Operations Management Sustainability and Supply Chain Management (Canadian) 2nd edition Heizer Solutions Manual

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CHAPTER 2

Operations Strategy in a Global Environment

Discussion Questions

1. Global seems the better label for Boeing since authority and responsibility reside in the U.S.—the home country.

2. Six reasons to internationalize: Reduce costs, improve supply chain, provide better goods and services, attract new markets, learn to improve operations, attract and retain global talent.

3. No. Sweetness at Coca-Cola is adjusted for the tastes of individual countries.

4. A *mission* is an organization's purpose—what good or service it will contribute to society.

5. *Strategy* is an organization's action plan—how it is going to achieve its purpose.

6. A *mission* specifies where the organization is going and a *Strategy* specifies how it is going to get there.

7. The answer to this question will depend on the establishment studied, but should probably include some of the following considerations:

The mission: diagnose automobile problems and make the necessary repair at a fair price for the local customer.

Points to consider, or options, within the 10 decision areas are:

Decision:	*Option*:
Product	Repair work of North American and/or foreign vehicles; specialized (tune-ups, lubrication, wheel alignment, etc.) versus general repair; frame and body repair versus engine and power train repair; repair and maintenance only, versus repair, maintenance, and sales of fuel; professional staffing versus rental of tools and space for do-it-yourself repair work
Quality	Appropriate level of quality; warranty; method of measuring and maintaining quality (customer complaints, inspection by supervising mechanic, etc.)
Process	Use of general versus special purpose diagnostic and repair equipment (in particular, the degree to which computer controlled diagnostic equipment is employed)
Location	In-town, shopping mall, highway
Layout	Single bay/multibay; general-purpose bay versus special-purpose bay (lubrication/tire repairs and installation/wheel alignment/engine and power train repair, etc.)
Human resources	Employment of certified versus noncertified repair persons; employment of specialists versus general mechanics
Supply chain	Choice of supplier(s) for both general and original manufacturer parts and supplies
Scheduling	Hours of operation (8:00 A.M.–5:00 P.M.; 24-hour towing; weekends/holidays), repairs versus motor vehicle safety inspections, etc.; service by appointment versus walk-in (or drive-up) service
Inventory	Quantity and variety of repair parts (fan belts, filters, mufflers, headlights, etc.) to stock; whether to stock generic or original manufacturer parts
Maintenance	Bays with hydraulic lifts vs. easier-to-maintain "basement" work areas. Preventive maintenance of equipment vs. breakdown.

8. Library or internet assignment: Student is to identify a mission and strategy for a firm. *BusinessWeek, Fortune, The Wall Street Journal*, and *Forbes* all have appropriate articles.

9. OM strategy changes during a product's life cycle: During the introduction stage, issues such as product design and development are critical, then during the growth stage the emphasis changes to product and process reliability; from there we move to concern for increasing the stability of the manufacturing process and cost cut-ting; and finally, in the decline stage pruning the line to eliminate items not returning good margin becomes important. Figure 2.5 provides a more expansive list.

10. The text focuses on three conceptual strategies—cost leadership, differentiation and response. Cost leadership by Walmart—via low overhead, vicious cost reduction in the supply chain; Differentiation, certainly any premium product—all fine dining restaurants, up-scale autos—Lexus, etc.; Response, your local pizza delivery service, FedEx, etc.

11. An operations strategy statement for Porter Airlines would include a focus on efficient, low-cost service with high capital utilization (high aircraft and gate utilization), flexible non-union employees, low administrative overhead, etc.

12. The integration of OM with marketing and accounting is pervasive. You might want to cite examples such as developing new products. (Marketing must help with the design, the forecast and target costs; accounting must ensure adequate cash for development and the necessary capital equipment.) Similarly, new technology or new processes emanating from operations must meet the approval of marketing and the capital constraints imposed by the accounting department.

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ETHICAL DILEMMA

Here is an interesting scenario. A firm can save $10 million in production costs per year. All it has to do is locate manufacturing in China, which is not a democracy and where some employees are exploited. Nike faced a similar dilemma in Vietnam, where it was accused of paying less than a livable wage ($1.60 per day). Students may be prepared to discuss this current and sensitive subject.

END-OF-CHAPTER PROBLEMS

2.1 The three methods are cost leadership, differentiation, and response. Cost leadership can be illustrated by Walmart, with low overhead and huge buying power to pressure its suppliers into concessions. Differentiation can be illustrated by almost any restaurant or restaurant chain, such as Red Lobster, which offers a distinct menu and style of service than others. Response can be illustrated by a courier service such as FedEx, that guarantees specific delivery schedules; or by a custom tailor, who will hand make a suit specifically for the customer.

2.2 Cost leadership: institutional food services, such as Sodexho, provide meal service to college campuses and similar institutions. Such firms often get their contracts by being low bidder to provide service. Response: a catering firm (the customer picks the menu, time, and date). Differentiation: virtually all restaurants seek differentiation in menu, in taste, in service. This is particularly true of fine dining restaurants, but also true of fast food restaurants. For instance, Burger King likes to talk about meals "anyway you want them," and McDonald's has a playground or seating area for children.

2.3 Students may find articles about German work rules or Latin American siestas that interfere with work schedules. Also, some Hindu workers will not touch metal objects, or touch objects touched by "untouchables." There are rules concerning kitchen equipment and ingredient mixing in kosher food preparation. Computer keyboards in English versus Chinese pose a serious training issue. There are many other possibilities.

2.4 Arrow Shirts; Bidermann International, France
Braun Household Appliances; Procter & Gamble, United States
Lotus Autos; Proton, Malaysia
Firestone Tires; Bridgestone, Japan
BlackBerry; BlackBerry Ltd.; Canada
Godiva Chocolate; Campbell Soup, United States
Häagen-Dazs Ice Cream; great globalization discussion example: Häagen-Dazs was established in New York City; now owned by Pillsbury (U.S.A.) which is owned by General Mills (U.S.A.), but Nestlé SA (Switzerland) is licensed to sell Häagen-Dazs in the United States
Jaguar Autos; Tata, India
MGM Movies; Credit Lyonnais, France
Lamborghini Autos; Volkswagen, Germany
Goodrich Tires; Michelin, France
Alpo Pet Foods; Nestlé, Switzerland

2.5 (a) The maturing of a product may move the OM function to focus on more standardization, make fewer product changes, find optimum capacity, stabilize the manufacturing process, lower labour skills, use longer production runs, and institute cost cutting and design compromises.

(b) Technological innovation in the manufacturing process may mean new human resources skills (either new personnel and/or training of existing personnel), and added capital investment for new equipment or processes. Product design, layout, maintenance procedures, purchasing, inventory, quality standards, and procedures may all need to be revised.

(c) A design change will, at least potentially, require the same changes as noted in (b).

2.6 Specific answers to this question depend on the organization considered. Some general thoughts follow:

(a) For a producer with high energy costs, major oil prices change the cost structure, result in higher selling prices, and, if the company is energy inefficient compared to other producers, result in a change in competitive position. Conversely, when oil prices drop it is a bonanza for heavy fuel users such as airlines.

(b) More restrictive quality of water and air legislation increases the cost of production and may, in some cases, prohibit the use of specific technologies. The high cost of process modification to meet more rigid standards has resulted in the closing of numerous plants including paper mills and steel mills.

(c) A decrease in the number of young prospective employees entering the U.S. labour market can contribute to a tighter job market. High unemployment rates can have the opposite effect.

(d) Inflation, especially at high or uncertain rates, makes it more difficult to predict both the cost of production and the market demand.

(e) Legislation moving health insurance from a before-tax benefit to taxable income will reduce the take-home pay of employees by the amount of the taxes. This could have a significant effect on the income of employees in the lower pay classifications, putting substantial pressure on operations managers to increase wages in these classifications. (This does not mean that it is not a good idea for society—i.e., to make employees more sensitive to the cost of health insurance.)

2.7 The corruption perception index maintained by Transparency International (www.transparency.org) gives a 1-to-10 scale (10 being least corrupt to 1 being most corrupt). Also see Chapter 8, Table 8.2.

A lively class discussion can also take place regarding who pays bribes, as shown on the same website. Other perspectives of culture are shown on the Asia Pacific Management Forum page (www.apmforum.com).

2.8 *The Economist* does an analysis similar to this on occasion but the "Global Competitiveness Index," *World Economic Forum*, Geneva (www.weforum.org) does one every year. (Also see Table 8.1 in the text.) For 2009–2010 U.S., 2; Japan, 8; U.K., 13; Israel, 27; China, 29; Mexico, 60 are some rankings.

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CASE STUDY

MR. LUBE

1. What constitutes the mission of Mr. Lube?

To provide economical preventative maintenance, primarily to vehicles owned by indi-viduals (as opposed to businesses), in Canada.

2. How does the Mr. Lube strategy provide competitive advantage?

This case is a good way to get the student thinking about the 10 decisions around which the text is organized. Mr. Lube's approach to these 10 decisions includes:

- *Product design*: A narrow product strategy could be defined as "lubricating automobiles" (more in Chapter 5).
- *Quality strategy*: *Because* of limited task variety, high repetition, good training, and good manuals, quality should be relatively easy to maintain.
- *Process strategy*: The process strategy allows employees and capital investment to focus on doing this mission well, rather than trying to be a "general purpose" garage or gas station.
- *Location strategy*: *Facilities* are usually located near residential areas.
- *Layout strategy*: The *bays* are designed specifically for the lubrication and vacuuming tasks to minimize wasted movement on the part of the employees and to contribute to the speedier service.
- *Supply chain strategy*: *Purchasing* is facilitated by negotiation of large purchases and custom packaging.
- *Human resources strategy*: *Human* resources strategy focuses on hiring a few employees with limited skills and training them in a limited number of tasks during the performance of which they can be closely supervised.
- *Inventory*: Inventory *investment* should be relatively low, and they should expect a high turnover.
- *Scheduling*: *Scheduling* is quite straightforward with similar times for most cars. Once volume and fluctuation in volume are determined, scheduling should be very direct—assisting both staffing and customer relations.
- *Maintenance*: There is *relatively* little equipment to be maintained, therefore little preventive maintenance required. With multiple bays and multiple systems, there is backup available in the case of failure.

