Chapter 6

Public B2B Exchanges and Support Services

Learning Objectives

1. Define exchanges and describe their major types.
2. Describe the various ownership and revenue models of exchanges.
3. Describe B2B portals.
4. Describe third-party exchanges.
5. Distinguish between purchasing (procurement) and selling consortia.

Learning Objectives

6. Define dynamic trading and describe B2B auctions.
7. Discuss integration issues of e-marketplaces and exchanges.
8. Describe the major support services of B2B.
9. Discuss B2B networks.
10. Discuss issues in managing exchanges.
11. Describe the critical success factors of exchanges.

B2B Electronic Exchanges: An Overview

public e-marketplaces (public exchanges)

Trading venues open to all interested parties (sellers and buyers); usually run by third parties

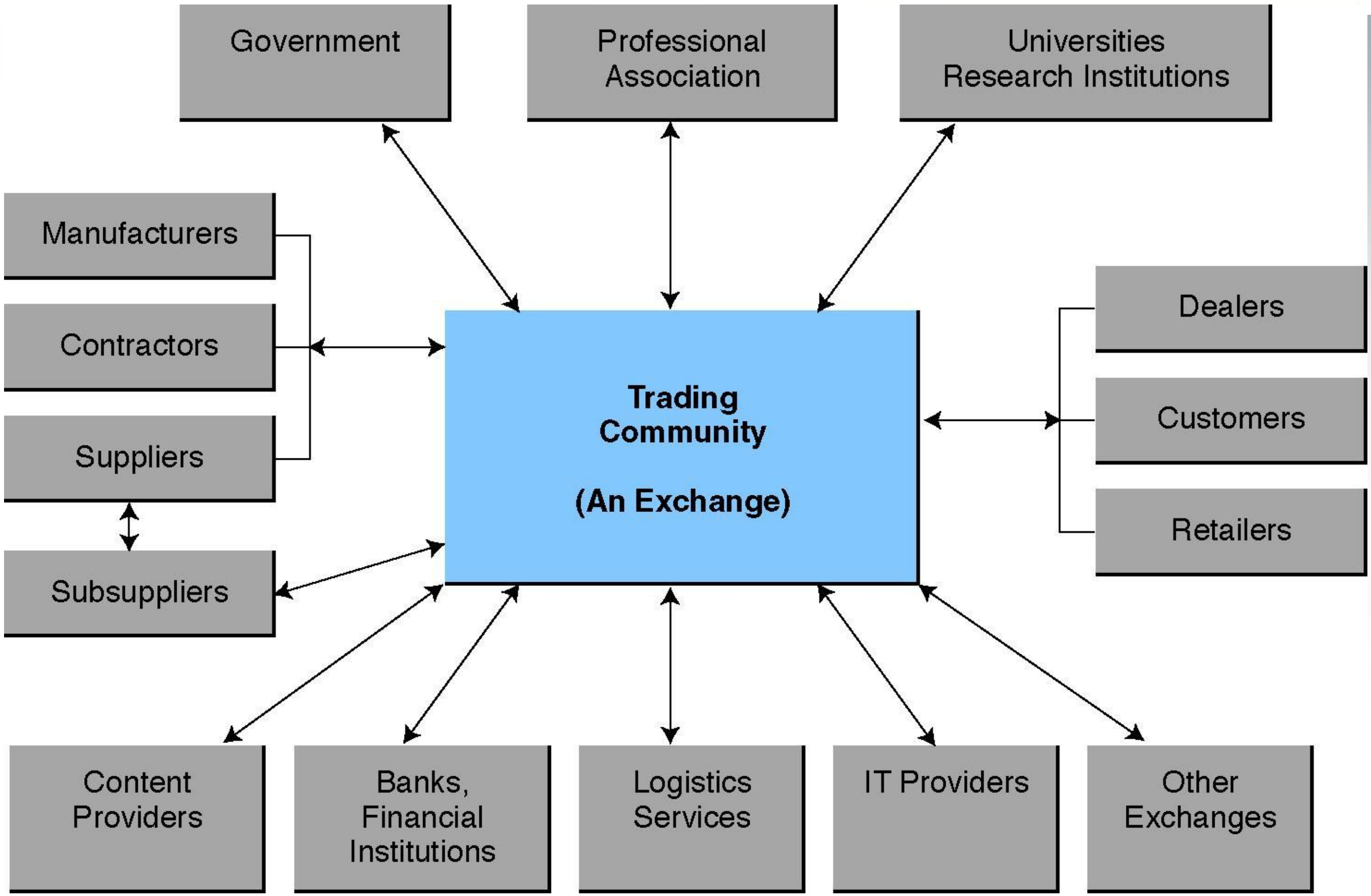
exchange

A many-to-many e-marketplace. Also known as *e-marketplaces, e-markets,* or *trading exchanges*

market maker

The third-party that operates an exchange (and in many cases, also owns the exchange)

