

ebusiness

A Canadian
Perspective for a
Networked World

Fourth Edition
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PART 3

Ebusiness Applications

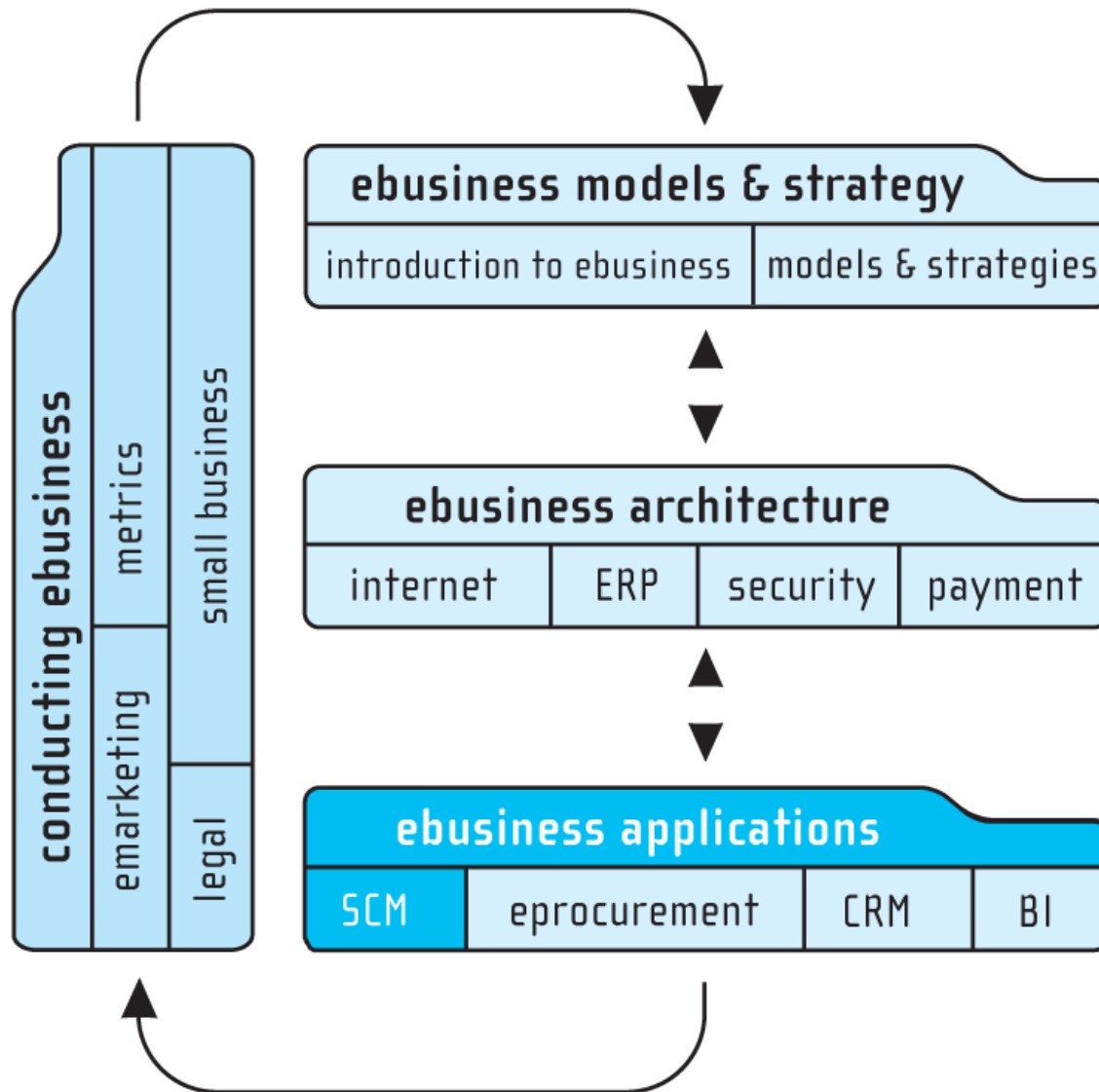
PART 3

Chapter 7: Supply-Chain Management

**Chapter 8: Eprocurement, Trading Exchanges,
and Auctions**

Chapter 9: Customer Relationship Management

Chapter 10: Business Intelligence



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Learning Objectives

1. Describe the process and components of supply-chain management (SCM)
2. Identify and describe the forces affecting SCM
3. Explain how ebusinesses can use technology in SCM
4. Contrast the traditional supply chain with the internet-enabled supply chain
5. Outline how business process engineering can be carried out and why it is necessary as part of implementing SCM
6. Describe partnership strategies and implementation concerns for SCM
7. Describe order fulfillment/delivery/reverse logistics issues related to SCM

Introduction

- Supply chains were originally driven by the need for companies to reduce costs and prices while improving customer service and product quality
