

// PART 2

Strategizing

5

PLANNING AND DECISION MAKING

LEARNING OBJECTIVES

After Reading this Chapter You Should Be Able to:

- 1 Describe the different levels of planning in an organization.
- 2 Explain the difference between strategic, tactical, operating, and unit plans.
- 3 Outline the value of single-use plans, standing plans, and contingency plans.
- 4 Describe the main components of a typical strategic planning system.
- 5 Identify the main pitfalls that managers encounter when engaged in formal planning processes, and describe what can be done to limit those pitfalls.
- 6 Discuss the major reasons for poor decisions, and describe what managers can do to make better decisions.

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Growth Is Back!

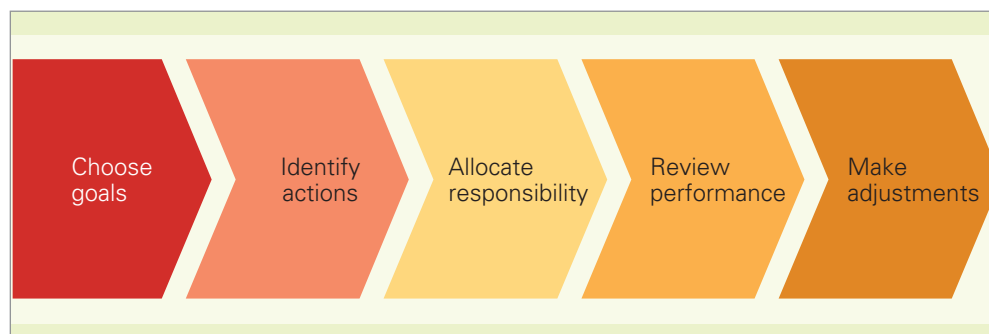
Intel's CEO Paul Otellini talks to developers about his strategic plan for reigniting the company's growth rate. The plan calls for Intel to make "platforms" of several chips to go into different types of computers.

For 20 years Intel grew by making microprocessors, the chips that are the brains of personal computers. By the early 2000s this strategy was no longer delivering the growth Intel wanted. There were two reasons for this: The growth rate in the personal computer industry had slowed down, and Intel's main rival, AMD, was matching Intel's microprocessors on features and taking a larger market share. So the company's CEO, Paul Otellini, drafted a new strategic plan. This plan called for the company to build "platforms" of multiple chips that will work together to perform specific functions for computer users. There will be a platform for

corporate computers, for home computers, for laptop computers, and for computers designed for use in the health services industry. Each platform will focus on providing utility to a specific customer set. Thus the platform for home computers will combine a microprocessor with chips and software for a wireless base station (for home networking), chips for showing digital movies, and chips for three-dimensional graphics processing (for computer games). The hope is that these platforms will allow Intel to capture more of the value going into every computer sold—and that should increase the company's growth rate.¹

FIGURE 5.1

Main Steps of Planning

**planning**

A process whereby managers select goals, choose actions (strategies) to attain those goals, allocate responsibility for implementing actions to specific individuals or units, measure the success of actions by comparing actual results against the goals, and revise plans accordingly.

As the Intel story illustrates, planning is a primary function of management. **Planning** is a process whereby managers select goals, choose actions (strategies) to attain those goals, allocate responsibility for implementing actions to specific individuals or units, measure the success of actions by comparing actual results against the goals, and revise plans accordingly (see Figure 5.1). In other words, it is a structured process for making important decisions. A plan can provide direction for an organization. It tells everybody what the organization is trying to do, what its priorities are, where it is going, and how it is going to get there. It is a process for marshalling resources and deciding who should do what—for allocating roles, responsibilities, and money. It is also a control mechanism: By comparing actual results against the plan, managers can determine whether the organization is attaining its goals and make adjustments if required.

For example, as part of his plan, Otellini decided to reorganize Intel into four market-focused divisions, allocating specific roles, responsibilities, and resources to each division. One division will develop a platform for corporate computers, another for home computers, another for laptop computers, and a fourth for computers targeted at health services. Going forward, Otellini can compare the performance of each division against its specific goals and make necessary adjustments. If the top manager of the laptop computer division brilliantly executes the plan, he or she may receive a big performance bonus and become a leading candidate to replace Otellini when he retires. If the home computer division stumbles in its efforts to develop a platform, Otellini may allocate more engineering resources to the unit while simultaneously altering the senior management of the unit. In this way the plan becomes a control mechanism for managing the business.

