

THE DIGITAL FIRM: ELECTRONIC COMMERCE AND ELECTRONIC BUSINESS

OBJECTIVES

- **How has Internet technology changed value propositions and business models?**
- **What is electronic commerce? How has electronic commerce changed consumer retailing and business-to-business transactions?**
- **What are the principal payment systems for electronic commerce?**

OBJECTIVES

- **How can Internet technology support electronic business and supply chain management?**
- **What are the major managerial and organizational challenges posed by electronic commerce and electronic business?**

MANAGEMENT CHALLENGES

- **Emerging digital firm**
- **Electronic commerce**
- **Electronic business**
- **Challenges and opportunities**

MANAGEMENT CHALLENGES

- 1. Electronic commerce and electronic business require new mind set**
- 2. Finding a successful Internet business model**

Internet Technology and The Digital Firm

- **Information technology infrastructure:** Provides a universal and easy-to-use set of technologies and technology standards that can be adopted by all organizations
- **Direct communication between trading partners:** Disintermediation removes intermediate layers, streamlines process

Internet Technology and the Digital Firm

- **Round-the-clock service:** Web sites available to consumers 24 hours a day
- **Extended distribution channels:** Outlets created for attracting customers who otherwise would not patronize
- **Reduced transaction costs:** Costs of searching for buyers, sellers, etc. reduced

New Business Models and Value Propositions

Business Model:

- Defines an enterprise
- Describes how the enterprise delivers a product or service
- Shows how the enterprise creates wealth

The Changing Economies of Information

- **Information asymmetry:** One party in a transaction has more information than the other
- **Increases richness:** Depth and detail of information
- **Increases reach:** Number of people contacted

