Chapter 4

B2B E-Commerce
Learning Objectives

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

8. Describe other procurement methods.
9. Define exchanges and describe their major types.
11. Describe third-party exchanges.
12. Describe how B2B can benefit from social networking and Web 2.0.
13. Describe Internet marketing in B2B, including organizational buyer behavior.
Concepts, Characteristics, and Models of B2B E-Commerce

- **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 E-Commerce

- THE BASIC TYPES OF B2B TRANSACTIONS AND ACTIVITIES
  - Sell-side
  - Buy-side
  - Exchanges
  - Supply chain improvements and collaborative commerce
Concepts, Characteristics, and Models of B2B E-Commerce

- THE BASIC TYPES OF B2B E-MARKETPLACES AND SERVICES
  - 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)
EXHIBIT 4.1  Types of B2B E-Commerce

(a) Sell-Side B2B

Sellers

Buyers

Company A
Company B
Company C
Company D

(b) Buy-Side B2B

Sellers

Buyer

Company A
Company B
Company C
Company D

(c) Electronic Exchange

Sellers

An Exchange

Buyers

(d) Supply Chain Improvements and Collaborative Commerce

Hub Manager Company

Others

Government
Shippers
Community
Technology providers
Universities

Buyers
Sellers
Payments
Industry associations
Concepts, Characteristics, and Models of B2B E-Commerce

- Many-to-Many: Public 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
  - public e-marketplaces
    Third-party exchanges open to all interested parties (sellers and buyers)

- Supply Chain Improvers and Collaborative Commerce
EXHIBIT 4.2  Generations of B2B E-Commerce

1st Generation 1995
Publish and Promote

2nd Generation 1997
Online Ordering B2C, B2B Auctions

3rd Generation 2000
E-Government
E-Marketplaces Exchanges
Business Value

4th Generation 2001
Personalize and Customize
Supply Chain Improvements
Collaborative Commerce
Mobile Commerce
e-CRM
e-Learning
Multichannel

5th Generation 2002 and Beyond
Integration
Internal/External Business Process Management
RFID and Others
Web Services
Intelligent Systems Expert Sales Systems
Social Computing-Oriented Transactions
Collaboration with Suppliers and Buyer
Concepts, Characteristics, and Models of B2B E-Commerce

• B2B CHARACTERISTICS
  • Parties to the Transaction: Sellers, Buyers, and Intermediaries
    • online intermediary
      An online third party that brokers a transaction online between a buyer and a seller; may be virtual or click-and-mortar
Types of B2B Transactions: How Do Firms Buy?

- **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
Types of Materials Traded: What Do Firms Buy?

- **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
The Direction of the Trades

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

• **horizontal marketplaces**
  Markets that concentrate on a service, material, or a product that is used in all types of industries (e.g., office supplies, PCs)
Concepts, Characteristics, and Models of B2B E-Commerce

- SUPPLY CHAIN RELATIONSHIPS IN B2B
- SERVICE INDUSTRIES ONLINE IN B2B
- PARTNER AND SUPPLIER RELATIONSHIP MANAGEMENT
  - partner relationship management (PRM)
    Business strategy that focuses on providing comprehensive quality service to business partners
  - supplier relationship management (SRM)
    A comprehensive approach to managing an enterprise’s interactions with the organizations that supply the goods and services it uses.
- THE BENEFITS AND LIMITATIONS OF B2B
One-to-Many: Sell-Side E-Marketplaces

• 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
  o B2B Sellers
  o Customer Service
EXHIBIT 4.5  Sell-Side Configuration Intermediations in B2B

- **Manufacturer/Supplier**
  - Supplier's Product Catalog
  - Customer's Order Information
  - Direct Sale

- **Manufacturer #1, #2**
  - B2B

- **Distributor Marketplace**
  - B2B

- **Retailer or VAR**
  - B2B

- **Business Customers A, B, C . . .**

- **Individual Customers A, B, C . . .**
One-to-Many: Sell-Side E-Marketplaces

- **SALES FROM CATALOGS: STOREFRONT**
  - Customization and Self-Configuration
  - Benefits and Limitations of Online Sales from Catalogs

- **COMPREHENSIVE SELL-SIDE SYSTEMS**
Selling Via Distributors and Other Intermediaries

- Manufacturers can sell directly to businesses, and they do so if the customers are large buyers.
- Frequently they use intermediaries to distribute their products to a large number of smaller buyers.
- The intermediaries buy products from many manufacturers and aggregate them into one catalog from which they sell to customers or to retailers.
Selling Via E-Auctions

