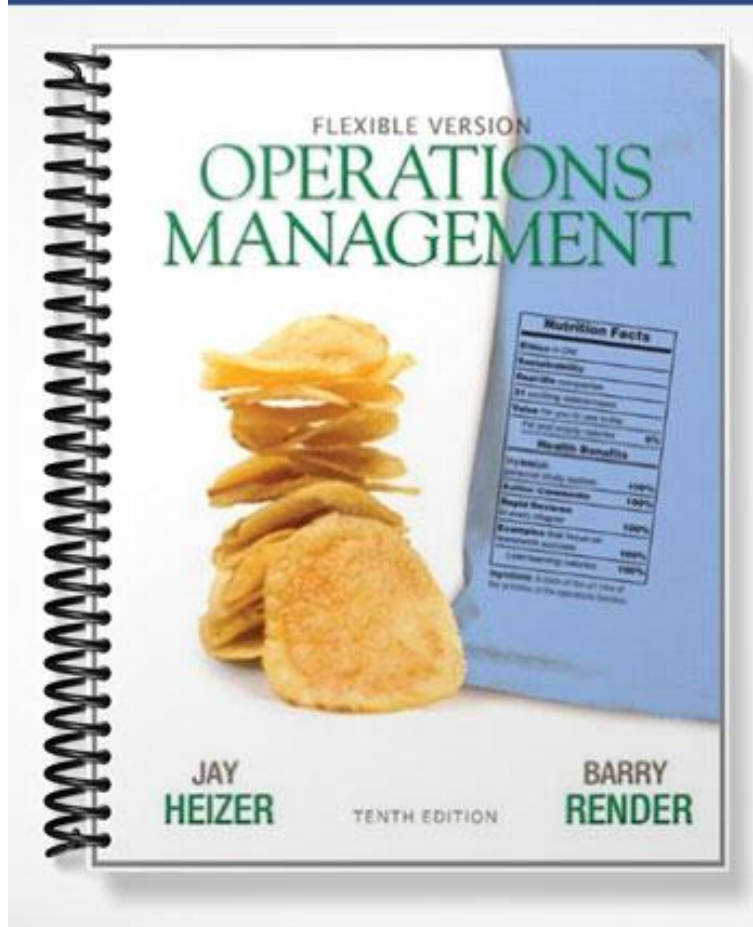


SOLUTIONS MANUAL



Chapter 2

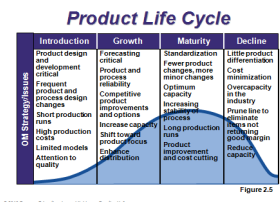
Operations Strategy in a Global Environment

Background

Of all the chapters in the book, this one has the most references to global operations. Depending on the instructor’s preferences, he or she could delve further into global issues and, for example, present some operations practices prevalent in different countries of the world. For the strategy sections of the chapter, it is important to emphasize that these are decisions that firms make that use *operations* to earn and keep business (as opposed to, say, an advertising campaign). Picking a strategy may seem trite to some students, but it is important to emphasize that all 10 OM decisions will be geared toward the designated strategy.

Class Discussion Ideas

1. When describing slide 2-61 showing the OM Strategy/Issues during different stages of the product life cycle, it can be a useful break to stop and ask students to identify examples from the past of when demand significantly outpaced production—i.e., the existence of “fad” items. Examples might include certain video games, hybrid vehicles, Furbies, Tickle Me Elmo dolls, Cabbage Patch dolls, or even pet rocks from the 1970s.



2. For instructors that want to expand treatment of global operations issues, Chapter 2 is probably the place. One way to do that is to have discussion on aspects of operating in some of the largest or most impactful economies around the world, for example, Japan, Germany, China, India, and South Korea. Input from foreign students can be particularly useful here; in fact, instructors may want to ask foreign students to prepare a five-minute talk on their respective countries (potentially for extra credit). Certain cultural differences if tactfully presented can add some humor here. As one of many examples, Frank Perdue’s chicken slogan, “It takes a strong man to make a tender chicken,” was translated into Spanish as, “It takes an aroused man to make a chicken affectionate.”

Active Classroom Learning Exercises

1. Have the students split up into small groups to attempt to identify a company (different than ones listed in Figure 2.4 on page 39) that fits into each of the 10 different strategies listed. Have each student group report some or all of its ideas to the whole class. They should support their position with references to specific actions, policies, or events that demonstrate why their opinion makes sense.

2. Have the students split up into small groups to conduct a SWOT analysis of their favorite restaurant or retail store. (Make sure that each group examines a different business.) Have each student group report its analysis to the whole class.
3. Pick an industry and ask the students to think about managing a brand new firm trying to join the industry. What strategy should their firm follow? Then ask the students to find someone else in the class with a different opinion—and each should then try to convince the other why their strategy is best. Take a poll at the end to see which strategy seems to dominate.

Company Videos

1. *Strategy at Regal Marine (5:27)*

Some of the key mission statement features for this family-owned business are discussed, including (1) creating best-in-class products with value, quality, and satisfaction; and (2) operating with integrity, honesty, and character. The firm employs a differentiation strategy, manufacturing distinctive and high-value luxury boats. One important means for implementing that strategy is to use very high-caliber dealers (120 of them in 40 countries) that will represent the products in a proper manner. Despite a primary strategy of differentiation, Regal Marine also continues to focus efforts on cost reduction to stay afloat in this highly competitive industry.

Prior to showing the video, the instructor might ask the students to think about ways that the 10 OM decisions for this firm support its differentiation strategy. A follow-up discussion might explore how some of those decisions might differ if the firm had pursued a cost leadership strategy. Finally, the instructor might ask students to identify the pros and cons for this size of a family-owned company to pursue a differentiation strategy in a highly competitive industry. For example, a lack of economies of scale compared to larger competitors might make cost leadership difficult; however, branding is key when pursuing a differentiation strategy, and that also takes a serious amount of effort and investment to establish in the marketplace—presumably more challenging for smaller firms.

