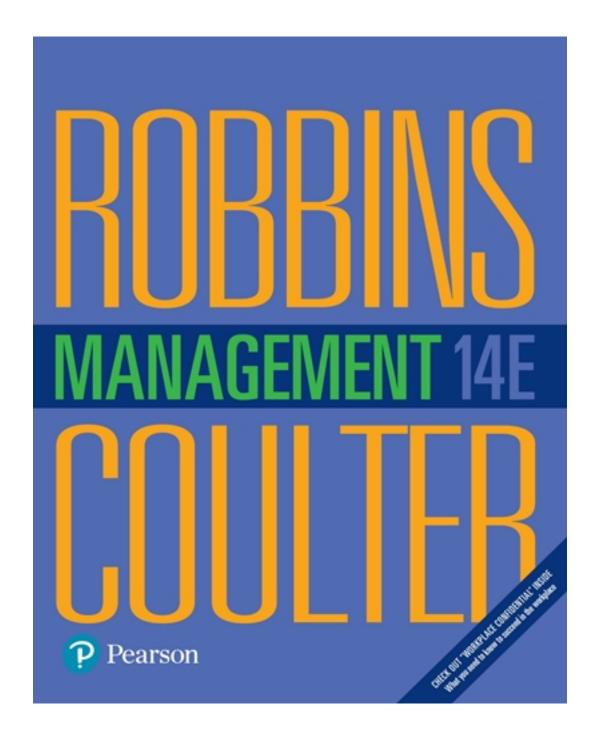
#### **CLICK HERE TO ACCESS COMPLETE Solutions**



## Solutions

### **Chapter 2**

#### **Making Decisions**

In this chapter, students will explore the importance of decision-making to managers and learn how to make effective decisions.

#### **LEARNING OBJECTIVES**

- 1. Describe the eight steps in the decision-making process.
  - Develop your skill at being creative.
- 2. Explain the four ways managers make decisions.
- 3. Classify decisions and decision-making conditions.
- 4. Describe how biases affect decision making.
  - Know how to recognize when you're using decision-making errors and biases and what to do about it.
- 5. Identify effective decision-making techniques.

#### It's Your Career

#### Be a Better Decision Maker

Decisions are an essential part of your life, personally and professionally. Each and every day is a series of decisions, from minor to significant, and everything in between. Good decision-making is a skill, and like any skill, it can be learned and improved. So, how can you improve your decision-making skills? The chapter outlines four things students need to know; each numbered item will be described further in the chapter:

- 1. Know, understand, and use the decision-making process. Yes, there is a "method" to making decisions that takes you from identifying problems to evaluating the effectiveness of your decision. It works. Know it. Understand it. Use it.
- 2. Know when and how to use rational or intuitive decision-making or both. Different types of problems and different types of conditions will influence how you approach making a decision.
- 3. Know your decision-making style. Not everyone approaches decision making the same way. But you do need to recognize how you're most comfortable when making a decision—and how others around you make decisions.
- 4. Know, recognize, and understand the biases and errors that may influence your decision-making. Biases and errors can creep into your decision making. You may think you're making good decisions and may not even recognize you're doing these things. Yet, these errors and biases are likely undermining your ability to make good judgments and good choices. Beware! Be aware!

#### **CHAPTER OUTLINE**

#### 2.1 THE DECISION-MAKING PROCESS

A **decision** is a choice made from two or more alternatives. The **decision-making process** is a set of eight steps that include identifying a problem, selecting an alternative, and evaluating the decision's effectiveness. (See **Exhibit 2-1** for an illustration of the decision-making process.)

- A. **Step 1: Identify a Problem.** A **problem** is a discrepancy between an existing and a desired condition. In order to identify a problem, you, as a manager, should recognize and understand the three characteristics of problems:
  - 1. You must be aware of the problem. Be sure to identify the actual problem rather than a symptom of the problem.
  - 2. You must be under pressure to act. A true problem puts pressure on the manager to take action; a problem without pressure to act is a problem that can be postponed.
  - 3. You must have the authority or resources to act. When managers recognize a problem and are under pressure to take action but do not have the necessary resources, they usually feel that unrealistic demands are being put upon them.
- B. **Step 2: Identify Decision Criteria. Decision criteria** are criteria that define what is relevant in a decision.
- C. Step 3: Allocate Weights to the Criteria. The criteria identified in Step 2 of the decision-making process do not have equal importance, so the decision-maker must assign a weight to each of the items in order to give each item accurate priority in the decision. Exhibit 2-2 lists the criteria and weights for Amanda's purchase decision for new computers.
- D. **Step 4: Develop Alternatives.** The decision-maker must now identify viable alternatives that could resolve the problem.
- E. Step 5: Analyze Alternatives. Each of the alternatives must now be critically analyzed by evaluating it against the criteria established in Steps 2 and 3. Exhibit 2-3 shows the values that Amanda assigned to each of her alternatives for a new computer. Exhibit 2-4 reflects the weighting for each alternative, as illustrated in Exhibits 2-2 and 2-3.
- F. **Step 6: Select an Alternative.** This step to select the best alternative from among those identified and assessed is critical. If criteria weights have been used, the decision-maker simply selects the alternative that received the highest score in Step 5.
- G. **Step 7: Implement the Alternative.** The selected alternative must be implemented by effectively communicating the decision to the individuals who will be affected by it and winning their commitment to the decision.
- H. **Step 8: Evaluate Decision Effectiveness.** This last step in the decision-making process assesses the result of the decision to determine whether or not the problem has been resolved.

#### 2.2 APPROACHES TO DECISION MAKING

At this point in the study of Chapter 2, students will learn about the manager as a decision-maker and how decisions are actually made in organizations. **Exhibit 2-5** shows how decision-making fits into the four functions of management.

In this section, students examine how decisions are made, the types of problems and decisions faced by real-life managers, the conditions under which managers make decisions, and decision-making styles.

- A. **Rationality.** Managerial decision-making is assumed to be rational—that is, making choices that are consistent and value-maximizing within specified constraints. If a manager could be perfectly rational, he or she would be *completely* logical and objective.
  - Rational decision-making assumes that the manager is making decisions in the best interests of the *organization*, not in his or her own interests.
  - 2. The assumptions of rationality can be met **if** the manager is faced with a simple problem in which (1) goals are clear and alternatives limited, (2) time pressures are minimal and the cost of finding and evaluating alternatives is low, (3) the organizational culture supports innovation and risk taking, and (4) outcomes are concrete and measurable.
- B. **Bounded Rationality.** In spite of these limits to perfect rationality, managers are expected to be rational as they make decisions. Because the *perfectly* rational model of decision-making isn't realistic, managers tend to operate under assumptions of bounded rationality, which is decision-making behavior that is rational, but limited (bounded) by an individual's ability to process information.
  - 1. Under bounded rationality, managers make **satisficing** decisions, in which they accept solutions that are "good enough."
  - 2. Managers' decision-making may be strongly influenced by the organization's culture, internal politics, power considerations, and by a phenomenon called **escalation of commitment**—an increased commitment to a previous decision despite evidence that it may have been wrong.
- C. Intuition. Managers also regularly use their intuition. Intuitive decision-making is a subconscious process of making decisions on the basis of experience and accumulated judgment. Exhibit 2-6 describes the five different aspects of intuition.
  - 1. Making decisions on the basis of gut feeling doesn't necessarily happen independently of rational analysis; the two complement each other.
  - 2. Although intuitive decision-making will not replace the rational decision-making process, it does play an important role in managerial decision-making.
- D. **Evidence-Based Management.** The premise behind **evidence-based management (EBMgt)** is that any decision-making process is likely to be enhanced through the use of relevant and reliable evidence. EBMgt promotes the use of the best available evidence to improve management practice.
  - 1. The four essential elements of EBMgt are the decision-maker's expertise and judgment; external evidence that's been evaluated by the decision-maker; opinions, preferences, and values of those who have a stake in the decision; and relevant organizational

- (internal) factors such as context, circumstances, and organizational members.
- 2. The strength or influence of each of these elements on a decision will vary with each decision.
- 3. The key for managers is to recognize and understand the mindful, conscious choice as to which element(s) are most important and should be emphasized in making a decision.