- Supply chain is the set of processes that encompasses everything from purchases of raw materials or resources through to final delivery of a product or service to the end consumer. DELL' s SCM is an excellent example.
- SCM is the process of coordinating and optimizing the flow of all products or services , information and finances among all players of the supply chain

The Traditional Supply Chain

- The traditional supply chain is a **push system** where suppliers produce goods based upon their efficiencies and push them to customers, rather than relying on demand to determine production.
- Early attempts to improve the efficiency of supply chain involved the use of EDI to transmit business documents between supply-chain firms.
- Common attempts at SCM have focused on reducing inventories and achieving greater levels of efficiency within the value chain.

The Traditional Supply Chain

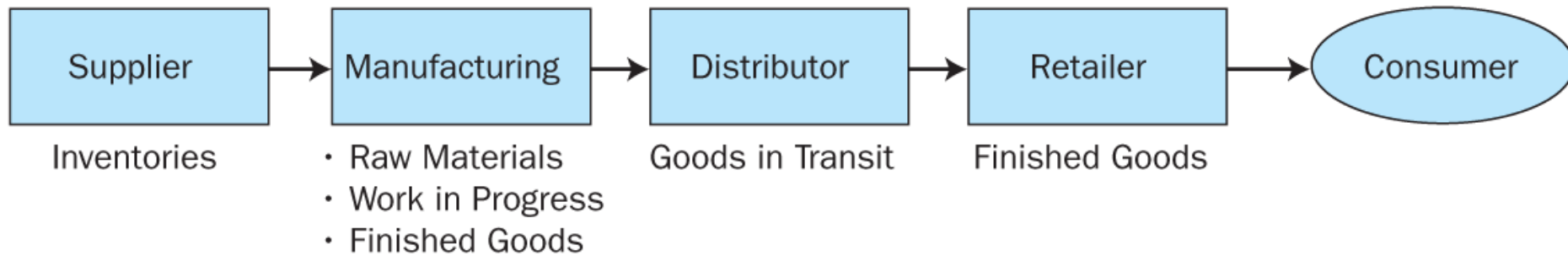


Figure 7.2 The traditional supply chain

The traditional supply chain was focused on efficiency of production gained through batch manufacturing that often resulted in excess inventories throughout the supply chain.

