It also is helpful to check decisions against the hazards of undue rationalizations. Caution is called for when you hear yourself or others saying, "It's just part of the job" . . . "We're fighting fire with fire" . . . "Everyone is doing it" . . . "I've got it coming" . . . "It's legal and permissible" . . . "I'm doing it just for you." Such comments or thoughts are warning signs. If these signs are heeded, it can prompt a review of the decision and perhaps lead to a more ethical outcome.

Learning Check 3

TAKEAWAY QUESTION 3 What are the steps in the decision-making process?

BE SURE YOU CAN • list the steps in the decision-making process • apply these steps to a sample decision-making situation • explain cost-benefit analysis in decision making • discuss differences between the classical and behavioral decision models • define *optimizing* and *satisficing* • explain how lack-of-participation error can hurt decision making • list useful questions for double-checking the ethical reasoning of a decision

Decision-Making Pitfalls and Creativity

TAKEAWAY 4 What are current issues in managerial decision making?

LEARN MORE ABOUT | Decision errors and traps • Creativity in decision making

Once we accept the fact that we are likely to make imperfect decisions at least some of the time, it makes sense to try to understand why. Two common mistakes are falling prey to decision errors and traps, and not taking full advantage of creativity. Both can be easily avoided.

Decision Errors and Traps

Test: Would you undergo heart surgery if the physician tells you the survival rate is 90%? Chances are you would. But if the physician tells you the mortality rate is 10%, the chances of you opting for surgery are likely to be substantially lower!

What is happening here? Well-intentioned people often rely on simplifying strategies when making decisions with limited information, time pressures, and even insufficient energy. Psychologist Daniel Kahneman describes this as a triumph of *System 1 thinking*—automatic, effortless, quick, and associative—over *System 2 thinking*—conscious, slow, deliberate, and evaluative.[33] In the above test, the simplification of System 1 thinking is called "framing" because the decision to have surgery or not varies according to whether the information is presented as a survival rate—encouraging, or a mortality rate—threatening.[34] This and other simplifying strategies or rules of thumb are known as **heuristics**.[35] Although heuristics can be helpful in dealing with complex and ambiguous situations, they also lead to common decision-making errors.[36]

Heuristics are strategies for simplifying decision making.

Framing Error

Framing error is trying to solve a problem in the context in which it is perceived.

Managers sometimes suffer from **framing error** that occurs when a problem is evaluated and resolved in the context in which it is perceived—either positively or negatively. Suppose, for example, data show that a particular product has a 40% market share. A negative frame views the product as deficient because it is missing 60% of the market. The likely discussion would focus on: "What are we doing wrong?" Alternatively, the frame could be a positive one, looking at the 40% share as a strong market foothold. In this case the discussion is more likely to proceed with "How can we do things better?" Sometimes people use framing as a tactic for presenting information in a way that gets other people to think within the desired frame. In politics, this is often referred to as "spinning" the data.

Behavioral Decision Model

Bounded rationality describes making decisions within the constraints of limited information and alternatives.

The **behavioral decision model** describes decision making with limited information and bounded rationality.

A **satisficing decision** is the choice of the first satisfactory alternative that comes to one's attention.

Behavioral scientists question the assumptions of perfect information underlying the classical model of decision making. Perhaps best represented by the work of scholar Herbert Simon, behavioral decision making instead recognizes that there are *cognitive limitations* on our human information-processing capabilities.[28] These limits make it hard for managers to become fully informed and make optimizing decisions. They create a **bounded rationality**, such that managerial decisions are rational only within the boundaries set by the available information and known alternatives, both of which are incomplete.

Because of cognitive limitations and bounded rationalities, the **behavioral decision model** assumes that people act with only partial knowledge about the available action alternatives and their consequences. As a consequence, the first alternative that appears to offer a satisfactory resolution to the problem is likely to be chosen. Simon, who won a Nobel Prize for his work, calls this the tendency to make **satisficing decisions**—choosing the first satisfactory alternative that comes to your attention. The behavioral model is useful in describing how many decisions get made in the ambiguous and fast-paced problem situations faced by managers today.

Back to the Ajax Case. Ajax executives decided to close the plant, offer transfers to company plants in another state, and offered to help displaced employees find new jobs in and around Murphysboro.