#### 2.3 TYPES OF DECISIONS AND DECISION-MAKING CONDITIONS

- A. **Types of Decisions.** Managers encounter different types of problems and use different types of decisions to resolve them.
  - Structured problems are straightforward, familiar, and easily defined. In dealing with structured problems, a manager may use a programmed decision, which is a repetitive decision that can be handled by a routine approach. Managers rely on three types of programmed decisions:
    - a. A procedure is a series of interrelated sequential steps that can be used to respond to a structured problem.
    - b. A rule is an explicit statement that tells managers what they can or cannot do.
    - c. A policy is a guideline for making decisions.
  - 2. **Unstructured problems** are problems that are new or unusual and for which information is ambiguous or incomplete. These problems are best handled by a **nonprogrammed decision** that is a unique decision that requires a custom-made solution.
  - 3. **Exhibit 2-7** describes differences between programmed versus nonprogrammed decisions.
    - a. At higher levels in the organizational hierarchy, managers deal more often with difficult, unstructured problems and make nonprogrammed decisions in attempting to resolve these problems and challenges.
    - Lower-level managers handle routine decisions themselves, using programmed decisions. They let upper-level managers handle unusual or difficult decisions.

#### B. **Decision-Making Conditions.**

- 1. **Certainty** is a situation in which a manager can make accurate decisions because all outcomes are known. Few managerial decisions are made under the condition of certainty.
- 2. More common is the situation of **risk**, in which the decision-maker is able to estimate the likelihood of certain outcomes. **Exhibit 2-8** shows an example of how a manager might make decisions using "expected value," considering the conditions of risk.

#### **FUTURE VISION: Crowdsourcing Decisions**

Instead of looking internally for a solution to keeping chocolate cool during shipping, Hershey is asking the crowd. Finding innovative solutions to problems is one of several

uses of crowdsourcing in organizations. Crowdsourcing can help managers gather insights from customers, employees, or other groups to help make decisions such as what products to develop, where they should invest, or even who to promote. Today's Internet connectivity provides businesses quick and easy access to insights from customers and employees, effectively tapping into their cumulative wisdom. This revolution in the decision-making process could challenge conventional management practices, requiring new skills from managers.

The following discussion questions are posed:

Talk About It 1: How can crowdsourcing help managers make better decisions?

Talk About It 2: What are some risks in using crowdsourcing to make decisions?

Student answers to these questions will vary.

- 3. **Uncertainty** is a situation in which the decision-maker is not certain and cannot even make reasonable probability estimates concerning outcomes of alternatives.
  - a. The choice of alternative is influenced by the limited amount of information available to the decision-maker.
  - b. It's also influenced by the psychological orientation of the decision-maker.
    - An optimistic manager will follow a maximax choice, maximizing the maximum possible payoff.
    - 2) A pessimistic manager will pursue a *maximin* choice, maximizing the minimum possible payoff. (see **Exhibit 2-9**)
    - 3) The manager who desires to minimize the maximum "regret" will opt for a *minimax* choice. (see **Exhibit 2-10**)

#### **LEADER MAKING A DIFFERENCE**

Elon Musk is not your typical CEO. In 2002, he sold his second Internet startup, PayPal, to eBay for \$1.5 billion. Currently, Musk is CEO of Space Exploration Technologies (SpaceX) and Tesla Motors, and chairman and largest shareholder of SolarCity, an energy technology company. Each of these ventures has transformed (or is transforming) an industry: PayPal—Internet payments; Tesla—automobiles; SpaceX—aeronautics; and SolarCity—energy. As a decision-maker, Musk deals mostly with unstructured problems in risky conditions. However, like other business innovators, Musk is comfortable with that and in pursuing what many might consider "crazy" idea territory. His genius has been compared to that of the late Steve Jobs and Fortune magazine named him the 2013 Businessperson of the Year.

What can you learn from this leader making a difference?

#### 2.4 DECISION-MAKING BIASES AND ERRORS

Managers use different styles and "rules of thumb" (heuristics) to simplify their decision-making.

- A. See **Exhibit 2-11** for the common decision-making biases.
  - 1. Overconfidence bias occurs when decision-makers tend to think that they know more than they do or hold unrealistically positive views of themselves and their performance.
  - 2. *Immediate gratification bias* describes decision-makers who tend to want immediate rewards and avoid immediate costs.
  - 3. The *anchoring effect* describes when decision-makers fixate on initial information as a starting point and then, once set, fail to adequately adjust for subsequent information.
  - 4. Selective perception bias occurs when decision-makers selectively organize and interpret events based on their biased perceptions.
  - 5. Confirmation bias occurs when decision-makers seek out information that reaffirms their past choices and discount information that contradicts their past judgments.
  - 6. Framing bias occurs when decision-makers select and highlight certain aspects of a situation while excluding others.
  - 7. Availability bias is seen when decision-makers tend to remember events that are the most recent and vivid in their memory.
  - 8. Decision-makers who show *representation bias* assess the likelihood of an event based on how closely it resembles other events or sets of events.
  - 9. Randomness bias describes the effect when decision-makers try to create meaning out of random events.
  - 10. The sunk costs error is when a decision-maker forgets that current choices cannot correct the past. Instead of ignoring sunk costs, the decision-maker cannot forget them. In assessing choices, the individual fixates on past expenditures rather than on future consequences.
  - 11. Self-serving bias is exhibited by decision-makers who are quick to take credit for their successes and blame failure on outside factors.
  - 12. *Hindsight bias* is the tendency for decision-makers to falsely believe, once the outcome is known, that they would have accurately predicted the outcome.

#### B. Overview Managerial Decision-Making.

- 1. **Exhibit 2-12** provides an overview of managerial decision-making. Managers want to make good decisions because doing so is in their best interests.
- 2. Regardless of the decision, it has been shaped by a number of factors, which are discussed in Chapter 7.

#### 2.5 EFFECTIVE DECISION-MAKING FOR TODAY'S WORLD

Today's business world revolves around making decisions, which are often risky ones made with incomplete or inadequate information and under intense time pressure. How can managers make effective decisions under these conditions?

#### A. Guidelines for Effective Decision-Making.

- 1. Understand cultural differences.
- 2. Create standards for good decision-making.
- 3. Know when it is time to call it quits.
- 4. Use an effective decision-making process. Experts say an effective decision-making process has these six characteristics: a. It focuses on what's important.
  - b. It's logical and consistent.
  - c. It acknowledges both subjective and objective thinking and blends analytical with intuitive thinking.
  - d. It requires only as much information and analysis as is necessary to resolve a particular dilemma.
  - e. It encourages and guides the gathering of relevant information and informed opinion.
  - f. It's straightforward, reliable, easy to use, and flexible.
- 5. Develop your ability to think clearly so that you can make better choices at work and in your life.
- B. Design Thinking and Decision-Making.

