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

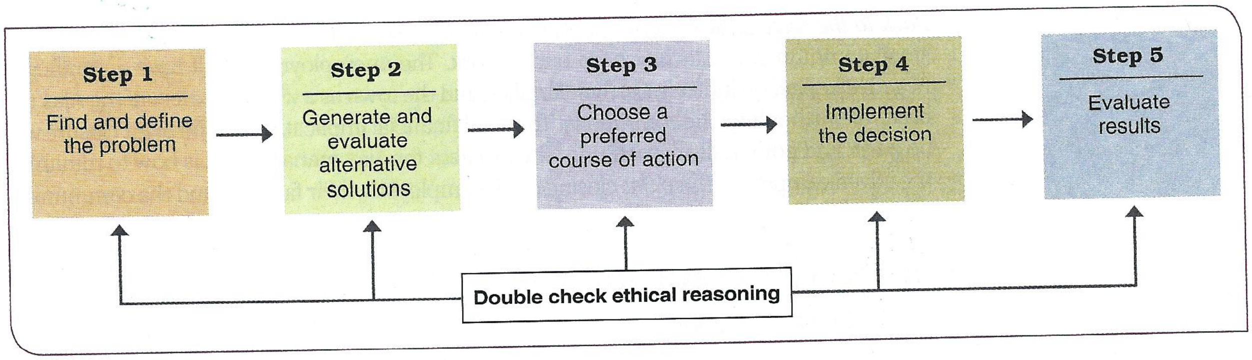

FIGURE 7.4 **Steps in the decision-making process.**

action, (4) implement the decision, and (5) evaluate results.[25] Importantly, ethical reasoning should be double-checked in all five steps. The decision-making process can be understood within the context of the following short case.

The Ajax Case. On December 31, the Ajax Company decided to close down its Murphysboro plant. Market conditions were forcing layoffs, and the company could not find a buyer for the plant. Some of the 172 employees had been with the company as long as 18 years; others as little as 6 months. All were to be terminated. Under company policy, they would be given severance pay equal to one week's pay per year of service.

This case reflects how competition, changing times, and the forces of globalization can take their toll on organizations, the people who work for them, and the communities in which they operate. Think about how you would feel as one of the affected employees. Think about how you would feel as the mayor of this small town in Illinois. Think about how you would feel as a corporate executive forced to make the difficult business decision to close the plant down.

Step 1—Identify and Define the Problem

The first step in decision making is to find and define the problem. Information gathering and deliberation are critical in this stage. The way a problem is defined can have a major impact on how it is resolved, and it is critical here to clarify exactly what a decision should accomplish. The more specific the goals, the easier it is to evaluate results after the decision is actually implemented. But, three common mistakes can occur in this critical first step in decision making.[26]

Mistake number one is defining the problem too broadly or too narrowly. To take a classic example, the problem stated as "build a better mousetrap" might be better defined as "get rid of the mice." Managers should define problems in ways that give them the best possible range of problem-solving options.

Mistake number two is focusing on symptoms instead of causes. Symptoms are indicators that problems may exist, but they shouldn't be mistaken for the problems themselves. Although managers should be alert to spot problem symptoms (e.g., a drop in performance), they must also dig deeper to address root causes (such as discovering that workers need training in the use of a new IT system).

Mistake number three is choosing the wrong problem to deal with at a particular point in time. For example, which of these three problems would you address first on a busy workday? 1—An e-mail message from your boss requesting a proposal "as soon as possible" on how to handle employees' complaints about lack of flexibility in their work schedules. 2—One of your best team members has just angered another by loudly criticizing her work performance. 3—Your working spouse has left you a voice mail that your daughter is sick at school and the nurse would like her to go home for the day. Choices like this are not easy. We have to set priorities and deal with the most important problems first. Perhaps the boss can wait while you telephone the school to learn more about your daughter's illness and then spend some time with the employee who seems to be having "a bad day."

alternative is convenient doesn't make it the best. It may well have less potential than others that might be discovered with the right approach and adequate time commitment.