2. *Hard Rock Cafe's Global Strategy (9:36)*

At the time of the video, Hard Rock had 106 locations in 38 countries and was looking to expand further, particularly in Europe, Latin America, and parts of Asia. Hard Rock's branding has been a key reason why it can so easily enter new markets in new countries. Considerations when expanding into a new market include: political risk, currency risk, social norms, brand fit, social costs, and business practices. The second half of the video focuses on the idea of creating a service "experience." Seventy percent of Hard Rock's customers are tourists seeking a special memory. Not only is each restaurant full of rock-and-roll memorabilia, but each piece comes with an associated story. Every restaurant has something from Elvis, the Rolling Stones, the Beatles, and Jimmy Hendrix. Restaurant designers try to link older generation musicians with newer ones. Restaurant layout also enhances the rock-and-roll experience, going beyond being a museum to include live and energetic features (e.g., audio-visual, staff members, and bar) that produce significant sensory stimulation. Finally, a key strategy for merchandise sales is the use of location-specific logos. Despite having an e-commerce presence, a shirt with a city name can only be purchased at that city's Hard Rock Cafe, so tourists will buy these otherwise common-looking logo shirts to advertise/reflect about their trip to that city.

Prior to showing the video, the instructor could ask the students to identify features that make Hard Rock Cafe different from other restaurants, even other themed restaurants. Afterwards, discussion could revolve around the operations decisions that support these features. A different discussion could focus on the international location decisions. What are important considerations for Hard Rock as

compared to other businesses (say, manufacturing facilities)? For example, low-cost labor does not seem to even be a consideration for Hard Rock. A follow-up question might ask the students how they, if put in charge of new restaurant location decisions for Hard Rock, would find out if residents and tourists of a potential new city would be interested in that kind of restaurant.

Cinematic Ticklers

1. *Gung Ho*, (Michael Keaton and Gedde Watanabe), Paramount Pictures, 1986

At the beginning of the movie, Michael Keaton’s character travels to Japan to meet with the executive board of a Japanese automotive factory. He presents as a typical American might, while the Japanese businessmen sit in silence. The American leaves the meeting thinking that he blew the presentation.

A second set of scenes can be clipped together to illustrate some of the differences in Japanese vs. American business practices. The scenes are exaggerated to create humor, but they contain some true differences (for example, company uniforms, morning exercises, zero defect policies, strict worker absentee policies, etc.).

2. *The Simpsons Season 3: “Burns Verkaufen Der Kraftwerk,”* 20th Century Fox Video, 2003 (1991-1992)

A German company purchases the Springfield power plant, and Homer ends up being the only worker let go. There’s a funny scene where Homer daydreams about living in Germany, “The Land of Chocolate.”

Presentation Slides

INTRODUCTION (2-1 through 2-11)

Slides 8-11: These Boeing slides (Global Company Profile) can be presented to emphasize the truly global nature of the company’s supply network—as a precursor to the discussion about global issues.

2 Operations Strategy in a Global Environment

PowerPoint presentation to accompany Heizer and Render Operations Management, 10e Principles of Operations Management, 8e
PowerPoint slides by Jeff Hejl

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2-1

Outline

- ◆ Global Company Profile: Boeing
- ◆ A Global View of Operations
 - ◆ Cultural and Ethical Issues
- ◆ Developing Missions And Strategies
 - ◆ Mission
 - ◆ Strategy

2-2

Outline – Continued

- ◆ Achieving Competitive Advantage Through Operations
 - ◆ Competing On Differentiation
 - ◆ Competing On Cost
 - ◆ Competing On Response
- ◆ Ten Strategic OM Decisions

2-3

Outline – Continued

- ◆ Strategy Development and Implementation
 - ◆ Key Success Factors and Core Competencies
 - ◆ Build and Staff the Organization
 - ◆ Integrate OM with Other Activities

2-4

Outline – Continued

- ◆ Global Operations Strategy Options
 - ◆ International Strategy
 - ◆ Multidomestic Strategy
 - ◆ Global Strategy
 - ◆ Transnational Strategy

2-5

Learning Objectives

When you complete this chapter you should be able to:

1. Define mission and strategy
2. Identify and explain three strategic approaches to competitive advantage
3. Identify and define the 10 decisions of operations management

2-6

Learning Objectives

When you complete this chapter you should be able to:

- 4. Understand the significant key success factors and core competencies
- 5. Identify and explain four global operations strategy options

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Some Boeing Suppliers (787)			Some Boeing Suppliers (787)		
Firm	Country	Component	Firm	Country	Component
Latecoere	France	Passenger doors	Cobham	UK	Fuel pumps and valves
Labein	France	Wiring	Rolls-Royce	UK	Engines
Dassault	France	Design and PLM software	Smiths Aerospace	UK	Central computer system
Messier-Bugatti	France	Electric brakes	BAE SYSTEMS	UK	Electronics
Thales	France	Electrical power conversion system and integrated standby flight display	Alenia Aeronautics	Italy	Upper center fuselage & horizontal stabilizer
Messier-Dowty	France	Landing gear structure	Toray Industries	Japan	Carbon fiber for wing and tail units
Diehl	Germany	Interior lighting			

2-7

2-8

2-9

Some Boeing Suppliers (787)			Some Boeing Suppliers (787)		
Firm	Country	Component	Firm	Country	Component
Fuji Heavy Industries	Japan	Center wing box	Korean Aviation	South Korea	Wingtips
Kawasaki Heavy Industries	Japan	Forward fuselage, fixed section of wing, landing gear well	Saab	Sweden	Cargo access doors
Teijin Seiki	Japan	Hydraulic actuators			
Mitsubishi Heavy Industries	Japan	Wing box			
Chengdu Aircraft Group	China	Rudder			
Hafei Aviation	China	Parts			

2-10

2-11

A GLOBAL VIEW OF OPERATIONS (2-12 through 2-29)

Slides 12-13: These slides present five examples of companies that are hastily extending their operations globally with innovative strategies.