**Design thinking** has been described as "approaching management problems as designers approach design problems." It can be useful when identifying problems and when identifying and evaluating alternatives.

C. Big Data and Decision-Making.

**Big data** is the vast amount of quantifiable information that can be analyzed by highly sophisticated data processing. One IT expert described big data with "3V's: high volume, high velocity, and/or high variety information assets". With this type of data at hand, decision-makers have very powerful tools to help them make decisions. However, experts caution that collecting and analyzing data for data's sake is wasted effort. Goals are needed when collecting and using this type of information.

### ANSWERS TO REVIEW AND DISCUSSION QUESTIONS

Student answers to these questions will vary.

- 2-1. Why is decision-making often described as the essence of the manager's job? Decisions are made throughout the performance of all four functions of management. Almost anything a manager does in terms of planning, organizing, leading, and controlling involves decision-making. The pervasiveness of decision-making in management explains why managers are often called decision-makers. (LO: 1, Describe the eight steps in the decision-making process, AACSB: Analytical thinking)
- 2-2. Describe the eight steps in the decision-making process.

The decision-making process consists of eight steps: (1) identify problem; (2) identify decision criteria; (3) weight the criteria; (4) develop alternatives; (5) analyze alternatives; (6) select alternative; (7) implement alternative; and (8) evaluate decision effectiveness.

- (LO: 1, Describe the eight steps in the decision-making process, AACSB: Analytical thinking)
- 2-3. Compare and contrast the four ways managers make decisions.

The assumptions of rationality are as follows: the problem is clear and unambiguous; a single, well-defined goal is to be achieved; all alternatives and consequences are known; and the final choice will maximize the payoff. Bounded rationality says that managers make rational decisions but are bounded (limited) by their ability to process information. Satisficing happens when decision-makers accept solutions that are good enough. With escalation of commitment, managers increase commitment to a decision even when they have evidence it may have been a wrong decision. Intuitive decision-making means making decisions on the basis of experience, feelings, and accumulated judgment. Using evidence-based management, a manager makes decisions based on the best available evidence. (LO: 2, Explain the four ways managers make change, AACSB: Analytical thinking)

2-4. Explain the two types of problems and decisions. Contrast the three decision-making conditions.

Programmed decisions are repetitive decisions that can be handled by a routine approach and are used when the problem being resolved is straightforward, familiar, and easily defined (structured). Nonprogrammed decisions are unique decisions that require a custom-made solution and are used when the problems are new or unusual (unstructured) and for which information is ambiguous or incomplete. Certainty is a situation in which a manager can make accurate decisions because all outcomes are known. Risk is a situation in which a manager can estimate the likelihood of certain outcomes. Uncertainty is a situation in which a manager is not certain about the outcomes and can't even make reasonable probability estimates. (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)

2-5. How can managers blend the guidelines for making effective decisions in today's world with the rationality and bounded rationality models of decision-making, or can they? Explain.

A balance is required. Under today's business conditions (such as intense time pressure and higher degrees of risk and uncertainty), managers must practice sound decision-making approaches. Knowing when it's time to quit, for example, is not inconsistent with rationality and bounded rationality. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

2-6. Is there a difference between wrong decisions and bad decisions? Why do good managers sometimes make wrong decisions? Bad decisions? How can managers improve their decision-making skills?

Time pressures, incomplete information, and higher levels of uncertainty in today's business environment may lead to ineffective decision-making. Managers can improve their decision-making skills by focusing on six characteristics of effective decision-making, including focusing on important criteria, logic and consistency; blending subjective and objective thinking with analysis; requiring the information necessary to resolve a particular dilemma; gathering relevant and informed opinions; and remaining flexible. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

2-7. What is big data? How can organizations effectively use big data to improve decision making? Should managers be cautious in using big data?

Big data refers to the vast amount of quantifiable information that can be analyzed by highly sophisticated data processing. Big data gives decisions makers powerful tools to help them make decisions. However, it's important that managers approach big data with a degree of caution keeping in mind that while big data provides information on correlations between variables it does not explain which correlations are meaningful. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

#### PERSONAL INVENTORY ASSESSMENTS

Student answers to these questions will vary.

#### **ETHICS DILEMMA**

Student answers to these questions will vary.

This dilemma describes a situation where a Little League team manager and district administrator falsified documents to allow boys who lived outside the team's boundaries to play on the team. The team was eventually stripped of its championship as a result. This caused an outcry from various groups including the White House who argued that the players should not be penalized for the actions of the adults. However, Little League officials claimed that it was important to the integrity of the organization to ensure that all rules are properly followed.

#### Ask the students:

- 2-10. Was the decision by the Little League CEO to strip the title from the Chicago team and hand it over to the Las Vegas team appropriate? Explain both "why" and "why not."
- 2-11. If you were a manager, how would you use this incident to "teach" employees about ethics and decision-making?
- (LO: 2, Explain the four ways managers make change, AACSB: Ethical understanding and reasoning)

### SKILLS EXERCISE: DEVELOPING YOUR CREATIVITY SKILL

Creativity is an important skill for all managers—not just those in marketing and R&D. In this exercise, students work on developing their creativity skills using eight steps suggested by the authors. To practice their new creativity skills, students can engage in a brainstorming exercise where they see how many words can be made from the letters in the word 'brainstorm.' To illustrate the usefulness of brainstorming, this could be done as an entire class with someone assigned to write down the created words. There

are 95 possible words that can be generated. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

#### **WORKING TOGETHER: TEAM EXERCISE**

In this team-based activity, small groups of students are to discuss previous decision-making experiences. They should discuss whether they feel they made good/bad decisions and what happened during the decision-making process that contributed to the quality of the decision. The group should develop a list of practical suggestions for making good decisions.

In preparation for this exercise, you might initiate a class discussion centered on a particular decision-making situation. Ask the class if anyone is considering making a large purchase, such as a car, stereo, computer, or house. Students can help this individual make the decision by offering suggestions following the eight steps of the decision-making process for making a "good decision." Compiling a variety of decision criteria for a car purchase, for instance, and weighting each criterion can create interest and provide insight for students. Although one student may think that having heated car seats is a must, others may totally disregard this criterion. This class activity should help students to become more comfortable and skillful in using the decision-making process. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

#### MY TURN TO BE A MANAGER

- Consider a big decision that you have made. Write a description of the decision
  using the steps in the decision-making process as your guide. What could you
  have done differently in the process to improve your decision? (LO: 1, Describe
  the eight steps in the decision-making process, AACSB: Analytical thinking)
- Write a procedure, a rule, and a policy for your instructor to use in your class. Be sure that each one is clear and understandable. And be sure to explain how it fits the characteristics of a procedure, a rule, or a policy. (LO: 1, Describe the eight steps in the decision-making process, AACSB: Analytical thinking)
- Find three examples of managerial decisions described in any of the popular business periodicals (Wall Street Journal, BusinessWeek, Fortune, etc.). Write a paper describing each decision and any related information, such as what led to the decision, what happened as a result of the decision, etc. What did you learn about decision-making from these examples? (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)
- Interview two managers and ask them for suggestions on what it takes to be a good decision-maker. Write down their suggestions and be prepared to present

them in class. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

- Do a web search on the phrase "101 dumbest moments in business." Get the
  most current version of this end-of-year list. Choose three of the examples and
  describe what happened. What's your reaction to each example? How could the
  managers have made better decisions? (LO: 4, Describe different decisionmaking styles and discuss how biases affect decision making, AACSB: Analytical
  thinking)
- Visit the Mindtools website (www.mindtools.com) and find the decision-making toolkit. Explore the decision making tools suggested and select one tool to use the next time you need to make a decision. (LO: 5, Identify effective decisionmaking techniques, AACSB: Analytical thinking)

### CASE APPLICATION 1 QUESTIONS

Student answers to these questions will vary.