Exhibit 6.1 Trading Communities



B2B Electronic Exchanges: An Overview

- Classification Of Exchanges

  vertical exchange

  An exchange whose members are in one industry or industry segment

  horizontal exchange

  An exchange that handles materials used by companies in different industries

- Dynamic Pricing

  dynamic pricing

  A rapid movement of prices over time, and possibly across customers, as a result of supply and demand

Exhibit 6.2 Classification of B2B Exchanges

	Direct	Indirect (MRO)
Systematic Sourcing	(1) Vertical Distributors *plastics.com* *epapertrade.com* Methods: Aggregation, fixed/negotiated prices	(2) Horizontal E-Distributors *mro.com* *grainger.com* *findmro.com* Methods: Aggregation, fixed/negotiated prices
Spot Sourcing	(3) Vertical Exchanges *isteelasia.com* *chemconnect.com* Methods: Matching, dynamic pricing	(4) Horizontal Exchanges *employease.com* *aribasn* Methods: Matching, dynamic pricing

B2B Electronic Exchanges: An Overview

- Functions of Exchanges
  1. Matching buyers and sellers
  2. Facilitating transactions
  3. Maintaining exchange policies and infrastructure
- Ownership of Exchanges
  - An industry giant
  - A neutral entrepreneur
  - The consortium (or co-op)

B2B Electronic Exchanges: An Overview

- Revenue Models
  - Transaction fees
  - Fee for service
  - Membership fees
  - Advertising fees
  - Other revenue sources

B2B Electronic Exchanges: An Overview

- Governance and Organization
  - Membership
  - Site Access and Security
  - Services Provided by Exchanges

B2B Portals

B2B portals

Information portals for businesses

vortals

B2B portals that focus on a single industry or industry segment; “vertical portals”

Third-Party (Trading) Exchanges

- Third-party exchanges are characterized by two contradicting properties:
  - They are *neutral*, because they do not favor either sellers or buyers and
  - They do not have a built-in constituency of sellers or buyers, they sometimes have a problem attracting enough buyers and sellers to attain financial viability

Third-Party (Trading) Exchanges

market liquidity

The degree to which something can be bought or sold in a marketplace without affecting its price. It is measured by the number of buyers and sellers in the market and the transaction volume