Slide 14: This slide shows the steady growth of world trade over time, with no sign of decline on the horizon.

Slides 15-16: These slides provide examples of well-known firms and the large percentages of sales and assets, and in some cases workforce levels, based outside of their respective home countries.

Slides 17-23: The “Reasons to Globalize” slide (Slide 17) seems particularly important to cover in this chapter, and it is followed by specific discussion on each of the six reasons in Slides 18-23. Slide 18: A very common reason to globalize is to reduce costs, especially labor costs or tariff costs. The numbers can be hard to ignore: for example, saving \$10 per hour per worker with 40-hour workweeks (52 weeks per year) and 1000 workers represents a savings in excess of \$20 million annually. The agreements and organizations identified in Slide 18 represent ways in which firms can receive preferential tariff treatment. Slide 19: Low labor cost is not always the primary draw as firms sometimes locate to areas containing particular expertise in whatever they are producing. Slide 20: Locating close to customers has not only delivery and customer service benefits, but it also allows the firm to gain a better understanding of the local culture, customs, tastes, and sensitivities. Slide 21: International firms inevitably learn about opportunities for new products and services; also, they may be able to sell maturing products longer in less developed countries. Slide 22: Not all great ideas come from one place—internationalization provides access to great ideas from around the world. Slide 23: Great employees are attracted to firms that offer more worldwide employment opportunities, as well as better insulation from unemployment.

Slides 24-25: These slides are useful for discussing global location decisions. Slide 24 emphasizes that managers must become aware of cultural differences, and they should adjust their expectations and management styles accordingly. Slide 25 identifies some of the many factors that may need to be considered in global location decisions.

Slides 26-29: These slides represent a nice exercise in perhaps dispelling pre-conceived notions about parent companies and home countries of certain products. Student participation can be solicited here.

Global Strategies

- ◆ Boeing – sales and production are worldwide
- ◆ Benetton – moves inventory to stores around the world faster than its competition by building flexibility into design, production, and distribution
- ◆ Sony – purchases components from suppliers in Thailand, Malaysia, and around the world

Global Strategies

- ◆ Volvo – considered a Swedish company but until recently was controlled by an American company, Ford. The current Volvo S40 is built in Belgium and shares its platform with the Mazda 3 built in Japan and the Ford Focus built in Europe.
- ◆ Haier – A Chinese company, produces compact refrigerators (it has one-third of the US market) and wine cabinets (it has half of the US market) in South Carolina

Growth of World Trade

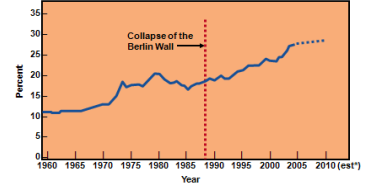


Figure 2.1

2-12

Some Multinational Corporations

Company	Home Country	% Sales Outside Home Country	% Assets Outside Home Country	% Foreign Workforce
Citicorp	USA	34	46	NA
Colgate-Palmolive	USA	72	63	NA
Dow Chemical	USA	60	50	NA
Gillette	USA	62	53	NA
Honda	Japan	63	36	NA
IBM	USA	57	47	51

2-13

Some Multinational Corporations

Company	Home Country	% Sales Outside Home Country	% Assets Outside Home Country	% Foreign Workforce
ICI	Britain	78	50	NA
Nestle	Switzerland	98	95	97
Philips Electronics	Netherlands	94	85	82
Siemens	Germany	51	NA	38
Unilever	Britain & Netherlands	95	70	64

2-14

Reasons to Globalize

- Reasons to Globalize**
1. Reduce costs (labor, taxes, tariffs, etc.)
 2. Improve supply chain
 3. Provide better goods and services
 4. Understand markets
 5. Learn to improve operations
 6. Attract and retain global talent
- ↓
- Tangible Reasons** (1-4)
Intangible Reasons (5-6)

2-15

Reduce Costs

- ◆ Foreign locations with lower wage rates can lower direct and indirect costs
 - ◆ Maquiladoras
 - ◆ World Trade Organization (WTO)
 - ◆ North American Free Trade Agreement (NAFTA)
 - ◆ APEC, SEATO, MERCOSUR, CAFTA
 - ◆ European Union (EU)

2-16

Improve the Supply Chain

- ◆ Locating facilities closer to unique resources
 - ◆ Auto design to California
 - ◆ Athletic shoe production to China
 - ◆ Perfume manufacturing in France

2-17

Provide Better Goods and Services

- ◆ Objective and subjective characteristics of goods and services
 - ◆ On-time deliveries
 - ◆ Cultural variables
 - ◆ Improved customer service

2-18

Understand Markets

- ◆ Interacting with foreign customers and suppliers can lead to new opportunities
 - ◆ Cell phone design from Europe
 - ◆ Cell phone fads from Japan
 - ◆ Extend the product life cycle



2-19

Learn to Improve Operations

- ◆ Remain open to the free flow of ideas
 - ◆ General Motors partnered with a Japanese auto manufacturer to learn new approaches to production and inventory control
 - ◆ Equipment and layout have been improved using Scandinavian ergonomic competence

