chapter 8

Making Decisions

Target Skill

decision-making skill: the ability to choose alternatives that increase the likelihood of accomplishing objectives

objectives

To help build my *decision-making skill,* when studying this chapter, I will attempt to acquire:

1. A fundamental understanding of the term *decision*
2. An understanding of each element of the decision situation
3. An ability to use the decision-making process
4. An appreciation for the various situations in which decisions are made
5. An understanding of probability theory and decision trees as decision-making tools
6. Insights into groups as decision makers

CHALLENGE CASE

MAKING DIFFICULT DECISIONS AT NBC UNIVERSAL

Was it "simply business"—or a classic example of poor decision making? The tale of NBC Universal's recent late-night programming debacle—moving Jay Leno to a prime-time slot while anointing Conan O'Brien the new host of "The Tonight Show," then reversing itself—actually started in 2004.

At that time, O'Brien was 12 years into hosting the show that followed "The Tonight Show" on NBC. Concerned that O'Brien might be considering a move to another network, NBC management decided to make him a promise: in 2009 O'Brien would be able to succeed Jay Leno as host of "The Tonight Show." Presumably at that point, Leno would retire.

But a lot can happen in five years. Fast-forward to 2009: Jay Leno announced he had no interest in retiring from "The Tonight Show." To keep Leno from jumping ship, NBC and CEO Jeff Zucker concocted a solution: it would launch a new program, "The Jay Leno Show," for a prime-time slot—10 pm Eastern, 9 pm Central—while moving Conan into the Tonight Show seat. Making this double switch, NBC brass reasoned, would help the network in several ways. It would make good on their promise to Conan, enable NBC to hold on to both late-night stars, and also save the network money. Reportedly, it would cost about $300,000 to produce an hour-long Leno program versus $3 million for an hour-long drama.

But NBC's decision soon fell apart. The problem: low ratings. The new Leno show failed to impress critics and, as a result, could not deliver viewers in significant numbers to the reconstructed Tonight Show starring O'Brien. Meanwhile, the flame-haired comedian had problems of his own. Although his show attracted viewers in the coveted 28-to-49 age group, O'Brien still regularly came in third against David Letterman and ABC's "Nightline."

In its next move, NBC revisited its programming decisions, canceling the prime-time Leno show and reinstalling Leno at "The Tonight Show." Miffed at being replaced, O'Brien refused the alternatives offered by NBC and used his position to castigate the network, including CEO Zucker, and accuse Jay Leno of helping to oust him. Ultimately, O'Brien accepted a $40 million severance package plus several millions in severance for his staff. He then launched a several-city comedy tour to further capitalize on his NBC experience before signing a contract with the Turner Broadcasting System (TBS).[1]

Looking back, managers at NBC would probably like a "do over" on some of their previous decisions regarding "The Tonight Show." As time passes, NBC executives will learn more about the wisdom of their final decision to let go of O'Brien.

Jay Leno—was he innocent in the Leno-O'Brien debacle?

EXPLORING YOUR MANAGEMENT SKILL

You can explore your level of decision-making skill **before** studying the chapter by completing the exercise "Exploring Your Management Skill: Part 1" on page 197 and **after** studying this chapter by completing the exercise "Exploring Your Management Skill: Part 2" on page 198.

THE DECISION-MAKING CHALLENGE

The Challenge Case focuses on events at NBC Universal. The information in this chapter discusses specifics surrounding a decision-making situation and provides insights about the steps that NBC management might have taken in making these decisions. This chapter discusses (1) the fundamentals of decisions, (2) the decision-making process, (3) various decision-making conditions, (4) decision-making tools, and (5) group decision making. These topics are critical to managers and other individuals who make decisions.

FUNDAMENTALS OF DECISIONS

Definition of a Decision

A **decision** is a choice made between two or more available alternatives. *Decision making* is the process of choosing the best alternative for reaching objectives. Decision making is covered in the planning section of this text, but because managers must also make decisions when performing the other three managerial functions—organizing, influencing, and controlling—the subject requires a separate chapter.

We all face decision situations every day. A decision situation may involve simply choosing whether to spend the day studying, swimming, or golfing. It does not matter which alternative is chosen, only that a choice is made.[2]

Managers make decisions affecting the organization daily and communicate those decisions to other organization members.[3] Not all managerial decisions are of equal significance to the organization. Some affect a large number of organization members, cost a great deal of money to carry out, or have a long-term effect on the organization. Such significant decisions can have a major impact, not only on the management system itself, but on the career of the manager who makes them. Other decisions are fairly insignificant, affecting only a small number of organization members, costing little to carry out, and producing only a short-term effect on the organization.

Types of Decisions

Decisions can be categorized according to how much time a manager must spend making them, what proportion of the organization must be involved in making them, and the organizational functions on which they focus. Probably the most generally accepted method of categorizing decisions, however, is based on computer language; it divides all decisions into two basic types: programmed and nonprogrammed.[4]

A **programmed decision** is routine and repetitive, and the organization typically develops specific ways to handle such decisions. A programmed decision might involve determining how products will be arranged on the shelves of a supermarket. For this kind of routine, repetitive problem, standard-arrangement decisions are typically made according to established management guidelines.

In contrast, a **nonprogrammed decision** is typically a one-shot decision that is usually less structured than programmed decisions. An example of the type of nonprogrammed decision that more and more managers are having to make is whether to expand operations into the "forgotten continent" of Africa.[5] Another example is deciding whether a supermarket should

TABLE 8.1 Traditional and Modern Ways of Handling Programmed and Nonprogrammed Decisions

	Decision-Making Techniques	
Types of Decisions	**Traditional**	**Modern**
Programmed: Routine, repetitive decisions Organization develops specific processes for handling them	1. Habit 2. Clerical routine: Standard operating procedures 3. Organization structure: Common expectations A system of subgoals Well-defined information channels	1. Operations research: Mathematical analysis models Computer simulation 2. Electronic data processing
Nonprogrammed: One-shot, ill-structured, novel policy decisions Handled by general problem solving processes	1. Judgment, intuition, and creativity 2. Rules of thumb 3. Selection and training of executives	1. Heuristic problem-solving techniques applied to: Training human decision makers Constructing heuristic computer programs

carry an additional type of bread. The manager making this decision must consider whether the new bread will merely stabilize bread sales by competing with existing bread carried in the store or actually increase bread sales by offering a desired brand of bread to customers who have never before bought bread in the store. These types of issues must be dealt with before the manager can finally decide whether to offer the new bread. Table 8.1 shows traditional and modern ways of handling programmed and nonprogrammed decisions.

Programmed and nonprogrammed decisions should be thought of as being at opposite ends of the decision programming continuum, as illustrated in Figure 8.1. As the figure indicates, however, some decisions are neither programmed nor nonprogrammed, falling somewhere between the two. One of the key distinctions between programmed versus nonprogrammed decisions is that programmed decisions typically require less time and effort as compared to nonprogrammed decisions.