Exhibit 6.6 Supplier Aggregation Model

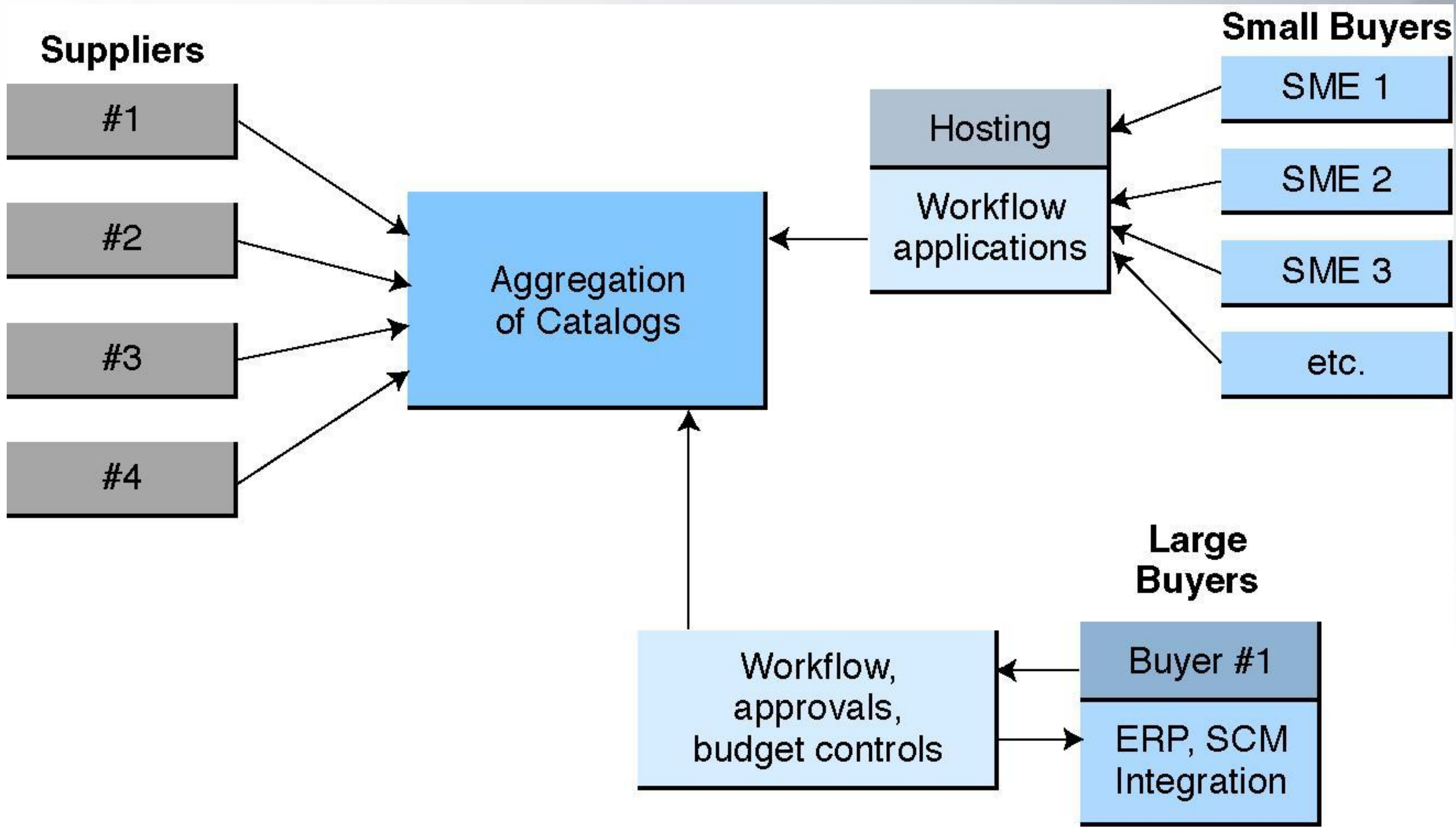
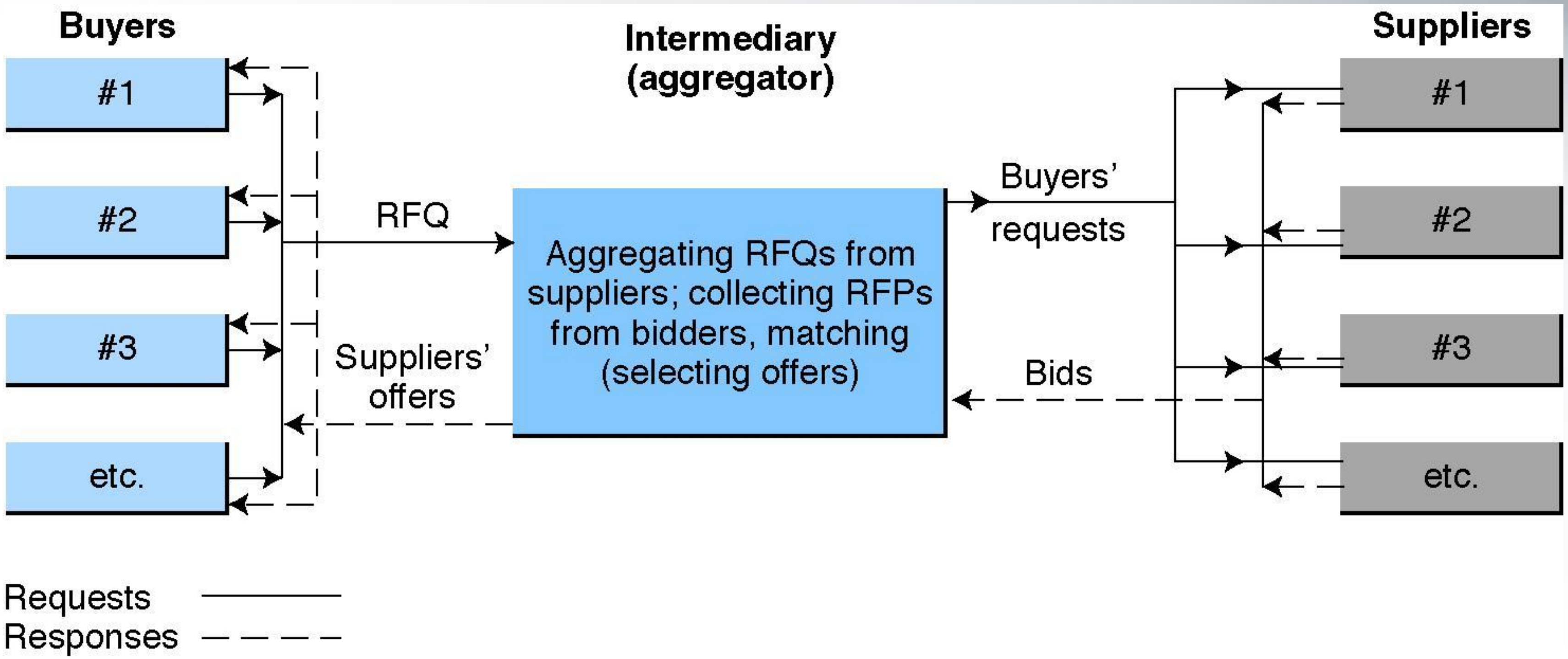