• USING AUCTIONS ON THE SELL SIDE
  o Revenue generation
  o Cost savings
  o Increased “stickiness”
  o Member acquisition and retention

• AUCTIONING FROM THE COMPANY’S OWN SITE
• USING INTERMEDIARIES IN AUCTIONS
• EXAMPLES OF B2B FORWARD AUCTIONS
Procurement at Buy-Side E-Marketplaces

- buy-side e-marketplace
  A corporate-based acquisition site that uses reverse auctions, negotiations, group purchasing, or any other e-procurement method
Procurement at Buy-Side E-Marketplaces

• INEFFICIENCIES IN TRADITIONAL PROCUREMENT MANAGEMENT
  
  o procurement management
    The planning, organizing, and coordinating of all the activities relating to purchasing goods and services needed to accomplish the organization’s mission
  
  o maverick buying
    Unplanned purchases of items needed quickly, often at non-prenegotiated higher prices
EXHIBIT 4.6  A Traditional Procurement Process

Start Here
Prepare Requisition
Buyer

Print Purchase Order
Mail Fax
Supplier

Prepare Invoice
Mail to Buyer
Buyer's Accounts Payable

3-way Match (Match of PO, Invoice, and Receipts)

Mail Check to Supplier

Approval Process per Financial and Procurement Policies
Create Purchasing Inputs Order

Acknowledge Receipt of Order (Phone, Mail)
Pack and Ship

Buyer's Central Receiving

Approve Payment
Procurement at Buy-Side E-Marketplaces

- **e-procurement (electronic procurement)**
  The electronic acquisition of goods and services for organizations via the Internet, EDI, etc.

- **THE GOALS AND PROCESS OF E-PROCUREMENT**
  - Types of E-Procurement
    - E-sourcing
    - E-tendering
    - E-reverse auctioning
    - E-informing
    - Web-based ERP
    - E-market sites
    - E-MRO
EXHIBIT 4.8 The E-Procurement Process: The Buyer’s View

Pre-Purchase Activities

1. Search for Vendors and Products
   - E-catalogs, brochures, conventions, exhibits, telephone calls, visits.

2. Qualify Vendors
   - Which vendors can we do business with?
   - Research firms for financial stability and credit history.

3. Select a Market Mechanism
   - Private, public, auctions (tendering) exchange, bartering
   - (Tendering system has a special process.)

4. Compare and Negotiate
   - Compare price, financing, delivery, quality, etc.
   - Select a vendor.

5. Make a Purchase Arrangement
   - (Individual or committee)
   - Have a contract
   - Arrange payment.

After-Purchase Activities

6. Initiate a Purchase Order (PO)
   - Fill in electronic form or trigger ready order.

7. Arrange a Pickup or Receive Shipment
   - Check shipping documents, billing, quality.

8. Make Payments
   - Approve payment
   - Arrange money transfer.
Procurement at Buy-Side E-Marketplaces

• THE BENEFITS AND LIMITATIONS OF E-PROCUREMENT
  o The Benefits of E-Procurement
  o The Limitations and Challenges of E-Procurement
Reverse Auctions at Buy-Side E-Marketplaces

- request for quote (RFQ)
  The “invitation” to participate in a tendering (bidding) system

- CONDUCTING REVERSE AUCTIONS
  - E-Tendering by Governments

- GROUP REVERSE AUCTIONS
EXHIBIT 4.9 The Reverse Auction Process

**Step I** Posting Bid Invitations

- **Buyers**
  - Internal Buyers
  - Contract and Purchasing Department
  - Bid Preparation
  - Send Bid Invitation

- **Suppliers (Bidders)**
  - Buyer A
    - E-mail
    - Bid
  - Posted on Enterprise Web
    - Bid
  - Restricted Invitations
    - E-mail or Web Posting
    - Bid

**Step II** Evaluation of Bids by Buyer

- **Bids**
  - Bid 1
  - Bid 2
  - Bid 3

- **Evaluators**
  - Contract & Purchasing Department
    - Rejection
      - Supplier 1
    - Evaluation
      - Rejection
      - Supplier 2
      - Acceptance
      - Supplier 3
Other E-Procurement Methods

• **internal procurement marketplace**
  The aggregated catalogs of all approved suppliers combined into a single internal electronic catalog
  - **Benefits of Internal Aggregated Catalogs**
  - **desktop purchasing**
    Direct purchasing from internal marketplaces without the approval of supervisors and without the intervention of a procurement department
Other E-Procurement Methods

- **group purchasing**
  The aggregation of orders from several buyers into volume purchases so that better prices can be negotiated
  - Internal Aggregation of Purchasing Orders
  - External Aggregation for Group Purchasing
EXHIBIT 4.10 The Group Purchasing Process

1. Small businesses sign up for the free service.

2. The SME specifies what it needs—office supplies, long-distance telephone service, etc.

3. The buyers name the price they are willing to pay.

4. The aggregator groups all requests by category and price.

5. For each item, the aggregator either negotiates with suppliers or uses an e-reverse auction, hoping to meet or beat the requested price.