In this chapter we look closely at the nature of planning and its benefits as a process for making strategic decisions and controlling the organization. We will discover that planning has limitations. Not everything can be planned for. The world has a way of rendering even the best plans obsolete. Things happen that cannot be easily predicted, and good ideas about strategy can emerge without planning. Moreover, planning processes are far from perfect. Many spectacular strategic failures have been based on supposedly comprehensive planning. Often these mistakes are due to a failure by managers to effectively use the information at their disposal. In other words, poor decision making is a major reason for planning blunders. Thus in this chapter we also look at the nature of managerial decision making. We identify common errors in decision making, and we discuss how managers can avoid these. We begin by looking more closely at the nature of planning within organizations and at the components of a typical plan.

// Planning within Organizations

The plans managers formulate within an organization can be differentiated by the levels in the organization to which the plans apply (strategic or operational plans), the time horizon of the plans (short-term or long-term), the number of times the plans are used (standing plans versus single-use plans), and the contingent nature of the plans. We consider each of these dimensions in turn.

// LEVELS OF PLANNING

Planning is performed at multiple levels within an organization. Planning starts at the top of an organization with a **strategic plan**, which outlines the major goals of the organization and the organizationwide strategies for attaining those goals. In complex organizations, such as a large diversified corporation with multiple business units, there may be three layers of strategic planning. Planning at the corporate level focuses on corporate-level strategy; plans made at the business level focus on business-level strategy; and planning done at the operating level focuses on operational strategy. **Corporate-level strategy** is concerned with deciding which industries a firm should compete in and how the firm should enter or exit industries. **Business-level strategy** is concerned with deciding how the firm should compete in the industries in which it has elected to participate. **Operating strategy** is concerned with the actions that should be taken at the level of individual functions, such as production, logistic, R&D, and sales, to support business-level strategy. (We look in detail at corporate, business, and operating strategies in subsequent chapters.) Normally an operating plan is embedded within a business-level strategic plan, and in turn that is embedded within the corporate-level strategic plan.

For illustration consider 3M, which is a large diversified company with over 5,000 different products, ranging from Post-it notes and Scotch tape to LCD display screens and surgical dressings. It is organized into more than 40 different business units that collectively generate over \$20 billion in sales. Within a firm of this scale and scope, strategic planning takes place at multiple levels. At the corporate level, the CEO and his or her direct reports set overall goals for the organization, choose corporate-level strategies that span the entire organization, and allocate responsibility for implementing those strategies. Recently 3M has operated with a goal of increasing profits by 12–14 percent per year. The plan for attaining that goal includes a number of strategies, such as requiring all business units to implement programs to improve their productivity, making strategic acquisitions to strengthen the competitive position of 3M, and focusing R&D dollars on product development projects that are likely to produce big breakthroughs and result in substantial sales revenues and profits.²

At the business level, such as 3M's office supplies division, which makes Post-it notes and Scotch tape among other products, the business-level strategic plan details the specific actions that will be taken by this unit to attain the goals of the business and establish a competitive advantage. These might include, for example, developing new products, exiting product lines that are not performing well, and taking actions to rationalize its supply chain.

Embedded within business-level strategic plans are **operating plans**, which specify the goals for individual functions, the actions they will take to attain these goals, and who is responsible for those actions. Within 3M's medical division there may be an operating plan to develop a new product—let's say sterile surgical drapes coated with a substance that acts as an antibiotic. The plan may contain goals relating to development time and costs and assign responsibility to a team drawn from research and development, marketing, and manufacturing to develop the drapes and launch the product. In the same division, manufacturing personnel might develop an operating plan for reducing inventory costs. The plan will have a goal—perhaps to reduce inventory costs by 20 percent—and assign responsibility to specific individuals to attain that goal. Similarly, human resource personnel might develop an operating plan for hiring a sales force to sell a new product the division has developed; information systems personnel might develop an operating plan for using the Internet and e-business software to coordinate the supply chain of the division; marketing personnel might develop an operating plan for promoting the products of the division to consumers to enhance the 3M brand and grow revenues and profits.