3. Specialization of personnel and facilities should make Mr. Lube more efficient. Jobs/tasks accomplished per man hour would be a good place to start.

VIDEO CASE STUDIES

1 STRATEGY AT REGAL MARINE

There is a short video (7 minutes) available from Prentice Hall and filmed specifically for this text that supplements this case.

1. Regal Marine's mission is to provide luxury performance boats to the world through constant innovation, unique features, and high quality that will differentiate the boats in the marketplace.

2. A strength of Regal Marine is continued innovation that is being recognized in the marketplace. One current weakness is maintaining an effective, well-trained labour force in a tight Florida labour market. The *opportunities* for Regal include an increase in boat sales brought about through the reduction of the luxury tax and Regal Marine's increasing market presence in the world boat market. The *threats* to Regal are a huge number of small competitors going after various parts of the market. Brunswick goes after the mass market, and hundreds of small boat manufacturers go after various niche markets.

3. Regal Marine's strategy is to focus on constant innovation, high quality, and good value for the money with sales through effective dealers.

4. Each of the 10 operations management decisions is important to Regal's success.

- *Product*: Must be unique, full of features, and richly appointed, which puts constant pressure on the design, styling, and appointments
- *Quality*: Because the typical Regal Marine customer is interested in exceptional quality for his/her substantial investment
- *Process selection and design*: Because of the large number of boats and custom features, building via repetitive pro-cesses in a modular way has proven to be an effective and efficient process.
- *Inventory*: Regal tries to drive down finished goods inventory but must maintain inventory of purchased parts to meet changing production schedules. Additionally, the tooling inventory, that is the various molds, create an inventory problem all their own. This is a good point for class discussion, as most students may not be familiar with the process.
- *Scheduling*: Regal tries to move the components from workstation to workstation on a one-day JIT basis. Good, reliable schedules are necessary to get the job done.
- *Supply-chain management*: Of course suppliers are important because of many of the appointments—from galley features through engines, and hardware make a huge difference in the perceptions and performance of marine craft. Consequently, the selection of these suppliers and their performance is critical to Regal.
- *Maintenance*: Much of Regal's maintenance hinges on keeping fiberglass guns and molds ready for use.
- *Location*: Because Florida is one of the major markets for boats in America, Regal is positioned to supply this large market rapidly and economically.
- *Layout*: Because of the bulkiness of the product, the layout must be designed, as it is, to minimize loads times the distances times the difficulty factor. There is a clean logical flow of material through the plant.
- *Human resources*: Is important because boat hulls, decks, assembly, and finishing out the boats have a high labour content. Additionally, the current diverse labour market in Florida creates special challenges for operations managers at Regal.

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2 HARD ROCK CAFE'S GLOBAL STRATEGY

There is a short video (9 minutes) available from Prentice Hall and filmed specifically for this text that supplements this case.

1. Identify the strategic changes that have taken place at Hard Rock Cafe. What we want to do here is help the student understand that an optimum mix of internal strengths and opportunities drives strategies in a changing environment.

– Initially, Hard Rock was a London cafe serving classic American food.
– Then it became a "theme" chain with memorabilia in tourist destinations.
– Then it added stores.
– Then it added live music and a rock concert.
– Then it became an established name and began opening hotels and casinos.
– Then it upgraded its menu.
– Then it moved into cities that are not the typical tourist destination.

2. As these strategic changes have taken place—the 10 decisions of OM change:

– *Location*: From a London cafe, to tourist destinations, to non-tourist locations.
– *Product design*: New menu items
– *Quality*: The entire evaluation of quality and quality control got much more complex.
– *Process*: The kitchen process changed when Hard Rock went from hamburgers to lobster and additional changes were made as the firm moved to retail merchandising.
– *Layout*: Added retail stores, added live music facilities.
– *Supply chain*: Purchase memorabilia and lobsters—new expectations of the supply chain.
– *Inventory*: From food to clothing to memorabilia, to expanded food items in inventory—how do you keep lobsters alive and how long?
– *Human resources*: The range of talents needed keeps expanding; from cooks of classic American fare and wait staff and bartenders, to merchandisers, to cooks for a wider more expensive menu, to coordinators and performers for the live music facilities.

The case says little about scheduling and maintenance, but every change in product (food or merchandise) and every change in equipment and processes changes scheduling and maintenance.

3. Hard Rock fits in the multidomestic strategy, which uses the existing domestic model globally.

ADDITIONAL CASE STUDY*

MOTOROLA'S GLOBAL STRATEGY

This case examines Motorola's strategy in the cellular telephone and pager market. Motorola's strategy is based on Japanese-style techniques and continuous improvement of quality.

Key Points

- Motorola has been a leader in microchip and semiconductor production for years. It also established itself as a leader in mobile communication technology. However, Motorola has not achieved this leadership position without a fight.
- Motorola's initial reaction to the invasion of Japanese producers in the cellular telephone and pager market in 1980s was slow and uncertain. Eventually, Motorola decided to fight the Japanese using a two-pronged strategy, first by learning from them and then by competing with them.
- Motorola was committed to lowering costs, improving quality, and regaining market share. To that end, managers studied Japanese operations and learned how to compete more effectively. Motorola simultaneously increased its R&D and employee training budgets. In fact, a total reengineering of the company took place.
- The turnaround at Motorola was hugely successful. The company won the prestigious Malcolm Baldrige National Quality Award and is currently the number three producer of pagers and cellular telephones for the Japanese market. On a worldwide scale, Motorola controls some 15 percent of the market for these products and is the number two producer of semiconductor chips. In addition, the company is rapidly introducing new products.
- Motorola is working to avoid the complacent position it found itself in during the early 1980s and has set enormously challenging goals of continuous improvement for itself. In addition, it has decided that more than three-quarters of its revenues should accrue from foreign sources.

1. *What are the components of Motorola's international strategy?*

The basic components of international strategy are scope of operations, resource deployment, distinctive competence, and synergy. Motorola's scope of operations, or where it is going to conduct business, can be defined geographically as a worldwide operation. In terms of its resource deployment strategy, or how it allocates resources, Motorola initially abandoned some areas and then began to concentrate on cellular telephones, pagers, and semiconductors. It has also devoted considerable resources to R&D and new product development. Motorola's distinctive competence, or what it does exceptionally well, clearly revolves around its commitment to quality. Finally, Motorola is able to achieve synergy in its operations as the different elements of its operation benefit others.

2. *Describe how Motorola might have arrived at its current strategy as a result of a SWOT analysis.*

A SWOT analysis is an assessment of a firm's strengths, weaknesses, opportunities, and threats. A good SWOT analysis should provide the basis for strategy development that allows a firm to exploit strengths and opportunities, neutralize weaknesses, and minimize threats. Clearly Motorola identified the Japanese as a threat in the early 1980s, but also saw an opportunity in the world marketplace. Motorola at the time was weak in the areas of costs and quality, but exceptional leadership and R&D were able to neutralize the weaknesses and turn the company around.

3. *Discuss Motorola's primary business strategy.*

Motorola's primary business strategy is one of differentiation. The company has committed to distinguishing its products from those of competitors on the basis of quality. In fact, the company currently has a perfection rate of 99.9997 percent but has set an even loftier goal for the future.

Sources: Adapted from R.W. Griffin and M.W. Pustay, *International Business*, Addison-Wesley Longman, Reading, MA, 1996, pp. 373–374; updated with company data from www.motorola.com.

*This case appears on www.myomlab.com.

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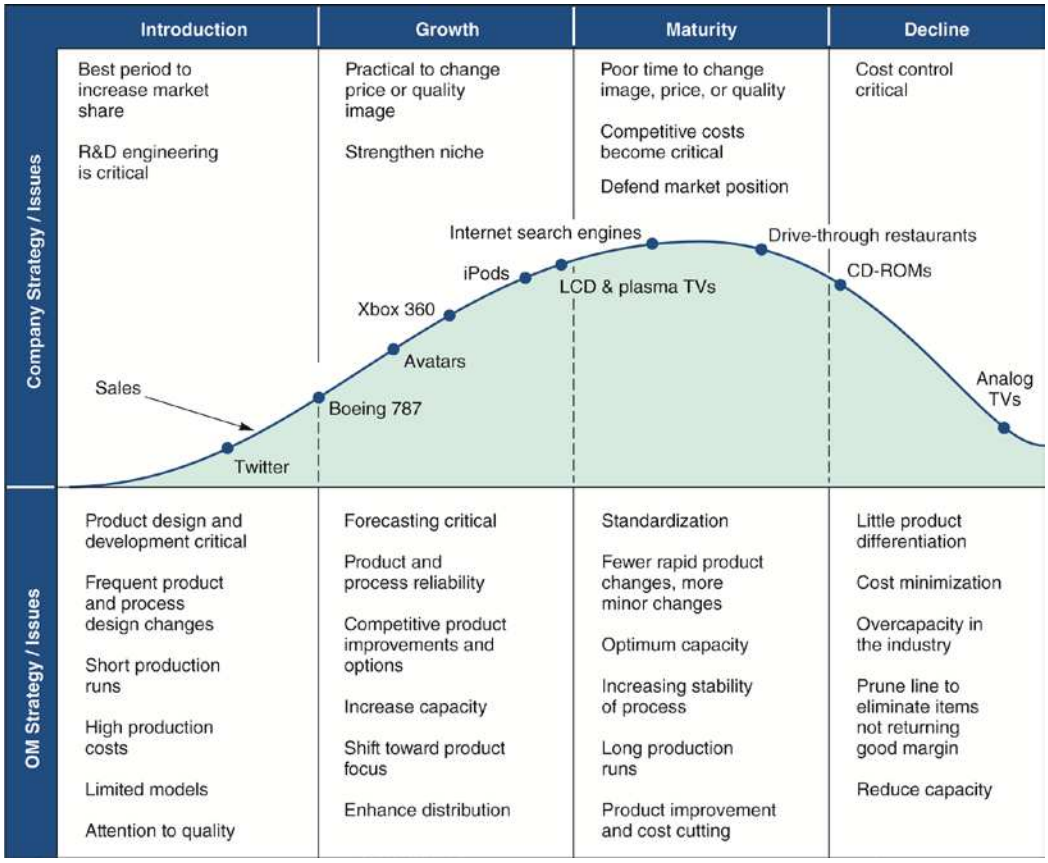
Chapter 2
Operations Strategy in a Global Environment

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 practices in operations management 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 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.