The Changing Economics of Information

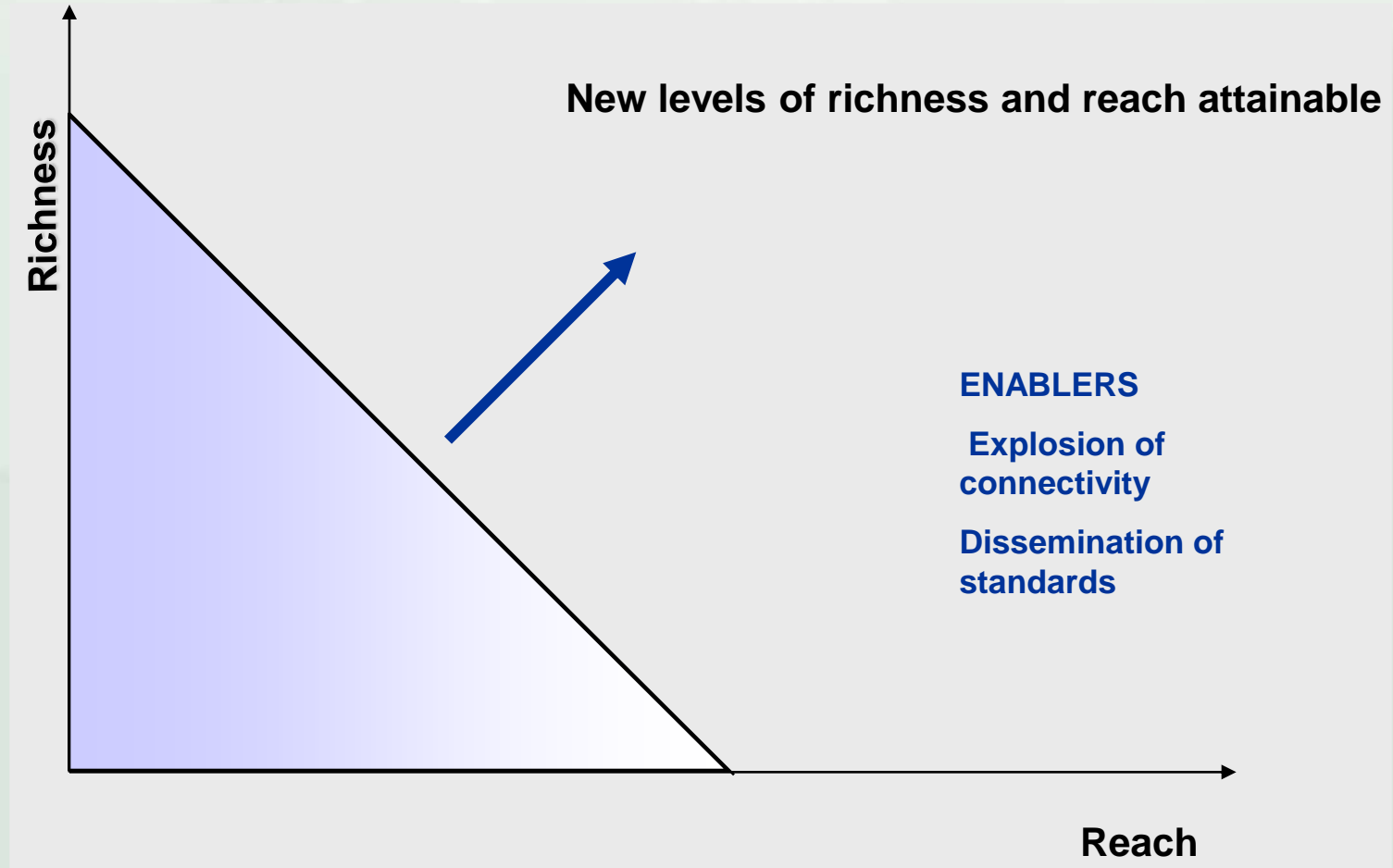


Figure 4-1

Internet Business Models

- **Virtual storefront:** Sells goods, services on-line
- **Information broker:** Provide info on products, pricing, etc.
- **Transaction broker:** Buyers view rates, terms from various sources

Internet Business Models

- **Online Marketplace:** Concentrates information from several providers
- **Content provider:** Creates revenue through providing client for a fee, and advertising

Internet Business Models

- **On-line service provider:** Provides service, support for hardware, software products
- **Virtual community:** Chat room, on-line meeting place

Internet Business Models

- **Portal:** Initial point of entry to Web, specialized content, services
- **Syndicator:** Aggregate information from several sources sold to other companies
- **Auction:** Electronic clearinghouse products, prices, change in response to demand

