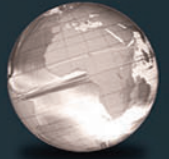


GLOBAL
EDITION



Contemporary Logistics

Twelfth Edition

Paul R. Murphy, Jr. • A. Michael Knemeyer



Pearson

Twelfth Edition

Global Edition

CONTEMPORARY LOGISTICS

Contemporary Logistics, Global Edition

Table of Contents

Cover

Half Title Page

Title Page

Copyright Page

Brief Contents

Contents

Preface

Part I Overview of Logistics

Chapter 1 An Overview of Logistics

Economic Impacts of Logistics

Logistics: What It Is

The Increased Importance of Logistics

A Reduction in Economic Regulation

Changes in Consumer Behavior

Technological Advances

Advances in Retailing

Globalization of Trade

The Systems and Total Cost Approaches to Logistics

Logistical Relationships within the Firm

Finance

Production

Marketing

Marketing Channels

Activities in the Logistical Channel

Customer Service

Demand Forecasting

Facility Location Decisions

International Logistics

Inventory Management

Table of Contents

- Materials Handling
- Order Management
- Packaging
- Procurement
- Reverse Logistics
- Transportation Management
- Warehousing Management

Logistics and Supply Chain Careers

- Summary
- Key Terms
- Questions for Discussion and Review
- Suggested Readings
- CASE 1.1 KiddieLand and the Super Gym

Chapter 2 Logistics and Information Technology

General Types of Information Management Systems

- Office Automation Systems
- Communication Systems
- Transaction Processing Systems (TPS)
- Management Information Systems (MIS) and Executive Information Systems (EIS)
- Decision Support Systems (DSS)
- Enterprise Systems

The Internet's Influence on Logistics

- Online Retailing
- Cloud Computing
- Electronic Procurement
- Internet of Things

Information Technology Challenges

- Summary
- Key Terms
- Questions for Discussion and Review
- Suggested Readings
- CASE 2.1 To Invest or not to Invest? That is the question

Chapter 3 Strategic and Financial Logistics

Connecting Strategy to Financial Performance

Basic Financial Terminology

- Income Statement

Table of Contents

Balance Sheet

Statement of Cash Flows

Reporting Requirements

Strategic Profit Model

Logistics Connections to Net Profit Margin

Logistics Connections to Asset Turnover

Balanced Scorecard

Logistics Activity Measures

Transportation Measures

Warehousing Measures

Inventory Measures

Design and Implementation of Measures

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 3.1 Brant Freezer Company

Chapter 4 Organizational and Managerial Issues in Logistics

Organizing Logistics within the Firm

Organizational Structure for Logistics

Organizational Design for Logistics

Managerial Issues in Logistics

Productivity

Quality

Risk

Sustainability

Complexity

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 4.1 Red Spot Markets Company

Part II Supply Chain Management

Chapter 5 The Supply Chain Management Concept

Evolution of Supply Chain Management

Supply Chain Management Process Frameworks

Enablers of SCM Implementation

Table of Contents

- Understanding the Implications of Increased Customer Power
- Establishing Appropriate Relationship Structures
- Leveraging Technology for Enhanced Visibility and Communication
- Use of Supply Chain Facilitators

Barriers to SCM Implementation

- Regulatory and Political Considerations
- Lack of Top Management Commitment
- Reluctance to Share, or Use, Relevant Information
- Incompatible Information Systems
- Incompatible Corporate Cultures
- Globalization Challenges

Supply Chain Integration

- Summary
- Key Terms
- Questions for Discussion and Review
- Suggested Readings
- CASE 5.1 Johnson Toy Company

Chapter 6 Procurement

Procurement Objectives

Supplier Selection and Evaluation

- Procurement Portfolio Approach
- Supplier Development (Reverse Marketing)

Global Procurement (Sourcing)

Sustainable Procurement

- Social Responsibility
- Investment Recovery

Supply Chain Finance

- Summary
- Key Terms
- Questions for Discussion and Review
- Suggested Readings
- CASE 6.1 Tempo Ltd.