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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 a 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 humour. International marketing provides 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"; Coors "Turn it loose" slogan translated into Spanish as "Suffer from diarrhea"; and a well-known favourite, Electrolux tried to sell its vacuum in America with the slogan "Nothing sucks like an Electrolux."

3. Ethical dilemmas of global operations should be discussed in class. Many countries in the world do not have strict rules about labour and other resources. In this kind of situation parent company has little to no control over working conditions, sexual harassment, and pollution. Students should be involved in the discussion of "what do you do and on what basis do you make your decision." Students might be asked to watch "Made in Bangladesh" on The Fifth Estate before coming to the class. This video is long to show in class. But, you may want to talk about the video in brief and show some highlights in class before opening the floor for discussion about global operations and ethical issues. To access this video, go to The Fifth Estate website at http://www.cbc.ca/fifth/ and search for the episode entitled "Made in Bangladesh".

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 40) 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 favourite 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 seemed to dominate.

Company Cases (Video and Descriptive)

1. **Video Case:** *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-calibre dealers (120 of them in 40 countries) who 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

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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. **Video Case:** *Hard Rock Café'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 including live and energetic features (e.g., audio-visual, staff members, and a 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 Café, so tourists will buy these otherwise common-looking logo shirts to advertise/reflect on their trip to that city.

   Prior to showing the video, the instructor could ask the students to identify features that make Hard Rock Café different from other restaurants, even other themed restaurants. Afterwards, a 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 labour 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 type of restaurant.

3. **Descriptive Case:** *Mr. Lube*
Mr. Lube stations perform oil changes, lubrication, and interior cleaning in a spotless environment. Precise task assignments and good training are designed to move car into and out of the bay in minutes. Before you discuss this case, consider post the links to the following articles about Mr. Lube:

   "Mr. Lube Canada: Focus on Franchisees is lubricant for success", ***The Financial Post***, available at http://www.financialpost.com/

   "A Well-Oiled Plan: Why Mr. Lube's Stuart Suls doesn't believe in work-life balance", ***YouInc*** **(March 18, 2013),** available at https://youinc.com/content/

   After reading the case presented in the text and also these articles students will be able to talk about Mr. Lube's strategies that make this company successful in the first place. Discussion questions given in the text can be helpful way to keep students focused in their discussion.

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.

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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."

3. *Outsourced, (Josh Hamilton and Ayesha Dharker) ShadowCatcher Entertainment, 2006*
The manager of a Seattle novelty product company learns that his entire order fulfillment department is to be outsourced to India. In order to meet the company's objectives he discovers that it is not enough to teach American values to the Indian employees; he must also learn about their culture.

Additional Assignment Ideas

1. Ask students to prepare for class by visiting several company websites and, for each company, locate the company mission and print a copy 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.

2. Look at the websites 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 website?
   - 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 (on MyOMLab)
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 a 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.

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- *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 the difficulties Toys "R" Us has 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)

- *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.

MyOMLab Resources

Visit **MyOMLab** to access cases, videos, downloadable software, and much more. MyOMLab also features a personalized Study Plan that helps your students identify which chapter concepts they've mastered and guides them towards study tools for additional practice.

Internet Resources

Business Policy and Strategy, Division of the Academy of Management	http://divisions.aomonline.org/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	http://www.transparency.org
World Bank	www.worldbank.org
World Economic Forum	www.weforum.org
World Trade Organization	www.wto.org
Canadian Trade Commissioner Service (TCS)	http://www.canadabusiness.ca

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.

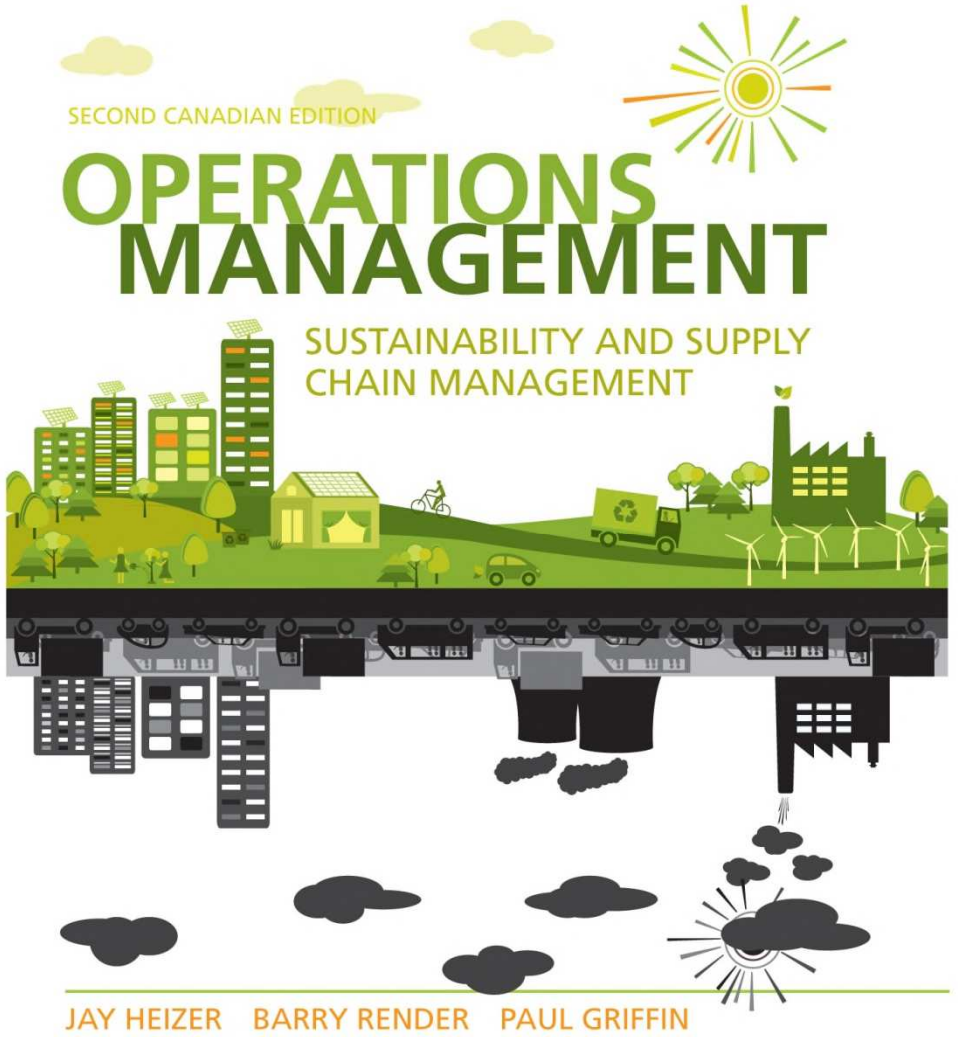
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Operations Management Sustainability and Supply Chain Management (Canadian) 2nd edition Heizer Solutions Manual

PEARSON

Heizer, Render, Griffin
Operations Management
Second Canadian Edition

Slides adapted by Michael Zhang



Chapter 2

Operations Strategy in a Global Environment

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Outline

- Global Company Profile: Boeing
- A Global View of Operations and Supply Chains
- Developing Missions and Strategies
- Achieving Competitive Advantage Through Operations
- Ten Strategic OM Decisions

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Outline – Continued

- **Issues in Operations Strategy**
- **Strategy Development and Implementation**
- **Global Operations Strategy Options**

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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**

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Learning Objectives

When you complete this chapter you should be able to:

4. **Understand the significance of key success factors and core competencies**
5. **Identify and explain four global operations strategy options**

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Some Boeing Suppliers (787)

Firm	Country	Component
Latecoere	France	Passenger doors
Labinel	France	Wiring
Dassault	France	Design and PLM software
Messier-Bugatti	France	Electric brakes
Thales	France	Electrical power conversion system and integrated standby flight display
Messier-Dowty	France	Landing gear structure
Diehl	Germany	Interior lighting

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Some Boeing Suppliers (787)

Firm	Country	Component
Rolls-Royce	UK	Engines
BAE SYSTEMS	UK	Electronics
Alenia Aeronautics	Italy	Upper centre fuselage and horizontal stabilizer
Kawasaki Heavy Industries	Japan	Forward fuselage, fixed section of wing, landing gear well
Toray Industries	Japan	Carbon fibre for wing and tail units
Chengdu Aircraft Group	China	Rudder

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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**

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Global Strategies

- **Volvo – a Swedish company, it was controlled by an American company, Ford, and is now owned by Geely of China. 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**