Dell's Supply Chain Configuration

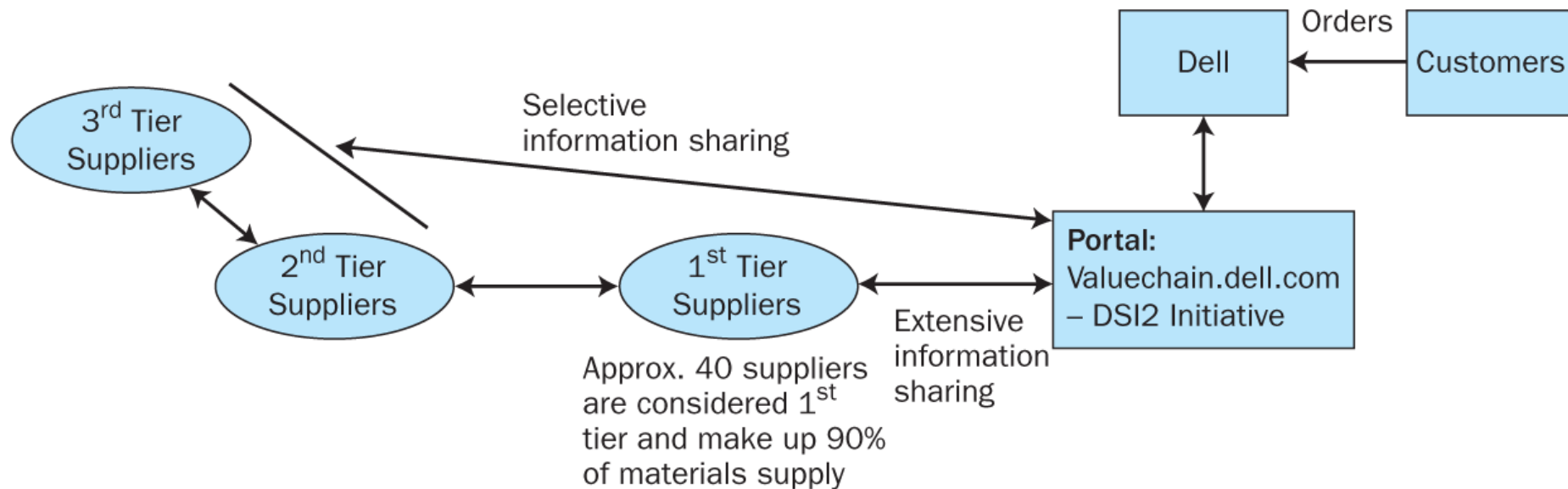


Figure 7.1 Dell's supply-chain configuration

Dell's supply chain involves information sharing by its members.

Forces affecting SCM

- Globalization
- Mass Customization
- Price Sensitivity
- Customer focus and time to market
- Just-in-time inventory and inventory reduction
- Enterprise resource planning
- Outsourcing

Forces affecting SCM

■ Globalization

- ❑ As companies expand their global presence, there are complex challenges to the efficiency of the supply chain.
- ❑ Reliable transportation and delivery system in foreign countries are complicated by domestic policies, tariffs and customs regulations.
- ❑ Slow delivery may lead to disgruntled customers, lost sales and negative publicity.

Forces affecting SCM

■ Mass Customization

- Ebusiness has shifted power from companies to consumers who ask for products/services tailored to their specific needs.
- The Internet and computer technology has enabled businesses to meet customer needs by simplifying the process of customization, data capture and information sharing with partners in the supply chain.

Forces affecting SCM

■ Price Sensitivity

- The Internet provides individuals with the ability to easily compare prices and gather product information. Hence customers are more sensitive to price.
- Companies need to have a good grasp of their customer preferences, competition and supply chains.

Forces affecting SCM

- Customer focus and time to market
 - Companies need to have the ability to create and deliver innovative and high quality new products across industries.
 - A combination of research and development, partnerships and SCM allows these companies to continually create high quality products at “internet-speed”.

Forces affecting SCM

- Just-in-time Inventory and Inventory Reduction
 - The use of the Internet has improved the ability of firms to share information with other supply chain members, including the sharing of common inventory management systems.

Forces affecting SCM

- Enterprise Resource Planning (ERP)
 - ERP applications help to facilitate SCM.
 - With legacy systems, firms waste time trying to integrate data from sales, inventory and purchasing systems to effectively plan for future production.
 - ERP systems have overcome this lack of data integration, enabling real time decision making from the same data source.

Forces affecting SCM

■ Outsourcing

- ❑ Outsourcing is an arrangement whereby companies shift facilities and activities (including IT infrastructures, platforms and applications) to outsourcers and then integrate them into their global supply chains.
- ❑ Outsourcing comes with a number of benefits including cost reduction and focus on core competencies.
- ❑ Outsourcing also comes with risks including: loss of control, inability to monitor performance, conflicts of interest, and loss of in-house expertise.

The Internet-enabled supply chain

- The Internet economy has resulted in drastic changes to the entire supply chain.
- The Internet-enabled supply chain is a **pull system**, where the production of suppliers is determined by the needs of customers who request or order goods, necessitating production.
- The Internet supply chain has resulted in substantial changes to more than just information flows.