Internet Business Models

- **Dynamic pricing:** real-time interactions between buyers and sellers determine worth of items
- **Banner ad:** Graphic display used for advertising, linked to the advertiser's Web site

ELECTRONIC COMMERCE

Categories of Electronic Commerce

- **Business-to-customer (B2C):** Retailing of products and services directly to individual customers
- **Business-to-business (B2B):** Sales of goods and services among businesses
- **Consumer-to-consumer (C2C):** Individuals use Web for private sales or exchange

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Business-To-Consumer

- **Customer-centered retailing:** Closer, yet more cost-effective relationship with customers
- **Web sites:** Provide information on products, services, prices, orders

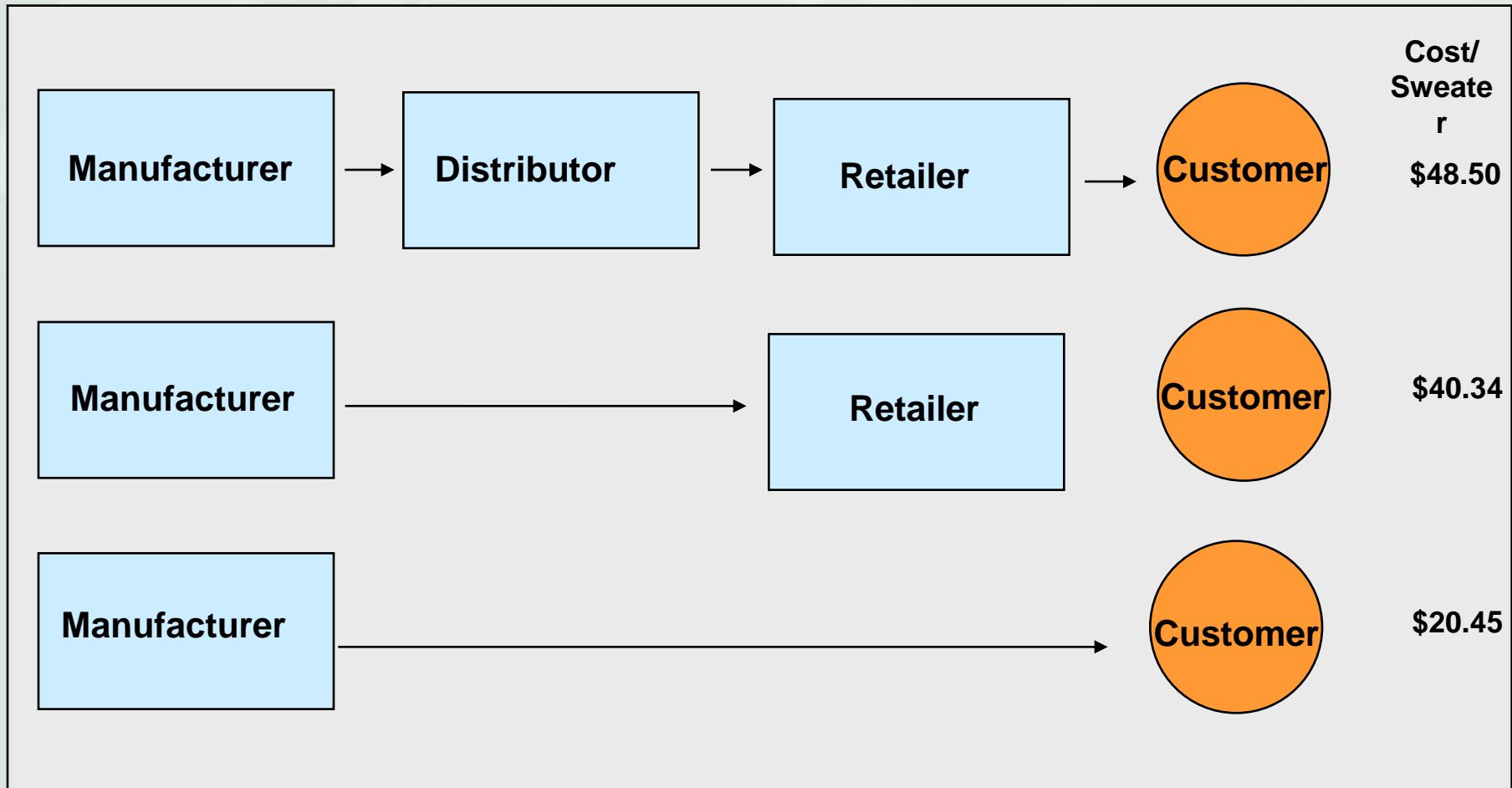
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Business-To-Consumer