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Growth of World Trade

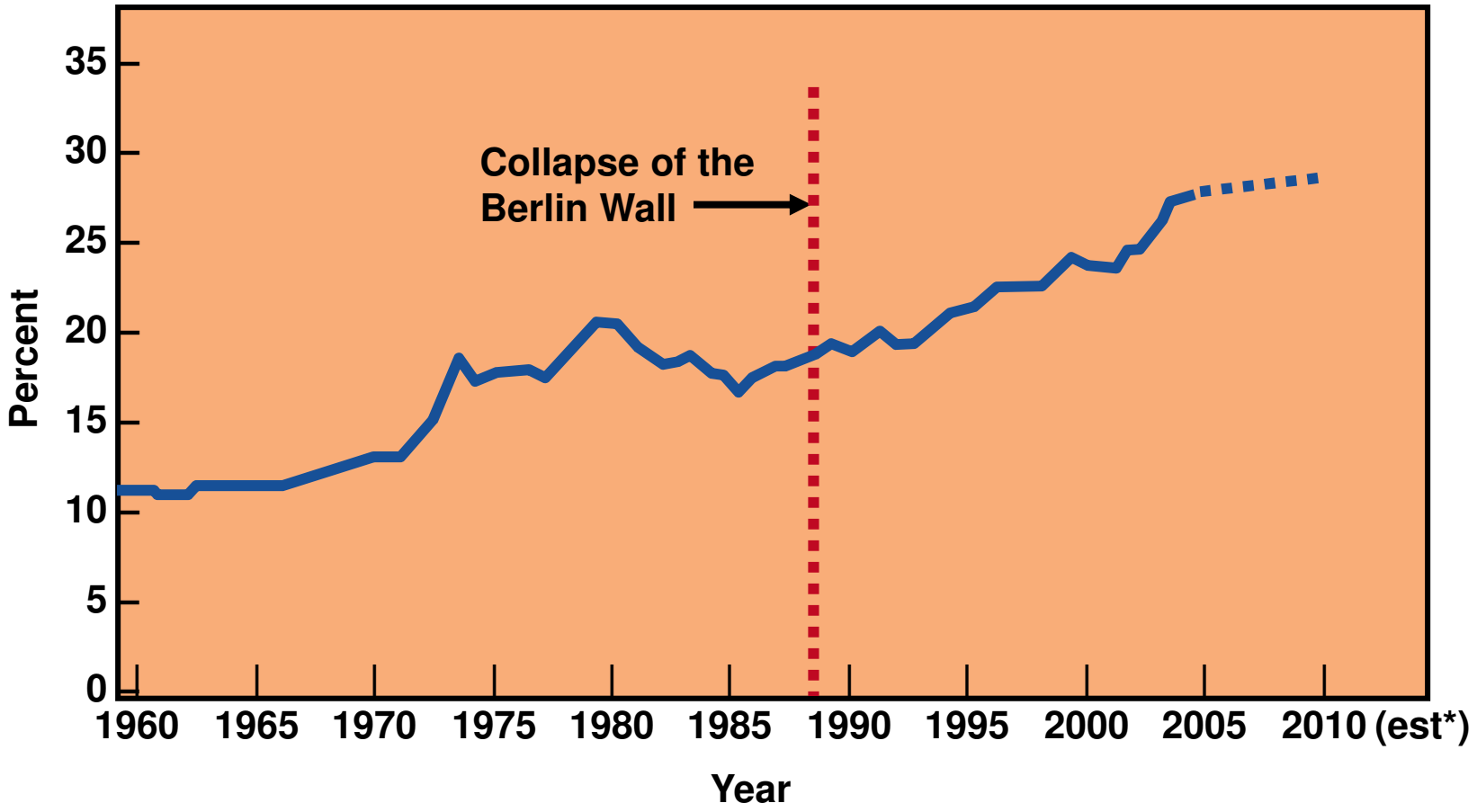
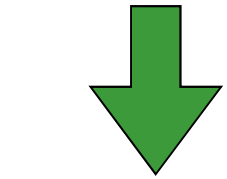


Figure 2.1

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Reasons to Globalize



Tangible Reasons

Intangible Reasons

Reasons to Globalize

1. **Reduce costs (labour, taxes, tariffs, etc.)**
2. **Improve the supply chain**
3. **Provide better goods and services**
4. **Understand markets**
5. **Learn to improve operations**
6. **Attract and retain global talent**

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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)**

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Improve the Supply Chain

- **Locating facilities closer to unique resources**
  - **Metal companies to Northern Ontario**
  - **Auto design to California**
  - **Athletic shoe production to China**
  - **Perfume manufacturing in France**

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Provide Better Goods and Services

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

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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**

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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**
  - **quipment and layout have been improved using Scandinavian ergonomic competence**

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Attract and Retain Global Talent

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

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Cultural and Ethical Issues

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

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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

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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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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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Royal Canadian Mounted Police

The RCMP is Canada's national police service. Proud in our traditions and confident in meeting future challenges, we commit to preserve peace, uphold the law and provide quality service in partnership with our communities.

Figure 2.2

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Hard Rock Cafe

Our Mission: To spread the spirit of rock 'n' roll by creating authentic experiences that rock

Figure 2.2

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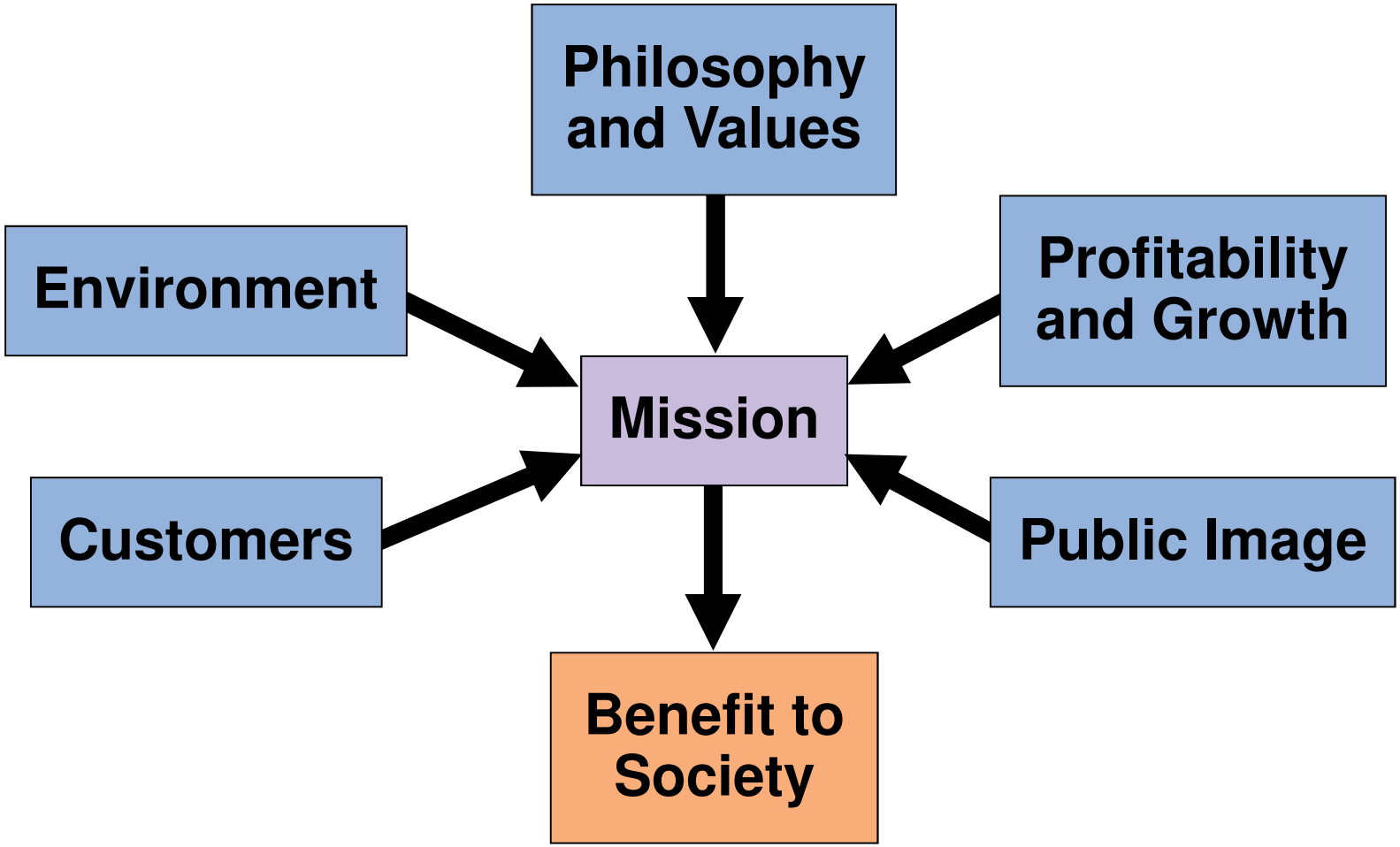
Arnold Palmer Hospital