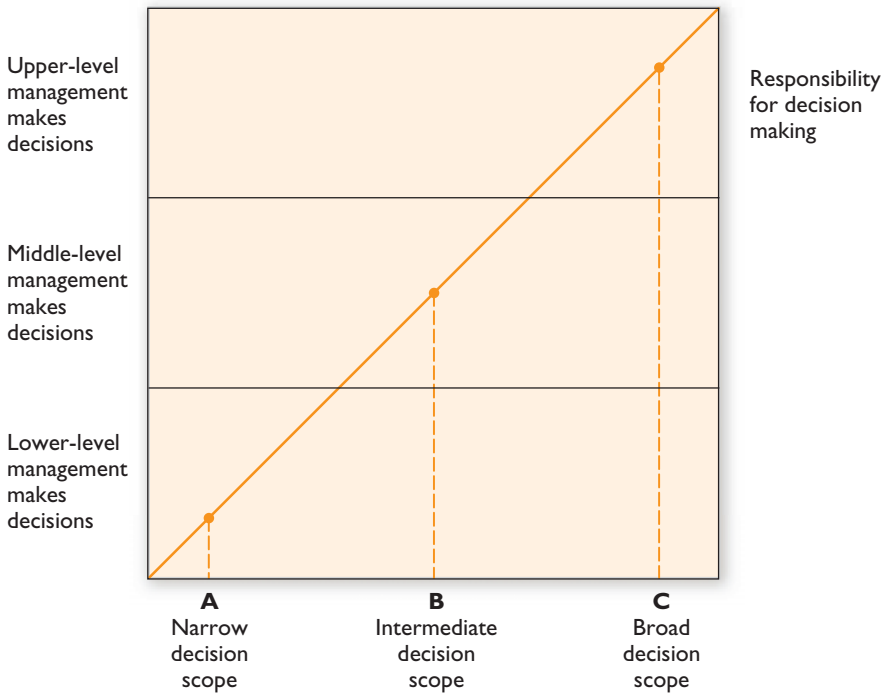
The Responsibility for Making Organizational Decisions

Many different kinds of decisions must be made within an organization—such as how to manufacture a product, how to maintain machines, how to ensure product quality, and how to establish advantageous relationships with customers. Because organizational decisions are so varied, some type of rationale must be developed to stipulate who within the organization has the responsibility for making which decisions.

One such rationale is based primarily on two factors: the scope of the decision to be made and the levels of management. The **scope of the decision** is the proportion of the total management system that the decision will affect. The greater this proportion, the broader the scope of the decision is said to be. *Levels of management* are simply lower-level management, middle-level

FIGURE 8.1
Decision programming continuum

FIGURE 8.2
Level of managers responsible for making decisions as decision scope increases from A to B to C



management, and upper-level management. The rationale for designating who makes which decisions is that the broader the scope of a decision, the higher the level of the manager responsible for making that decision. Figure 8.2 illustrates this rationale.

how managers do it

Making Business Decisions at Green Queens

To better understand the role of delegation in different contexts, consider the decisions facing sisters Heather Castagna and Holly Rand, the owners of Lubbock, Texas–based Green Queens, a recycling company. An uptick in residential business and several new commercial contracts required Castagna and Rand to make major decisions about their firm's future, including a possible location change and the need to hire additional employees. As small-business owners, Castagna and Rand are responsible for making such decisions; they cannot delegate them to others.[6] ■

It is important to point out that the manager who is responsible for making a particular decision can ask the advice of other managers or subordinates before settling on an alternative. In his article "Moon Shots for Management," business thinker Gary Hamel observes that senior-level decision making is often marked by "executive hubris, unstated biases, and incomplete data." Hamel suggests that employees closest to a situation are often in the best position to evaluate alternatives or weigh in on the issues that will affect the decision.[7] Consistent with this idea, some managers prefer to use groups and input from other employees to make certain decisions.

Consensus is one method a manager can use in getting a group to arrive at a particular decision. **Consensus** is an agreement on a decision by all the individuals involved in making that decision. It usually occurs after lengthy deliberation and discussion by members of the decision group, who may be either all managers or a mixture of managers and subordinates.[8]

The manager who asks a group to produce a consensus decision must bear in mind that groups will sometimes be unable to arrive at a decision. Lack of technical skills or poor interpersonal relations may prove insurmountable barriers to arriving at a consensus. When a group is stalemated, a manager needs to offer assistance in making the decision or simply make it herself.

Decisions arrived at through consensus have both advantages and disadvantages. One advantage of this method is that it focuses "several heads" on the decision. Another is that employees are more likely to be committed to implementing a decision if they helped make it. The main disadvantage of this method is that it often involves time-consuming discussions relating to the decision, which can be costly to the organization.

Elements of the Decision Situation

Wilson and Alexis isolate several basic elements in the decision situation.[9] Five of these elements are defined and discussed in this section.

The Decision Makers Decision makers, the first element of the decision situation, are the individuals or groups who actually make the choice among alternatives. According to Ernest Dale, weak decision makers usually have one of four orientations: receptive, exploitative, hoarding, and marketing.[10]

Decision makers who have a *receptive* orientation believe that the source of all good is outside themselves, and therefore they rely heavily on suggestions from other organization members. Basically, they want others to make their decisions for them.

Decision makers with an *exploitative* orientation also believe that the source of all good is outside themselves, and they are willing to steal ideas as necessary to make good decisions. They build their organizations on others' ideas and typically hog all the credit, extending little or none to the originators of the ideas.

The *hoarding* orientation is characterized by the desire to preserve the status quo as much as possible. Decision makers with this orientation accept little outside help, isolate themselves from others, and are extremely self-reliant. They are obsessed with maintaining their present position and status.

Marketing-oriented decision makers look on themselves as commodities that are only as valuable as the decisions they make. Thus they try to make decisions that will enhance their value, and they are highly conscious of what others think of their decisions.

Store manager Gary Rains (right) leads Wal-Mart employees in the company cheer at the end of the regular morning staff meeting. Such actions are aimed at helping the manager build commitment to implementing decisions the manager and the team have made together.

The ideal decision-making orientation emphasizes the realization of the organization's potential as well as that of the decision maker. Ideal decision makers try to use all of their talents when making a decision and are characterized by reason and sound judgment. They are largely free of the qualities of the four undesirable decision-making orientations just described.[11]

how managers do it

Trusting Employees to Make Decisions at ShopRite

For an example of an ideal decision maker, consider Jeff Brown, whose chain of ShopRite supermarkets operates in economically depressed communities in Pennsylvania and New Jersey—communities that other grocery chains reject as too risky. Brown, whose company was recently named one of the region's top employers, entrusts his employees with authority to make major store decisions and the freedom to learn from their mistakes without fear of reprisal. Union leaders say Brown encourages their union members—his employees—to think creatively and try new ideas. In their many years of dealing with Brown, the union claims, no case ever went to arbitration.[12] ■

Goals to Be Served The goals that decision makers seek to attain are another element of the decision situation. In the case of managers, these goals should most often be organizational objectives. (Chapter 7 discussed the specifics of organizational objectives.)

Relevant Alternatives The decision situation is usually composed of at least two relevant alternatives. A **relevant alternative** is one that is considered feasible for solving an existing problem and for implementation. Alternatives that will not solve an existing problem *or* cannot be implemented are irrelevant and should be excluded from the decision-making situation.

Ordering of Alternatives The decision situation requires a process or mechanism for ranking alternatives from most desirable to least desirable. This process can be subjective, objective, or some combination of the two. Past experience of the decision maker is an example of a subjective process, and the rate of output per machine is an example of an objective process.

Choice of Alternatives The last element of the decision situation is the actual choice between available alternatives. This choice establishes the decision. Typically, managers choose the alternative that maximizes long-term return for the organization.