Exhibit 6.7 Buyer Aggregation Model



Third-Party (Trading) Exchanges

- Suitability of Third-Party Exchanges

  As in other types of e-marketplaces, the most important key to the success of any third-party exchange is the critical mass of buyers and sellers

Consortium Trading Exchanges

consortium trading exchange (CTE)

An exchange formed and operated by a group of major companies to provide industry-wide transaction services

- Markets operate in three basic types of environments that indicates the third-party exchange that is most appropriate
  - Fragmented markets
  - Seller-concentrated markets
  - Buyer-concentrated markets

Consortium Trading Exchanges

- CTEs are classified by:
  - Focus on buying or selling
  - Are vertical or horizontal
- The four types of consortia are:
  1. Purchasing oriented, vertical
  2. Purchasing oriented, horizontal
  3. Selling oriented, vertical
  4. Selling oriented, horizontal

Consortium Trading Exchanges

- Purchasing-Oriented Consortia
  - *Vertical Purchasing-Oriented CTEs:* the players are in the same industry
  - *Horizontal Purchasing-Oriented CTEs:* the owner-operators are large companies from different industries that unite for the purpose of improving the supply chain of MROs used by most industries

Consortium Trading Exchanges

- Critical Success Factors for Consortia
  - Appropriate business and revenue models
  - Size of the industry
  - Ability to drive user adoption

elasticity

The measure of the incremental spending by buyers as a result of the savings generated

Consortium Trading Exchanges

- Critical Success Factors for Consortia
  - Standardization of commodity-like products
  - Management of intensive information flow
  - Smoothing of supply chain inefficiencies
  - Harmonized shared objectives

Consortium Trading Exchanges

- Combining Consortia and Third-Party Exchanges
  - Merging large consortia with a third-party owner (usually a dot-com) into *dot-consortia*
  - This combination may bring about the advantages of ownership and minimize third-party limitations, such as low liquidity

Dynamic Trading: Matching and Auctions

dynamic trading

Exchange trading that occurs in situations when prices are being determined by supply and demand (e.g., in auctions)

- Matching—Buyers place their bids and sellers list their asking prices, the market makers conduct the matching
- Auctions—Exchanges offer members the ability to conduct auctions or reverse auctions in *private trading rooms*

Building and Integrating E-Marketplaces and Exchanges

- Building E-Marketplaces

  Building e-marketplaces and exchanges is a complex process. It is usually performed by a major B2B software company

Building and Integrating E-Marketplaces and Exchanges

- The Integration Issue
  - Seamless integration is needed between the third-party exchange and the participants’ front- and back-office systems is necessary
  - In private exchanges, one needs to integrate:
    - Sell-side: seller’s computing system with that of the customers
    - Buy-side: buyer’s system with that of the suppliers

Building and Integrating E-Marketplaces and Exchanges

- Four most common elements of B2B integration solutions
  - External communications
    - Web/client access
    - Data exchange
    - Direct application integration
    - Shared procedures