The Internet-enabled supply chain

- Major changes in supply chains have resulted in **disintermediation**.
 - Disintermediation is a change in the supply chain where the manufacturer or service provider and consumer interact directly with each other, thereby eliminating the need for an intermediary.

The Internet-enabled supply chain

- ❑ The Travel industry has seen some level of disintermediation.
- ❑ The two major categories of dis-intermediation are:
 - When the supplier of a good or service circumvents another member of the supply chain such as a distributor, and provides the good or service directly to the end consumer.
 - When a new intermediary enters the market using a new business model (often lower cost) to drive out existing intermediaries.

The Internet-enabled supply chain

- While disintermediation has significantly changed the travel industry, these changes simply force the industry to compete in different ways, leading to a process called **re-intermediation**.
 - Re-intermediation is using the internet to reassemble buyers, sellers and other partners in a traditional supply chain in new ways.
 - Examples include Newview Technologies and ChemConnect Inc.

Internet-Enabled Supply Chain Information Flows

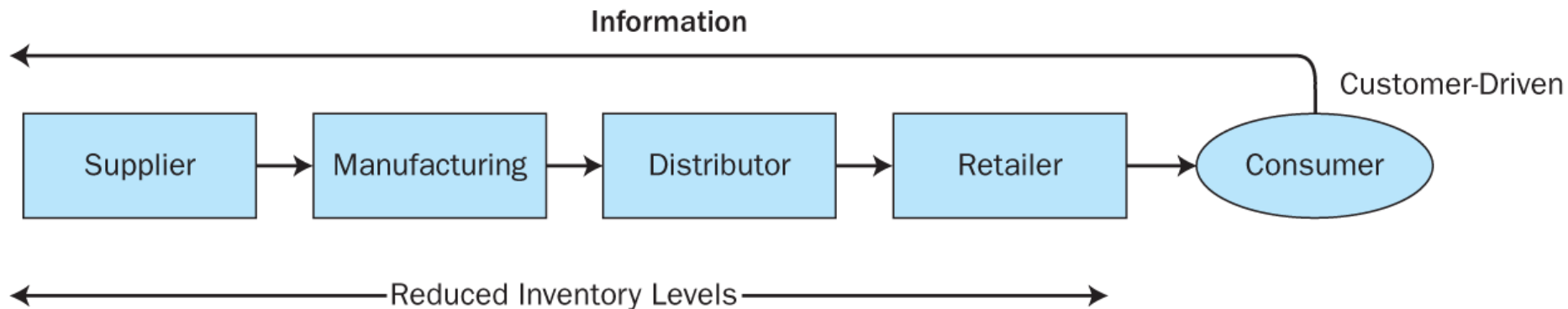


Figure 7.3 Internet-enabled supply-chain information flows

In the internet-enabled supply chain, the customer drives the process, and information flows primarily upstream.