Planning might not stop here; embedded within operating plans might be **unit plans**, which are plans for departments within functions, work teams, or even individuals. Within the manufacturing function in 3M's office supplies division, for example, a quality assurance department could draw up its own unit plan for improving quality in the division's manufacturing process. Similarly, within the R&D function of the same division several teams of researchers may be focusing on the development of different technologies; each team will draw up its own unit plan that specifies goals, actions, responsibilities, and resource requirements.

strategic plan

A plan that outlines the major goals of an organization and the organizationwide strategies for attaining those goals.

corporate-level strategy

Strategy concerned with deciding which industries a firm should compete in and how the firm should enter or exit industries.

business-level strategy

Strategy concerned with deciding how a firm should compete in the industries in which it has elected to participate.

operating strategy

Strategy concerned with the actions that should be taken at the level of individual functions, such as production, logistic, R&D, and sales, to support business-level strategy.

operating plans

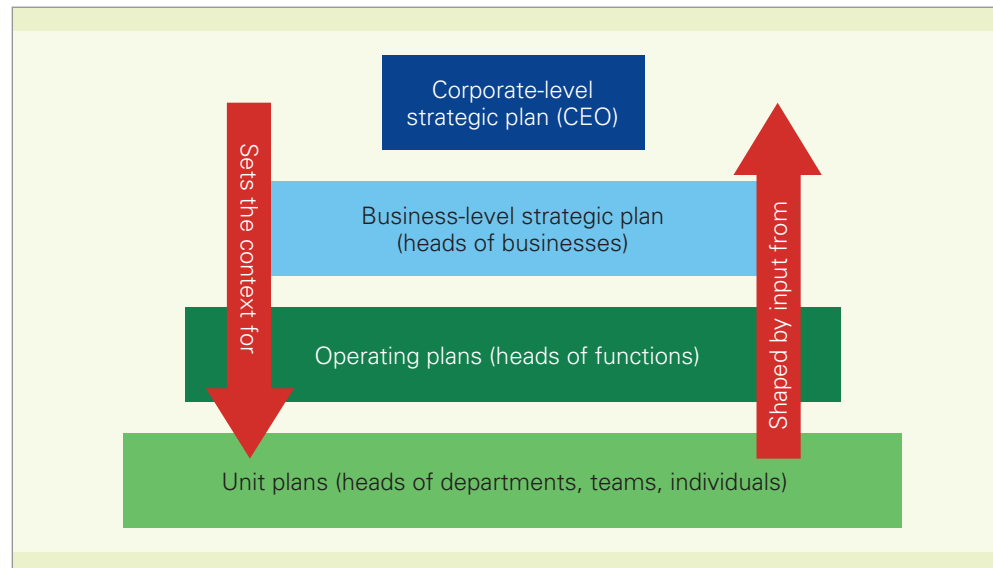
Plans that specify goals, actions, and responsibility for individual functions.

unit plans

Plans for departments within functions, work teams, or individuals.

FIGURE 5.2

Levels of Planning



In sum, unit plans are embedded within operating plans, operating plans are embedded within business-level strategic plans, and business-level strategic plans are embedded within corporate-level strategic plans (see Figure 5.2). Embedded means that higher-level plans set the context for lower-level plans. Thus at 3M the corporate-level plan calls for productivity improvement programs to be rolled out across 3M; the plan of a business division outlines how that is being done within that division; the plan of a function describes how productivity is being improved within the function; and the plan of a department says how that is being done within the department. At the same time, higher-level plans are not formulated in a vacuum; they are formulated after consultation with lower-level managers. When the CEO at 3M decides how to allocate development funds to projects within 3M, he or she does so only after consulting extensively with the managers responsible for those projects and the business and functional levels. Similarly, business-level managers decide which productivity improvement projects to pursue within their divisions only after consultation with functional and department managers.