2-20

Attract and Retain Global Talent

- ◆ Offer better employment opportunities
 - ◆ Better growth opportunities and insulation against unemployment
 - ◆ Relocate unneeded personnel to more prosperous locations

2-21

Cultural and Ethical Issues

- ◆ Cultures can be quite different
- ◆ Attitudes can be quite different towards
 - ◆ Punctuality
 - ◆ Lunch breaks
 - ◆ Environment
 - ◆ Intellectual property
 - ◆ Thievery
 - ◆ Bribery
 - ◆ Child labor

2-22

Companies Want To Consider

- ◆ National literacy rate
- ◆ Rate of innovation
- ◆ Rate of technology change
- ◆ Number of skilled workers
- ◆ Political stability
- ◆ Product liability laws
- ◆ Export restrictions
- ◆ Variations in language
- ◆ Work ethic
- ◆ Tax rates
- ◆ Inflation
- ◆ Availability of raw materials
- ◆ Interest rates
- ◆ Population
- ◆ Number of miles of highway
- ◆ Phone system

2-23

Match Product & Parent

- ◆ Braun Household Appliances
- ◆ Firestone Tires
- ◆ Godiva Chocolate
- ◆ Haagen-Dazs Ice Cream
- ◆ Jaguar Autos
- ◆ MGM Movies
- ◆ Lamborghini Autos
- ◆ Alpo Petfoods
- 1. Volkswagen
- 2. Bridgestone
- 3. Campbell Soup
- 4. Tata Motors Limited
- 5. Proctor and Gamble
- 6. Nestlé
- 7. Pillsbury
- 8. Sony

2-24

Match Product & Parent

◆ Braun Household Appliances	1. Volkswagen
◆ Firestone Tires	2. Bridgestone
◆ Godiva Chocolate	3. Campbell Soup
◆ Haagen-Dazs Ice Cream	4. Tata Motors Limited
◆ Jaguar Autos	5. Proctor and Gamble
◆ MGM Movies	6. Nestlé
◆ Lamborghini Autos	7. Pillsbury
◆ Alpo Petfoods	8. Sony

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2-27

2-25

Match Product & Country

◆ Braun Household Appliances	1. Great Britain
◆ Firestone Tires	2. Germany
◆ Godiva Chocolate	3. Japan
◆ Haagen-Dazs Ice Cream	4. United States
◆ Jaguar Autos	5. Switzerland
◆ MGM Movies	6. India
◆ Lamborghini Autos	
◆ Alpo Pet Foods	

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2-28

2-26

Match Product & Country

◆ Braun Household Appliances	1. Great Britain
◆ Firestone Tires	2. Germany
◆ Godiva Chocolate	3. Japan
◆ Haagen-Dazs Ice Cream	4. United States
◆ Jaguar Autos	5. Switzerland
◆ MGM Movies	6. India
◆ Lamborghini Autos	
◆ Alpo Pet Foods	

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2-29

DEVELOPING MISSIONS AND STRATEGIES (2-30 through 2-41)

- Slides 30-31: An organization's mission is its purpose—what it will contribute to society. Its strategy is more specific—it represents an action plan to achieve the mission.
- Slides 32-34: These slides (Figure 2.2) present examples of three corporate mission statements.
- Slide 35: This slide suggests that several more considerations than profit maximization play a role in shaping a firm's mission.
- Slides 36-39: These slides (Figure 2.3) present sample missions for a company, the operations function, and major OM departments.
- Slides 40-41: Functional areas have their own missions and strategies, which usually are based on higher-level missions and strategies in the organization. A SWOT analysis can help managers identify strengths, weaknesses, opportunities, and threats to shape their strategies.

Developing Missions and Strategies

Mission statements tell an organization where it is going

The **Strategy** tells the organization how to get there

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2-30

Mission

- ◆ Mission - where are you going?
- ◆ Organization's purpose for being
- ◆ Answers 'What do we provide society?'
- ◆ Provides boundaries and focus



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2-31

Merck

The mission of Merck is to provide society with superior products and services—innovations and solutions that improve the quality of life and satisfy customer needs—to provide employees with meaningful work and advancement opportunities and investors with a superior rate of return.

Figure 2.2

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2-32

Hard Rock Cafe

Our Mission: To spread the spirit of Rock 'n' Roll by delivering an exceptional entertainment and dining experience. We are committed to being an important, contributing member of our community and offering the Hard Rock family a fun, healthy, and nurturing work environment while ensuring our long-term success.

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2-33

Arnold Palmer Hospital

Arnold Palmer Hospital for Children provides state-of-the-art, family centered healthcare focused on restoring the joy of childhood in an environment of compassion, healing, and hope.

Figure 2.2

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2-34

Factors Affecting Mission

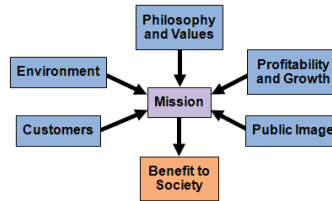


Figure 2.2

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2-35

Sample Missions

Sample Company Mission	
To manufacture and service an innovative, growing, and profitable worldwide microwave communications business that exceeds our customers' expectations.	
Sample Operations Management Mission	
To produce products consistent with the company's mission as the worldwide low-cost manufacturer.	

Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-36

Sample Missions

Sample OM Department Missions	
Product design	To design and produce products and services with outstanding quality and inherent customer value.
Quality management	To attain the exceptional value that is consistent with our company mission and marketing objectives by close attention to design, procurement, production, and field service operations
Process design	To determine, design, and produce the production process and equipment that will be compatible with low-cost product, high quality, and good quality of work life at economical cost.

Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-37

Sample Missions

Sample OM Department Missions	
Location	To locate, design, and build efficient and economical facilities that will yield high value to the company, its employees, and the community.
Layout design	To achieve, through skill, imagination, and resourcefulness in layout and work methods, production effectiveness and efficiency while supporting a high quality of work life.
Human resources	To provide a good quality of work life, with well-designed, safe, rewarding jobs, stable employment, and equitable pay, in exchange for outstanding individual contribution from employees at all levels.

Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-38

2-36

2-37

2-38

Sample Missions

Sample OM Department Missions	
Supply-chain management	To collaborate with suppliers to develop innovative products from stable, effective, and efficient sources of supply.
Inventory	To achieve low investment in inventory consistent with high customer service levels and high facility utilization.
Scheduling	To achieve high levels of throughput and timely customer delivery through effective scheduling.
Maintenance	To achieve high utilization of facilities and equipment by effective preventive maintenance and prompt repair of facilities and equipment.

Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-39

Strategic Process

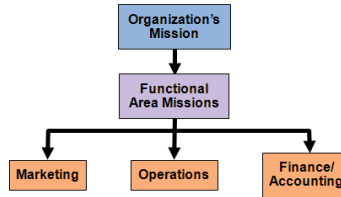


Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-40

Strategy

- ◆ Action plan to achieve mission
- ◆ Functional areas have strategies
- ◆ Strategies exploit opportunities and strengths, neutralize threats, and avoid weaknesses



Figure 2.3 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-41

2-39

2-40

2-41

ACHIEVING COMPETITIVE ADVANTAGE THROUGH OPERATIONS (2-42 through 2-46)

Slides 42-46: The competitive strategies slides (42-46) are particularly important because an organization's chosen strategy very much shapes how it approaches the 10 OM decisions. The three major strategies are *differentiation*, *cost leadership*, and *response*. While it may be possible to compete on all three at once, most firms focus on one of these major strategies. Slides 43-45 provide some specific examples of firms implementing these strategies. Slide 46 (Figure 2.4) provides some additional examples, and it emphasizes that firms can achieve competitive advantage via their *operations* function, by applying the 10 OM decisions to implement one or more of the competitive strategies.

Strategies for Competitive Advantage

- ◆ Differentiation – better, or at least different
- ◆ Cost leadership – cheaper
- ◆ Response – rapid response

Figure 2.4 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-42

2-42

Competing on Differentiation

Uniqueness can go beyond both the physical characteristics and service attributes to encompass everything that impacts customer's perception of value

- ◆ Safeskin gloves – leading edge products
- ◆ Walt Disney Magic Kingdom – experience differentiation
- ◆ Hard Rock Cafe – dining experience

Figure 2.4 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-43

2-43

Competing on Cost

Provide the maximum value as perceived by customer. Does not imply low quality.

- ◆ Southwest Airlines – secondary airports, no frills service, efficient utilization of equipment
- ◆ Wal-Mart – small overhead, shrinkage, distribution costs
- ◆ Franz Colruyt – no bags, low light, no music, doors on freezers

Figure 2.4 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-44

2-44

Competing on Response

- ◆ Flexibility is matching market changes in design innovation and volumes
 - ◆ A way of life at Hewlett-Packard
- ◆ Reliability is meeting schedules
 - ◆ German machine industry
- ◆ Timeliness is quickness in design, production, and delivery
 - ◆ Johnson Electric, Pizza Hut, Motorola



Figure 2.4 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-45

2-45

OM's Contribution to Strategy

10 Operations Decisions	Approach	Example	Competitive Advantage
Product	DIFFERENTIATION Innovative design ...	Safeskin's innovative gloves	Differentiation (better)
Quality	Broad product line ...	Fidelity Security's mutual funds	
Process	After sales service ...	Caterpillar's heavy equipment service	
Location	COST LEADERSHIP Low overhead ...	Franz Colruyt's warehouse-type stores	Response (better)
Layout	Effective capacity use ...	Southwest Airline's aircraft utilization	
Human resource	Inventory management ...	Wal-Mart's sophisticated distribution system	Cost leadership (cheaper)
Supply chain	RESPONSE Flexibility ...	Hewlett-Packard's response to volatile world market	
Inventory	Reliability ...	FedEx's absolutely positive, on-time	
Scheduling	Quickness ...	Pizza Hut's 5 minute guarantee at lunchtime	
Maintenance			

Figure 2.4

Figure 2.4 © 2010 Pearson Education, Inc. publishing as Prentice Hall 2-46

2-46

10 STRATEGIC OM DECISIONS (2-47 through 2-58)

- Slide 47: The 10 operations decisions first encountered in Chapter 1 are re-addressed here. The text is structured around these 10 decisions.
- Slides 48-51: These slides (from Table 2.1) illustrate how the differences between goods and services influence the ways in which the 10 OM decisions are applied.
- Slide 53: This process design slide is a variation on the classic product-process matrix by Hayes and Wheelwright. It's an important one to discuss, especially the relatively new strategy of *mass customization*.
- Slides 54-58: From Table 2.2 in the text, notice how the 10 OM decisions are altered to build two distinct strategies within the same industry.