Part III Elements of Logistics Systems

Chapter 7 Demand Management, Order Management, and Customer Service

Demand Management

- Demand Forecasting Models

Table of Contents

Demand Forecasting Issues

Order Management

Order Transmittal

Order Processing

Order Picking and Assembly

Order Delivery

Customer Service

Time

Dependability

Communication

Convenience

Managing Customer Service

Establishing Customer Service Objectives

Measuring Customer Service

Customer Profitability Analysis

Service Failure and Recovery

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 7.1 SuperAuto Spare Parts Services

Chapter 8 Inventory Management

Inventory Classifications

Inventory Costs

Inventory Carrying Costs

Ordering Costs

Trade-off Between Carrying and Ordering Costs

Stockout Costs

Trade-off Between Carrying and Stockout Costs

When to Order and How Much to Order

Economic Order Quantity

Conditions of Uncertainty

Inventory Flows

Inventory Management: Special Concerns

ABC Analysis of Inventory

Dead Inventory

Inventory Turnover

Table of Contents

Complementary and Substitute Products

Contemporary Issues with Managing Inventory

Lean Manufacturing

Service Parts Logistics

Vendor-Managed Inventory

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 8.1 Low Nail Company

Chapter 9 Facility Location

The Strategic Importance of Facility Location

Determining the Number of Facilities

General Factors Influencing Facility Location

Natural Resources

Population CharacteristicsMarket for Goods

Population CharacteristicsLabor

Taxes and Incentives

Transportation Considerations

Proximity to Industry Clusters

Trade Patterns

Quality-of-Life Considerations

Locating in Other Countries

Specialized Location Characteristics

Free Trade Zones

Finding the Lowest-Cost Location Using Grid Systems

Grid Systems

Facility Relocation and Facility Closing

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 9.1 All-Indian Logistics Services

Chapter 10 Warehousing Management

The Role of Warehousing in a Logistics System

Public, Private, Contract, and Multiclient Warehousing

Public Warehousing

Table of Contents

- Private Warehousing
- Contract Warehousing
- Multiclient Warehousing

Design Considerations in Warehousing

- General Considerations
- Trade-offs
- Fixed versus Variable Slot Locations for Merchandise
- Build Out (Horizontal) versus Build Up (Vertical)
- Order-Picking versus Stock-Replenishing Functions
- Two-Dock versus Single-Dock Layout
- Conventional, Narrow, or Very Narrow Aisles
- Degree of Warehouse Automation
- Other Space Needs

Warehousing Operations

- Warehousing Productivity Analysis
- Safety Considerations
- Hazardous Materials
- Warehousing Security
- Cleanliness and Sanitation Issues
 - Summary
 - Key Terms
 - Questions for Discussion and Review
 - Suggested Readings
 - CASE 10.1 Fresh Produce Cross-docking Facility

Chapter 11 Packaging and Materials Handling

Product Characteristics

Packaging Fundamentals

- Functional Tradeoffs
- Package Testing and Monitoring
- Labeling

Issues in Packaging

- Environmental Protection
- Metric System
- Identifying Packaging Inefficiencies
- Packagings Influence on Transportation Considerations

Unit Loads in Materials Handling

- The Unit Load Platform

Table of Contents

Beyond the Unit Load

Materials Handling

Materials Handling Principles

Materials Handling Equipment

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 11.1 The Adelaide Dairy Company

Chapter 12 Transportation

Comparing and Contrasting Transportation Infrastructure

Transportation Modes

Airfreight

Motor Carriers

Pipelines

Railroads

Water

Intermodal Transportation

Transportation Specialists

Transportation Regulation

Environmental Regulation

Safety Regulation

Economic Regulation

Legal Classification of Carriers

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 12.1 HDT Truck Company

Chapter 13 Transportation Management

Rate (Pricing) Considerations

Rate Determination

Rate and Service Negotiations

Modal and Carrier Selection

Documentation

Bill of Lading

Freight Bill

Table of Contents

Freight Claims

Making and Receiving Shipments

Consolidating Small Shipments

Demurrage and Detention

Routing

Tracking and Expediting

Transportation Service Quality

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 13.1 Chippy Potato Chip Company

Chapter 14 International Logistics

Macroenvironmental Influences on International Logistics

Political Factors

Economic Factors

Cultural Factors

International Documentation

Terms of Sale

Group 1: Terms That Apply to Any Mode of Transport

EXW (ExWorks)

FCA (Free Carrier)

CPT (Carriage Paid To)

CIP (Carriage and Insurance Paid To)

DAT (Delivered at Terminal)

DAP (Delivered at Place)

DDP (Delivered Duty Paid)

Group 2: Terms That Apply to Sea and Inland Waterway Transport Only

FAS (Free Alongside Ship)

FOB (Free on Board)

CFR (Cost and Freight)

CIF (Cost, Insurance, and Freight)

Methods of Payment

International Trade Specialists

International Freight Forwarders

Nonvessel-Operating Common Carriers

Export Management Companies

Table of Contents

Export Packers

Transportation and Inventory Considerations in International Logistics

Ocean Shipping

Shipping Conferences and Alliances

International Airfreight

Surface Transport Considerations

International Trade Inventories

Logistics Performance Index

Summary

Key Terms

Questions for Discussion and Review

Suggested Readings

CASE 14.1 Nürnberg Augsburg Maschinenwerke (N.A.M)

Glossary

Name Index

Subject Index