The Rational Decision-Making Process

A decision is a choice of one alternative from a set of available alternatives. The **rational decision-making process** comprises the steps the decision maker takes to arrive at this choice. The process a manager uses to make decisions has a significant impact on the quality of those decisions. If managers use an organized and systematic process, the probability that their decisions will be sound is higher than if they use a disorganized and unsystematic process.[13]

A model of the decision-making process that is recommended for managerial use is presented in Figure 8.3. In order, the decision-making steps this model depicts are as follows:

1. Identify an existing problem.
2. List possible alternatives for solving the problem.
3. Select the most beneficial of these alternatives.

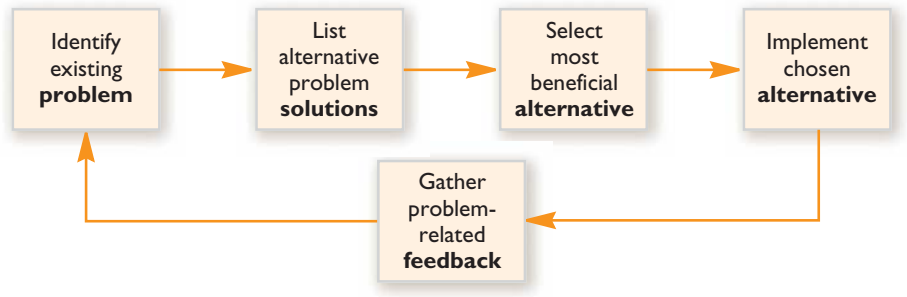


FIGURE 8.3
Model of the decision-making process

4. Implement the selected alternative.
5. Gather feedback to find out whether the implemented alternative is solving the identified problem.

The paragraphs that follow elaborate on each of these steps and explain their interrelationships.[14]

This model of the decision-making process is based on three primary assumptions.[15] First, the model assumes that humans are economic beings with the objective of maximizing satisfaction or return. Second, it assumes that within the decision-making situation all alternatives and their possible consequences are known. Its last assumption is that decision makers have some priority system to guide them in ranking the desirability of each alternative. If each of these assumptions is met, the decision made will probably be the best possible one for the organization. In real life, unfortunately, one or more of these assumptions is often not met, and therefore the decision made is less than optimal for the organization.

Identifying an Existing Problem

Decision making is essentially a problem-solving process that involves eliminating barriers to organizational goal attainment. The first step in this elimination process is identifying exactly what the problems or barriers are, for only after the barriers have been adequately identified can management take steps to eliminate them.

how managers do It

Addressing—and Eliminating—Barriers at Molson

As a classic example of making decisions to overcome a problem, consider how Canadian brewer Molson handled a barrier to success: a free-trade agreement that threatened to open Canadian borders to U.S. beer. Although the borders were not due to open for another five years, Molson decided to deal immediately with the impending threat of increased beer competition from the United States by increasing production and sales of its other product line: specialty chemical products. Within four years, Molson's chemical sales exceeded its beer sales. Essentially, the company identified its problem—the threat of increased U.S. competition for beer sales—and dealt with it by emphasizing sales in a different division.[16] ■

Chester Barnard has stated that organizational problems are brought to the attention of managers mainly by the following means:[17]

1. Orders issued by managers' supervisors
2. Situations relayed to managers by their subordinates
3. The normal activity of the managers themselves

Listing Alternative Solutions

Once a problem has been identified, managers should list the various possible solutions. Few organizational problems are solvable in only one way. Managers must search out the numerous available alternative solutions to most organizational problems.

Before searching for solutions, however, managers should be aware of five limitations on the number of problem-solving alternatives available:[18]

1. Authority factors (e.g., a manager's superior may have told the manager that a certain alternative is not feasible)
2. Biological or human factors (e.g., human factors within the organization may be inappropriate for implementing certain alternatives)
3. Physical factors (e.g., the physical facilities of the organization may be inappropriate for certain alternatives)
4. Technological factors (e.g., the level of organizational technology may be inadequate for certain alternatives)
5. Economic factors (e.g., certain alternatives may be too costly for the organization)

Figure 8.4 presents additional factors that can limit a manager's decision alternatives. This diagram uses the term *discretionary area* to depict all the feasible alternatives available to managers. Factors that limit or rule out alternatives outside this area are legal restrictions, moral and ethical norms, formal policies and rules, and unofficial social norms.[19]

Finally, managers should be aware of the negative effects of generating too many alternatives. Intuitively, generating more alternatives would seemingly lead to more effective decision making. Research suggests, however, that having too many alternatives may actually demotivate decision makers, which harms decision making; this is known as the **paradox of choice**.[20]

Selecting the Most Beneficial Alternative

Decision makers can select the most beneficial solution only after they have evaluated each alternative carefully. This evaluation should consist of three steps. First, decision makers should list, as accurately as possible, the potential effects of each alternative as if the alternative had already been chosen and implemented. Second, they should assign a probability factor to each of the potential effects; that is, indicate how probable the occurrence of the effect would be if the alternative were implemented. Third, keeping organizational goals in mind, decision makers should compare each alternative's expected effects and the respective probabilities of those effects.[21] After these steps have been completed, managers will know which alternative seems most advantageous to the organization.

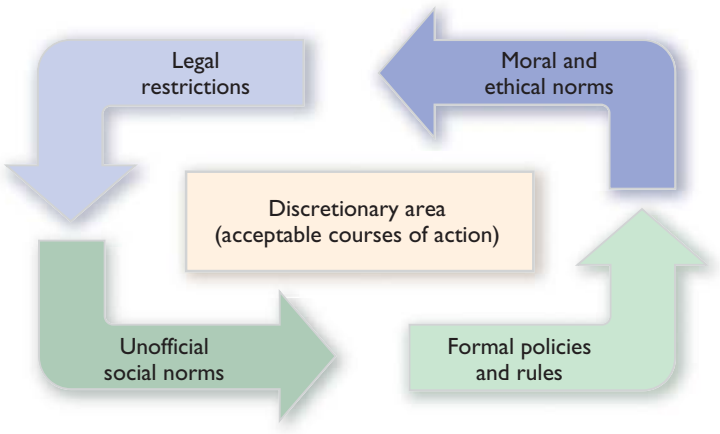


FIGURE 8.4
Additional factors that limit a manager's number of acceptable alternatives

Scholastic, Inc., the U.S. publisher of the Harry Potter series of books, decided to honor the request of author J. K. Rowling that no one be allowed to see a copy of any new book before its publication date. Implementing that decision required gaining the cooperation of booksellers all over the country. Here an Amazon.com employee prepares copies of *Harry Potter and the Order of the Phoenix* for shipping.

class discussion highlight

MODERN RESEARCH AND DECISION-MAKING SKILL

The Influence of Information Speed on Decision Making

One key to effective decision making is gathering as much useful information as possible. Recent advances in technology allow individuals to receive information much faster than they could even a few years ago. A recent study by Professors Luri and Swaminathan examined the extent to which timely information improves decision making.[22]

In their study, the authors conducted a computer-based experiment with undergraduate students in France. In this experiment, the students were told they were retailers trying to sell "wodgets" over 30 rounds. In each round, the students could purchase wodgets for 3 francs and sell them for 12 francs. If customer demand (reported by the experimenters to the students) exceeded the number of wodgets a student ordered, then the student received profits on all of the sales but ran out of inventory. In contrast, if customer demand was less than the number of wodgets ordered, then the students lost the money associated with the remaining inventory (think of unsold wodgets as spoiled inventory). The students were told that the goal of the experiment was to maximize profits.

To examine the effects of timely information on decision making, the authors of the study placed students into one of three categories: subjects received information about consumer demand and were allowed to purchase wodgets every round, every three rounds, or every six rounds. In other words, the first group received information very quickly (every round), and the last group received information very slowly (every six rounds). Based on these differences in information flow, which students do you think made the best decisions? Why or why not?

