)
- Integrating budgetary controls into the procurement process
- Minimizing human errors in the buying or shipping process
- Monitoring and regulating buying behavior

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Implementing E-Procurement
  - Fitting e-procurement into the company EC strategy
  - Reviewing and changing the procurement process itself
  - Providing interfaces between e-procurement and integrated enterprise-wide information systems (ERP or SCM)
  - Coordinating the buyer's information system with that of the sellers
  - Consolidating the number of regular suppliers and integrating with their information systems, and if possible, with their business processes

# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



## **e-sourcing**

The process and tools that electronically enable any activity in the sourcing process, such as quotation/tender submittance and response, e-auctions, online negotiations, and spending analyses



# One-from-Many: Buy-Side E-Marketplaces and E-Procurement



- Implementing E-Procurement
  - *Strategic sourcing* is the process of:
    - Identifying opportunities
    - Evaluating potential sources
    - Negotiating contracts
    - Managing supplier relationships
  - Used to achieve corporate goals including:
    - Cost reductions
    - Increased quality and service
  - E-sourcing solutions attempt to improve strategic sourcing by making it more effective and efficient
    - Just-in-time sourcing ( JITS)
    - Strategic consulting services
    - Hosted sourcing software

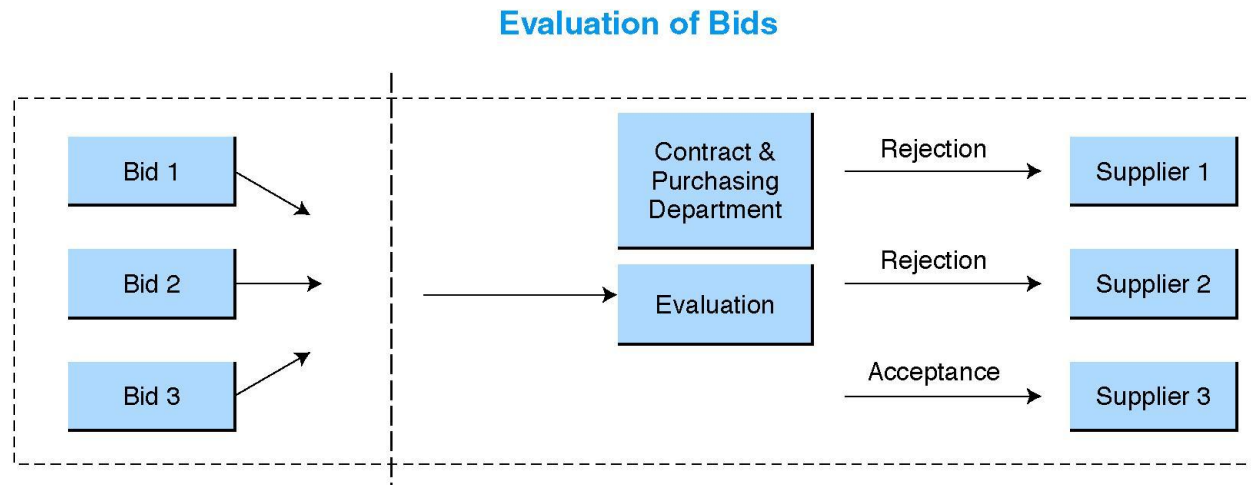
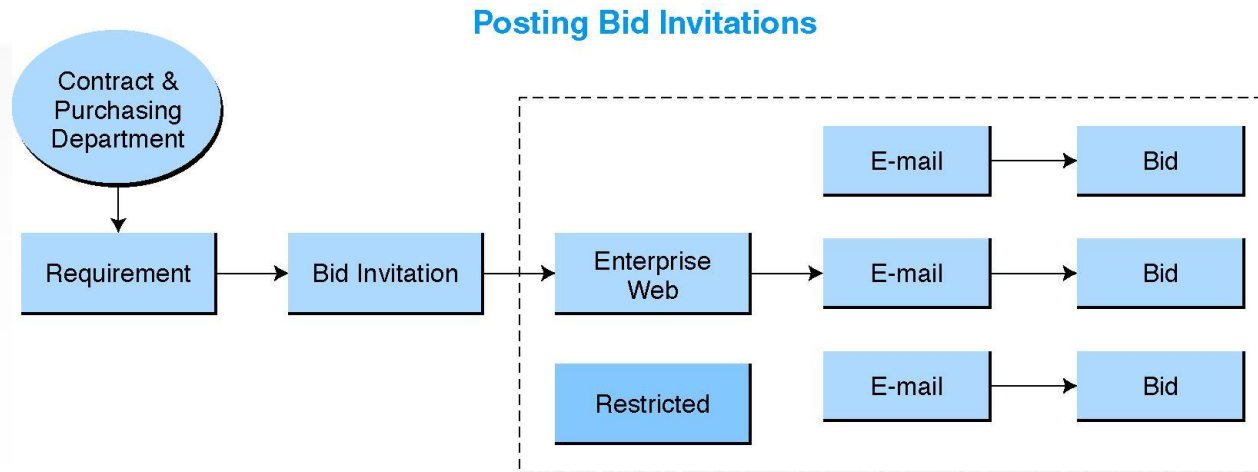
# Buy-Side E-Marketplaces: Reverse Auctions