10 Strategic OM Decisions

1. Goods and service design
2. Quality
3. Process and capacity design
4. Location selection
5. Layout design
6. Human resources and job design
7. Supply-chain management
8. Inventory
9. Scheduling
10. Maintenance

Goods and Services and the 10 OM Decisions

Operations Decisions	Goods	Services
Goods and service design	Product is usually tangible	Product is not tangible
Quality	Many objective standards	Many subjective standards
Process and capacity design	Customers not involved	Customer may be directly involved Capacity must match demand

Goods and Services and the 10 OM Decisions

Operations Decisions	Goods	Services
Location selection	Near raw materials and labor	Near customers
Layout design	Production efficiency	Enhances product and production
Human resources and job design	Technical skills, consistent labor standards, output based wages	Interact with customers, labor standards vary

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2-47

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Table 2.1

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Table 2.1

2-47

2-48

2-49

Goods and Services and the 10 OM Decisions

Operations Decisions	Goods	Services
Supply chain	Relationship critical to final product	Important, but may not be critical
Inventory	Raw materials, work-in-process, and finished goods may be held	Cannot be stored
Scheduling	Level schedules possible	Meet immediate customer demand

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Table 2.1

2-50

Goods and Services and the 10 OM Decisions

Operations Decisions	Goods	Services
Maintenance	Often preventive and takes place at production site	Often "repair" and takes place at customer's site

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Table 2.1

2-51

Managing Global Service Operations

Requires a different perspective on:

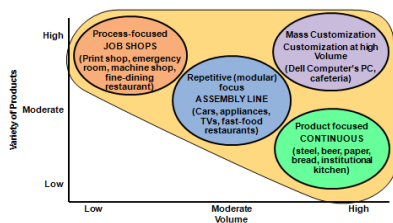
- ◆ Capacity planning
- ◆ Location planning
- ◆ Facilities design and layout
- ◆ Scheduling

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2-49

2-52

Process Design



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2-53

Operations Strategies of Two Drug Companies

	Brand Name Drugs, Inc.	Generic Drug Corp.
Competitive Advantage	Product Differentiation	Low Cost
Product Selection and Design	Heavy R&D investment; extensive labs; focus on development in a broad range of drug categories	Low R&D investment; focus on development of generic drugs
Quality	Major priority, exceed regulatory requirements	Meets regulatory requirements on a country-by-country basis

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Table 2.2

2-54

Operations Strategies of Two Drug Companies

	Brand Name Drugs, Inc.	Generic Drug Corp.
Competitive Advantage	Product Differentiation	Low Cost
Process	Product and modular process; long production runs in specialized facilities; build capacity ahead of demand	Process focused; general processes; "job shop" approach; short-run production; focus on high utilization
Location	Still located in the city where it was founded	Recently moved to low-tax, low-labor-cost environment

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Table 2.2

2-55

Operations Strategies of Two Drug Companies

	Brand Name Drugs, Inc.	Generic Drug Corp.
Competitive Advantage	Product Differentiation	Low Cost
Scheduling	Centralized production planning	Many short-run products complicate scheduling
Layout	Layout supports automated product-focused production	Layout supports process-focused "job shop" practices

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Table 2.2

2-56

Operations Strategies of Two Drug Companies

	Brand Name Drugs, Inc.	Generic Drug Corp.
Competitive Advantage	Product Differentiation	Low Cost
Human Resources	Hire the best; nationwide searches	Very experienced top executives; other personnel paid below industry average
Supply Chain	Long-term supplier relationships	Tends to purchase competitively to find bargains

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Table 2.2

2-57

Operations Strategies of Two Drug Companies

	Brand Name Drugs, Inc.	Generic Drug Corp.
Competitive Advantage	Product Differentiation	Low Cost
Inventory	High finished goods inventory to ensure all demands are met	Process focus drives up work-in-process inventory; finished goods inventory tends to be low
Maintenance	Highly trained staff; extensive parts inventory	Highly trained staff to meet changing demand

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Table 2.2

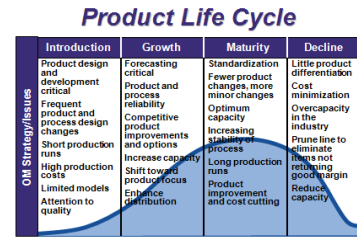
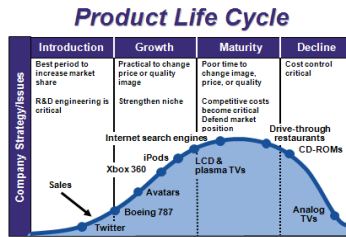
2-58

ISSUES IN OPERATIONS STRATEGY (2-59 through 2-61)

- Slide 59: This slide identifies some alternative perspectives that may be helpful prior to establishing and attempting to implement a strategy. A *resources view* is a method that managers use to evaluate the resources at their disposal and manage or alter them to achieve competitive advantage. *Value-chain analysis* is a way to identify those elements in the production/service chain that uniquely add value. *Porter's five forces model* is a method of analyzing the five forces in the competitive environment: immediate rivals, potential entrants, customers, suppliers, and substitute products. Because the firm operates in a system with many external factors, constant scanning of the environment is required. Finally, strategies need to be dynamic to deal with constant internal and external change.
- Slides 60-61: These slides (from Figure 2.5) are valuable, especially to emphasize that the point in the product life cycle helps to determine the areas of emphasis for operations management.

Issues In Operations Strategy

- ◆ Resources view
- ◆ Value Chain analysis
- ◆ Porter's Five Forces model
- ◆ Operating in a system with many external factors
- ◆ Constant change



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2-60

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2-61

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Figure 2.5

2-59

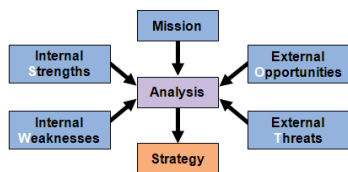
2-60

2-61

STRATEGY DEVELOPMENT AND IMPLEMENTATION (2-62 through 2-72)

- Slide 62: A SWOT analysis is a formal review of the internal strengths and weaknesses and the external opportunities and threats. It represents an excellent model for evaluating a strategy.
- Slide 63: This slide (Figure 2.6) illustrates the strategy development process, in which SWOT analysis plays a key role.
- Slide 64: *Key success factors* are those activities that are necessary for a firm to achieve its goals. Once identified, the next step is to group the necessary activities into an organizational structure. That structure then needs to be staffed with personnel who will get the job done right. The operations function is most likely to be successful when the operations strategy is integrated with other functional areas of the firm, marketing, finance, HR, IT, etc.
- Slide 65: The 10 OM decisions typically include the key success factors. This slide (Figure 2.7) identifies potential key success factors for marketing, finance, and operations. The 10 OM decisions provide an excellent initial checklist for determining key success factors and identifying core competencies within the operations function.
- Slides 66-72: These slides present Figure 2.8 from the text in an eye-appealing, dynamic manner. An *activity map* is a graphical link of competitive advantage, key success factors, and supporting activities. This figure presents an example activity mapping of Southwest Airline's low-cost competitive advantage.