Source: This highlight was based on Nicholas H. Lurie and Jayashankar M. Swaminathan, "Is timely information always better? The effect of feedback frequency on decision making," *Organizational Behavior and Human Decision Processes* 108, (2009): 315–329.

Implementing the Chosen Alternative

The next step is to put the chosen alternative into action. Decisions must be supported by appropriate action if they are to have a chance of success.

Gathering Problem-Related Feedback

After the chosen alternative has been implemented, decision makers must gather feedback to determine the effect of the implemented alternative on the identified problem. If the identified problem is not being solved, managers need to seek out and implement some other alternative.

BOUNDED RATIONALITY

In the previous section, we described the rational decision-making process. Herbert Simon, however, questioned the ability of managers to make rational decisions. In his opinion, managers are not able to make perfectly rational decisions. Instead, Simon put forth the idea that managers deal with **bounded rationality**, which refers to the fact that managers are bounded in terms of time, computational power, and knowledge when making decisions.[23] In other words, managers do not always have access to the resources required to make rational decisions. As a result of bounded rationality, Simon suggests that managers **satisfice**, which occurs when an individual makes a decision that is not optimal but is "good enough." For example, a manager may hire the first employee who is acceptable according to the hiring criteria without interviewing the remaining candidates. In this example, a better candidate may exist, but the manager has satisficed by selecting the first "acceptable" candidate.

DECISION MAKING AND INTUITION

As already discussed, the rational decision-making process includes a sequence of five steps. We also noted, however, that researchers have highlighted the potential influence of bounded rationality on this process. More recently, research suggests that individuals may also rely on additional processes when making decisions. In fact, Stanovich and West suggest that individuals use two different processes when making decisions.[24] According to their framework, the rational decision-making process discussed in the previous section is known as "System 2."

Complementing this formal system of decision making, Stanovick and West suggest that individuals also rely on a less formal process based on intuition to make decisions; they refer to this process as "System 1." Consistent with their framework, System 2 is a process described as being slow, comprehensive, and deliberate, while System 1 is described as being fast, automatic, and intuitive. **Intuition**, in fact, refers to an individual's inborn ability to synthesize information quickly and effectively.[25] Taken together, some researchers suggest that individuals employ the more sophisticated System 2 process to monitor or override the more automatic System 1 process. Often, however, System 2 does not monitor effectively; in such cases intuition drives decision making.

Decision-Making Heuristics and Biases

Daniel Kahneman and Amos Tversky were awarded the Nobel Prize for further examining the role of intuition in decision making. In particular, their ground-breaking research examined how individuals use **heuristics**, or simple rules of thumb, to make decisions. In addition, Kahneman and Tveresky examined how these heuristics introduce bias in decision-making processes. **Bias** refers to departures from rational theory that produce suboptimal decisions. In other words, when managers rely on rules of thumb when making decisions, these decisions are often flawed. Kahneman and Tversky's work spurred a great deal of interest in the discovery and examination of a number of decision-making biases. Researchers have discovered many other decision-making biases; Table 8.2 summarizes some of the more prominent biases examined by decision-making researchers.

Decision-Making Conditions: Risk and Uncertainty

In most instances, it is impossible for decision makers to know exactly what the future consequences of an implemented alternative will be. The word *future* is the key in discussing decision-making conditions. Because organizations and their environments are constantly changing, future

TABLE 8.2 Common Decision-Making Biases

Name of Bias	Brief Description
Bandwagon Effect	The tendency to believe certain outcomes (i.e., the stock market will increase) because others believe the same
Confirmation Bias	The tendency to search for information that supports one's preconceived beliefs and to ignore information that contradicts those beliefs
Loss Aversion	Characteristic of individuals who tend to more strongly prefer avoiding losses rather than acquiring gains
Overconfidence	When assessing our ability to predict future events, the tendency to believe that our forecasts are better than they truly are
Unrealistic Optimism	Individuals' tendency to believe that they are less susceptible to risky events (i.e., earthquakes, disease transmission, etc.) than others

Source: For a complete review of research involving heuristics and biases, see T. Gilovich, D. Griffin, and D. Kahneman, *Heuristics and Biases: The Psychology of Intuitive Judgment* (Cambridge: Cambridge University Press, 2002).

consequences of implemented decisions are not perfectly predictable. In general, the two different conditions under which decisions are made are risk and uncertainty. Although many managers use them interchangeably, these two terms are in fact different.

Frank Knight distinguished between risk and uncertainty almost a century ago.[26] According to his framework, **risk** refers to situations in which statistical probabilities can be attributed to alternative potential outcomes. For example, the probabilities associated with the potential outcomes of roulette are known to individuals in advance. In contrast, **uncertainty** refers to situations where the probability that a particular outcome will occur is not known in advance. A manager, for instance, may be unable to articulate the probability that building a new manufacturing facility will increase a firm's sales in five years.[27]

Despite this distinction between risk and uncertainty, it is important to note that objective standards are not always available when examining a situation with alternative potential outcomes. Specifically, two managers may attribute differing levels of uncertainty or risk to the same or similar decisions. For example, suppose that the managers of two competing firms—Alpha Inc. and Beta Inc.—are each considering opening new manufacturing facilities in China but are unsure whether the new plants will improve profitability. Suppose, however, that the manager of Alpha Inc. has previously opened 12 new facilities in China, but the manager of Beta Inc. has no experience opening such facilities. As such, the manager of Alpha Inc. has more information about opening these plants and might be able to better estimate the risk probabilities associated with profitability versus failure as compared to the manager of Beta Inc. In fact, the manager of Beta Inc. might not be able to estimate any risk probabilities and instead view this plant with complete uncertainty.

Now that we have distinguished between risk and uncertainty, the question remains: Why do we need to distinguish between these two terms? Research suggests that individuals dislike uncertainty even more than they dislike risk.[28] Vague or unknown probabilities of success are more likely to discourage managers from undertaking actions. This negative influence of uncertainty has implications for all sorts of decisions such as hiring new employees, introducing new products, or acquiring other firms.

DECISION-MAKING TOOLS

Most managers develop an intuition about what decisions to make—a largely subjective feeling, based on years of experience in a particular organization or industry, which gives them insights into decision making for that industry or organization.[29] Although intuition is often

an important factor in making a decision, managers generally emphasize more objective decision-making tools. The two most widely used such tools are probability theory and decision trees.[30]

Probability Theory

Probability theory is a decision-making tool used in risk situations—situations in which decision makers are not completely sure of the outcome of an implemented alternative.[31] Probability refers to the likelihood that an event or outcome will actually occur. It is estimated by calculating an expected value for each alternative considered. Specifically, the **expected value (EV)** for an alternative is the income (*I*) that alternative would produce, multiplied by its probability of producing that income (*P*). In formula form, EV = I × P. Decision makers generally choose and implement the alternative with the highest expected value.[32]

An example will clarify the relationship of probability, income, and expected value. A manager is trying to decide where to open a store that specializes in renting surfboards. She is considering three possible locations (A, B, and C), all of which seem feasible. For the first year of operation, the manager has projected that, under ideal conditions, her company would earn $90,000 in Location A, $75,000 in Location B, and $60,000 in Location C. After studying historical weather patterns, however, she has determined that there is only a 20 percent chance—or a .2 probability—of ideal conditions occurring during the first year of operation in Location A. Locations B and C have a .4 and a .8 probability, respectively, for ideal conditions during the first year of operations. Expected values for each of these locations are as follows: Location A—$18,000; Location B—$30,000; Location C—$48,000. Figure 8.5 shows the situation this decision maker faces. According to her probability analysis, she should open a store in Location C, the alternative with the highest expected value.