## **request for quote (RFQ)**

The “invitation” to participate in a tendering (bidding) system

# Exhibit 5.6 Reverse Auction Process



# Other E-Procurement Methods



## **internal procurement marketplace**

The aggregated catalogs of all approved suppliers combined into a single *internal* electronic catalog

## **desktop purchasing**

Direct purchasing from internal marketplaces without the approval of supervisors and without the intervention of a procurement department

## **group purchasing**

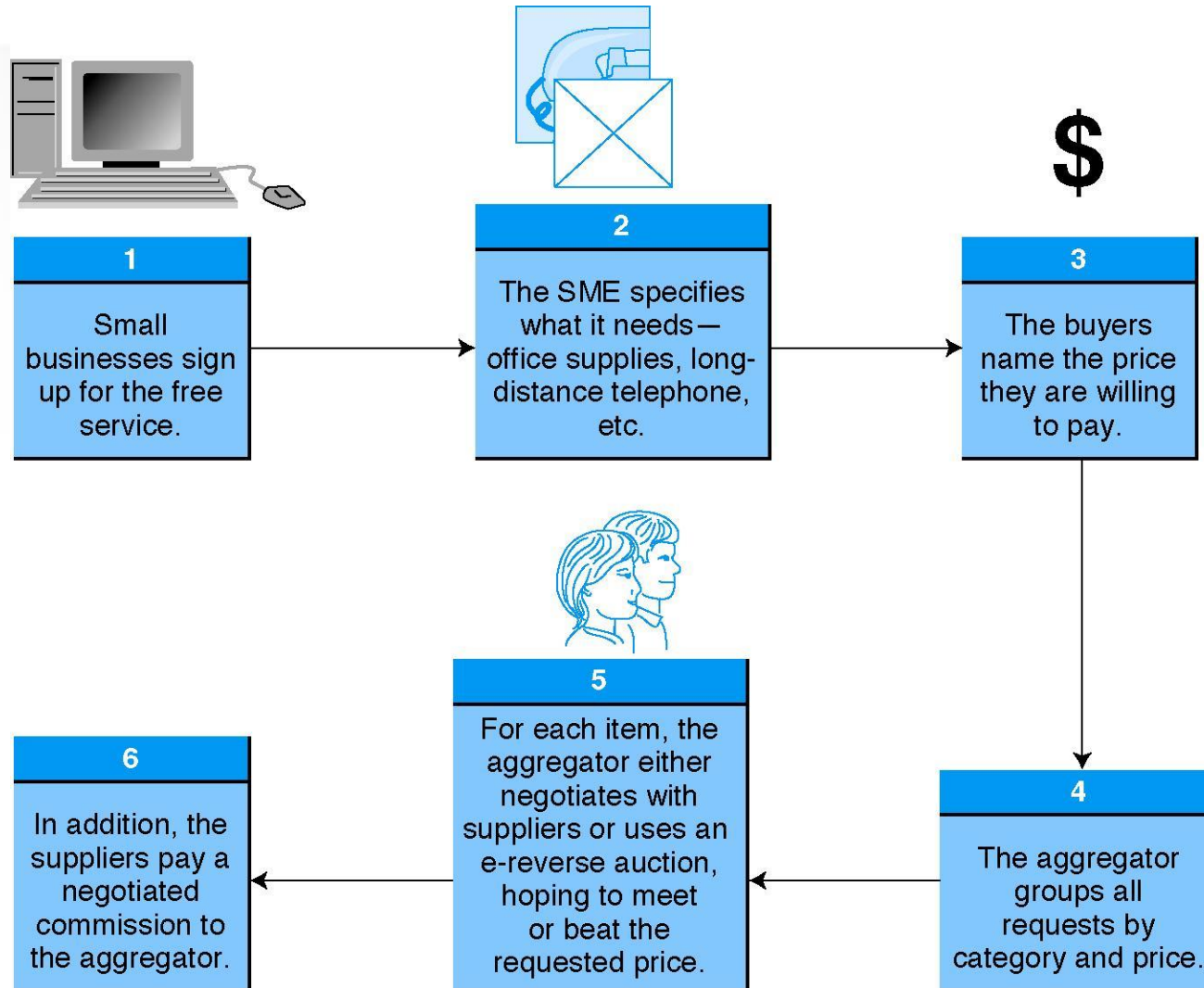
The aggregation of orders from several buyers into volume purchases so that better prices can be negotiated