Support Services for E-Marketplaces and PRM

- Directory Services and Search Engines

  Directory services can help buyers and sellers manage the task of finding potential partners

Support Services for E-Marketplaces and PRM

- Partner and Supplier Relationship Management

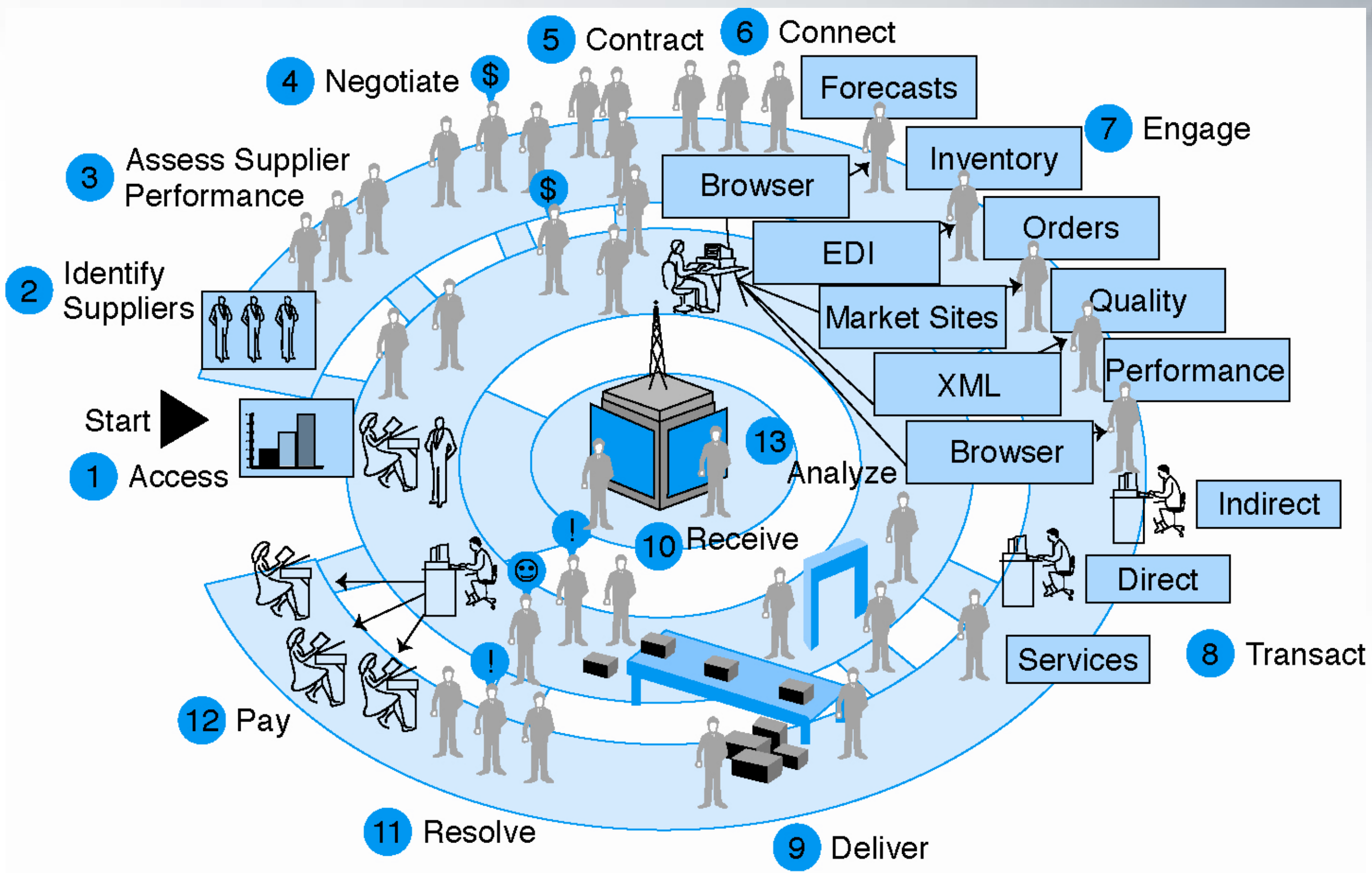
partner relationship management (PRM)

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

Exhibit 6.11 SRM from Peoplesoft



Support Services for E-Marketplaces and PRM

- E-Communities and PRM
  - B2B applications involve many participants:
    - Buyers and sellers
    - Service providers
    - Industry associations
    - Others
  - E-communities connect:
    - Personnel
    - Partners
    - Customers
    - Combination of the three