SWOT Analysis



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2-62

Strategy Development Process

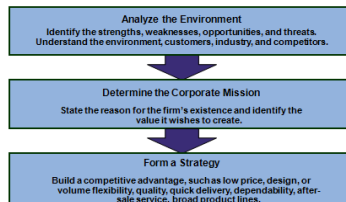


Figure 2.6

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Strategy Development and Implementation

- ◆ Identify key success factors
- ◆ Build and staff the organization
- ◆ Integrate OM with other activities

The operations manager's job is to implement an OM strategy, provide competitive advantage, and increase productivity

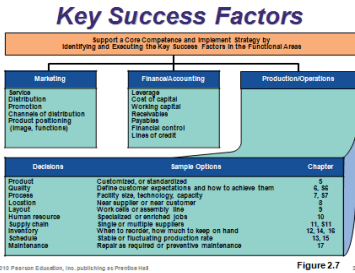
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2-64

2-62

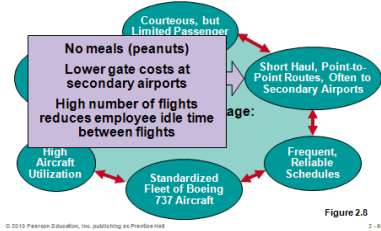
2-63

2-64



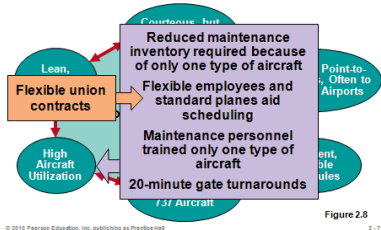
2-65

Activity Mapping at Southwest Airlines



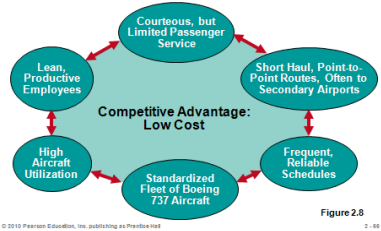
2-68

Activity Mapping at Southwest Airlines



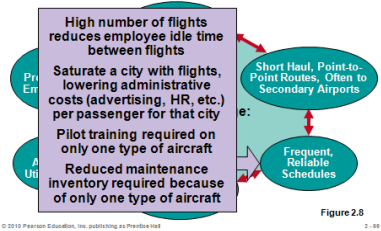
2-71

Activity Mapping at Southwest Airlines



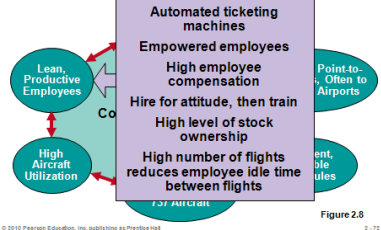
2-66

Activity Mapping at Southwest Airlines



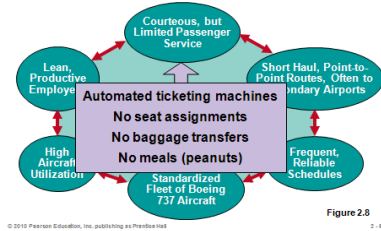
2-69

Activity Mapping at Southwest Airlines



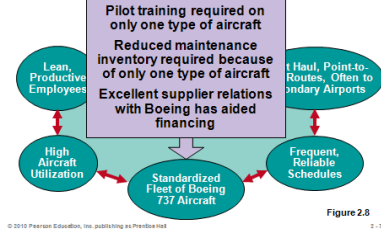
2-72

Activity Mapping at Southwest Airlines



2-67

Activity Mapping at Southwest Airlines

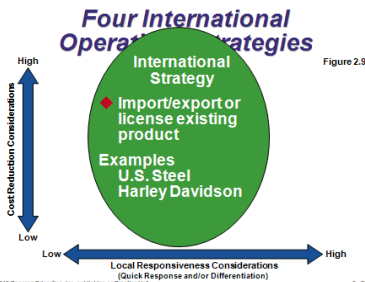


2-70

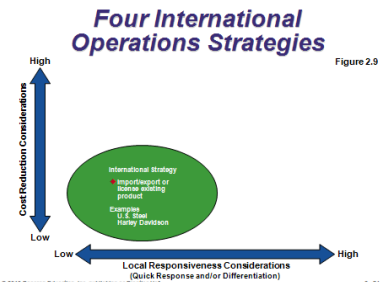
GLOBAL OPERATIONS STRATEGY OPTIONS (2-73 through 2-81)

Slides 73-80: These slides present Figure 2.9 from the text in an eye-appealing, dynamic manner. The figure places the four international operations strategies on a graph with *local responsiveness* on the x-axis and *cost reduction* on the y-axis. A *transnational strategy* has the potential to pursue all three operations strategies (differentiation, low cost, and response). Such firms can be thought of as “world companies,” whose country identity is not as important as its interdependent network of worldwide operations.