# Other E-Procurement Methods



- Internal Aggregation
- External Aggregation
- Buying from E-Distributors
- Purchasing Direct Goods
- Electronic Bartering
- Buying in Exchanges and Industrial Malls

# Exhibit 5.8 The Group Purchasing Process



# Other E-Procurement Methods



## **bartering exchange**

An intermediary that links parties in a barter; a company submits its surplus to the exchange and receives points of credit, which can be used to buy the items that the company needs from other exchange participants

# Other E-Procurement Methods



- **Contract Management**
  - Reduce contract negotiation time and efforts
  - Facilitate inter- and intracompany contract analysis and development
  - Provide for proactive contract compliance management
  - Enable enterprise-wide standardization of contracts
  - Improve understanding of contract-related risks
  - Provide a more efficient approval process



# Automating B2B Tasks



- Spend Management
  - A data warehouse repository designed to manage data from multiple data sources
  - Data management of contracts, supplier catalogs, and product content
  - Data management of pricing
  - Detailed standard and *ad hoc* purchasing activity analysis and report tools
  - Updates, notifications, and alerts regarding purchasing

# Automating B2B Tasks



- Sourcing Management and Negotiation
  - Bid comparison, including exports of detailed bid data
  - User management functions that eliminate data redundancy, simplify data management, and reduce risk to data integrity
  - Weighted scoring of parameters to calculate the total value offered by suppliers
  - Total merchandise purchased cost model with winner selection and ranking
  - Reverse auctions and sealed bids, with a full set of features such as proxy bids and bid-time extensions
  - Negotiation support tools

# Automating B2B Tasks



- E-Procurement Management
  - E-procurement systems are used for making online purchases, connecting companies and their business processes directly with suppliers, and managing the interactions between them including:
    - Correspondence
    - Bids
    - Questions and answers
    - Previous pricing
    - E-mails sent to multiple participants

# Infrastructure, Integration, and Software Agents in B2B EC



- Infrastructure for B2B

- electronic data interchange (EDI)**

- The electronic transfer of specially-formatted standard business documents, such as bills, orders, and confirmations, sent between business partners

- value-added networks (VANs)**

- Private, third-party managed networks that add communications services and security to existing common carriers; used to implement traditional EDI systems

- Internet-based (Web) EDI**

- EDI that runs on the Internet and is widely accessible to most companies, including SMEs

# Infrastructure, Integration, and Software Agents in B2B EC



- Integration for B2B
  - Integration with the existing internal infrastructure and applications
  - Integration with business partners

# Infrastructure, Integration, and Software Agents in B2B EC



- The Role of Standards in B2B Integration

## **XML (eXtensible Markup Language)**

Standard (and its variants) used to improve compatibility between the disparate systems of business partners by defining the meaning of data in business documents

## **Web Services**

An architecture enabling assembly of distributed applications from software services and tying them together

# Infrastructure, Integration, and Software Agents in B2B EC



- The Role of Software Agents in B2B
  - The major role of software agents in B2C is collecting data from multiple sellers' sites
  - Software agents also collect information from business sellers' sites for the benefit of business buyers



# Managerial Issues

1. Can we justify the cost of B2B applications?
2. Which vendor(s) should we select?
3. Which B2B model(s) should we use?
4. Should we restructure our procurement system?
5. What are the ethical issues in B2B?
6. Will there be *massive* disintermediation?
7. How can trust and loyalty be cultivated in B2B?



# Summary



1. The B2B field.
2. The major B2B models.
3. The characteristics of sell-side marketplaces.
4. Sell-side intermediaries.
5. The characteristics of buy-side marketplaces and e-procurement.
6. B2B reverse auctions.

# Summary



7. B2B aggregation and group purchasing.
8. Other purchasing methods.
9. Administrative tasks.
10. Infrastructure and standards in B2B.
11. Web-based EDI, XML, and Web Services.