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

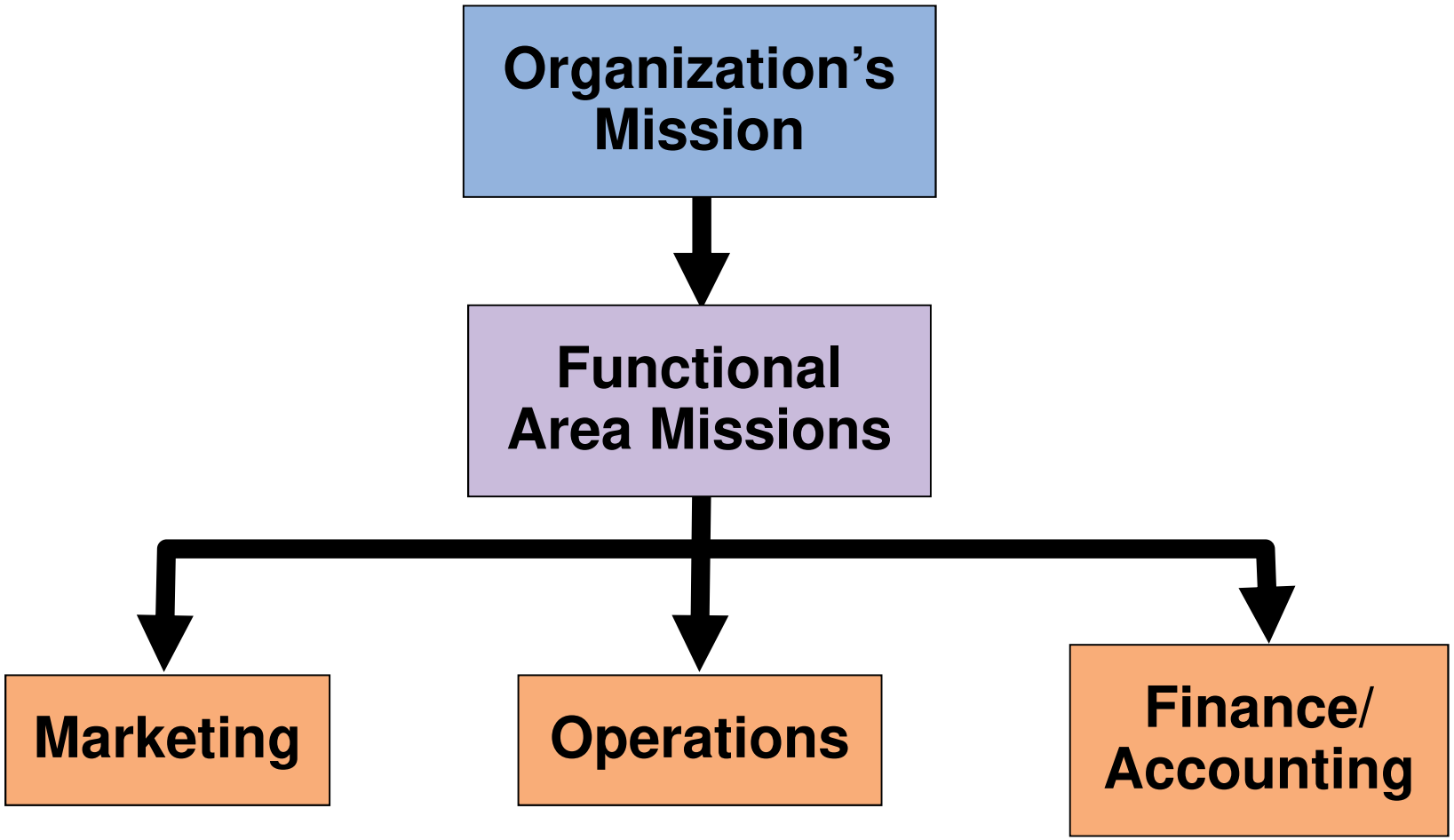
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Factors Affecting Mission



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Strategic Process



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Strategy

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

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Strategies for Competitive Advantage

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

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Competing on Differentiation

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

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

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Competing on Cost

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

- **Porter Airlines – secondary airports, few fare options, smaller crews, no expensive ticket offices**
- **Walmart – small overhead, shrinkage, distribution costs**
- **Franz Colruyt – no bags, low light, no music, doors on freezers**

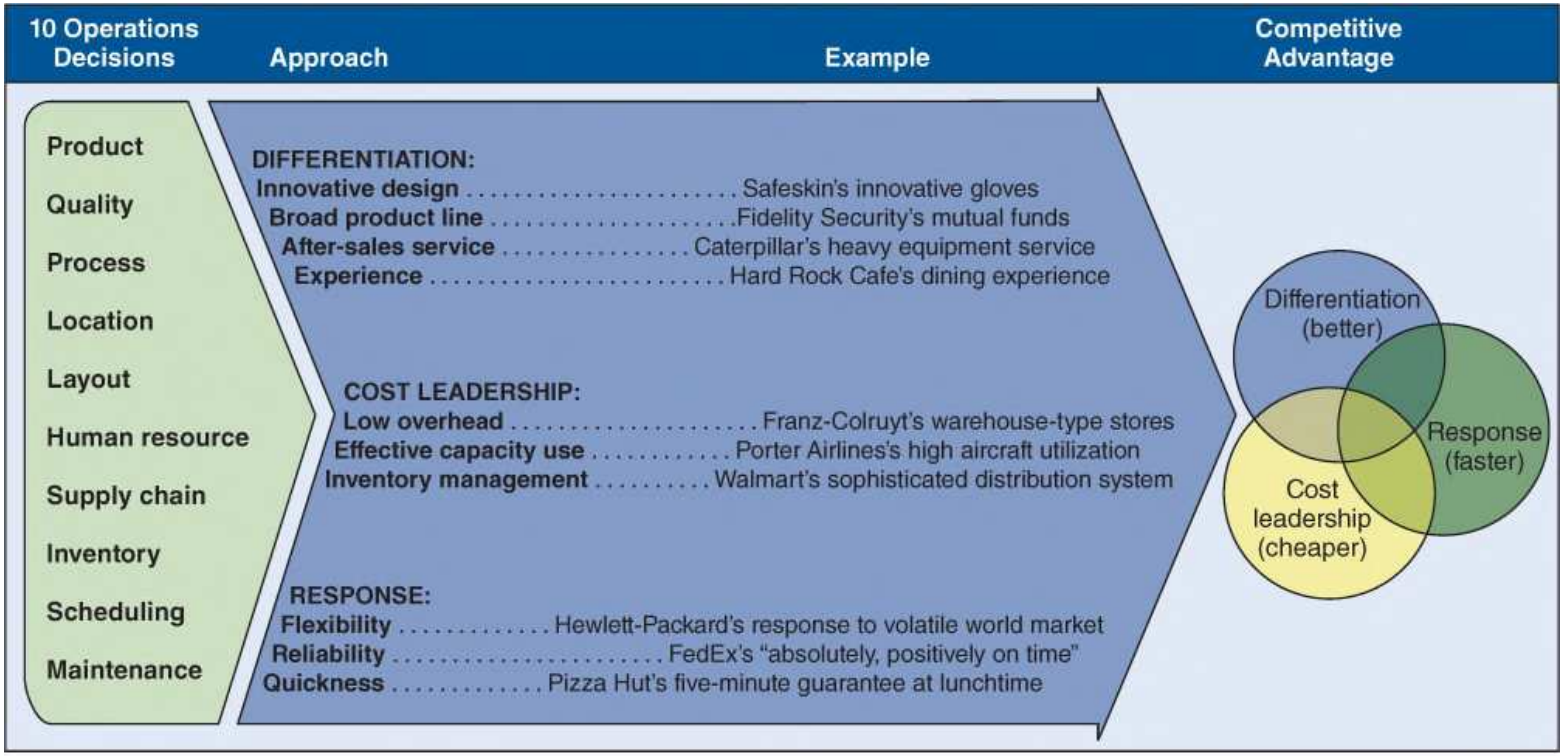
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Competing on Response

- 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

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Achieving Competitive Advantage Through Operations



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Ten 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

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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	Customer not involved	Customer may be directly involved Capacity must match demand

Table 2.1

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Goods and Services and the 10 OM Decisions

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

Table 2.1

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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

Table 2.1

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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

Table 2.1

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Managing Global Service Operations

Requires a different perspective on:

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

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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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Product Life Cycle