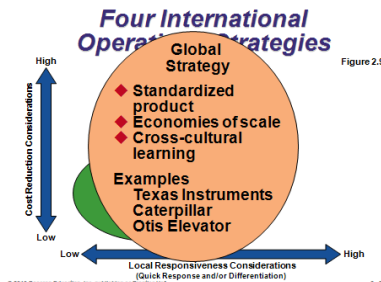
Slide 81: This slide is an interesting way to end the chapter discussion by presenting a ranking of the most corrupt countries.



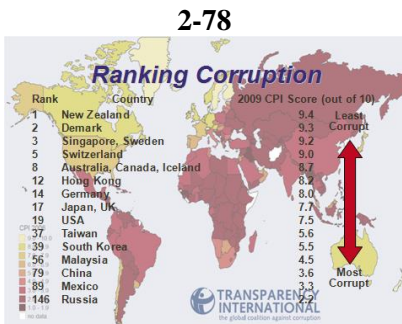
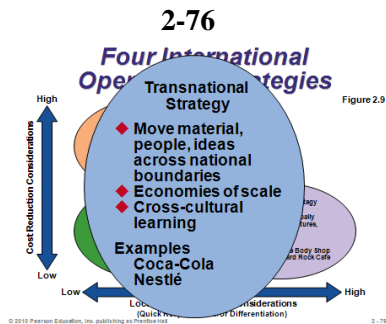
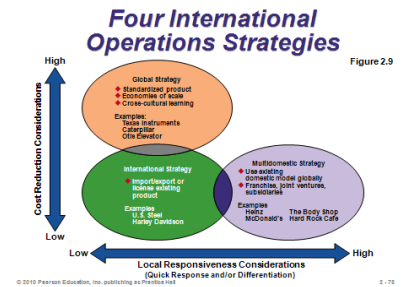
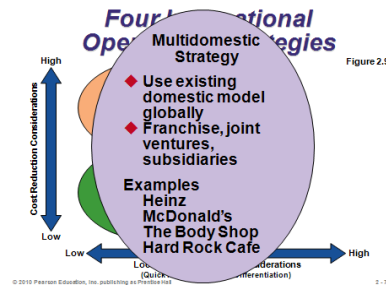
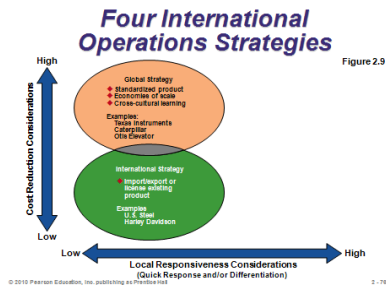
2-73



2-74



2-75



Additional Assignment Ideas

- Ask students to prepare for class by visiting several company web sites and, for each company, locating the company mission and printing a copy of the mission to bring to class. The students should also be asked to, if possible, determine the strategy used by the company to achieve its published mission.
- Look at the web sites for two different companies and determine how they operate in the global business environment. Students should try to address the following questions:
 - How is a global strategy in evidence from their web site?
 - What sort of global operations strategy do they seem to be adopting; international, multidomestic, global, or transnational?
 - Does their facility location reflect their global strategy?
 - How much of their business is done globally?
 - How does their work force reflect their global strategy?

Additional Case Studies

Internet Case Study (www.pearsonhighered.com/heizer)

- Motorola's Global Strategy:* Focuses on Motorola's international strategy.

Harvard Case Studies (<http://harvardbusinessonline.hbsp.harvard.edu>)

- Eli Lilly and Co.: Manufacturing Process Technology Strategy—1991 (#692056)* Manufacturing pursues comparative advantage in an industry where R&D is the primary competitive advantage.
- Fresh Connections (#600-022):* Investigates how to structure operations to take advantage of the continued growth in the home meal replacement market.

- *Hitting the Wall: Nike and International Labor Practices* (#7000047) Nike must deal with a spate of alarmingly bad publicity regarding wages in developing countries.
- *Hewlett-Packard: Singapore (A)* (#694035) Product development issues when source and recipients of knowledge are separated both geographically and culturally.
- *Komatsu, Ltd* (#398-016): Describes strategic and organizational transformations at Komatsu, a major Japan-based producer of construction equipment.
- *McDonald's Corp.* (#693028) Changing environment and competition forces McDonald's to rethink its operations strategy.
- *Southwest Airlines — 1993 (A)* (#694023) Provides insights into Southwest's strategy, operations, marketing, and culture.
- *Toys "R" Us Japan*: (#796-077): Documents Toys "R" Us difficulties as it enters the Japanese toy market.
- *Lenzing AC: Expanding in Indonesia* (#796-099): Presents the issues surrounding expansion in a foreign country.

Richard Ivey School of Business (<http://cases.ivey.uwo.ca/cases/pages/home.aspx>)

- *Daikin Industries* (#9B04D018): The president of Daikin Industries Residential Air Conditioning Shiga Factory was confronted by the prospects of an unseasonably cold summer, at a time when the Shiga Factory had large quantities of its products in inventory in anticipation of strong summer sales. The president must decide whether to reduce the number of models, build a lower-cost factory outside Japan, or exit the business.

Internet Resources

Business Policy and Strategy, Division of the Academy of Management	www.aom.pace.edu/bps
European Union	http://europa.eu/
International Trade Administration	www.ita.doc.gov
Manufacturing Strategies, maintained at Cranfield University	www.cranfield.ac.uk/som
Transparency International maintains a Bribe Payers Perception Index (PBI) and a Corruption Perception Index	www.transparency.de www.globalcorruptionreport.org
World Bank	www.worldbank.org
World Economic Forum	www.weforum.org
World Trade Organization	www.wto.org

Other Supplementary Material

Videos

1. *Wall Street*

This movie illustrates very different corporate missions between the established company and the one trying to take it over.