#### Where to Locate Next

- 2-12. How does the GIS help Wendy's improve their decisions on store locations? The GIS used by Wendy's helps the company assess the potential of a new location in terms of auto traffic, consumer demographics, area safety, competitors, commercial mix, and other factors. Using this information, Wendy's can predict and assess the value and risk associated with a location and whether other locations should be closed or relocated. (LO: 1, Describe the eight steps in the decision-making process, AACSB: Analytical thinking)
- 2-13. Are the store location decisions certain or uncertain decisions?

  When a manager can make accurate decisions because all outcomes are known, the manager is making a certain decision. In contrast, an uncertain decision is made when a manager is not certain about the outcomes and has difficulty making reasonable probability estimates. Wendy uses GIS to limit the uncertainty in store location decisions, however the program makes predictions about some variables such as traffic. (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)
- 2-14. How can intuition contribute to Wendy's decision-making process? Making good decisions in a today's complex and dynamic environment is challenging. Effective decision making includes both analytical skills and intuitive skills. (LO: 5, Identify effective decision-making techniques, AACSB: Analytical thinking)

### ANSWERS TO CASE APPLICATION 2 QUESTIONS

Student answers to these questions will vary.

#### The Business of Baseball

2-15. In a general sense, what kinds of decisions are made in baseball? Would you characterize these decisions as structured or unstructured problems? Explain. What type(s) of decision-making condition would you consider this to be? Explain. The answer to this question lies in which aspect of baseball you are referring. When it comes to actually playing the game and the decision involved, the problems are structured. For example, if a pop fly is hit to left field and there is a player on 1<sup>st</sup>, where is the ball thrown? On the other hand, recruiting high profile players, building a new stadium, and trying to secure television contracts would be considered unstructured because the factors involved may be novel and untried. (LO: 2, Explain the four ways managers make change, AACSB: Analytical thinking)

2-16. Is it appropriate for baseball managers to use only quantitative, objective criteria in evaluating their players? What do you think? Why?

Students should see that qualitative criteria are also important because baseball is a sport that involves life-long fans and grudges. Many of the decisions involved in baseball are based on fan loyalty and a team's potential to sell tickets. Not all of these decisions involve objective measures. (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)

2-17. Do some research on Sabermetrics. What is it? What does it have to do with decision-making?

Sabermetrics is a quantification decision-making aid. By telling decision makers what to pay attention to and by providing weights for those criteria, it is easier to predict winners and losers. Students should check out this site: <a href="http://www-page-12">http://www-page-12</a>

math.bgsu.edu/~albert/papers/saber.html (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)

2-18. Describe how baseball front office executives and college coaches could use each of the following to make better decisions: (a) rationality, (b) bounded rationality, (c) intuition, and (d) evidence-based management.

Baseball teams, like any organization, make a variety of different decisions each day. Students should see that high priority decisions should follow rational and evidence-based decision models, because they provide the most economical results. This would have included a thorough evaluation of the decision criteria, criteria weights, possible alternatives, and evaluation of those alternative's outcomes. On the other hand, other decisions that are not high priority and do not have a major impact on the organization are likely to follow less than ideal models, like bounded rationality or intuition. In a decision involving bounded rationality, the decision would have been made based on a limited set of criteria and alternatives. In the case of intuition, a number of factors would have been considered including past experience, manager feelings, manager's skills, subconscious mental process, and managerial values. (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)

2-19. Can there be too much information in managing the business of baseball? Discuss.

There is a term that students may be familiar with called paralysis of analysis. If you ever watch a sporting event, you will hear a bewildering number of statistics and how often something like weather, home field advantage, injuries, streaks, and other factors affect the outcome. Often, these variables predict little variation in the outcome of a game. (LO: 3, Classify decisions and decision-making conditions, AACSB: Analytical thinking)

#### **Part 1: Management Practice**

#### A Manager's Dilemma

Suppose you're a recruiter for a large retail chain and want to get college graduates to consider store management as a career option. Using what you learned in Part 1, how would you do that?

One way to do this is through organizational culture. Culture plays an important role in attracting and socializing applicants. Today's college students want more than just a job and a paycheck, they want an experience and to feel that they are doing something important. Companies should create a culture that emphasizes the values of the importance of people and innovation.

#### **Global Sense**

What issues might Deutsche Telekom face in recruiting female university graduates? How could they address those issues?

Get students to think about how Deutsche Telekom would attract only female applicants. In US markets, advertisements for jobs cannot specify a gender. Such an ad would be seen as a violation of other applicants' civil rights. Deutsche Telekom could send recruiters to female only universities or advertise in media oriented toward females. They can also use media outlets that are tailored to female college graduates such as magazines and websites that relate to women.

What issues might it face in introducing changes in work-family programs, and how could they address those issues?

While some employees are appreciative of work-family programs, others might see them as showing favoritism. It is difficult for managers to miss time and to work flexible arrangements because of the demands placed upon their time. For a manager to miss too many meetings or to work hours that put them out of the office at key times could create resentment from subordinates and other managers.

What do you think of Obermann's statement that having a greater number of women at the top will enable the company to operate better?

Obermann's plan to increase diversity is a worthwhile moral cause and studies have found that programs such as these ultimately have a positive impact on the company's profitability. For more information on this, students can look to the second report on the Glass Ceiling: <a href="http://www.dol.gov/oasam/programs/history/reich/reports/ceiling2.pdf/">http://www.dol.gov/oasam/programs/history/reich/reports/ceiling2.pdf/</a>. In addition, for the United States and other countries, gender diversity is a requirement for those companies doing business with the federal government according to Affirmative Action guidelines.

What could other organizations around the globe learn from Deutsche Telekom? Companies should realize that minorities and women make up a growing percentage of the global workforce and consumer market so managerial talent must be drawn from an increasingly diverse pool. Students should relate the program at Deutsche Telekom to developed countries like the United States, which still struggles with issues of diversity, and less developed countries where programs that promote diversity are not likely to exist.

#### **CONTINUING CASE: STARBUCKS**

#### Foreword

"I hear, and I forget. I see, and I remember. I do, and I understand." Sharing this Chinese proverb with your students early in the semester will serve as an introduction to the value of learning through the case study method. Case studies give students vicarious opportunities to "learn by doing." This method of study facilitates the application of knowledge learned in the classroom to the real world of business for students who have not yet experienced challenging business situations firsthand and for students who may have workplace experience but no firsthand managerial experiences.

An exciting feature of the fourteenth edition of this text is the inclusion of a continuing comprehensive case examining the management of the world's number-one specialty coffee retailer, Starbucks Corporation. Each part of the continuing case looks at Starbucks from the perspective of the managerial concepts, theories, and skills presented in that part of the textbook.

Following your students' study of information presented in Part I (Chapters 1-2 and Management History Module) of the text, introduce the Part I continuing case entitled, "Starbucks—Introduction." By using selected study questions and teaching activities suggested on the following pages, you will enrich your students' understanding of management theory and practice in the real world of global business today.

#### Part 1: Starbucks—Introduction

#### **Discussion Questions with Answers; Teaching Suggestions**

P1-1. What management skills do you think would be most important for Howard Schultz to have? Why? What skills do you think would be most important for a Starbucks store manager to have? Why?