Decision Trees

In the previous section, probability theory was applied to a relatively simple decision situation. Some decisions, however, are more complicated and involve a series of steps. These steps are interdependent; that is, each step is influenced by the step that precedes it. A **decision tree** is a graphic decision-making tool typically used to evaluate decisions involving a series of steps.[33]

John F. Magee developed a classic illustration that outlines how decision trees can be applied to a production decision.[34] In his illustration (see Figure 8.6), the Stygian Chemical Company must decide whether to build a small or a large plant to manufacture a new product with an expected life of 10 years (Decision Point 1 in Figure 8.6). If the choice is to build a large plant, the company could face high or low average product demand, or high initial and then low demand. If, however, the choice is to build a small plant, the company could face either initially high or initially low product demand. If the small plant is built and product demand is high during an initial two-year period, management could then choose whether to expand the plant (Decision Point 2). Whether the decision is made to expand or not to expand, management could then face either high or low product demand.

FIGURE 8.5
Expected values from locating surfboard rental store in each of three possible locations

Alternative (locations)	Potential income	Probability of income	Expected value of alternatives
A	$90,000	.2	$18,000
B	75,000	.4	30,000
C	60,000	.8	48,000

I	x	P	=	EV

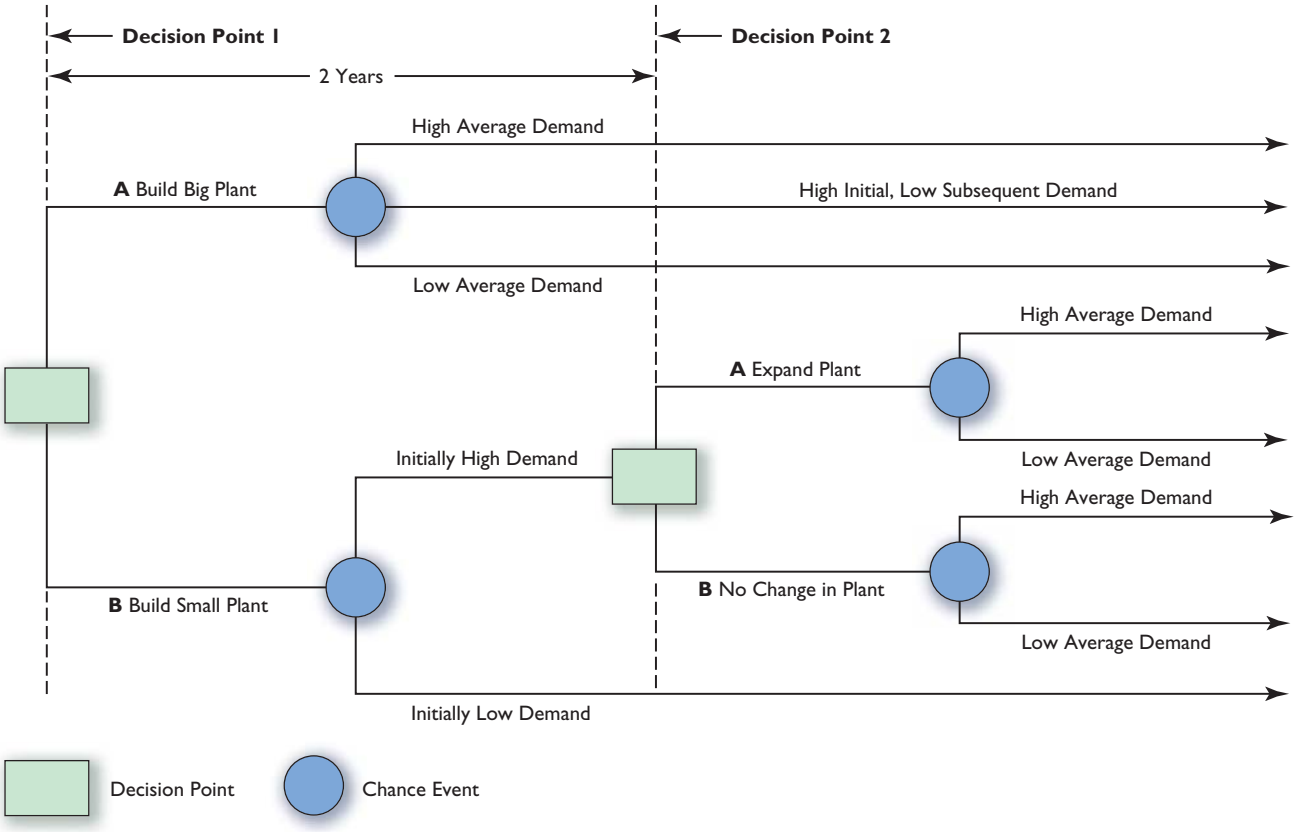


FIGURE 8.6 A basic decision tree illustrating the decision facing Stygian management

Now that various possible alternatives related to this decision have been outlined, the financial consequence of each different course of action must be compared. To adequately compare these consequences, management must do the following:

1. Study estimates of investment amounts necessary for building a large plant, for building a small plant, and for expanding a small plant.
2. Weigh the probabilities of facing different product demand levels for various decision alternatives.
3. Consider projected income yields for each decision alternative.

Analysis of the expected values and net expected gain for each decision alternative helps management decide on an appropriate choice.[35] *Net expected gain* is defined in this situation as the expected value of an alternative minus the investment cost. For example, if building a large plant yields the highest net expected gain, Stygian management should decide to build the large plant.[36]

GROUP DECISION MAKING

Earlier in this chapter, decision makers were defined as individuals or groups that actually make a decision—that is, choose a decision alternative from those available. This section focuses on groups as decision makers. The two key topics discussed here are the advantages and disadvantages of using groups to make decisions, and the best processes for making group decisions.

Advantages and Disadvantages of Using Groups to Make Decisions

Groups commonly make decisions in organizations.[37] For example, groups are often asked to decide what new product should be offered to customers, how policies for promotion should be improved, and how the organization should reach higher production goals. Groups are so often

asked to make organizational decisions because certain advantages come with having a group of people rather than an individual manager make a decision. One is that a group can generally come up with more and better decision alternatives than an individual can: A group can draw on collective, diverse organizational experiences as the foundation for decision making, while the individual manager has only the limited experiences of one person to draw on.[38] Another advantage is that when a group makes a decision, the members of that group tend to support the implementation of the decision more fervently than they would if the decision had been made by an individual. This support can be of significant help to a manager in successfully implementing a decision. A third advantage of using a group rather than an individual to make a decision is that group members tend to perceive the decision as their own, and this ownership perception makes it more likely that they will strive to implement the decision successfully rather than prematurely giving in to failure.

Having groups rather than individual managers make organizational decisions may also involve some disadvantages. Perhaps the one most often discussed disadvantage is that it takes longer to make a group decision because groups must take the time to present and discuss all the members' views. Another disadvantage is that group decisions cost the organization more than individual decisions do simply because they take up the time of more people in the organization. Finally, group decisions can be of lower quality than individual decisions if they become contaminated by the group members' efforts to maintain friendly relationships among themselves. This phenomenon of compromising the quality of a decision to maintain relationships within a group is referred to as *groupthink* and is discussed more fully in Chapter 18, "Groups and Teams."[39]

Managers must weigh all these advantages and disadvantages of group decision making carefully, factoring in unique organizational situations, and give a group authority to make a decision only when the advantages of doing so clearly outweigh the disadvantages.