// PLANNING HORIZONS

The **planning horizon** refers to how far out a plan is meant to apply. Most strategic plans, whether at the business or corporate level, are multiyear plans. They are meant to stay in place for several years (a three- to five-year horizon is typical). If successful, Paul Otellini's plan for Intel, which we discussed earlier, will drive strategy at the company for years to come. Indeed, it would be dangerous to change strategic plans frequently: This would confuse important stakeholders such as employees, suppliers, customers, and investors about the direction of the organization, and they might lose confidence in top management.

There is an exception to the generalization that strategic plans are long-term plans. Organizations sometimes adopt short-term plans to address specific and transitory opportunities or threats. Such short-term plans are known as *tactical plans*, which are plans for pursuing transitory competitive tactics. **Tactical plans** outline the actions managers must adopt over the short to medium term to cope with a specific opportunity or threat that has emerged. For example, when Lilly-ICOS, a pharmaceutical company, launched its new drug Cialis for erectile dysfunction in 2004, the firm found it difficult to gain share against the market leader, Viagra, even though Cialis worked for up to 36 hours, compared to just 4 hours for Viagra. So in mid-2004 managers at Lilly-ICOS came up with a tactical plan to get men to try Cialis. The plan was to roll out a program known as the Cialis Promise. Under this program, men with erectile dysfunction could receive a voucher for a free trial. If they liked Cialis, they could get

planning horizon

How far out a plan is meant to apply.

tactical plans

The actions managers adopt over the short to medium term to deal with a specific opportunity or threat that has emerged.

a second trial for no charge. If they were not satisfied with Cialis, ICOS committed itself to pay for a competing erectile dysfunction drug (such as Viagra). The idea behind this tactic was to get men to switch from Viagra to Cialis. It seems to have worked—the market share of Cialis doubled to 25 percent in a year.

Operating and unit plans tend to have shorter time horizons than strategic plans. Whereas an organization might function with the same basic strategic plan for years, operating and unit plans might change regularly as the tasks outlined in them are completed and managers turn their attention to the next task. For example, it may take only six months to implement and complete a productivity improvement program identified in an operating or unit plan at 3M, so next year that program will not be in the plan, although it may be replaced by another one. Moreover, operating and unit plans often drive the annual budgeting process at organizations, so they have to be revisited annually.

In sum, strategic plans normally have a three- to five-year time horizon, although an organization could in theory pursue the same strategy for much longer. Tactical plans typically have a short-term horizon (often less than a year) and are adopted to deal with emerging and transitory opportunities and threats. Operating and unit plans tend to have short to medium time horizons (one to three years) because they address specific tasks that have a well-defined beginning and end. But there are exceptions to these generalizations. An organization might be forced to change its strategic plan after a year if it clearly is not working, and an operating plan may be in place for more than five years if its specific tasks take that long.

// SINGLE-USE PLANS AND STANDING PLANS

In addition to level and time horizon, plans can be differentiated by their frequency of use. Some plans are **single-use plans**: They address unique events that do not reoccur—they are plans for attaining a one-time goal. For example, in 2002 the Boeing Corporation decided to move its corporate headquarters from Seattle, where they had been since the company was founded, to Chicago. The decision involved the relocation of 330 employees, primarily senior managers and their support staff, and Boeing had to create a single-use plan to execute this move as quickly and seamlessly as possible. Once the move was completed, however, the plan was obviously no longer needed. Other cases of single-use plans include plans for converting office files from paper to digital format, plans for establishing an organizationwide intranet, or plans for rebranding an organization and rolling out a new corporate name and logo.

In contrast, **standing plans** are used to handle events that reoccur frequently. The idea behind standing plans is to save managers time by giving them a playbook to which they can refer when a certain type of event occurs. Standing plans relieve



Beating Viagra—The Cialis Promise To take market share from Viagra, ICOS adopted the Cialis Promise program. This tactical plan seems to have worked—Cialis doubled its market share to 25 percent in a year, largely at the expense of Viagra.