As chairman and chief global strategist of Starbucks Corporation, Howard Schultz needs to have strong skills in each of the areas identified by Robert L. Katz: technical skills, human skills, and conceptual skills. Conceptual skills are especially important for Schultz to effectively lead his company. These skills enable him to make strategic plans that guide the global growth of Starbucks, predict future product trends, and take advantage of opportunities in the external environment.

To manage an individual Starbucks location successfully, each Starbucks store manager, as well as the top manager of Starbucks Corporation, needs to possess the skills identified by Katz. Your students should recognize that the most important skills in this level of management would likely be related to human skills. This particular skill category equips a store manager to effectively utilize his/her most valuable resource—the employees, or "partners"—to achieve the goals and objectives of the individual store as well as the corporation as a whole.

P1-2. How might the following management theories/approaches be useful to Starbucks: scientific management, organizational behavior, quantitative approach, systems approach? Throughout the history of management, experts have learned ways to improve the efficiency and effectiveness of work. What was learned in each of the periods of management development still holds some truth and usefulness for managers today.

Companies like Starbucks would benefit from the use of scientific management and the quantitative approaches in the production side of their business. Scientific management could be used to make their retail establishments more efficient and quantitative management can help to improve the logistics of the company. Examining how organizational behavior can be used, the company already applies some techniques to help employees feel like they are contributing and to help increase employee satisfaction. Managers should understand the use a number of Fayol's fourteen management principles, including division of work, esprit de corps, and unity of command.

Starbucks managers and top executives alike must view the company as a complete system, realizing that the successful management and operation of each part of the company affects the well being of the entire corporation.

P1-3. Choose three of the current trends and issues facing managers and explain how Starbucks might be impacted. What might be the implications for first-line managers? Middle managers? Top managers?

The first way that managers' jobs are changing is in terms of how important customers are to the manager's job. Because Starbucks' success is a direct result of how it interacts with its customers, this is critical. In fact, "customers" is one of the company's six key corporate principles. There are critical implications for first-line managers in how customer connections are created and maintained as front-line partners serve and interact with each and every customer. The emphasis would be on delivering top-notch, quality service in each and every customer encounter. For middle managers, the implications would lie more in ensuring that the resources and support are available for first-line managers in creating exceptional customer experiences. And for top managers, the implications would be on reinforcing the corporate principles and establishing a reward system that recognizes and celebrates those partners who exemplify outstanding customer engagement.

The second way that a manager's job is changing is in the increasing importance of innovation. Starbucks Corporation, like many companies, faced critical challenges during the extended economic downturn. However, the executive team responded with a full-fledged change effort that encompassed the company from top to bottom. "Doing things differently" was a key driver of those change efforts. For all levels of management, the implications were profound...ranging from being more disciplined and efficient in the operations side of the business to re-focusing on the long-term future of the company.

The third way that a manager's job is changing is in how important sustainable practices are to how a company does business. Sustainability is in the DNA of Starbucks. From the beginning, the company has been about doing business ethically and responsibly. This commitment can be seen in the way the company sources its all-important coffee beans to the way it wants to be a "good neighbor" in the communities it serves. Managers at all levels of the company need to understand the obligations associated with doing business sustainably and recognize that they are accountable for how sustainability is practiced and lived.

P1-4. Give examples of how Howard Schultz might perform the interpersonal roles, the informational roles, and the decisional roles.

Howard Schultz wears many managerial hats during the course of each day. Acting as coach and mentor for his executive team, he plays an interpersonal role. Schultz must be able to work with individuals from diverse backgrounds and cultures in his global company. He plays

interpersonal roles as he networks within and outside of the organization as a liaison, using his strengths in interpersonal roles to promote cooperation and commitment among partners of Starbucks. As he represents the company at promotional events, Schultz plays a figurehead role. He performs the interpersonal role of leader as he influences members of the work teams who contribute to the continuing development and success of the company.

Schultz continuously monitors and disseminates information, internally and externally, in his information roles. In making strategic decisions concerning the future directions of the company, the introduction of new products, and how to respond to external issues, Schultz plays the role of decision-maker. He must be, at times, a negotiator with suppliers and a savvy disturbance handler in challenging leadership situations. Schultz must be constantly alert in developing innovations for products in his decisional role as entrepreneur.

P1-5Look at Howard Schultz's philosophy of Starbucks. How will this affect the way the company is managed?

Schultz has chosen the following philosophy for his company: "We aren't in the coffee business, serving people. We're in the people business, serving coffee." This philosophy presents the reason for the existence of Starbucks and should serve as a driving force and a guide for every decision and enterprise undertaken by the company. Schultz clearly has a vision for Starbucks and effectively communicates it to partners in each of the almost 17,000 Starbucks outlets around the world. This philosophy will guide how managers throughout the company plan, organize, lead, and control.

P1-6.Go to the company's Web site (www.starbucks.com) and find the list of executives and their biographies. Pick one of those positions and describe what you think that job might involve. Try to envision what types of planning, organizing, leading, and controlling this person would have to do.

Your students can select from a variety of senior positions within Starbucks when answering this question. For example, the position of *Executive Vice President, Public Affairs*, oversees Starbucks' global functions in areas of public relations, government affairs, and social responsibility and presents both a responsibility and an opportunity for this executive to lead Starbucks in its dedication to act as a socially responsible corporate citizen of the world community. This particular top manager must plan, organize, and lead programs that will benefit individuals and communities in the varied neighborhoods and countries served by Starbucks. The design and implementation of control mechanisms for obtaining feedback on these programs and responding appropriately would also be part of this executive's job.

P1-7. Look up the company's mission statement and guiding principles at the company's Web site. What do you think of the mission and guiding values? Describe how the company's guiding principles would influence how a barista (a coffee-house employee who prepares and serves specialty coffee and other drinks) at a local Starbucks store does his or her job. Describe how these principles would influence how one of the company's top executives does his or her job.

Before answering this question, students will want to review the six guiding principles of Starbucks outlined in the Part I case. You might want to ask them to address these principles during a class discussion, examining how each of the principles relates to and supports the company's mission statement.

Emphasize to your students that the mission and the guiding principles of Starbucks serve as the driving force behind everything done by the company, including job performance by every "partner" at Starbucks, from the barista at a local store to a top executive of the company. For instance, in their day-to-day operations, baristas will use the six principles of Starbucks to guide their decisions in dealing with customers, preparing customer orders, and performing other

tasks they're assigned to do. In making decisions to direct the growth and development of the company, a top executive is guided by Starbucks' principles to encourage the highest standards of excellence in contributing to the simultaneous financial profitability of the company and benefit of the communities served by the organization around the globe.

#### Managing Your Career

If You Were a Barista, What Would You Do?

If your classroom has Internet capabilities, visit "Hot Jobs" on the Starbucks Web site at [http://www.starbucks.com/aboutus/hotjobs.asp]. (If you are unable to access the Internet in your classroom, you may give students the address of the Web site and encourage them to visit the site individually outside of class.) Click on the "Job Search" link and ask students to suggest a few positions listed on the "Job List" displayed on that screen.

By examining these links, students will discover additional information describing the responsibilities of a Starbucks barista. After your students have explored these links, have them compose a list of skills and traits needed by a successful barista. In addition, ask them to respond to the following questions:

- What types of positions with Starbucks are available at the present time?
- How do the responsibilities of a Starbucks store manager differ from those of an assistant manager?
- How do the responsibilities of a Starbucks retail manager differ from those of a store manager?
- What types of positions are listed in the area of human resource management?
- In what areas of the United States are positions currently available?
- Are job openings available at international locations? What types of international employment opportunities are offered at the present time?