- **Disintermediation:** The removal of organizations or business process layers responsible for certain intermediary steps in a value chain
- **Reintermediation:** The shifting of the intermediary role in a value chain to a new source

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Benefits of Disintermediation to the Consumer



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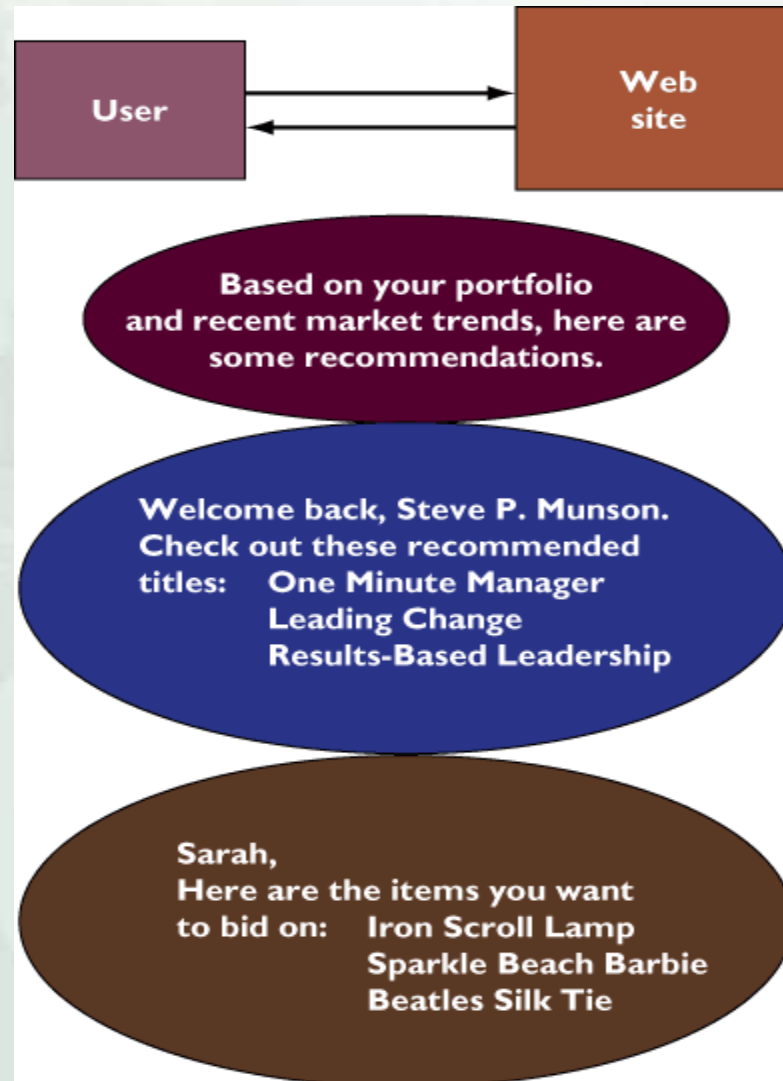
Interactive Marketing and Personalization