Yet Another Starbucks Store Starbucks has been able to open stores at a rapid rate because it has a standing plan that outlines the steps required to identify a suitable location and open a store.

single-use plans

Plans that address unique events that do not reoccur.

standing plans

Plans used to handle events that reoccur frequently.

contingency plans

Plans formulated to address specific possible future events that might have a significant impact on the organization.

crisis management plant

Plan formulated specifically to deal with possible future crises.

managers from having to reinvent wheels. One reason why Starbucks has been able to grow from just 17 stores in 1987 to almost 9,000 stores by 2005 is that managers developed a standing plan that outlines the steps required to find the best store locations, ensure that the stores have the same look and feel as other Starbucks stores, and open stores quickly. But standing plans like these are not rigid. Intelligent managers recognize that no plan is perfect, and they use their cumulative experience to fine-tune standing plans, improving them over time.

// CONTINGENCY PLANNING

Many organizations are based in environments characterized by considerable uncertainty and the possibility that certain events might require a rapid response or an overall change of strategy. To anticipate such events, managers might formulate contingency plans. **Contingency plans** are plans formulated to address specific possible future events that might have a significant impact on the organization. There are two types of contingency plans: crisis management plans and scenario plans.

Crisis Management Planning A *crisis* is a discrete event that can have a severe negative impact on an organization or its stakeholders. A **crisis management plan** is a plan formulated specifically to deal with possible future crises.³ In the wake of the September 11, 2001, terrorist attacks on the United States—an obvious crisis if ever there was one—a number of government organizations drew up crisis management plans that detailed how they would respond to specific terrorist incidents, including the deliberate release of biological pathogens (such as smallpox or anthrax) or chemicals (such as sarin gas). One of the companies experiencing the largest loss of life on September 11 was the bond trading company Cantor Fitzgerald, which occupied the top floors of one of the destroyed twin towers. Nearly 700 of its 1,000 U.S. employees died that day. Yet the company was able to resume business almost immediately because after the 1993 bombing of the World Trade Center, the company had formulated a crisis management plan that included backup computer systems in New Jersey.⁴

Crises take many different forms—from terrorist attacks and industrial disasters, such as the gas leak from a Union Carbide plant in Bhopal, India, that killed almost 4,000 people to natural disasters like the December 26, 2004, tsunami that devastated parts of Southeast Asia and left 180,000 people dead. Drafting a plan to effectively manage a crisis involves three main steps: prevention, preparation, and containment.⁵

The best way of dealing with a crisis is to *prevent* it from happening in the first place if possible. In the wake of the September 11, 2001, attacks the U.S. government took a number of steps to prevent future terrorist attacks, including creating the Department of Homeland Security and implementing new regulations for screening passengers and baggage at airports. Another prevention tactic is to build positive relationships with key stakeholders, such as customers, suppliers, investors, and communities. These relationships can act as an early warning system, providing managers with information about an impending crisis. In some cases quick action can avert an impending crisis or limit its impact.

Not all crises can be prevented. Nobody could have predicted or stopped the December 26, 2004, tsunami. So managers need to plan for such events. This is the *preparation* stage of a crisis management plan. Preparation requires an organization to designate a crisis management team and a spokesperson that will cope with crises that arise. Preparation also requires a detailed plan of the steps that will be taken to deal with the crisis, to coordinate crisis management efforts, to manage its aftermath, and to communicate important information to affected people and organizations.

Mt. Rainier, the heavily glaciated volcano in Washington State, is a place of staggering beauty; but it is also one of the most dangerous volcanoes in the world. An eruption, an earthquake, or simple weakening of rock caused by erosion could trigger a massive mudslide known as a *lahar* that could sweep a wave of debris 100 feet high at 50 miles an hour down valleys where 100,000 people live. To limit the effects of such a crisis, managers at the U.S. Geological Survey and Washington State government agencies have prepared a



Beautiful—and Very Dangerous Mt. Rainer looms over surrounding communities. To deal with the impact of a potential lahar, Washington State has a crisis management plan in place.

detailed plan that includes a crisis management team, a permanent lahar detection system and emergency communication systems, plans for rapid evacuation of towns in the path of a lahar, regular evacuation training for schools, establishment of shelters for the displaced, and procedures for search and rescue. Although a lahar cannot be prevented, these preparations are designed to limit the loss of human life associated with such a cataclysmic event.