Processes for Making Group Decisions

Making a sound group decision regarding complex organizational circumstances is a formidable challenge. Fortunately, several useful processes have been developed to assist groups in meeting this challenge. The following sections discuss three such processes: brainstorming, nominal group technique, and Delphi technique.

Brainstorming

Brainstorming is a group decision-making process in which negative feedback on any suggested alternative by any group member is forbidden until all members have presented alternatives that they perceive as valuable.[40] Figure 8.7 shows this process. Brainstorming is carefully designed to encourage all group members to contribute as many viable decision alternatives as they can think of. Its premise is that if the evaluation of alternatives starts before all possible alternatives have been offered, valuable alternatives may be overlooked. During brainstorming, group members are encouraged to state their ideas, no matter how wild they may seem, while an appointed group member records all ideas for discussion.[41]

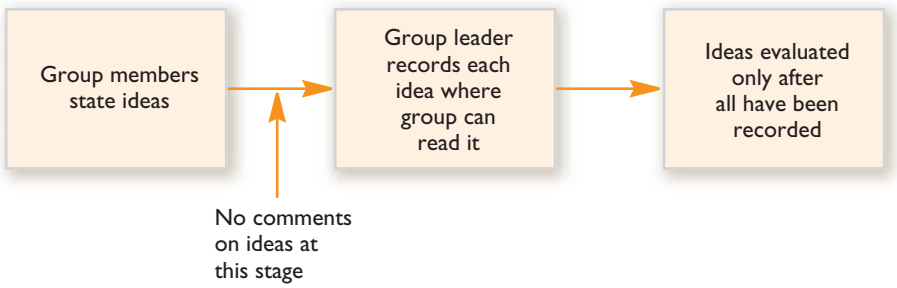


FIGURE 8.7
The brainstorming process

Armstrong International's David Armstrong discovered an intriguing method for discouraging the premature evaluation of ideas during a brainstorming session. He allows only one negative comment per group member. Before discussion begins, he hands every member one piece of M&M's candy. Once a member makes a negative comment, he or she must eat the piece of candy. Because a group member is required to have an uneaten piece of candy to make a negative comment, members use their sole opportunity to be negative very carefully.[42] Once everyone's ideas have been presented, the group evaluates them and chooses the one that holds the most promise.

Nominal Group Technique The **nominal group technique** is another useful process for helping groups make decisions. This process is designed to ensure that each group member has equal participation in making the group decision.[43] It involves the following steps:

STEP 1 Each group member writes down individual ideas on the decision or problem being discussed.
STEP 2 Each member presents individual ideas orally. The ideas are usually written on a board for all other members to see and refer to.
STEP 3 After all members present their ideas, the entire group discusses these ideas simultaneously. Discussion tends to be unstructured and spontaneous.
STEP 4 When discussion is completed, a secret ballot is taken to allow members to support their favorite ideas without fear. The idea receiving the most votes is adopted and implemented.

Delphi Technique The **Delphi technique** is a third useful process for helping groups make decisions. The Delphi technique involves circulating questionnaires on a specific problem among group members, sharing the questionnaire results with them, and then continuing to recirculate and refine individual responses until a consensus regarding the problem is reached.[44] In contrast to the nominal group technique or brainstorming, the Delphi technique does not have group members meet face to face. The formal steps followed in the Delphi technique are the following:

STEP 1 A problem is identified.
STEP 2 Group members are asked to offer solutions to the problem by providing anonymous responses to a carefully designed questionnaire.
STEP 3 Responses of all group members are compiled and sent out to all group members.
STEP 4 Individual group members are asked to generate a new individual solution to the problem after they have studied the individual responses of all other group members compiled in Step 3.
STEP 4 Steps 3 and 4 are repeated until a consensus problem solution is reached.

Evaluating Group Decision-Making Processes

All three of the processes presented here for assisting groups in reaching decisions have both advantages and disadvantages. Brainstorming offers the advantage of encouraging the expression of as many useful ideas as possible, but the disadvantage of wasting the group's time on ideas that are wildly impractical. The nominal group technique, with its secret ballot, offers a structure in which individuals can support or reject an idea without fear of recrimination. Its disadvantage is group members have no way of knowing why individuals voted the way they did. The advantage of the Delphi technique is ideas can be gathered from group members who are too geographically separated or busy to meet face to face. Its disadvantage is members are unable to ask questions of one another.

As with any other management tool, managers must carefully weigh the advantages and disadvantages of these three group decision-making tools and adopt the one—or some combination of the three—that best suits their unique organizational circumstances.

CHALLENGE CASE SUMMARY

When evaluating the issue of how to reorganize late-night programming, management at NBC Universal definitely faced a formal decision situation, a situation requiring a choice of a number of alternatives. NBC management scrutinized this decision carefully because of its significance to the organization as a whole and to the careers of the NBC managers actually making the decision. Technically, this decision would be nonprogrammed in nature and therefore would be characterized more by judgment than by simple quantitative data.

NBC chief executive Jeff Zucker probably had the ultimate responsibility for making such a broad decision. This responsibility does not mean, however, that Zucker made the decision by himself. He most likely asked for advice from other NBC leaders and perhaps even appointed a group of leaders to arrive at a consensus on which decision alternative should be implemented.

As management at NBC evaluated its decision about late-night programming, they were most likely aware of all the elements in the decision situation. Both the internal and external environments of NBC would be one focus of the analysis. For example, internally, does NBC have the financial resources and expertise to support the programming changes? Externally, will viewers respond by watching Leno at the new hour and then subsequently watching Conan on "The Tonight Show"? Reason and sound judgment would need to characterize management's orientation in making this decision. Also, management would have had to keep the NBC organizational objectives in mind and formulated relevant alternatives for additional changes besides the reshuffled programming slots. For example, NBC could have chosen to stick with more costly drama programming for the 10 pm Eastern/9 pm Central time slot or encouraged Jay Leno to begin a phased-in retirement, with increased use of guest hosts until Leno was ready to turn the reins over to O'Brien. Management probably listed such relevant alternatives in some order of desirability before choosing an alternative to implement.

To further explore the decision-making process, assume that NBC management is facing a decision to increase ratings. Management would first need to identify the problem. For example, management must find out whether low ratings are the result of less-appealing guests on "The Tonight Show," funnier sketches on David Letterman's show, or growing competition from cable programming. Once the problem is identified, management would have to list all possible problem solutions—for example: Can the quality of the guests be improved? Does Jay need better writers? Should we also advertise on cable channels?

After eliminating infeasible solutions, NBC management would have to evaluate all remaining solutions, select one, and implement it. If poor ratings resulted from viewers thinking David Letterman was funnier, the best alternative might be to hire new writers. Additional feedback would be extremely important once changes were made. Zucker would need to find out whether the changes led to improved ratings. If not, he would need to decide what additional action should be taken.

NBC must also face a decision regarding how to handle competition from other programs in the late-night time slots. The decision-making process contains a great deal of uncertainty. NBC management could decide, for example, to introduce new talent to fight off the competition, but management has no guarantee that such measures would produce the desired results. Management *does* know, however, what has worked in the past to stop competitors, and thus is not dealing with a complete unknown. Therefore, NBC management could perhaps determine the outcome probability for each proposed alternative and base its decision on the alternative that looked most advantageous.