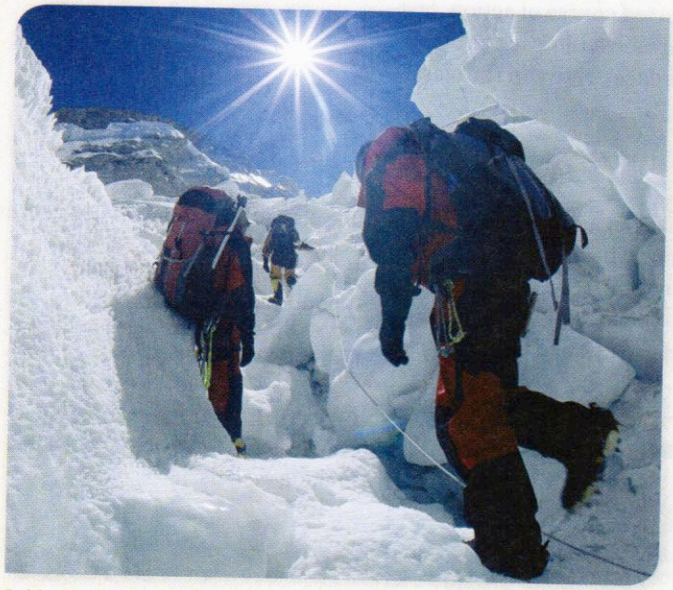
Step 4—Implement the Decision

Once a decision is made, actions must be taken to fully implement it. Nothing new can or will happen unless action is taken to actually solve the problem. Managers not only need the

ethics > KNOW RIGHT FROM WRONG

> *"Human life is far more important than just getting to the top of a mountain."*

Climber Left to Die on Mount Everest



Bobby Model/Getty Images, Inc.

Some 40 climbers are winding their ways to the top of Mount Everest. About 1,000 feet below the summit sits a British mountain climber in trouble, collapsed in a shallow snow cave. Most of those on the way up just look while continuing their climbs. Sherpas from one passing team pause to give him oxygen before moving on. Within hours David Sharp, 34, is dead of oxygen deficiency on the mountain.

A climber who passed by says: "At 28,000 feet it's hard to stay alive yourself . . . he was in very poor condition . . . , it was a very hard decision . . . he wasn't a member of our team."

Someone who made the summit in the past says: "If you're going to go to Everest . . . I think you have to accept responsibility that you may end up doing something that's not ethically nice . . . you have to realize that you're in a different world."

After hearing about this case, the late Sir Edmund Hillary, who reached the top in 1953, said: "Human life is far more important than just getting to the top of a mountain."

WHAT DO YOU THINK?

Who's right and who's wrong here? Should the climbers have ignored Sharp and continued on their way to the top of Mount Everest? Does this situation happen in real life—not on mountains but in our workplaces? How often do we meet people who are struggling or in trouble, but just pass them by as we pursue our own career interests and personal goals? When we encounter others who are having difficulties, what are our ethical or moral obligations to them? How do we make choices between what is best for us versus what is best for others?

Back to the Ajax Case. Closing the Ajax plant put a substantial number of people from the small community of Murphysboro out of work. The unemployment will have a significant negative impact on individuals, their families, and the town as a whole. The loss of the Ajax tax base will further hurt the community. The local financial implications of the plant closure will be great, and potentially devastating. The problem for Ajax management is how to minimize the adverse impact of the plant closing on the employees, their families, and the community.

Step 2—Generate and Evaluate Alternative Courses of Action

Once a problem is defined, it is time to assemble the facts and information that can be used to solve it. This is where we clarify exactly what is known and what needs to be known. Extensive information gathering should identify alternative courses of action as well as their potential consequences. Key stakeholders in the problem should be identified, and the effects of possible courses of action on each of these should be considered. Importantly, a course of action can only be as good as the quality of the alternatives considered. The better the pool of alternatives and the more that is known about them, the more likely it is that a good decision will be made.

It is important at this stage to avoid a very common decision-making error—*abandoning the search for alternatives and evaluation of their consequences too quickly.* This often happens due to impatience, time pressure, and plain old lack of commitment. But just because an

insight > LEARN ABOUT YOURSELF

> *Lacking in confidence, procrastination becomes easy. Too many of us have difficulty deciding, and we have difficulty acting.*

Self-Confidence Builds Better Decisions

Does confidence put a spring into your step and a smile on your face? It's a powerful force, something to be nurtured and protected. Managers need the **self-confidence** not only to make decisions but to take the actions required to implement them. Once decisions are made, managers are expected to rally people to utilize resources and take effective action. This is how problems actually get solved and opportunities get explored. But lacking in confidence, procrastination becomes easy. Too many of us have difficulty deciding, and we have difficulty acting.

How would you proceed with the situation in the box—option A, or B, or C?

Jeff McCracken was the team leader who actually had to deal with this situation. He acted deliberately, with confidence, and in a collaborative fashion. After extensive consultations with the team, he decided to salvage the old track. The team worked 24 hours a day and finished in less than a week. McCracken called it a "colossal job" and said the satisfaction came from "working with people from all parts of the company and getting the job done without anyone getting hurt."