6. In addition, the suppliers pay a negotiated commission to the aggregator.
Other E-Procurement Methods

• BUYING AT SELLERS’ SITES
  o Purchasing Direct Goods

• ACQUISITION VIA ELECTRONIC BARTERING
  o 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

• SELECTING AN APPROPRIATE E-PROCUREMENT SOLUTION
B2B Exchanges: Definitions and Concepts

- **Functions of Exchanges**
  1. Matching buyers and sellers
  2. Facilitating transactions
  3. Maintaining exchange policies and infrastructure

- **Services Provided by Exchanges**
EXHIBIT 4.11  The Community of an Exchange: Flow of and Access to Information

- Government
- Professional Association
- Universities Research Institutions
- Manufacturers
- Contractors
- Suppliers
- Subsuppliers
- An Exchange
- Market Maker and Administrator
- Dealers
- Customers
- Retailers
- Content Providers
- Banks, Financial Institutions
- Logistics Services
- IT Providers
- Other Exchanges
EXHIBIT 4.12 Services in Exchanges

The Exchange and Its Services

- Buyer–seller registration, qualification, coordination
- Catalog management (conversion, integration, maintenance)
- Communication/protocol translation (EDI, XML, CORBA)
- Sourcing—RFQ, bid coordination (product configuration, negotiation)
- Security, anonymity
- Software: groupware, workflow
- Integration with members’ back-office systems
- Auction management
- News, information, industry analysis
- Support services (financing, payment, insurance, logistics, tax, escrow, order tracking)
- Administration—profiles, statistics, etc.

Sellers

A
B
C
D

Buyers

X
Y
Z


B2B Exchanges: Definitions and Concepts

• OWNERSHIP OF B2B EXCHANGES
  o Third-Party Independent Marketplaces
  o consortium trading exchange (CTE)
    An exchange formed and operated by a group of major companies in an industry to provide industry-wide transaction services
B2B Exchanges: Definitions and Concepts

- **DYNAMIC PRICING IN B2B EXCHANGES**
  - *dynamic pricing*
    - A rapid movement of prices over time and possibly across customers, as a result of supply and demand matching

- **ADVANTAGES, LIMITATIONS, AND THE REVENUE MODEL OF EXCHANGES**
  - Revenue Models
## EXHIBIT 4.13  Potential Gains and Risks in B2B Exchanges

<table>
<thead>
<tr>
<th>Potential gains</th>
<th>For Buyers</th>
<th>For Sellers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• One-stop shopping, huge</td>
<td>• New sales channel</td>
</tr>
<tr>
<td></td>
<td>• Search and comparison shopping</td>
<td>• No physical store is needed</td>
</tr>
<tr>
<td></td>
<td>• Volume discounts</td>
<td>• Reduced ordering errors</td>
</tr>
<tr>
<td></td>
<td>• 24/7 ordering from any location</td>
<td>• Sell 24/7</td>
</tr>
<tr>
<td></td>
<td>• Make one order from several suppliers</td>
<td>• Community participation</td>
</tr>
<tr>
<td></td>
<td>• Huge, detailed information</td>
<td>• Reach new customers at little extra cost</td>
</tr>
<tr>
<td></td>
<td>• Access to new suppliers</td>
<td>• Promote the business via the exchange</td>
</tr>
<tr>
<td></td>
<td>• Status review and easy reordering</td>
<td>• An outlet for surplus inventory</td>
</tr>
<tr>
<td></td>
<td>• Community participation</td>
<td>• Can go global more easily</td>
</tr>
<tr>
<td></td>
<td>• Fast delivery</td>
<td>• Efficient inventory management</td>
</tr>
<tr>
<td></td>
<td>• Less maverick buying</td>
<td>• Better partner relationship management</td>
</tr>
<tr>
<td></td>
<td>• Better partner relationship management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unknown vendors; may not be reliable</td>
<td>• Loss of direct CRM and PRM</td>
</tr>
<tr>
<td></td>
<td>[ ] Loss of customer service quality (inability to compare all services)</td>
<td>• More price wars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Competition for value-added services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Must pay transaction fees (including on seller’s existing customers)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Possible loss of customers to competitors</td>
</tr>
</tbody>
</table>
B2B Portals and Directories