As discussed earlier, leaders at NBC have two tools they can use to make better decisions. First, they can use probability theory to obtain an expected value for various decision alternatives and then implement the alternative with the highest expected value. For example, in determining a tactic for handling competition, NBC management may need to decide whether to devote more of the company's resources to improving programming or initiating more effective advertising. This decision would depend on the projected value of each alternative once implemented.

Second, with decisions that involve a series of steps related to each of several alternatives, NBC management could use a decision tree to assist in picturing and evaluating each alternative. For example, to handle competition from other networks, management could choose to create new programming or devote more resources to improving existing programming. Each of these alternatives would lead to different decision-making steps.

NBC management must remember, however, that business judgment is an essential adjunct to the effective use of any decision-making tool. The purpose of the tool is to improve the quality of the judgment, not to replace it. In other words, NBC management must not only choose alternatives based on probability theory and decision trees, but must also use good judgment in deciding what is best for the network.

NBC management also had to decide which individuals would be involved in making the decision to revise late-night programming. First, a decision of this magnitude should probably be made by a group of top leaders drawn from many different organizational areas. A group decision would almost certainly be better than an individual decision in this case, because a group would have a broader view of NBC and the market than any one person in the company would. Therefore, the group would be more likely to make an appropriate decision.

Perhaps the group decision-making process used in this case should be a combination of the three processes discussed in the text. Brainstorming sessions would ensure that all thoughts and ideas related to this crucial decision surface, while the nominal group technique would focus group members on the urgency of making the decision by requiring them to vote on whether to make the change. The Delphi technique could be used to obtain important input on the decision from experts around the country by asking them to present their written views through a specially designed questionnaire.

Unquestionably, using a group to make this decision would be time-consuming and expensive. Once the decision is made, however, group members would be committed to it, perceive it as their own, and do all in their power to ensure that they are successful—even if the decision were *not* to make changes in the late-night time slots.

MANAGEMENT SKILL ACTIVITIES

This section is specially designed to help you develop decision-making skill. An individual's management skill is based on an understanding of management concepts and the ability to apply those concepts in management situations. As a result, the following activities are designed both to heighten your understanding of decision-making concepts and to help you gain facility in applying these concepts in various management situations.

UNDERSTANDING DECISION-MAKING CONCEPTS

To check your understanding and to practice using the concepts in this chapter, go to www.mymanagementlab.com and explore the material associated with Chapter 8.

Know Key Terms

Understanding the following key terms is critical to your understanding of chapter material. Define each of these terms. Refer to the page(s) referenced after a term to check your definition or to gain further insight regarding the term.

decision **182**
programmed decision **182**
nonprogrammed decision **182**
scope of the decision **183**
consensus **184**
relevant alternative **186**
rational decision-making process **186**
paradox of choice **188**
bounded rationality **190**
satisfice **190**
intuition **190**
heuristics **190**
bias **190**
risk **191**
uncertainty **191**
probability theory **192**
expected value (EV) **192**
decision tree **192**
brainstorming **194**
nominal group technique **195**
Delphi technique **195**

Know How Management Concepts Relate

This section is comprised of activities that will further sharpen your understanding of management concepts. Answer essay questions as completely as possible. Also, remember that many additional true/false and multiple choice questions appear online at MyManagementLab.com to help you further refine your understanding of management concepts.

1. Distinguish between programmed versus nonprogrammed decisions. Use examples to support your response.
2. Describe the primary steps involved in the rational decision-making process.
3. What is the relationship between bounded rationality and satisficing?
4. Describe the relationship between "System 1" and "System 2" decision-making processes.
5. Compare the advantages and disadvantages associated with group decision making.

DEVELOPING MANAGEMENT SKILLS

Learning activities in this section are aimed at helping you to develop your decision-making skill. Learning activities include Exploring Your Management Skill: Parts 1 & 2, Experiential Exercises, Cases, and a VideoNet Exercise.

Exploring Your Management Skill: Part 1

Before studying this chapter, respond to the following questions regarding the type of advice you would give to NBC CEO Jeff Zucker, referenced in the Challenge Case. Then address the concerning decision-making challenges that he presently faces within the company. You are not expected to be a decision-making expert at this point. Answering the questions now can

help you focus on important points when you study the chapter. Also, answering the questions again after you study the chapter will give you an idea of how much you have learned.

Record your answers here or go to MyManagementLab.com. Recording your answers in MyManagementLab will allow you to get immediate results and see how your score compares to your classmates. If you answer the questions in the book, look up answers in the Exploring Your Management Skill section at the end of the book.

FOR EACH STATEMENT CIRCLE:
- "Y" if you would give the advice to Jeff Zucker.
- "N" if you would NOT give the advice to Jeff Zucker.
- "NI" if you have no idea whether you would give the advice to Jeff Zucker.

Mr. Zucker, in meeting your decision-making challenges at NBC, you should . . .

Before Study *After Study*

1. realize that nonprogrammed decisions typically take less time to make than programmed decisions.
   Y, N, NI
2. understand that as decisions at NBC affect more levels of the total management system, the scope of the decision increases.
   Y, N, NI
3. recognize that at NBC, decision makers with exploitative orientations are more likely to ask others for advice as compared to decision makers with receptive orientations.
   Y, N, NI
4. understand that all employees at NBC will employ the rational decision-making process when making decisions.
   Y, N, NI
5. teach other employees at NBC that the rational decision-making process ends when an alternative has been chosen.
   Y, N, NI
6. understand that *risk* and *uncertainty* represent two terms that have the same meaning.
   Y, N, NI
7. realize that managers often operate in a state of bounded rationality, which suggests that managers often make decisions without all of the necessary information.
   Y, N, NI
8. understand that decision makers at NBC will always satisfice, which means that employees will always choose the best available alternative.
   Y, N, NI
9. understand that decision makers at NBC will often rely on heuristics, or rules of thumb, when making decisions.
   Y, N, NI
10. teach others that decisions will not be biased if decision makers are respectful of individuals with diverse backgrounds.
    Y, N, NI
11. be prepared to use probability theory to make important decisions at NBC.
    Y, N, NI
12. realize that decisions made by groups are always better than decisions made by individuals.
    Y, N, NI
13. teach others to use both brainstorming and barnstorming techniques to improve group decision-making processes.
    Y, N, NI
14. realize that *risk* is a subjective term, and different managers at NBC may associate different levels of risk with a particular decision.
    Y, N, NI
15. communicate to NBC managers that they are responsible for identifying organizational problems, and lower-level employees are not qualified to identify problems.
    Y, N, NI

Exploring Your Management Skill: Part 2

As you recall, you completed Exploring Your Management Skill before you started to study this chapter. Your responses gave you an idea of how much you initially knew about decision making and helped you focus on important points as you studied the chapter. Answer the Exploring Your Management Skill questions again now and compare your score to the first time you took it. This comparison will give you an idea of how much you have learned from your studying this chapter and pinpoint areas for further clarification before you start studying the next chapter. Record your answers within the text or go to MyManagementLab.com. Recording your answers in MyManagementLab will allow you to get immediate results and see how your score compares to your classmates. If you complete the test in the book, look up answers in the Exploring Your Management Skill section at the end of the book.

Your Management Skills Portfolio

Your Management Learning Portfolio is a collection of activities especially designed to demonstrate your management knowledge and skill. By completing these activities at MyManagementLab.com, you will be able to print, complete with cover sheet, as many activities as you choose. Be sure to save your work. Taking your printed portfolio to an employment interview could be helpful in obtaining a job.