Web personalization:

- **Benefits of using individual sales people**
- **Dramatically lower costs**

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Web Site Personalization



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M-Commerce and Next Generation Marketing

Mobile commerce (m-commerce):

- **Wireless devices used to conduct both business-to-consumer and business-to-business e-commerce transactions over the Internet**
- **Extend personalization by delivering new value-added services directly to customers at any time and place**

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Customer Personalization

Target	Platform	When	Content and Service
Traveler	Computer-equipped car 	Whenever car is moving	Provide maps, driving directions, weather reports, ads for nearby restaurants and hotels.
Parent	Cell phone 	During school days	Notify about school-related closings: Hello, Caroline. Your children's school is closing early. Press 1 for closure reason Press 2 for weather reports Press 3 for traffic reports
Stock Broker	Pager 	During trading days. Notify if unusually high trading volume.	Summary portfolio analysis showing changes in positions for each holding.

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Business-To-Business Electronic Commerce

Automation of purchase, sale transactions from business to business

- **Private industrial networks:** Coordination between companies for efficient supply chain management and collaborative activities
- **Electronic hubs:** On-line marketplaces, point-to-point connections, integrated information

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A Private Industrial Network

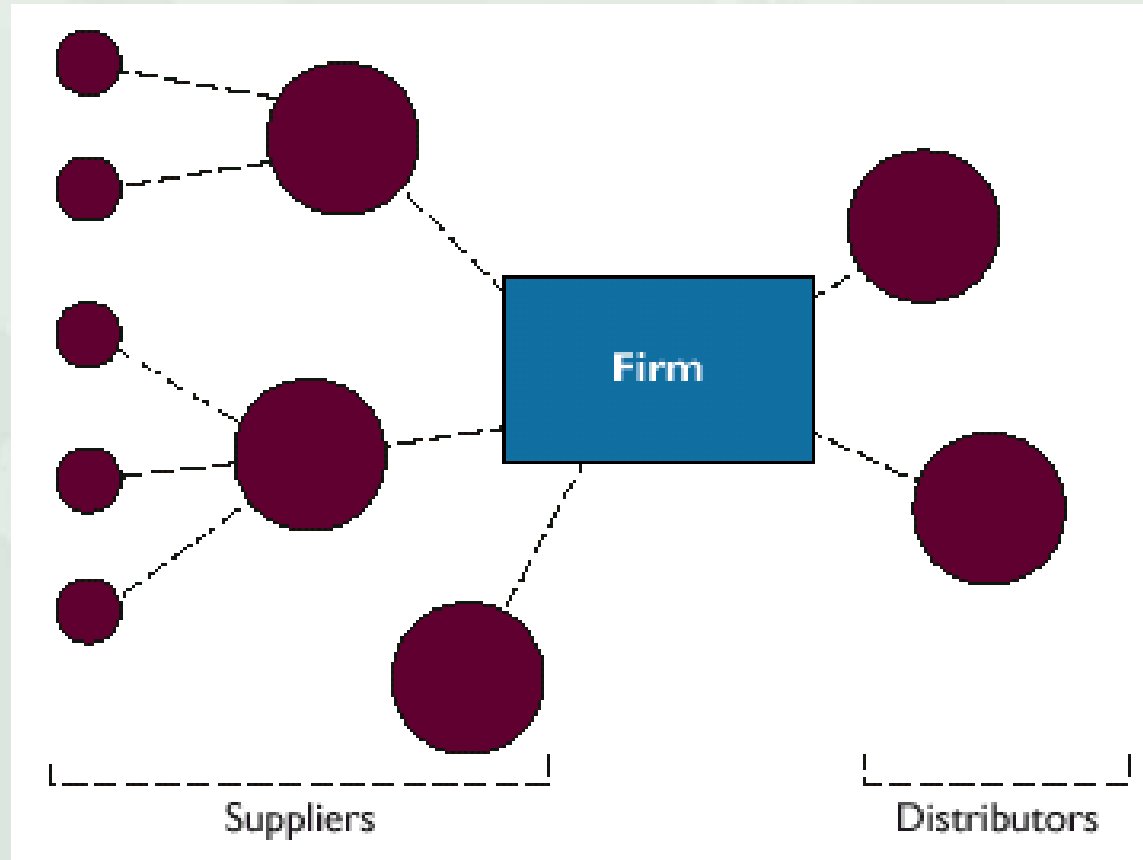


Figure 4-5

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A Net Marketplace

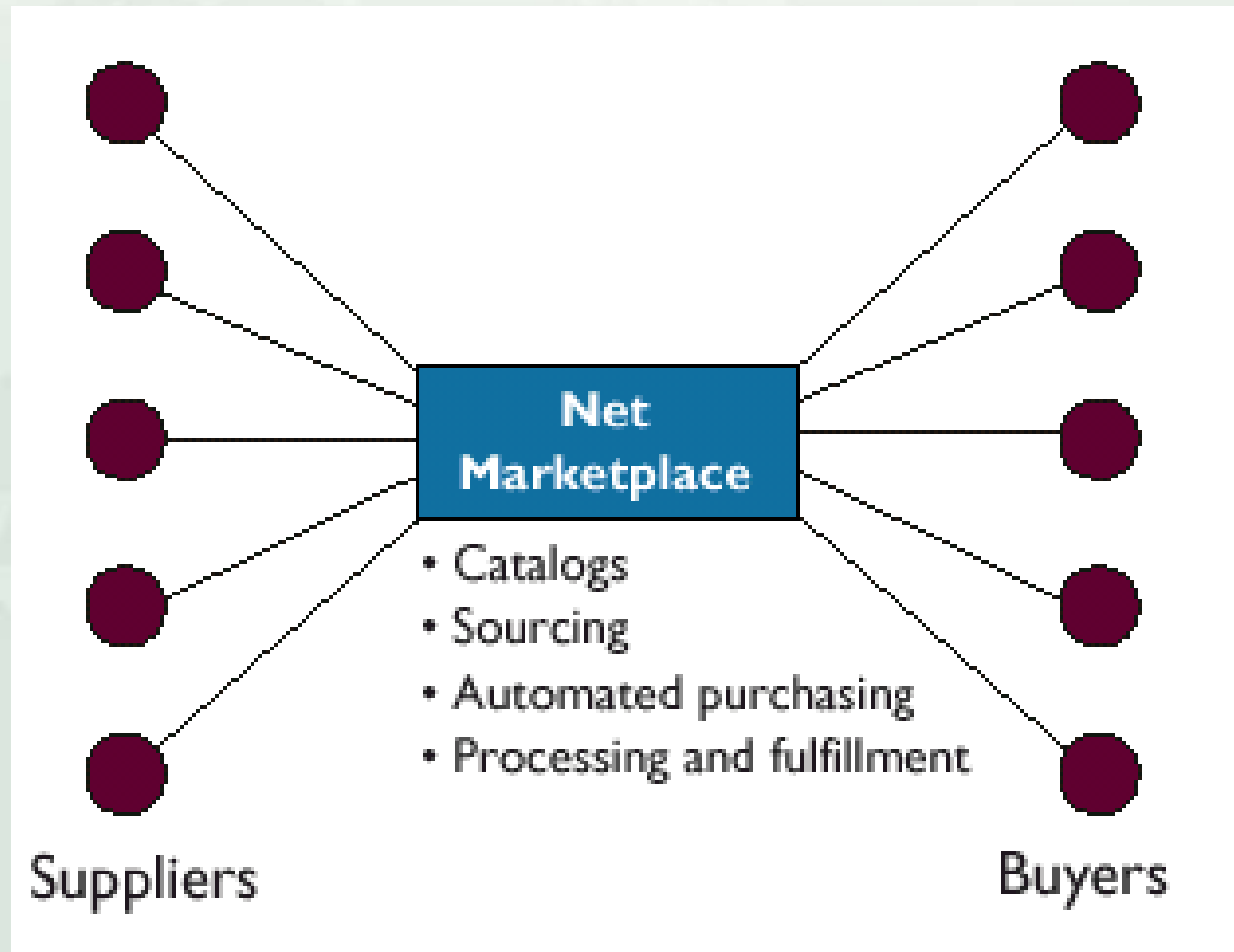


Figure 4-6

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Exchanges: Third-party net marketplace