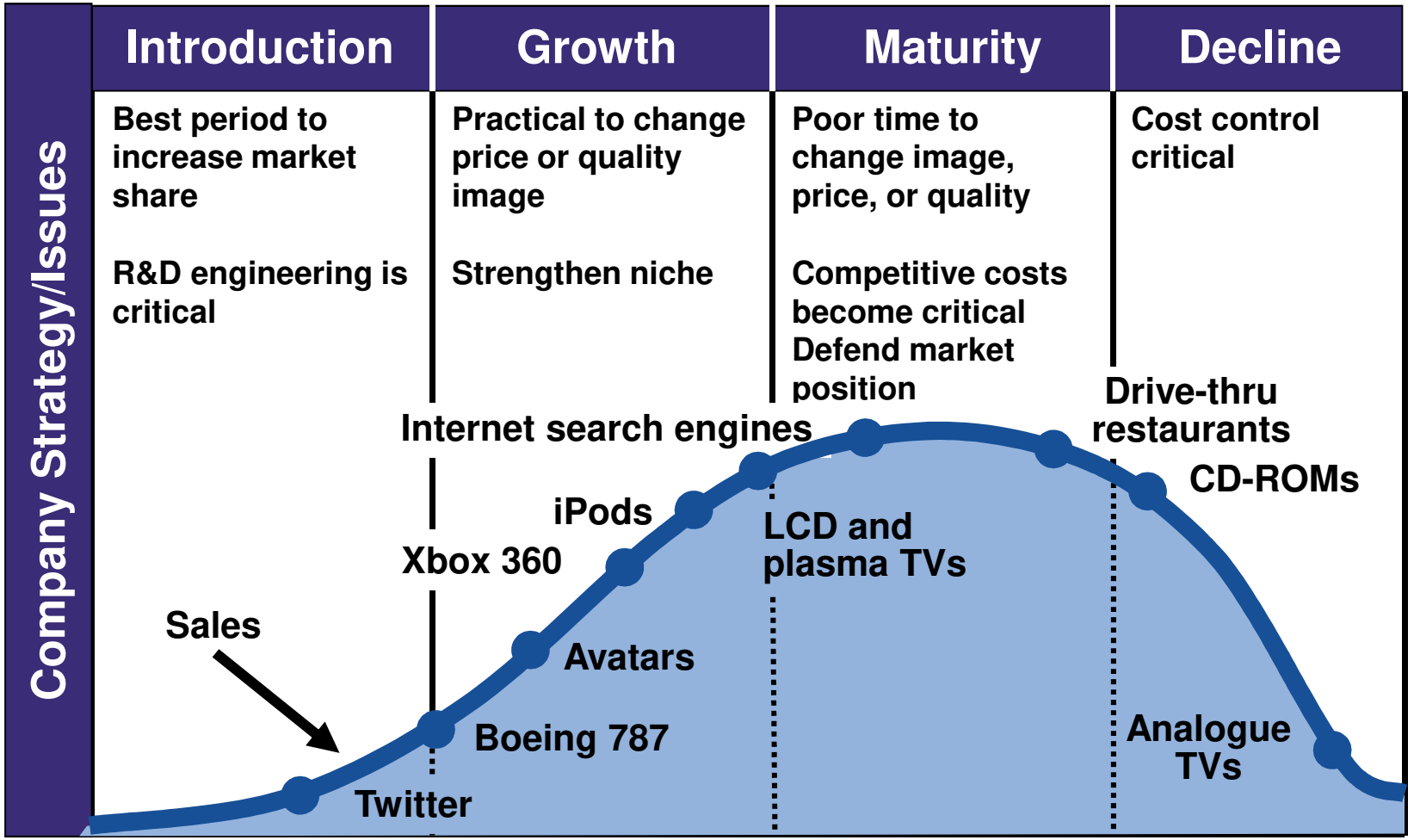


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Product Life Cycle

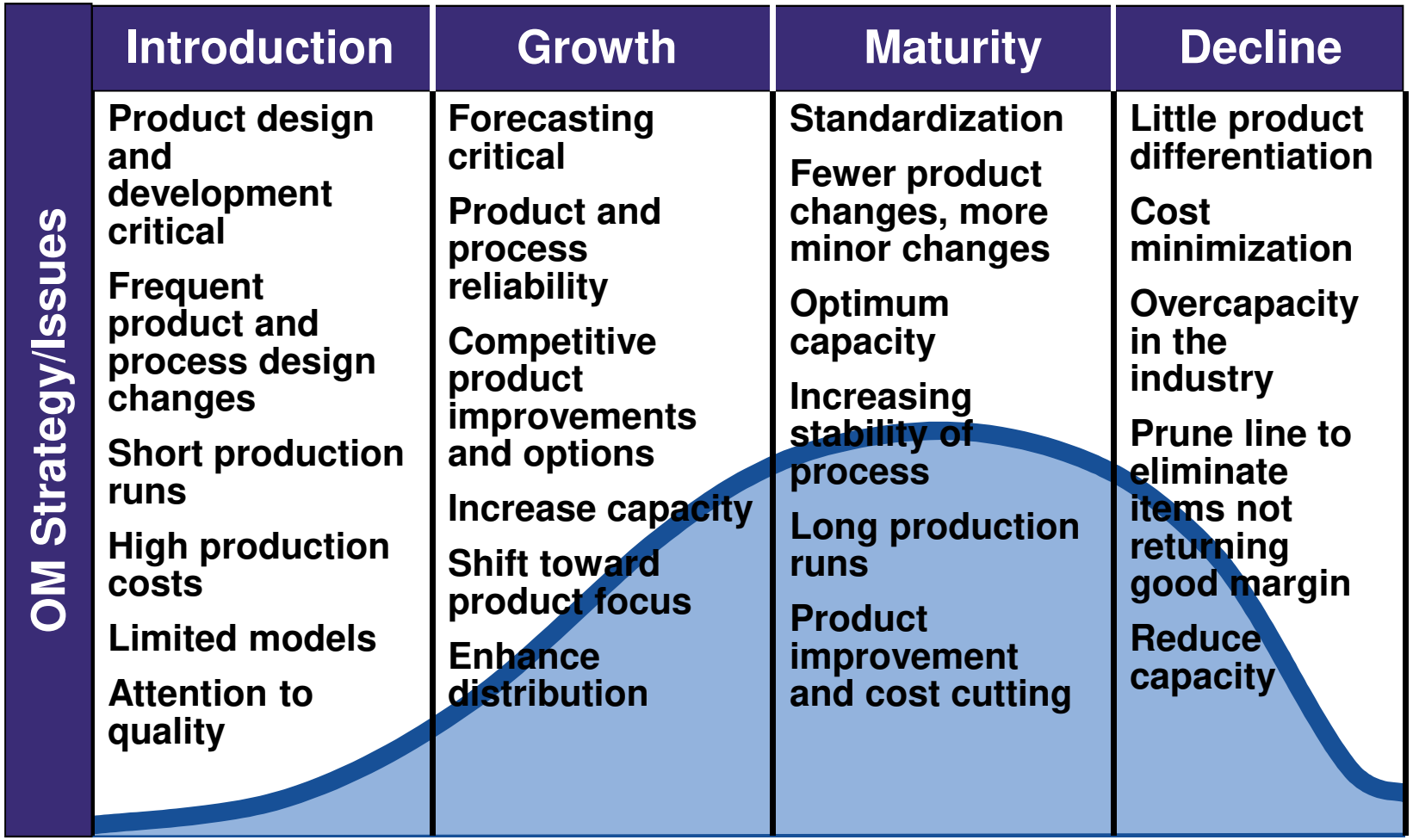
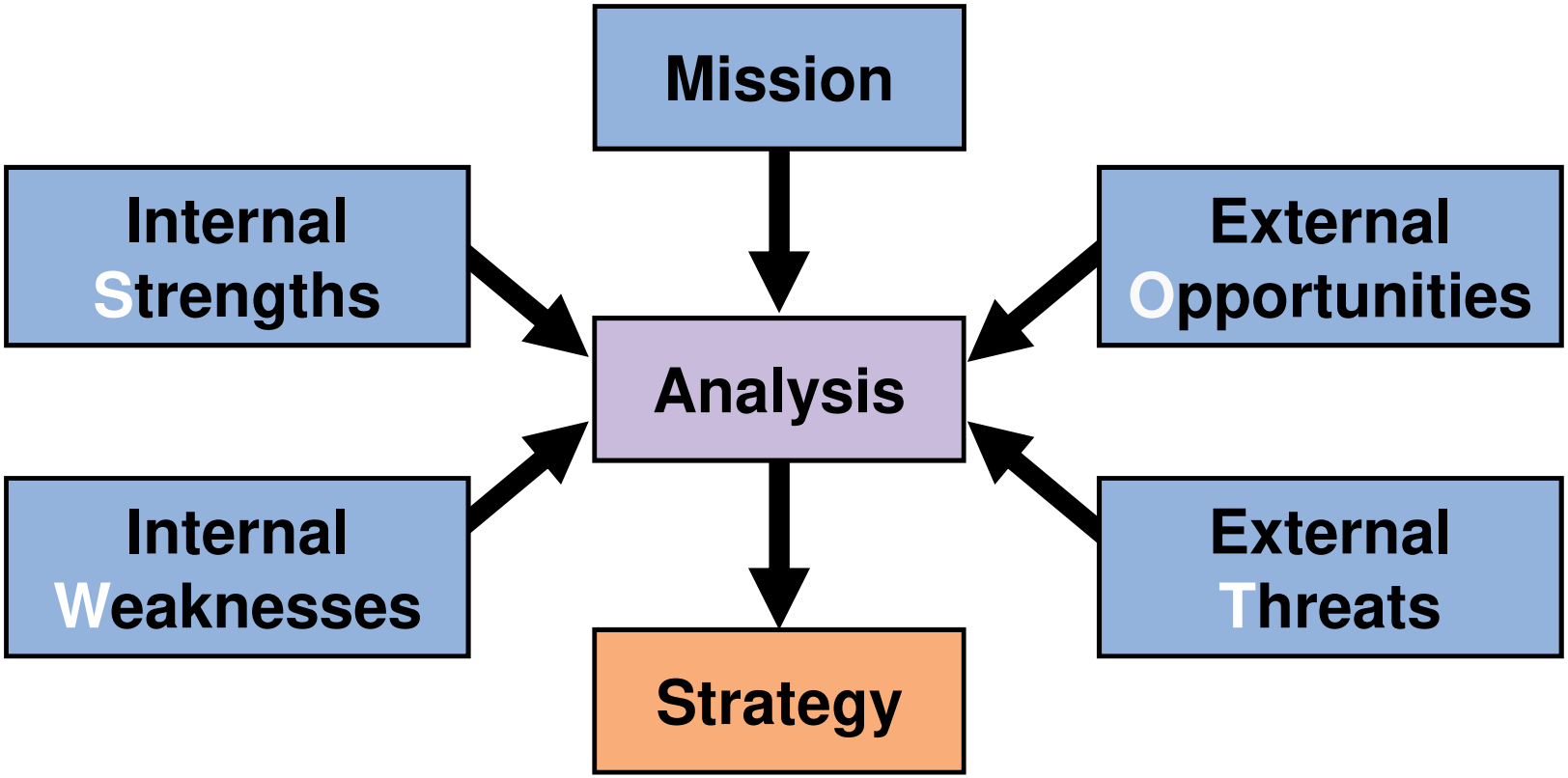


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SWOT Analysis



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Strategy Development Process