• **B2B portals**
  Information portals for businesses

• **vortals**
  B2B portals that focus on a single industry or industry segment; “vertical portals”
B2B Portals and Directories

- corporate (enterprise) portal
  A major gateway through which employees, business partners, and the public can enter a corporate website

  - Examples
  - Types of Corporate Portals
    - Portals for Suppliers and Other Partners
    - Customer Portals
    - Employee Portals
    - Executive and Supervisor Portals
  - mobile portals
    Portals accessible via mobile devices, especially cell phones and PDAs
B2B Portals and Directories

- The Functionalities of Portals
  - information portals
    Portals that store data and enable users to navigate and query these data
  - collaborative portals
    Portals that allow collaboration

- Corporate Portal Applications and Issues
- Directory Services and Search Engines
- Thomas Register and ThomasNet
- Alibaba.com
B2B In Web 2.0 and Social Networking

- E-COMMUNITIES IN B2B
- THE OPPORTUNITIES OF SOCIAL COMMERCE IN B2B
- THE USE OF WEB 2.0 TOOLS IN B2B
B2B In Web 2.0 and Social Networking

- Social Networking in B2B
- Examples of Other Activities of B2B Social Networks
  - Success Stories
- Strategy for B2B Social Networking
- The Future of B2B Social Networking
B2B Internet Marketing

• B2B marketing
  Marketing by manufacturers and wholesalers along the sell-side of the supply chain

• ORGANIZATIONAL BUYER BEHAVIOR
  o A Behavioral Model of Organizational Buyers

• THE MARKETING AND ADVERTISING PROCESSES IN B2B
EXHIBIT 4.15  A Model of Organizational Buyer Behavior

**Individual Influences**
- Age
- Gender
- Ethnicity
- Education
- Lifestyle
- Psychological makeup
- Knowledge
- Values
- Personality

**Interpersonal Influences**
- Authority
- Status
- Persuasiveness

**Organizational Influences**
- Policies and procedures
- Organizational structure
- Centralized/decentralized structure
- Systems used
- Contracts

**Market Stimuli**
- Price
- Brand
- Promotions
- Advertising
- Product quality
- Design

**Decision Process**
- (Group or Individual)

**EC Systems**

<table>
<thead>
<tr>
<th>Logistics Support</th>
<th>Technical Support</th>
<th>Customer Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payments Delivery</td>
<td>Web design</td>
<td>FAQs</td>
</tr>
<tr>
<td></td>
<td>Content and</td>
<td>E-mail</td>
</tr>
<tr>
<td></td>
<td>intelligent</td>
<td>Call centers</td>
</tr>
<tr>
<td></td>
<td>agents</td>
<td>One-to-one</td>
</tr>
<tr>
<td></td>
<td>Security</td>
<td></td>
</tr>
</tbody>
</table>

**Buyers’ Decisions**
- Buy or not?
- What to buy?
- Where (vendor)?
- When?
- How much to spend?
- Delivery terms?
- Payments?
B2B Internet Marketing

• METHODS FOR B2B ONLINE MARKETING
  o Targeting Customers

• AFFILIAITE PROGRAMS, MARKET RESEARCH, AND DATA MINING
  o Affiliate Programs
  o B2B Market Research
Managerial Issues

1. Which B2B model(s) should we use for e-procurement?
2. Which B2B model(s) should we use for online B2B sales?
3. Which exchange should we join?
4. Which solutions and vendor(s) should we select?
5. What is the organizational impact of B2B?
6. What are some ethical issues in B2B?
7. How shall we manage the suppliers?
8. Which type of social network should we use—private (proprietary) or public?
9. Can we use B2C marketing methods and research in B2B?
Summary

1. The B2B field
2. The major B2B models
3. The characteristics and models of sell-side marketplaces
4. Sell-side intermediaries
5. The characteristics of buy-side marketplaces and e-procurement
7. B2B aggregation and group purchasing
Summary

8. Other procurement methods
9. Exchanges defined and the major types of exchanges
11. Third-party exchanges
13. B2B Internet marketing methods and organizational buyers