- **Primarily transaction oriented**
 - **Connects buyers and suppliers for spot purchasing**
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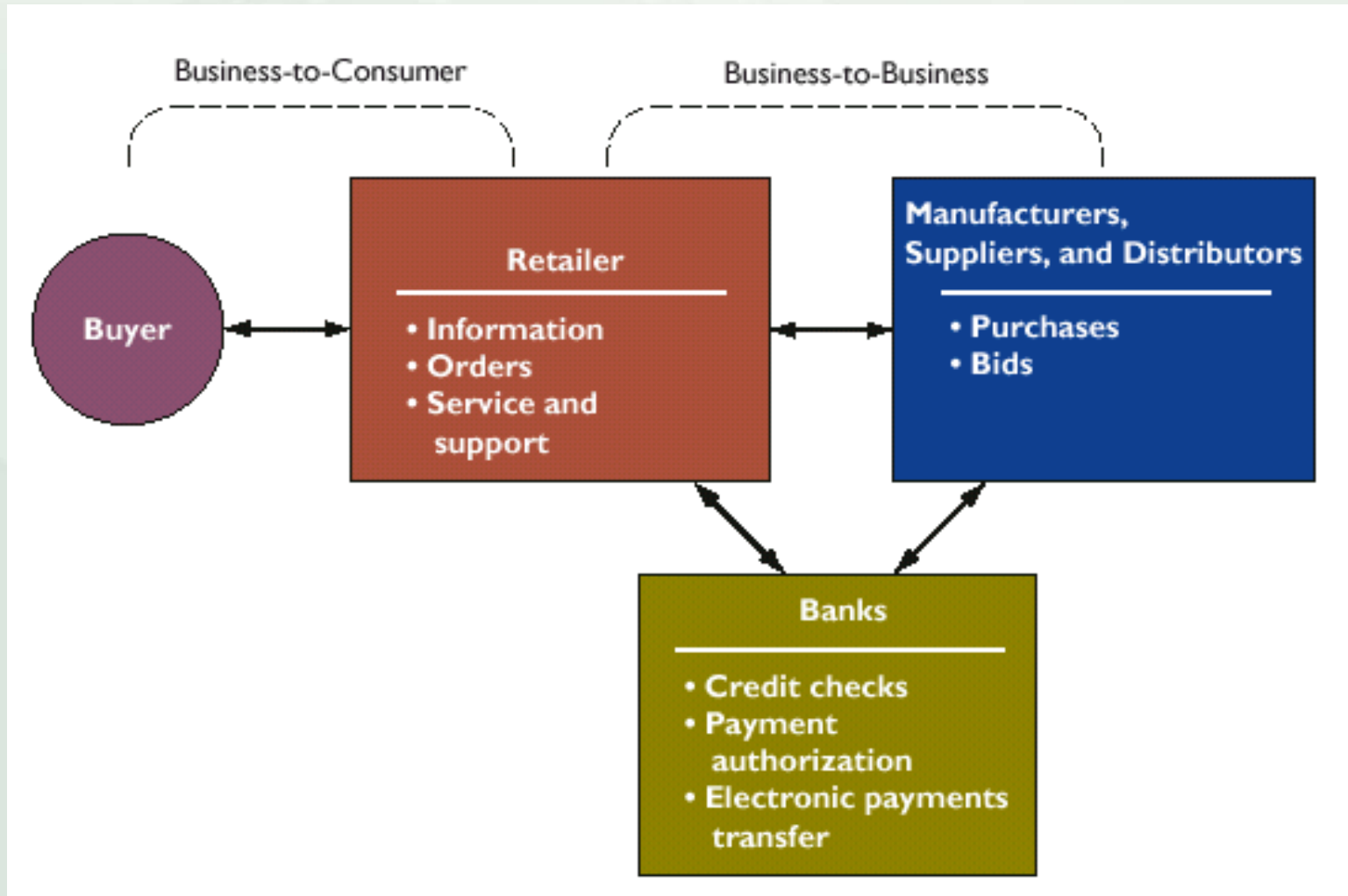
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Electronic Commerce Payment Systems

SYSTEM	DESCRIPTION
CREDIT CARDS	SECURE SITE PRESERVES INFORMATION
ELECTRONIC CASH	DIGITAL CURRENCY USED FOR MICROPAYMENTS
PERSON-TO-PERSON	SEND MONEY TO SITES UNABLE TO USE CREDIT CARDS
DIGITAL WALLET	SOFTWARE STORES CREDIT CARD INFORMATION
ELECTRONIC CHECK	CHECK WITH ENCRYPTED DIGITAL SIGNATURE
SMART CARD	MICROCHIP STORES ELECTRONIC CASH
ELECTRONIC BILL PAYMENT	ELECTRONIC FUNDS TRANSFER

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Electronic Commerce Information Flows



ELECTRONIC BUSINESS AND THE DIGITAL FIRM

How Intranets Support Electronic Business

- **Benefits**
- **Functional applications**
- **Supply chain management**

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Benefits of Intranets

- **Connectivity: accessible from most computing platforms**
- **Can be tied to internal corporate systems and core transaction databases**
- **Can create interactive applications**
- **Scalable to larger or smaller computing platforms**