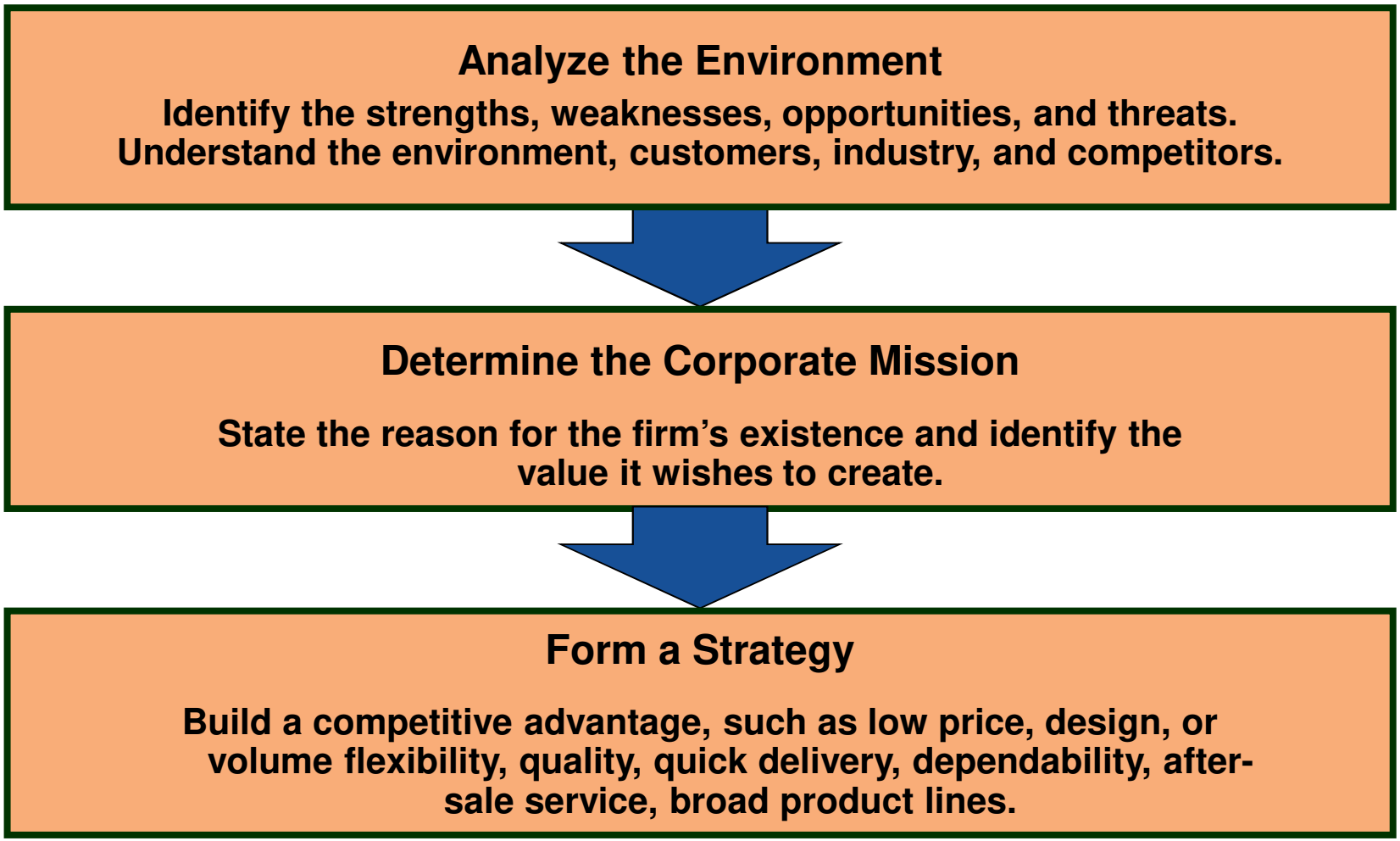


Figure 2.6

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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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Key Success Factors

Support a Core Competence and Implement Strategy by Identifying and Executing the Key Success Factors in the Functional Areas

Marketing	Finance/Accounting	Production/Operations
Service Distribution Promotion Channels of distribution Product positioning (image, functions)	Leverage Cost of capital Working capital Receivables Payables Financial control Lines of credit	

Decisions	Sample Options	Chapter
Product	Customized or standardized	5
Quality	Define customer expectations and how to achieve them	6, S6
Process	Facility size, technology, capacity	7, S7
Location	Near supplier or near customer	8
Layout	Work cells or assembly line	9
Human resource	Specialized or enriched jobs	10
Supply chain	Single or multiple suppliers	11, S11
Inventory	When to reorder, how much to keep on hand	12, 14, 16
Schedule	Stable or fluctuating production rate	13, 15
Maintenance	Repair as required or preventive maintenance	17

Figure 2.7

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Four International Operations Strategies

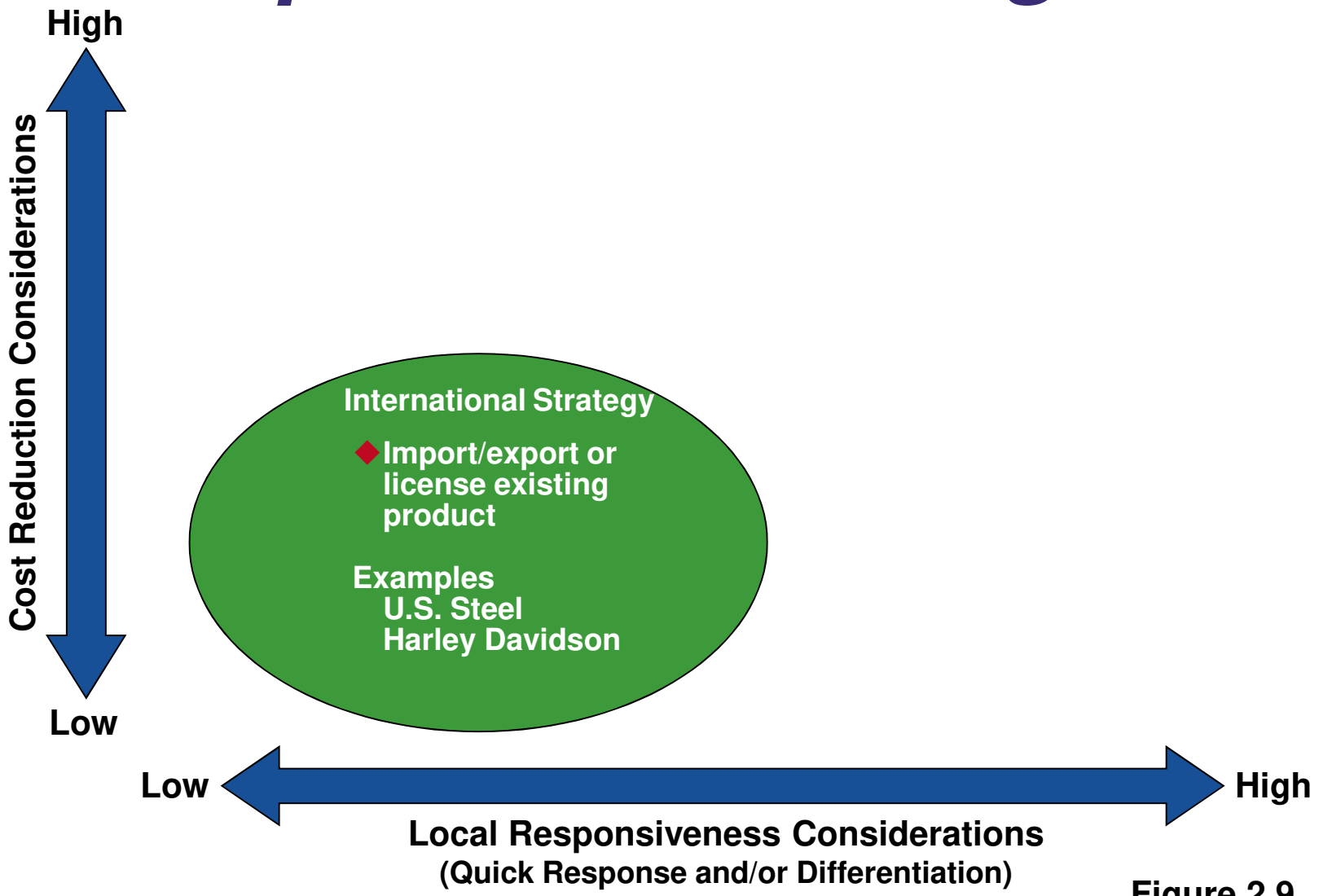


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Four International Operations Strategies

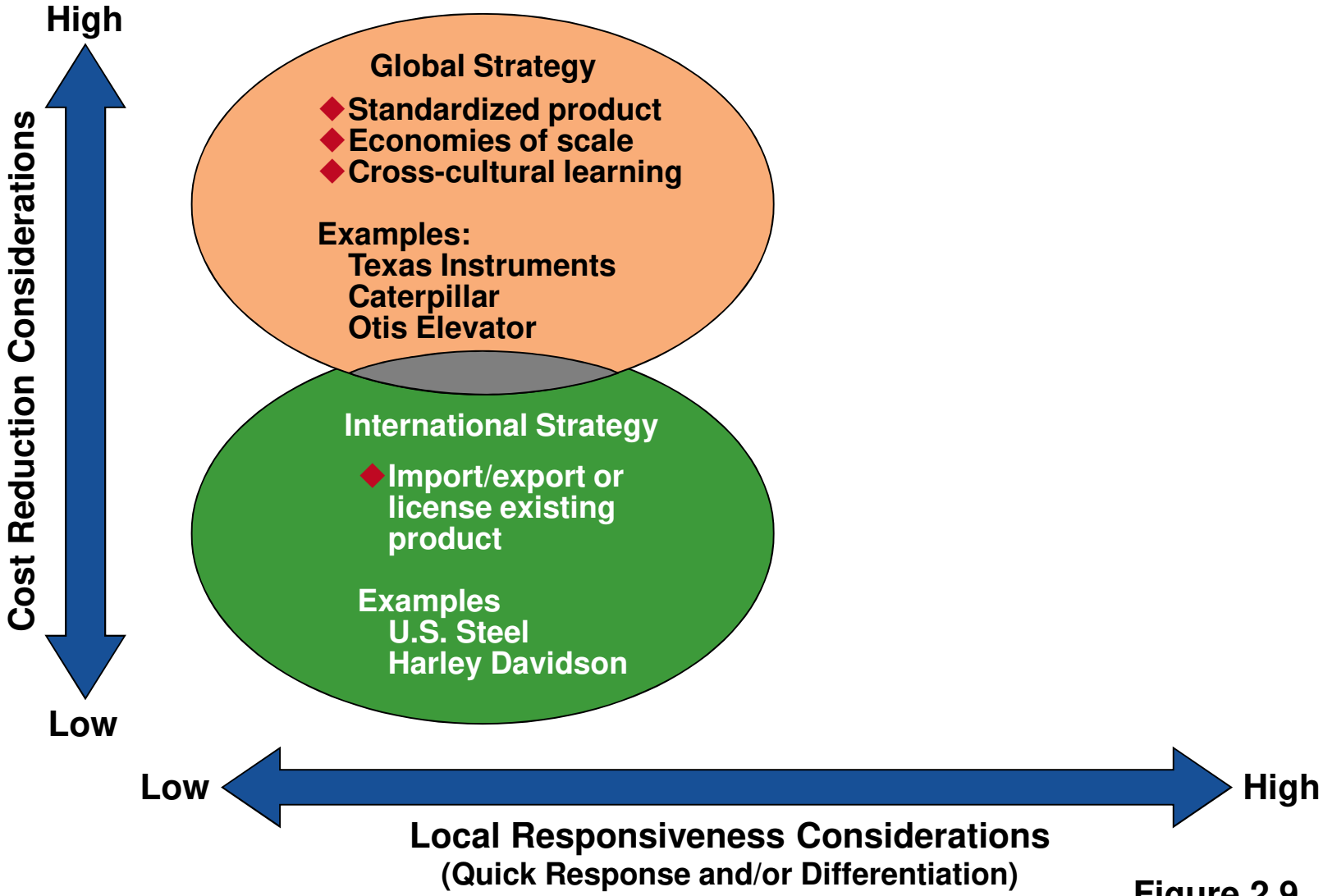


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Four International Operations Strategies