Decisions often have **unintended consequences** in the form of unanticipated positive or negative side effects. If alternatives are given proper attention, some of these could be identified ahead of time and their implications used to modify and strengthen a decision. A growing number of states and localities, for example, are passing minimum wage laws higher than federal standards. Although the intent is to help low-wage workers fight poverty and cope with living costs, unintended consequences have appeared as affected employers struggle to maintain profits in face of higher labor costs. On the positive side, the higher wages have sometimes driven innovation—for example, a Carl's Jr. owner in California now filters shortening more frequently to extend its life and save costs. On the negative side, the higher wages have sometimes caused layoffs and reduced work hours—for example, a White Castle owner in Illinois eliminated two jobs to protect profit margins without raising prices.[27]

Unintended consequences are unanticipated positive or negative side effects that result from a decision.

One way to strengthen the search for alternatives is to actively seek consultation and the involvement of others. Adding more people to the process helps brings new perspectives and information to bear on a problem, generates more alternatives for consideration, reveals more about the possible consequences of the alternatives, and can result in a chosen course of action that is better for everyone involved in—and potentially affected by—the decision. Another way to strengthen the search for alternatives is to put each through a systematic and rigorous **cost-benefit analysis**. This compares what an alternative will cost in relation to what it will return in respect to expected benefits. At a minimum, the benefits of an alternative should be greater than its costs to stay in consideration. And, it should also be ethically sound.

Cost-benefit analysis involves comparing the costs and benefits of each potential course of action.

Back to the Ajax Case. The Ajax plant is going to be closed. Given that, the possible alternative approaches that can be considered are (1) close the plant on schedule and be done with it; (2) delay the plant closing until all efforts have been made to sell it to another firm; (3) offer to sell the plant to the employees and/or local interests; (4) close the plant and offer transfers to other Ajax plant locations; or (5) close the plant, offer transfers, and help the employees find new jobs in and around the town of Murphysboro.

Step 3—Choose a Preferred Course of Action

This is the point where an actual decision is made to select a preferred course of action. Just how this choice occurs and who makes it must be successfully resolved in each problem situation. Management theory recognizes rather substantial differences between the classical and behavioral models of decision making as shown in Figure 7.5.

Classical Decision Model

The **classical decision model** views the manager as acting rationally in a certain world. The assumption is that a rational choice of the preferred course of action will be made by a decision maker who is fully informed about all possible alternatives. Here, managers face a clearly defined problem and know all possible action alternatives, as well as their consequences. As a result, managers make an **optimizing decision** that gives the absolute best solution to the problem.

The **classical decision model** describes decision making with complete information.

An **optimizing decision** chooses the alternative giving the absolute best solution to a problem.

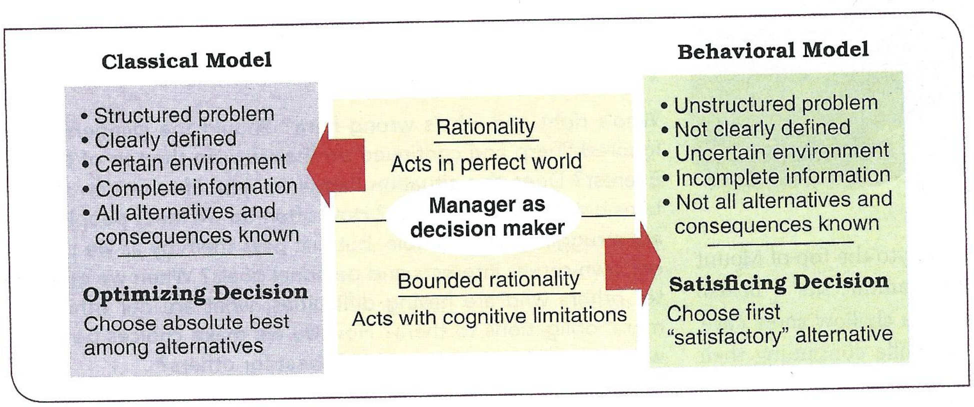

FIGURE 7.5 **Differences in the classical and behavioral decision-making models.**