P1-8. Starbucks has some pretty specific goals it wants to achieve (look ahead to Part 3 on page 343 for these company goals). Given this, do you think managers would be more likely to make rational decisions, bounded rationality decisions, or intuitive decisions? Explain. Most managerial decisions do not fit the assumptions of perfect rationality and instead are made under assumptions of bounded rationality. Likewise, with company goals that are carefully chosen and well defined, managers of Starbucks would probably make most decisions under assumptions of bounded rationality.

Starbucks' CEO Howard Schultz likely makes many decisions using a combination of bounded rationality and intuition. In a dynamic business environment, Schultz—as well as other top managers—must satisfice at times when quick action is required on an issue or problem. To help your students better understand the concept of satisficing, have them write a brief account recalling a time when they were content to satisfice in making a decision. They should include a description of the impact of using this technique in the particular circumstance they write about. You might ask for volunteers to share their recollections with the entire class.

P1-9. Give examples of decisions that Starbucks managers might make under conditions of certainty. Under conditions of risk. Under conditions of uncertainty.

Only rarely, if ever, do managers have the luxury of making a decision under conditions of certainty. Most managerial decisions must be made without the benefit of having all pertinent information fully available. Perhaps, if Starbucks makes a financial investment that the company is certain will yield a particular interest rate, it can be said that the company is making the investment decision under a condition of certainty (concerning the return on their investment).

When Starbucks decides to expand its successful strategic initiatives, such as its ventures into new product extensions, the company is making decisions under conditions of risk. Although Starbucks has already experienced success in these areas, the company is uncertain about how their customers will perceive future expansion of product lines. As the case study relates, Starbucks has experienced some strategic failures. As far as conditions of uncertainty, the coffee-bean farm venture in China might be an example since the political and cultural constraints are unpredictable.

P1-10. What kind of decision-maker does Howard Schultz appear to be? Explain your answer. Students may view some of Schutz's decisions as non-linear. Clearly Schultz is not afraid of risk and might be considered an aggressive risk taker. Students may also note Schultz's compassion for those in the company when he makes decisions and feel that he is an ethical decision-maker.

P1-11. How might biases and errors affect the decision-making done by Starbucks' executives? By Starbucks' store managers? By Starbucks' partners?

Have students divide into three groups, each representing the three different employee groups: executives, managers, and partners. Have each group go through the list below and give several potential biases that could occur for their employee group.

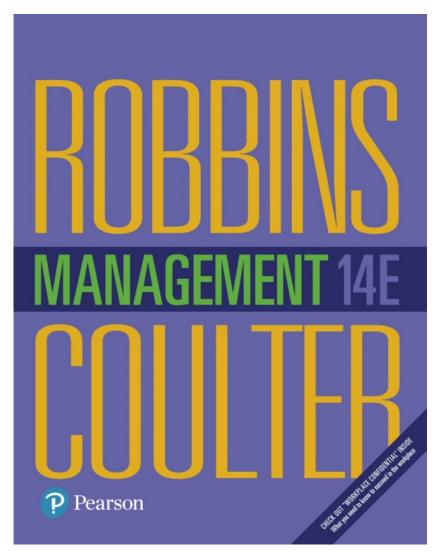
- Overconfidence
- Immediate Gratification
- Anchoring
- Selective Perception
- Confirmation
- Framing
- Availability
- Representation
- Randomness
- Sunk Costs
- Self-Serving Bias
- Hindsight

P1-12. How might design thinking be important to a company like Starbucks? Do you see any indication that Starbucks uses design thinking?

Design thinking is "approaching management problems as designers approach design problems." It can be useful when identifying problems and when identifying and evaluating alternatives. You can see evidence of design thinking in how Starbucks designs their products and retail stores. Great care is put into naming the products, i.e. Skinny Peppermint Mocha & Refreshers, and the layout of the coffee bars and sitting areas.

### Management

#### Fourteenth Edition



Chapter 2
Making Decisions



### **Learning Objectives**

- 2.1 Describe the eight steps in the decision-making process.
  Develop your skill at being creative.
- 2.2 Explain the four ways managers make decisions.
- 2.3 Classify decisions and decision-making conditions.
- 2.4 Describe how biases affect decision making.
  Know how to recognize when you're using decision-making errors and biases and what to do about it
- 2.5 Identify effective decision-making techniques.



### **Be A Better Decision-Maker**

A key to success in management and in your career is knowing how to be an effective decision-maker.



### What is a Decision?

**Decision**—a choice among two or more alternatives





# Exhibit 2-1 Decision-Making Process

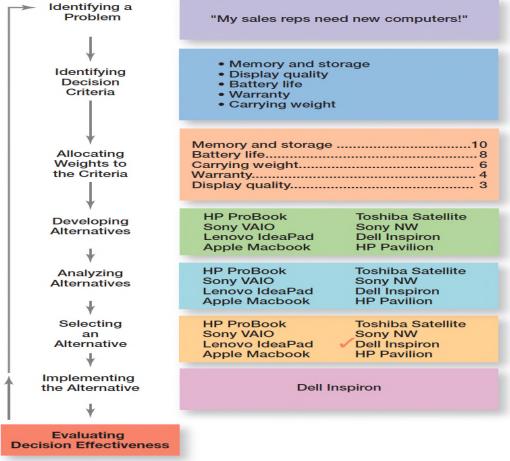


Exhibit 2-1 shows the eight steps in the decision-making process. This process is as relevant to personal decisions as it is to corporate decisions.



# Decision-Making Process Step 1: Identify a Problem

- Problem: an obstacle that makes it difficult to achieve a desired goal or purpose.
- Every decision starts with a problem, a discrepancy between an existing and a desired condition.
- Example: Amanda is a sales manager whose reps need new laptops.



# Decision-Making Process Step 2: Identify the Decision Criteria

- Decision criteria are factors that are important to resolving the problem.
- Example: Amanda decides that memory and storage capabilities, display quality, battery life, warranty, and carrying weight are the relevant criteria in her decision



# Decision-Making Process Step 3: Allocate Weights to the Criteria

- If the relevant criteria aren't equally important, the decision maker must weight the items in order to give them the correct priority in the decision.
- Example: The weighted criteria for Amanda's computer purchase are shown in Exhibit 2-2.



## Exhibit 2-2 Important Decision Criteria

Criterion	Weight
Memory and storage	10
Battery life	8
Carrying weight	6
Warranty	4
Display quality	3



## Decision-Making Process Step 4: Develop Alternatives

- List viable alternatives that could solve the problem.
- Example: Amanda identifies eight laptops as possible choices (shown in Exhibit 2-3).



## Exhibit 2-3 Possible Alternatives

Laptop	Memory and Storage	Battery Life	Carrying Weight	Warranty	Display Quality
HP ProBook	10	3	10	8	5
Lenovo IdeaPad	8	5	7	10	10
Apple MacBook	8	7	7	8	7
Toshiba Satellite	7	8	7	8	7
Apple MacBook Air	8	3	6	10	8
Dell Inspirion	10	7	8	6	7
HP Pavilion	4	10	4	8	10



## Decision-Making Process Step 6: Select an Alternative

 Choose the alternative that generates the highest total in Step 5.