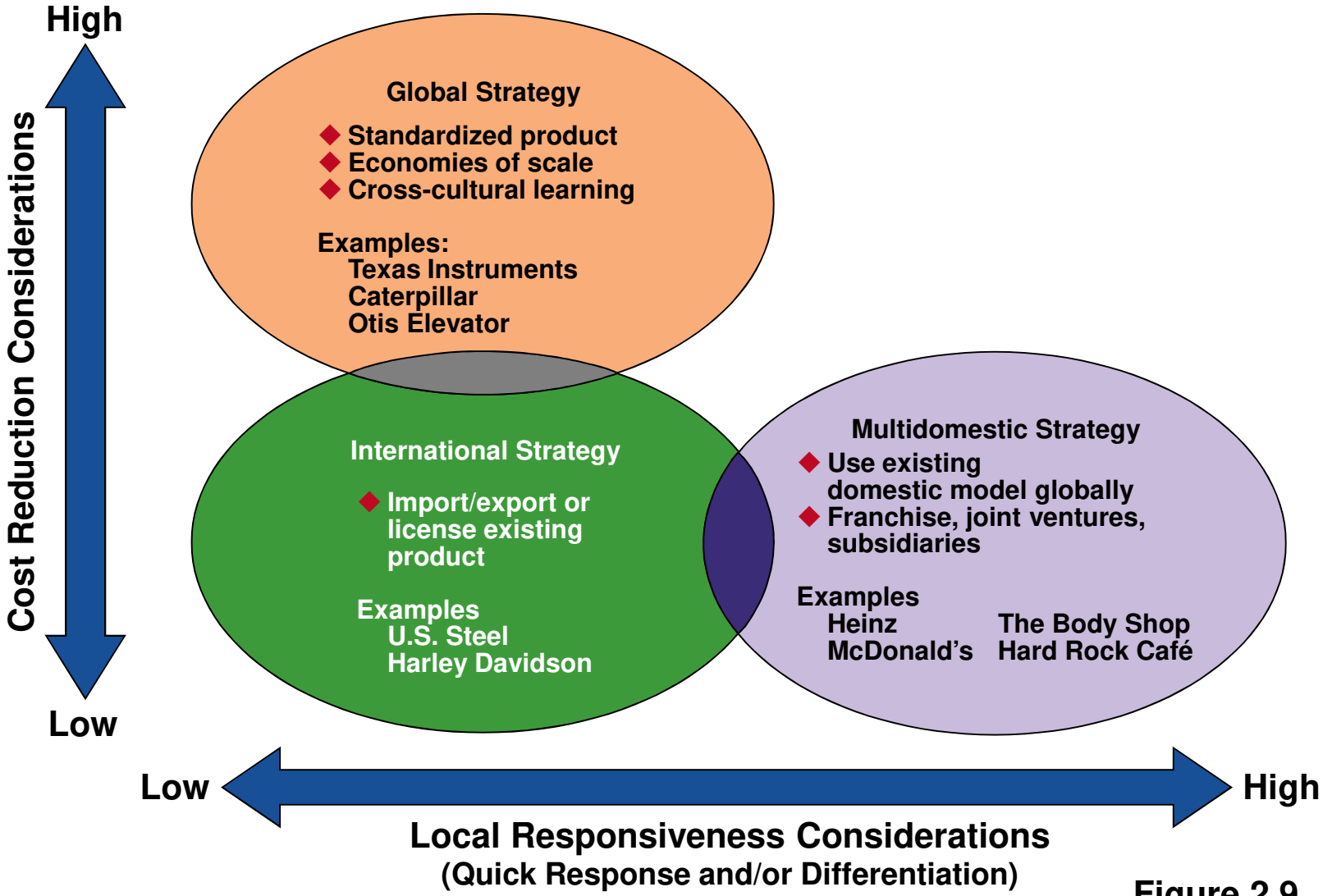


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Four International Operations Strategies

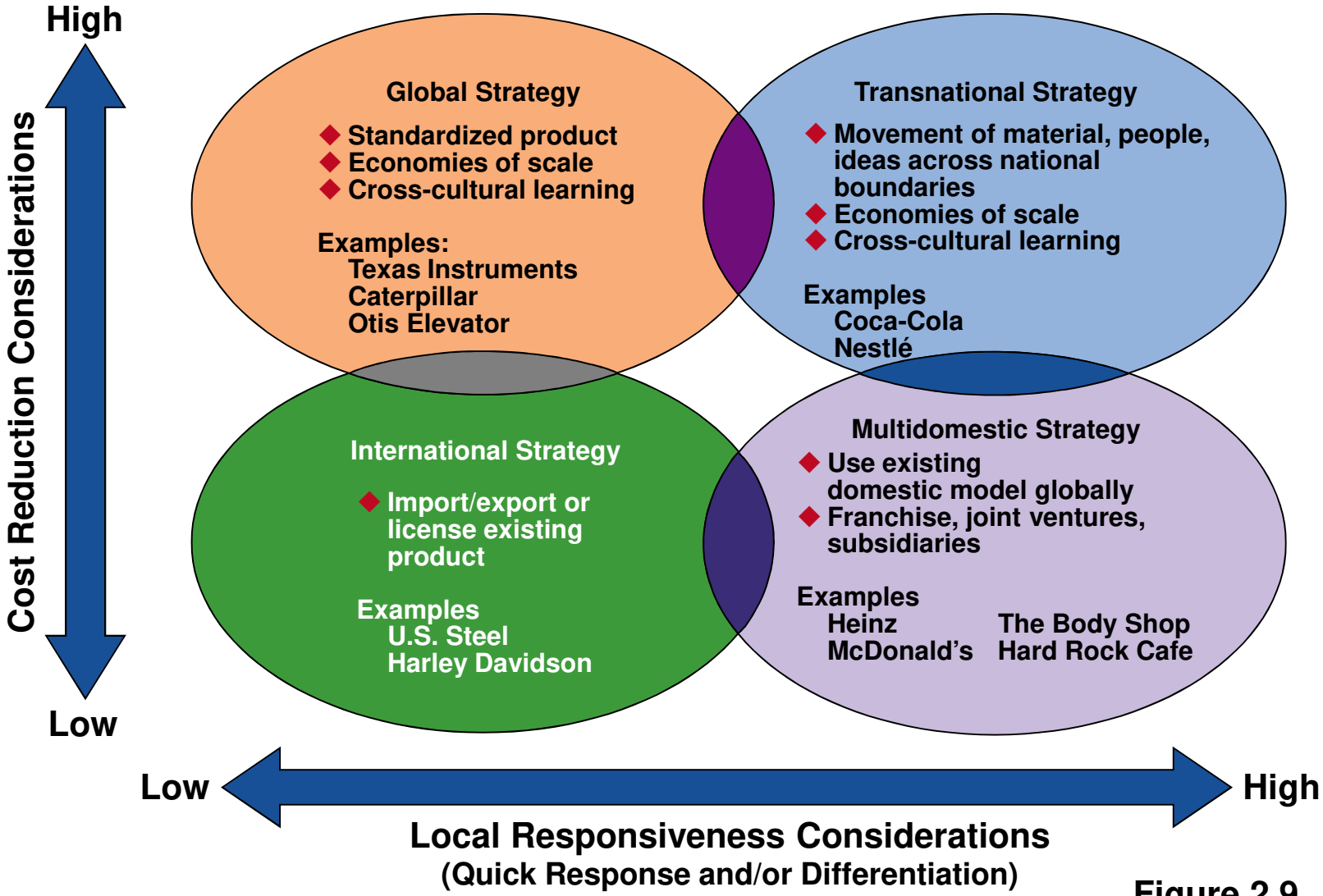


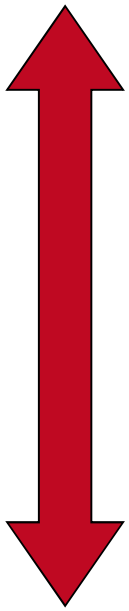
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Ethics: Ranking Corruption

Rank	Country	2011 CPI Score (out of 10)
1	New Zealand	9.5
2	Denmark, Finland	9.4
5	Singapore	9.2
6	Norway	9.0
8	Australia, Switzerland	8.8
10	Canada	8.7
12	Hong Kong	8.4
14	Germany, Japan	8.0
16	UK	7.8
24	USA	7.1
32	Taiwan	6.1
43	South Korea	5.4
60	Malaysia	4.3
75	China	3.6
112	Vietnam	2.9
143	Russia	2.4

Least Corrupt



Most Corrupt

TRANSPARENCY INTERNATIONAL
the coalition against corruption

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Summary

- Global operations provide challenges and opportunities
- Organizations identify their strengths and weaknesses
- Missions and strategies are then developed
- Competitive advantages can be achieved from global operations
- OM managers have huge impact on the decision making

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