Travel Industry Information Flows

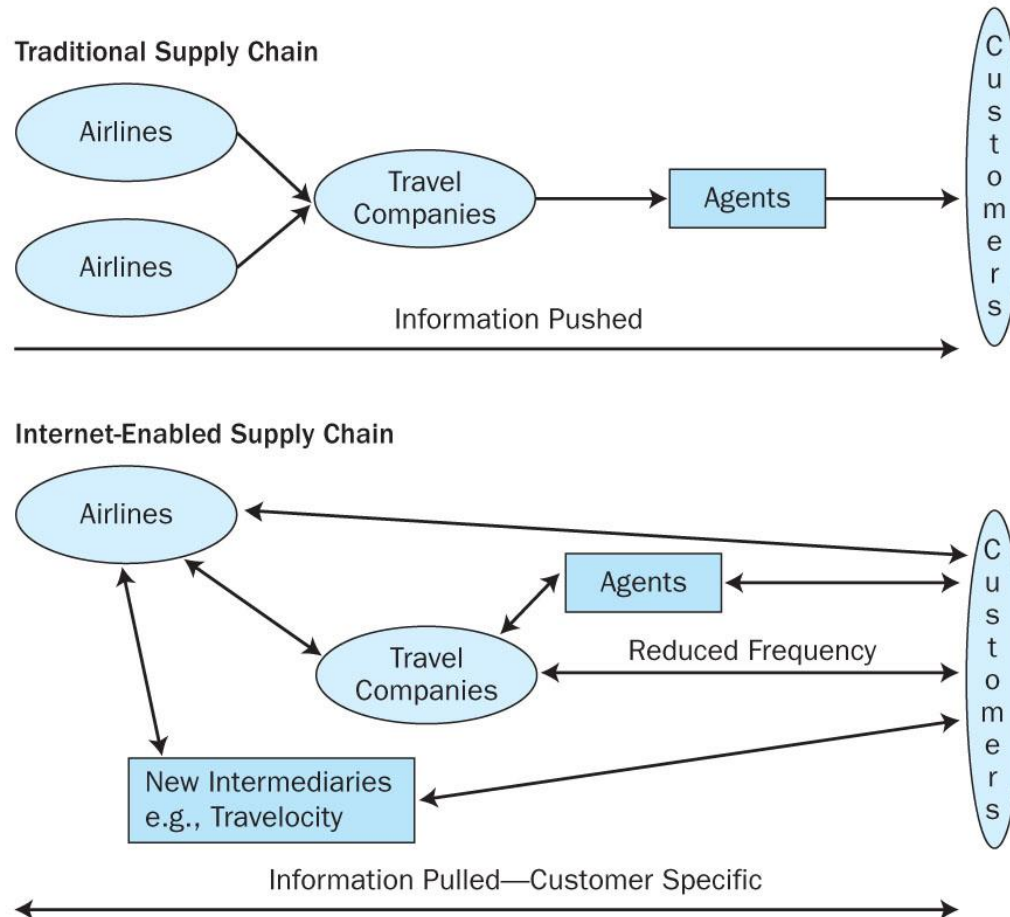


Figure 7.4 Travel industry information flows

The travel industry supply chain has been drastically changed by ecommerce and the internet.

Integration of Technology

- While SCM has been strongly affected by the growth of the internet, other technologies also contribute to the evolution of SCM: These include
 - Extranets
 - enterprise resource planning (ERP) applications
 - business intelligence software
 - Cloud Computing
 - Strategic Supply Chain Management
 - Business process Re-engineering (BPR)

Trust and Partnerships of the Supply Chain

- Sharing information is a difficult task in a business world where traditionally information has been safeguarded.
- Partnership formation is about managing relationships.
- Forming partnerships is as crucial to supply-chain success as the technology and information systems.
- Establishing strong lines of communication is the first step in ensuring that supply partnerships will succeed.

Trust and Partnerships of the Supply Chain

- The relationship of trust can be created more quickly if discussions centre on:
 - ❑ **Realignment**- vendor-managed inventory – perpetual inventory (constantly reviewed by suppliers)
 - ❑ **Service level agreement**- compensation
 - ❑ **Performance measurement**- delivered on time?
 - ❑ **Dispute resolution**- share/own critical insider information
 - ❑ **Security**- remote access, etc. ensure no security breach

Order Fulfillment/Delivery

- Order fulfillment is a set of processes involved in delivering a product to the customer. It consists of procedures grouped into the main areas of **order processing, warehousing and shipping and transportation planning.**
- Order processing include activities that take place during the fulfillment of an order. These include credit checks, inventory availability determination, accounting, billing, and replenishment requests.

Order Fulfillment/Delivery

- ❑ Warehousing includes all tasks involved with handling inventory. These processes include receiving orders of inventory from suppliers, as well as picking, organizing, and packaging goods for delivery.
- ❑ Shipping and transportation planning (STP) is the process of transporting finished goods to the consumer quickly and efficiently.
 - Wal-Mart began using RFID tags in 2003 in order to improve the efficiency of its order fulfillment process.
 - Other companies such as FedEx and UPS have also begun using RFID.