B2B Networks

- Company-Centered (Private) Networks
  - Provide the infrastructure for e-marketplaces, enabling efficient and effective buying and selling along the extended supply chain
  - Allow suppliers to communicate effectively and efficiently with subsuppliers along several tiers

B2B Networks

- Company-Centered (Private) Networks
  - Increase the visibility of buyers, sellers and other partners along the supply chain and around the globe
  - Operate on a large scale, from one company with its thousands of suppliers, to tens of thousands of firms globally

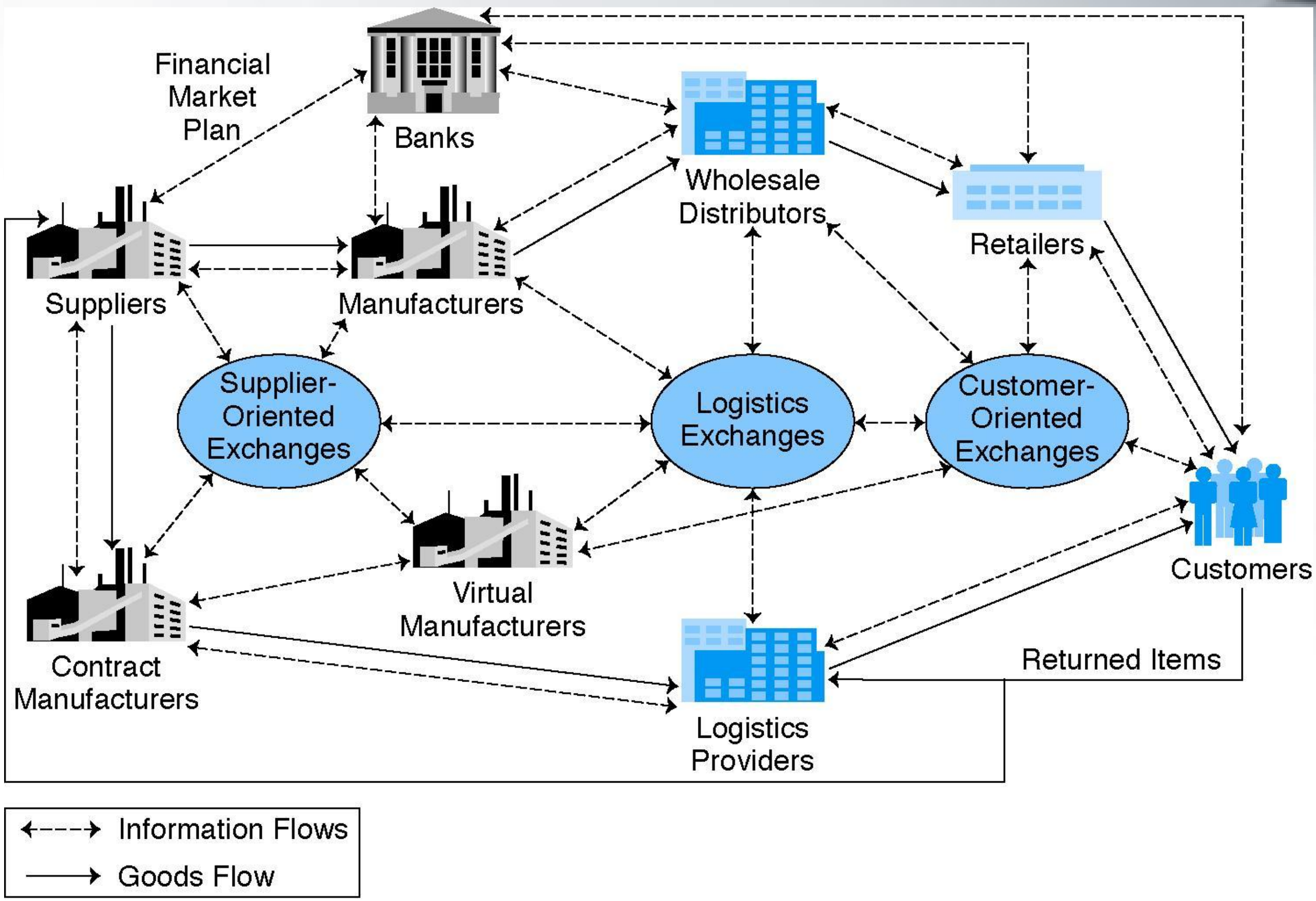
B2B Networks

- Company-Centered (Private) Networks
  - Foster collaboration and closer relationships among business partners
  - Enable industry-wide resource planning
  - Provide support services for the benefit of trading partners
  - Provide insurance, financial derivatives, and so on to reduce risks in certain markets