## **Exhibit 2-4 Evaluation of Alternatives**

Laptop	Memory and Storage	Battery Life	Carrying Weight	Warranty	Display Quality	Total
HP ProBook	100	24	60	32	15	231
Lenovo IdeaPad	80	40	42	40	30	232
Apple MacBook	80	56	42	32	21	231
Toshiba Satellite	70	64	42	32	21	229
Apple MacBook Air	80	24	36	40	24	204
Dell Inspirion	100	56	48	24	21	249
HP Pavilion	40	80	24	32	30	206



# Decision-Making Process Step 7: Implement the Alternative

- Put the chosen alternative into action.
- Convey the decision to those affected and get their commitment to it.



# Decision-Making Process Step 8: Evaluate Decision Effectiveness

- Evaluate the result or outcome of the decision to see if the problem was resolved.
- If it wasn't resolved, what went wrong?



# Exhibit 2-5 Decisions Managers May Make: Planning and Organizing

#### **Planning**

- What are the organization's long-term objectives?
- What strategies will best achieve those objectives?
- What should the organization's short-term objectives be?
- How difficult should individual goals be?

#### Organizing

- How many employees should I have report directly to me?
- How much centralization should there be in an organization?
- How should jobs be designed?
- When should the organization implement a different structure?



# Exhibit 2-5 Decisions Managers May Make: Leading and Controlling

#### Leading

- How do I handle employees that appear to be unmotivated?
- What is the most effective leadership style in a given situation?
- How will a specific change affect worker productivity?
- When is the right time to stimulate conflict?

#### Controlling

- What activities in the organization need to be controlled?
- How should those activities be controlled?
- When is a performance deviation significant?
- What type of management information system should the organization have?



#### **Rationality**

- Rational Decision-Making: choices that are logical and consistent and maximize value
- Assumptions of rationality:
  - Rational decision maker is logical and objective
  - Problem faced is clear and unambiguous
  - Decision maker would have clear, specific goal and be aware of all alternatives and consequences
  - The alternative that maximizes achieving this goal will be selected
  - Decisions are made in the best interest of the organization



### **Bounded Rationality**

- Bounded rationality: decision making that's rational, but limited by an individual's ability to process information
- Satisfice: accepting solutions that are "good enough"
- Escalation of commitment: an increased commitment to a previous decision despite evidence it may have been wrong



#### **Intuition**

 Intuitive decision-making: making decisions on the basis of experience, feelings, and accumulated judgment



### Exhibit 2-6 What is Intuition?

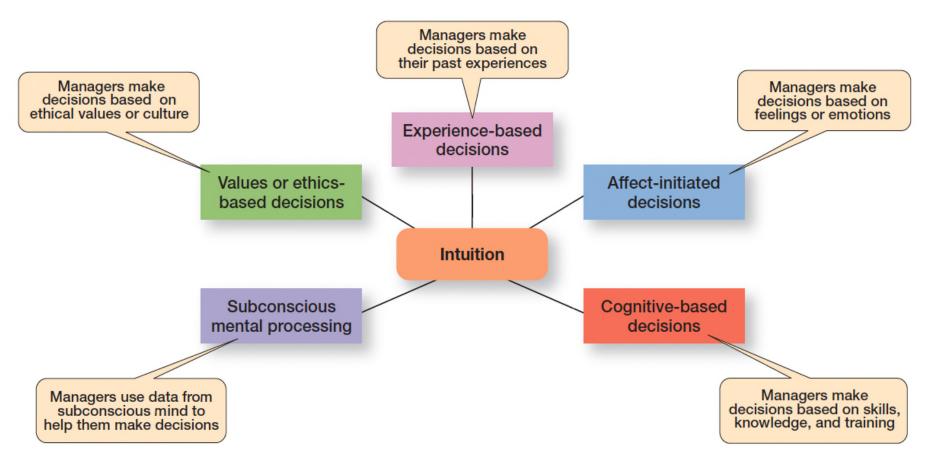


Exhibit 2-6 shows the five different aspects of intuition identified by researchers studying managers' use of intuitive decision-making.



#### **Evidence-Based Management**

 Evidence-based management (EBMgt): the systematic use of the best available evidence to improve management practice.



# Types of Decisions: Structured Problems and Programmed Decisions

- Structured problems: straightforward, familiar, and easily defined problems
- Programmed decisions: repetitive decisions that can be handled by a routine approach



#### **Types of Programmed Decisions**

- Procedure: a series of sequential steps used to respond to a well-structured problem
- Rule: an explicit statement that tells managers what can or cannot be done
- Policy: a guideline for making decisions



# Types of Decisions: Unstructured Problems and Nonprogrammed Decisions

- Unstructured problems: problems that are new or unusual and for which information is ambiguous or incomplete
- Nonprogrammed decisions: unique and nonrecurring and involve custom made solutions



# Exhibit 2-7 Programmed vs Nonprogrammed Decisions

Characteristic	Programmed Decisions	Nonprogrammed Decisions
Type of problem	Structured	Unstructured
Managerial level	Lower levels	Upper levels
Frequency	Repetitive, routine	New, unusual
Information	Readily available	Ambiguous or incomplete
Goals	Clear, specific	Vague
Time frame for solution	Short	Relatively long
Solution relies on	Procedures, rules, policies	Judgment and creativity



#### **Decision-Making Conditions**

- Certainty: a situation in which a manager can make accurate decisions because all outcomes are known
- Risk: a situation in which the decision maker is able to estimate the likelihood of certain outcomes
- Uncertainty: a situation in which a decision maker has neither certainty nor reasonable probability estimates available

#### **Managing Risk**

- Managers can use historical data or secondary information to assign probabilities to different alternatives
- This is used to calculate expected value—the expected return from each possible outcome—by multiplying expected revenue by the probability of each alternative

## Exhibit 2-8 Expected Value

Event	Expected Revenues	Probability	Expected Value of Each Alternative
Heavy snowfall	\$850,000	0.3	\$255,000
Normal snowfall	\$725,000	0.5	\$362,000
Light snowfall	\$350,000	0.2	\$70,000
		Total expected revenue:	\$687,500

For each Event in the table, Expected Revenues multiplied by Probability gives the Expected Value of Each Alternative.



## Exhibit 2-9 Payoff Matrix

Visa Marketing Strategy (in millions of dollars	MasterCard CA 1	MasterCard CA 2	MasterCard CA 3
Strategy 1	13	14	11
Strategy 2	9	15	18
Strategy 3	24	21	15
Strategy 4	18	14	28

Exhibit 2-9 shows the various Visa strategies and the resulting profit, depending on the competitive action (CA) used by MasterCard.



### Exhibit 2-10 Regret Matrix

Visa Marketing Strategy (in millions of dollars	MasterCard CA 1	MasterCard CA 2	MasterCard CA 3
Strategy 1	11	7	17
Strategy 2	15	6	10
Strategy 3	0	0	13
Strategy 4	6	7	0

Exhibit 2-10 shows the regret for each category, which is found by subtracting all possible payoffs in each category from the maximum possible payoff for each given event, in this case for each competitive action.



#### **Heuristics**

- Heuristics or "rules of thumb" can help make sense of complex, uncertain, or ambiguous information.
- However, they can also lead to errors and biases in processing and evaluating information.