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Benefits of Intranets

- **Easy-to-use, universal Web interface**
 - **Low start-up costs**
 - **Richer, more responsive information environment**
 - **Reduced information distribution costs**
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Functional Applications of Intranet

- **Finance and accounting**
- **Human resources**
- **Sales and marketing**
- **Manufacturing and production**

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Functional Applications of Intranets

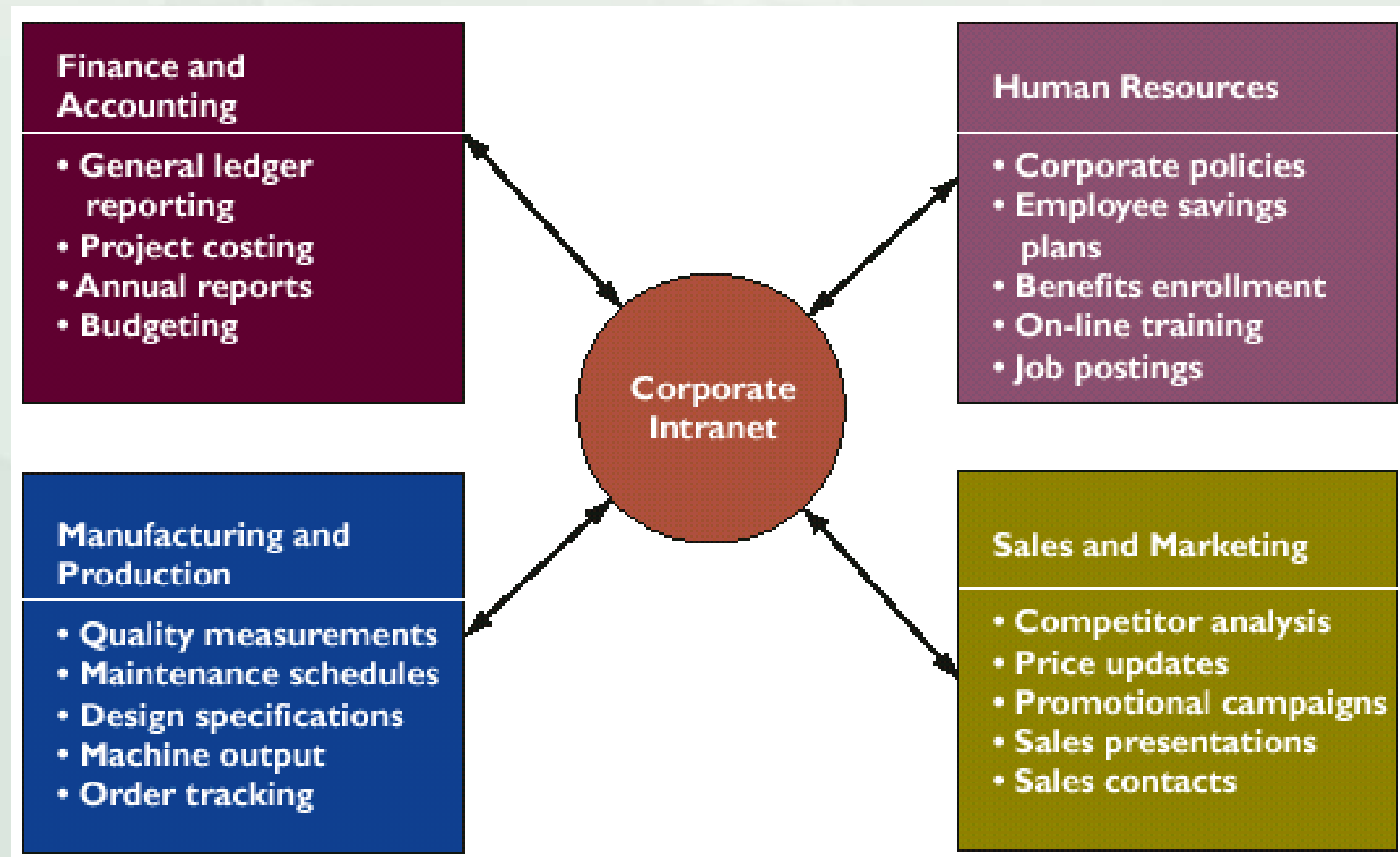


Figure 4-8

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Finance and Accounting

- **General ledger reporting**
- **Project costing**
- **Annual reports**
- **Budgeting**

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Human Resources

Company

- On-line publishing of corporate policy
- Job postings and internal job transfers
- Company telephone directories, and training