B2B Networks

- Industry-wide (Vertical) Networks
  - Private industry networks are open to many sellers and buyers in the industry
  - They support exchanges, especially CTEs
- Trans-industry and Global Networks
  - Networks of exchanges (E2E)—Large corporations may work with several exchanges, and they would like these exchanges to be connected in a seamless fashion
  - Global networks—Global networks serve multiple industries and countries

Exhibit 6. 12 How Several Exchanges Work in One Supply Chain



B2B Implementation Issues

private marketplaces

E-marketplaces that are owned and operated by one company. Also known as *company-centric marketplaces*

B2B Implementation Issues

- Problems with Public Exchanges
  - Attracting sellers to public exchanges is difficult for these reasons:
    - Transaction fees
    - Sharing information
    - Cost savings
    - Recruiting suppliers
    - Too many exchanges

B2B Implementation Issues

- Supply Chain Improvers
  - Public exchanges prepare the entire necessary infrastructure and ask suppliers to just “plug in” and start selling
  - Focusing on supply chain savings rather than on buy/sell savings can be very beneficial to exchanges

B2B Implementation Issues

- Problems with Private Exchanges
  - Private exchanges are usually run by one large company; trust becomes an issue
  - Such distrust can lead to liquidity issues

B2B Implementation Issues

- Software Agents in B2B Exchanges
  - Capabilities provided by software agents:
    - Real-time, tighter integration between buyers and sellers
    - Facilitation of management of multiple trading partners and their transactions across multiple virtual industry exchanges

B2B Implementation Issues

- Disintermediation and Reintermediation
  - Exchanges could replace traditional B2B intermediaries (i.e., cause disintermediation)
  - The Web offers new opportunities for reintermediation
    - Brokers are valuable when the number of market participants is enormous or when complex information products are exchanged
    - Many brokering services require information processing.
    - For delicate negotiations, a computer mediator may be more predictable and trustworthy

Managing Exchanges

- Centralized Management
  - Managing exchanges and providing services to participants on an individual basis is expensive
  - So, “families” of jointly-managed exchanges are more cost-effective
  - One market maker can build and operate several exchanges from a unified, centralized location

Managing Exchanges

- Critical Success Factors for Exchanges
  - Early liquidity
  - The right owners
  - The right governance
  - Openness
  - A full range of services

Managing Exchanges

- New Directions for B2B Marketplaces
  - The most fundamental asset provided by their member base—its unique knowledge of the industry
  - Enables consortia to become arenas for *sharing this knowledge,* and standardize products and processes
    - To spread risk
    - To uncover new opportunities
    - To do joint forecasting and demand planning
    - To participate in the order—ship—settle process electronically

Managing Exchanges

- New Directions for B2B Marketplaces
  - A company could choose a different model for each kind of transaction
    - Companies purchasing a commodity might value the liquidity, the transparency, and the price orientation of an online exchange
    - Companies making highly-specialized purchases might value the customization offered by the traditional bilateral relationship between buyers and sellers

Managing Exchanges

- E-distributors take title to the goods they sell, aggregate those goods for the convenience of buyers, and advise buyers as to which products to purchase
- Reach hard-to-find buyers for sellers
- Lead to *extra value* for buyers and decent profits for sellers

Managerial Issues

1. Have we done our homework?
2. Can we use the Internet?
3. Which exchange to join?
4. Will joining an exchange force restructuring?
5. Will we face channel conflicts?
6. What are the benefits and risks of joining an exchange?
7. Can we trust new trading partners?

Summary

1. E-marketplaces and exchanges defined and the major types of exchanges.
2. Ownership and revenue models.
3. B2B portals.
4. Third-party exchanges.
5. Consortia and e-procurement.
6. Dynamic pricing and trading.

Summary

7. Integrating marketplaces and exchanges.
8. Major B2B support services.
9. B2B networks.
10. Exchange networks and management of exchanges.
11. Critical success factors for exchanges.