Overview - Order Fulfillment Process

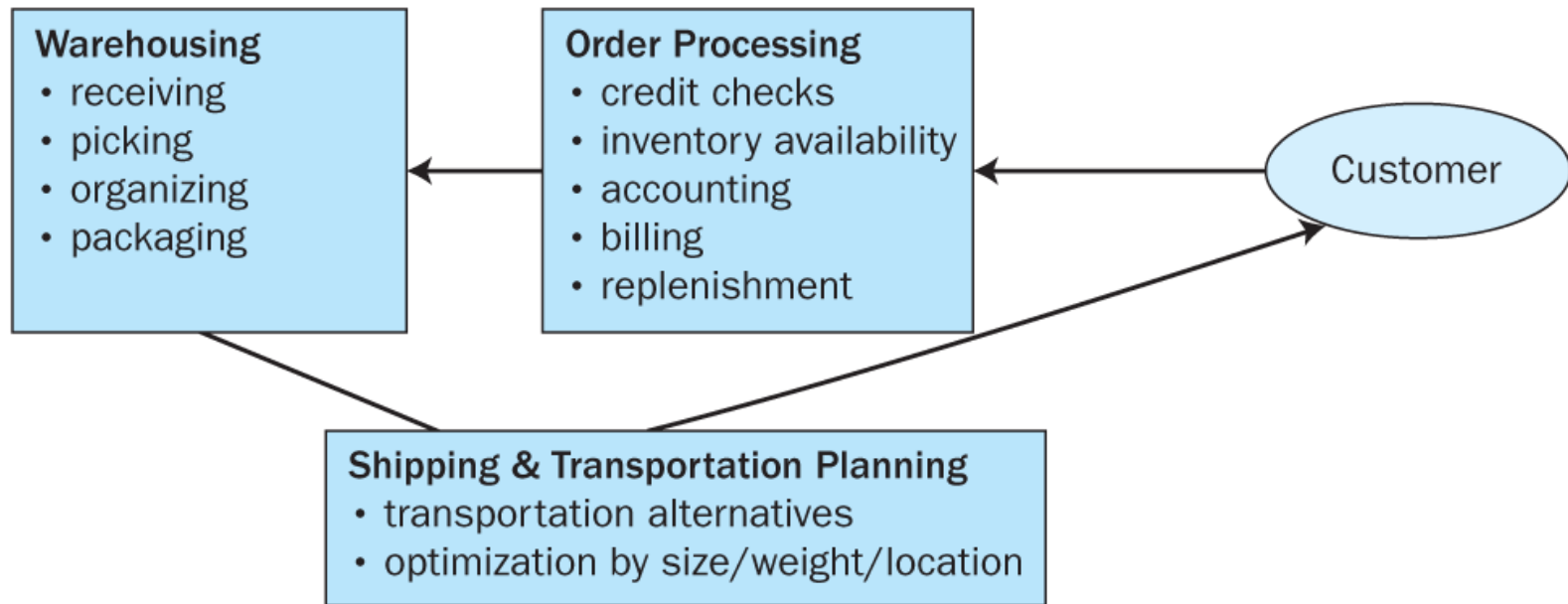


Figure 7.6 The order fulfillment process

Order fulfillment includes many business processes in areas such as order processing, warehousing, and shipping and transportation planning.

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Reverse Logistics

- Internet research has shown that returning products is both a concern for buyers and an important issue for sellers.
- Reverse logistics is the internal process for handling customer returns, either for a refund or for repair or replacement under warranty.
- Outsourcing has become an important strategy in dealing with reverse logistics.

C-Commerce: The Future

- C-commerce is the application of technologies to allow trading partners to synchronize and optimize their partnerships, and is performed in collaboration.
- Wal-Mart's supply-chain management program, also known as Collaborative Planning, Forecasting, and Replenishment (CPFR), aims "to sell as much product as possible without either the supplier or Wal-Mart having too much inventory."
- Wal-Mart saves 5 to 10 percent in cost of goods through the use of technology in its streamlined supply chain.
- Wal-Mart's SCM practices have benefited not only the retailer but its suppliers as well.

Summary

- SCM has become an important aspect of ebusiness success allowing partners to gain efficiencies and improve customer service in a fast paced environment.
- The Internet has changed the traditional supply chain from a push-system to an internet-enabled pull system.
- Technology and Strategy are important success factors for SCM.