The portfolio activity for this chapter is Making a Decision at Microsoft. Study the following information and complete the exercises that that follow.[45]

Robbie Bach, president of Microsoft's entertainment and devices division, recently contacted you in reference to a situation that is developing at Microsoft. Specifically, Microsoft is receiving reports that its gaming system, the Xbox 360, is having

problems. Users from around the world are contacting the company to complain that their systems, which sell for as much as $500 at some retail locations, are not working after only one year or so of use. It seems that systems with this problem will display three red lights, and then the systems stop working. Although this problem is not affecting every Xbox 360 owner, it is clear that the problem is somewhat widespread.

Robbie Bach has contacted you for your advice in handling this situation. The Xbox 360 is important to Microsoft, as it looks to find new entertainment products and services to sell to customers around the globe. He feels as if he is under a spotlight, as customers around the globe are watching to see how Microsoft deals with customers. Your mission is to walk Bach through the various steps in the decision-making process:

1. Identify the existing problem.

2. List possible alternatives for solving the problem.

3. Select the most beneficial of these alternatives.

4. Implement the selected alternative.

5. Gather feedback to find out whether the implemented alternative is solving identified problem.

Experiential Exercises

1 Decision Making as a Group

Directions. Read the following scenario and then perform the listed activities. Your instructor may want you to perform the activities as an individual or within groups. Follow all of your instructor's directions carefully.

A representative of McDonald's has contacted your group to help make an important decision. Due to the increasing hostility of the press regarding the unhealthy nature of some of the company's products, top management is concerned about the company's future. In response, some members of McDonald's management team would like the company to diversify into other markets/industries that have nothing to do with food products. Use the nominal group technique, which is discussed in the chapter, to address this important issue for McDonald's.

At the end of this exercise, you should have at least one recommendation for McDonald's top management team. When you have finished this exercise, list the primary advantages and disadvantages of this technique. Be prepared to share your conclusions with the rest of your class.

2 You and Your Career

Earlier in the chapter, we discussed the importance of decision making and described a number of factors that influence decision making. Describe a scenario in which poor decision-making skills could hinder your career as a manager. What are some strategies you might employ to improve your decision-making skill? Explain. Describe two examples from your life that help you communicate your decision-making skill to potential employers.

VideoNet Exercise

Decision Making at Insomnia Cookies

Video Highlights

Insomnia Cookies recently decided that its business model would be composed of 50 percent retail sales and 50 percent delivery sales in any given geography. Previously, the retail component was not a given. The COO explains the thinking behind this decision and talks about how Insomnia Cookies approaches the decision-making process as it relates to opening new stores/operations in new locations/geographies. The CEO and director of marketing also chime in.

Discussion Questions

1. Who makes the decisions at Insomnia Cookies? Is this effective?
2. What is the most likely decision-making condition when Insomnia Cookies is trying to determine whether to enter a new market? Explain.
3. Which group decision process best describes the decision-making method at Insomnia Cookies?

Internet Activity

Go to Insomnia Cookies' home page at www.insomniacookies.com. How many locations are currently under operation? How will the decision-making process change as this organization continues to grow?

CASES

1 NBC CHIEF MAKES TOUGH DECISIONS

"Making Difficult Decisions at NBC Universal" was written to help you better understand the management concepts contained in this chapter. Answer the following discussion questions about the Challenge Case to better understand how decision-making concepts can be applied in a company such as NBC.

1. List three alternatives that NBC management might consider in handling competition from other television networks *before* making a decision to remodel the company's programming schedule.
2. What information would management need to evaluate these three alternatives?
3. Do you think you would enjoy making the decision about whether to remodel NBC's programming schedule? Explain.

2 GATEWAY CHIEF MAKES DARING DECISIONS

Read the case and answer the questions that follow. Studying this case will help you better understand how decision-making concepts can be applied in a company such as Gateway.

Bill Gates, Michael Dell, and . . . Ted Waitt? Like Gates and Dell, Waitt left college to form a computer company, Gateway. He and Mike Hammond, now senior vice president of manufacturing, started the firm in a farmhouse with a loan secured by a $10,000 CD owned by Waitt's grandmother. Initially, they sold hardware peripherals and software to owners of PCs made by Texas Instruments; later they expanded into designing and assembling their own fully configured PC systems for direct sale to consumers and businesses.

As his company grew, Waitt used his Midwestern roots to differentiate the South Dakota–based company from competitors such as Dell and Hewlett-Packard. For example, he used eye-catching cow spots to establish a brand image, which can be quite difficult in the standardized computer industry. Every Gateway computer came packed inside a white box with cow-like black spots, and the company served cow-shaped cookies at its annual shareholder meetings. By 1998, the company was reporting net income of $346 million on $7.5 billion in annual revenues.

However, to sustain the company's extraordinary growth during the coming years, Waitt realized that changes were needed. First, he decided to relocate the top management team to new administrative headquarters in San Diego. Not only would this help Gateway attract top talent, it would bring the office closer to Silicon Valley partners and suppliers. Waitt also decided to reduce the company's reliance on the cow motif as he courted business customers, who might not see a clear connection between high-quality computers and cows. Gateway's growth roared on and by 2000, the company had a workforce of 20,000, mainly concentrated in its U.S. manufacturing facilities.

Next, Waitt made an even more expensive change. Instead of taking orders only by phone or via the Web, as rival Dell does, Waitt plunged into retailing. He opened hundreds of Gateway Country stores in the United States, Europe, and Japan so customers could see the different computer models and get advice from knowledgeable sales staff. When much of the world fell into economic recession during 2001, demand for computers dropped off and Gateway's market share, revenues, and profits started to decline as well. Now the founder faced more challenges. Rather than continue operating the entire retail chain, he ordered some stores closed and had the remaining outlets remodeled to better showcase new merchandise. Another big decision Waitt made was to diversify into popular consumer electronics products such as flat-panel televisions. This put Gateway into direct competition with Sony and other well-known firms—even as it was struggling to hold its own in the computer industry.

By 2004, the company had experienced three years of losses, both financially and in PC market share. It was time to reverse some of the earlier decisions. Waitt cut costs by outsourcing much of the company's production activities and laying off thousands of employees. He closed all the Gateway Country stores and arranged for the Best Buy chain to purchase the consumer electronics for resale. And the founder made yet another bold decision: He acquired the computer maker eMachines and its CEO, Wayne Inouye, became Gateway's CEO (Waitt became board chair).

Inouye quickly announced that the company would narrow its product line to make the most of the Gateway brand's appeal to computer buyers: "The fact is, we were not making a lot of money on the consumer electronics side at all," he said. "Our route to profitability is to fix our core business, and that's PCs and PC-related products." He also made major changes to the distribution strategy by selling PCs under the eMachines and Gateway brands in Best Buy stores, even as he sought shelf space in other national retail chains. Coupled with additional layoffs, these decisions helped Gateway increase its revenues and narrow its losses. Still, some observers wonder whether Inouye and Waitt will be able to complete the turnaround and restore Gateway's growth and financial success.

QUESTIONS

1. Knowing that growth is one of Gateway's long-term objectives, do you agree with Inouye's decision to reduce the product line and refocus on PCs? Explain.

2. What kind of programmed decisions might have arisen from some of the nonprogrammed decisions made by Ted Waitt and Wayne Inouye during the past few years?

3. Looking at Gateway's recent history, what would you identify as the top two or three problems that Waitt and Inouye must address today?

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