Self-confidence doesn't have to mean acting alone, but it does mean being willing to act. Management consultant Ram Charan calls self-confidence a willingness to "listen to your own voice" and "speak your mind and act decisively." It is, he says, an "emotional fortitude" that counteracts "emotional insecurities."

Decision Time

Situation: A massive hurricane has damaged a railroad bridge over a large lake. The bridge is critical for relief efforts to aid a devastated city. You are leading a repair team of 100. Two alternatives are on the table: Rebuild using new tracks, or rebuild with old track salvaged from the lake.

Question: How do you proceed?

A. Decide to rebuild with new tracks; move quickly to implement.

B. Decide to rebuild with old tracks; move quickly to implement.

C. Consult with team; make decision; move quickly to implement.

GET TO KNOW YOURSELF BETTER

Opportunities to improve your self-confidence are everywhere, but you have to act in order to take advantage of them. What about your involvement in student organizations, recreational groups, intramural sports teams, and community activities? Do a self-check: Make a list of things you are already doing that offer ways to build your self-confidence. What are you gaining from these experiences? Make another list that describes what you could do to gain more experience and add more self-confidence to your skills portfolio between now and graduation. Becoming an officer in a club where you are a member? Starting a new student organization? Organizing a community service project for you and your friends? Becoming a tutor for a class where you did well? Volunteering at a local food bank or homeless shelter?

Risk Environment

A **risk environment** lacks complete information but offers "probabilities" of the likely outcomes for possible action alternatives.

A basic fact of managerial decision making is that many, if not most, management problems emerge in **risk environments** where facts and information on action alternatives and their consequences are incomplete. Decision making in risk environments requires the use of *probabilities* to estimate the likelihood that a particular outcome will occur (e.g., 4 chances out of 10). Because probabilities are only possibilities, people vary in how they act under risk conditions. Some of us are risk takers and some are risk avoiders; some of us gain from taking risks and others lose.

Domino's Pizza CEO J. Patrick Doyle is a risk taker. When deciding to change the firm's pizza recipe, he ran a television ad admitting that customers really disliked the old one because it was "totally devoid of flavor" and had a crust "like cardboard." Whereas some executives might want to hide or downplay such customer reviews, Doyle used them to help launch the new recipe. He says it was a "calculated risk" and that "we're proving to our customers that we are listening to them by brutally accepting the criticism that's out there."[23]

General Motors' former Vice Chairman of Global Product Development, Bob Lutz, wasn't a risk taker. He once said: "GM had the technology to do hybrids back when Toyota was launching the first Prius, but we opted not to ask the board to approve a product program that'd be destined to lose hundreds of millions of dollars."[24] He and other GM executives either miscalculated the probabilities of positive payoffs from hybrid vehicles or didn't believe the probabilities were high enough to justify the financial risk. Their Japanese competitors, facing the same risk environment, decided differently and gained the early mover advantage.

Uncertain Environment

An **uncertain environment** lacks so much information that it is difficult to assign probabilities to the likely outcomes of alternatives.

When facts are few and information is so poor that managers are unable to even assign probabilities to the likely outcomes of alternatives, an **uncertain environment** exists. This is the most difficult decision-making condition. The high level of uncertainty forces managers to rely heavily on intuition, judgment, informed guessing, and hunches—all of which leave considerable room for error. Perhaps there is no better example of the challenges of uncertainty than the situation faced by government and business leaders as they struggle to deal with global economic turmoil. Even as they struggle to find the right paths forward, great political, social, and economic uncertainties make their tasks difficult and the outcomes of their decisions hard to predict.

Learning Check 2

TAKEAWAYQUESTION 2 How do managers address problems and make decisions?

BE SURE YOU CAN • describe how IT influences the four functions of management • define *problem solving* and *decision making* • explain systematic and intuitive thinking • list four cognitive styles in decision making • differentiate programmed and nonprogrammed decisions • describe the challenges of crisis decision making • explain decision making in certain, risk, and uncertain environments

The Decision-Making Process

TAKEAWAY 3 What are the steps in the decision-making process?

LEARN MORE ABOUT Identify and define the problem • Generate and evaluate alternative courses of action • Choose a preferred course of action • Implement the decision • Evaluate results • At all steps—check ethical reasoning

All of those case studies, experiential exercises, class discussions, and even essay exam questions in your courses are intended to get students to experience some of the complexities involved in managerial decision making, the potential problems and pitfalls, and even the pressures of crisis situations. From the classroom forward, however, it's all up to you. Only you can determine whether you step up and make the best out of very difficult problems, or collapse under pressure.

The **decision-making process** begins with identification of a problem and ends with evaluation of results.

Figure 7.4 describes five steps in the **decision-making process**: (1) Identify and define the problem, (2) generate and evaluate alternative solutions, (3) choose a preferred course of