# **Exhibit 2-11 Common Decision-Making Biases**

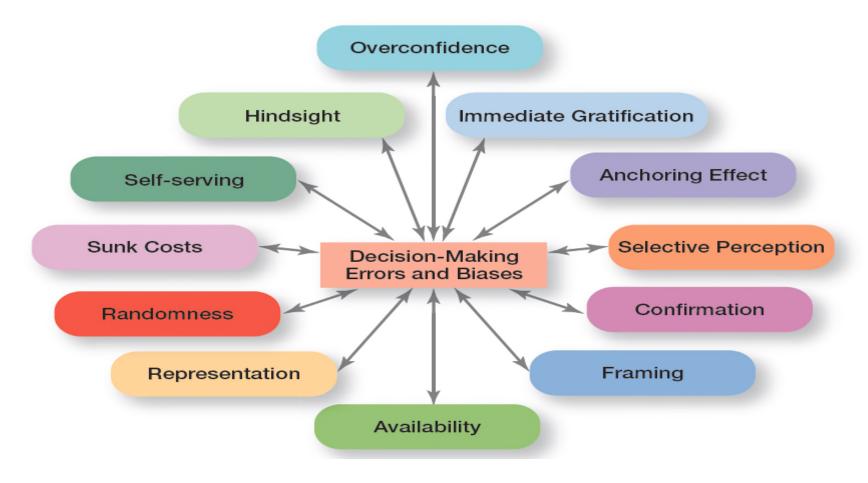


Exhibit 2-11 identifies 12 common decision errors of managers and biases they may have.



#### **Decision-Making Biases and Errors** (1 of 4)

- Overconfidence Bias: holding unrealistically positive views of oneself and one's performance
- Immediate Gratification Bias: choosing alternatives that offer immediate rewards and avoid immediate costs
- Anchoring Effect: fixating on initial information and ignoring subsequent information

#### Decision-Making Biases and Errors (2 of 4)

- Selective Perception Bias: selecting, organizing and interpreting events based on the decision maker's biased perceptions
- Confirmation Bias: seeking out information that reaffirms past choices while discounting contradictory information
- Framing Bias: selecting and highlighting certain aspects of a situation while ignoring other aspects

#### **Decision-Making Biases and Errors** (3 of 4)

- Availability Bias: losing decision-making objectivity by focusing on the most recent events
- Representation Bias: drawing analogies and seeing identical situations when none exist
- Randomness Bias: creating unfounded meaning out of random events



#### **Decision-Making Biases and Errors** (4 of 4)

- Sunk Costs Errors: forgetting that current actions cannot influence past events and relate only to future consequences
- Self-serving Bias: taking quick credit for successes and blaming outside factors for failures
- Hindsight Bias: mistakenly believing that an event could have been predicted once the actual outcome is known (after-the-fact)

#### Exhibit 2-12

#### **Overview of Managerial Decision Making**

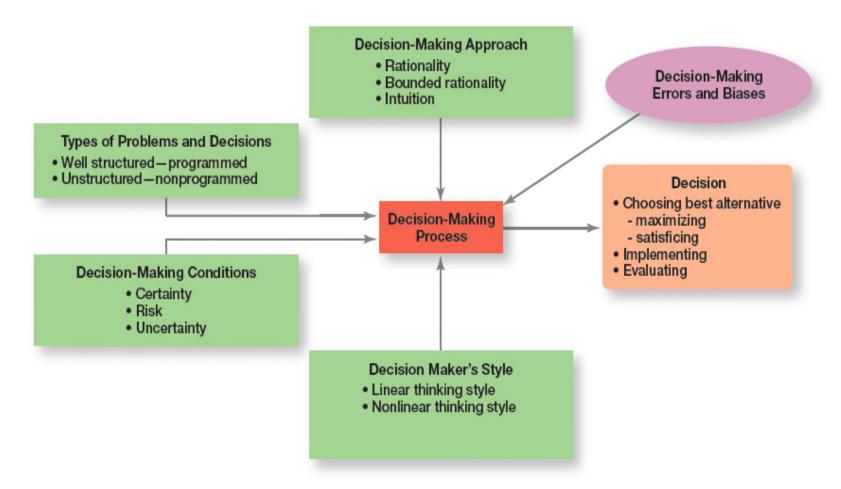


Exhibit 2-12 provides an overview of managerial decision making.



### **Guidelines for Making Effective Decisions**

- Understand cultural differences
- Create standards for good decision making
- Know when it's time to call it quits
- Use an effective decision-making process
- Develop your ability to think clearly



### **Characteristics of an Effective Decision- Making Process**

- Focuses on what's important
- Is logical and consistent
- Acknowledges subjective and analytical thinking, blends analytical with intuitive thinking
- Requires only as much information as is needed to resolve particular dilemma
- Encourages the gathering of relevant information
- Is straightforward, reliable, easy-to-use, flexible



### **Design Thinking and Decision Making**

 Design thinking: approaching management problems as designers approach design problems



### **Big Data and Decision-Making**

- Big data: the vast amount of quantifiable data that can be analyzed by highly sophisticated data processing
- Can be a powerful tool in decision making, but collecting and analyzing data for data's sake is wasted effort



#### **Review Learning Objective 2.1**

- Describe the eight steps in the decisionmaking process.
  - 1. Identify problem
  - 2. Identify decision criteria
  - 3. Weight the criteria
  - 4. Develop alternatives
  - 5. Analyze alternatives
  - 6. Select alternative
  - 7. Implement alternative
  - 8. Evaluate decision effectiveness



#### Review Learning Objective 2.2 (1 of 2)

- Explain the four ways managers make decisions.
  - Assumptions of rationality
    - The problem is clear and unambiguous
    - A single, well-defined goal is to be achieved
    - All alternatives and consequences are known
    - The final choice will maximize the payoff



#### Review Learning Objective 2.2 (2 of 2)

- Satisficing: when decision makers accept solutions that are good enough
- Escalation of commitment: managers increase commitment to a decision, even when they have evidence it may have been a wrong decision
- Intuitive decision making: making decisions on the basis of experience, feelings, and accumulated judgment
- Evidence-based management: a manager makes decisions based on the best available evidence



#### Review Learning Objective 2.3 (1 of 2)

- Classify decisions and decision-making conditions.
  - Programmed decisions are repetitive decisions that can be handled by a routine approach and are used when the problem being resolved is straightforward, familiar, and easily defined (structured).
  - Nonprogrammed decisions are unique decisions that require a custom-made solution and are used when the problems are new or unusual (unstructured) and for which information is ambiguous or incomplete.



#### Review Learning Objective 2.3 (2 of 2)

- Classify decisions and decision-making conditions.
  - Certainty is a situation in which a manager can make accurate decisions because all outcomes are known.
  - Risk is a situation in which a manager can estimate the likelihood of certain outcomes.
  - Uncertainty is a situation in which a manager is not certain about the outcomes and can't even make reasonable probability estimates



### **Review Learning Objective 2.4**

#### Describe how biases affect decision-making.

- The 12 common decision-making errors and biases:
  - Overconfidence
  - Immediate gratification
  - Anchoring effect
  - Selective perception
  - Confirmation
  - Framing
  - Availability
  - Representation
  - Randomness
  - Sunk costs
  - Self-serving
  - Hindsight



#### Review Learning Objective 2.5 (1 of 2)

- Identify effective decision-making techniques.
  - An effective decision-making process:
    - 1. Focuses on what's important
    - 2. Is logical and consistent
    - 3. Acknowledges subjective and objective thinking and blends analytical and intuitive approaches
    - 4. Requires only "enough" information as is needed to solve a problem
    - 5. Encourages and guides gathering relevant information and informed opinions
    - 6. Is straightforward, reliable, easy to use, and flexible



#### Review Learning Objective 2.5 (2 of 2)

- Design thinking: approaching management problems as designers approach design problems
- Big Data: when tempered with good judgment, it can be a powerful tool in decision making



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