Employees

- Healthcare
- Employee savings
- Competency tests

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Sales and Marketing

- **Competitor analysis**
- **Price updates**
- **Promotional campaigns**
- **Sales presentations**
- **Sales contracts**

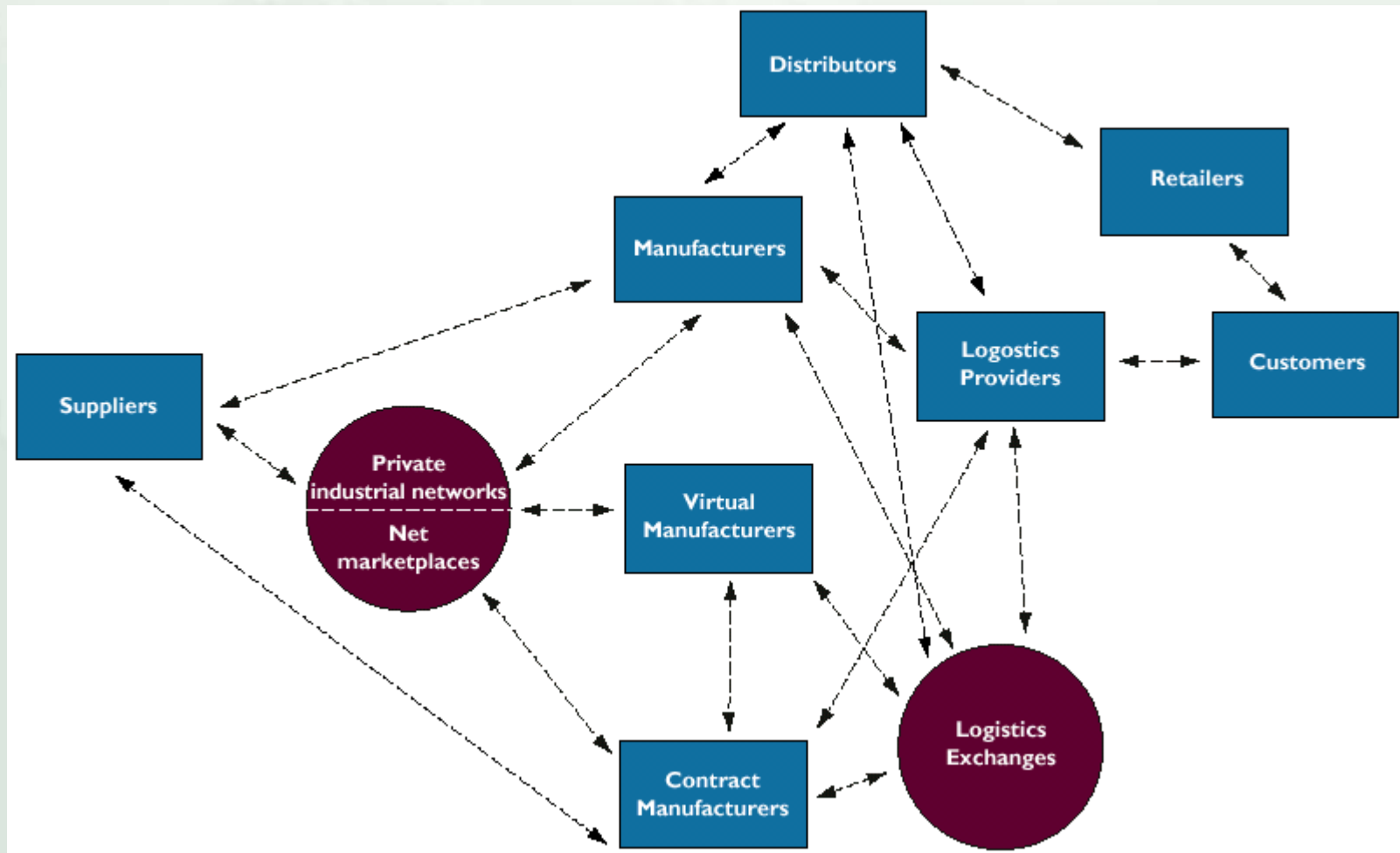
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Manufacturing and Production

- **Quality measurements**
- **Maintenance schedules**
- **Design specifications**
- **Machine outputs**
- **Order tracking**

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The Future Internet-Driven Supply Chain



MANAGEMENT CHALLENGES & OPPORTUNITIES

- **Unproven business models**
- **Business process change requirements**
- **Channel conflicts**
- **Legal issues**
- **Security and privacy**

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