Finally, there is the *containment* stage of crisis management. Containment is concerned with the steps that need to be taken after a crisis has occurred to limit its effects; these actions need to be part of the overall crisis management plan. Containment involves (1) rapid response to limit the immediate effects of the crisis; (2) communication because the truth will emerge anyway, and plenty of evidence suggests it is better to face reality immediately rather than try to deny that a crisis is occurring; (3) meeting the needs of those affected by the crisis; and (4) returning to business as rapidly as possible. The classic example of successful containment of a crisis is the response of Tylenol maker Johnson & Johnson to a crisis that arose when four people died after taking cyanide-laced Tylenol capsules. Even though the capsules were tampered with after the Tylenol had left the factory, the company immediately recalled all Tylenol and stopped making the product until it had redesigned the product packaging to minimize the risk of future tampering. This quick action cost Johnson & Johnson some sales, but it enhanced the company's reputation and quickly rebuilt consumer confidence in the safety of the product.

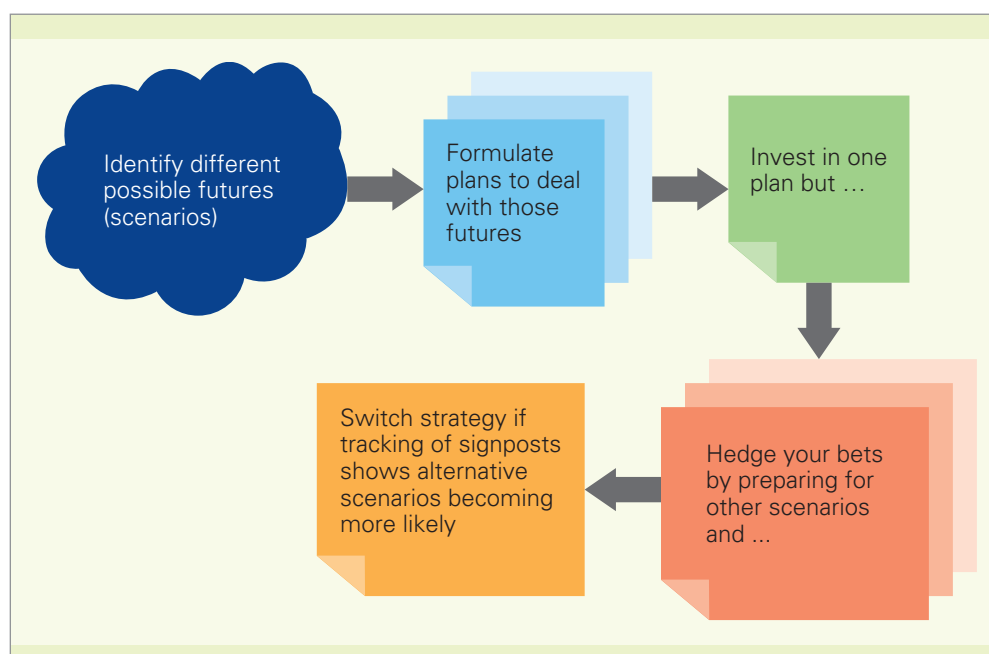
Scenario Planning Scenario planning is based on the realization that the future is inherently unpredictable and that an organization should plan for a range of possible futures. **Scenario planning** involves formulating plans that are based on “what if” scenarios. In the typical scenario planning exercise, some scenarios are optimistic and some pessimistic. Teams of managers are asked to develop specific strategies to cope with each scenario. A set of indicators is chosen as “signposts” to track trends and identify the probability that any particular scenario is coming to pass. The idea is to get managers to understand the dynamic and complex nature of their environment, to think through problems in a strategic fashion, and to generate a range of strategic options that might be pursued under different circumstances.⁶

scenario planning

Plans that are based on “what if” scenarios about the future.

FIGURE 5.3

Scenario Planning



The scenario approach to planning has spread rapidly among large companies. One survey found that over 50 percent of *Fortune* 500 companies use some form of scenario planning methods.⁷

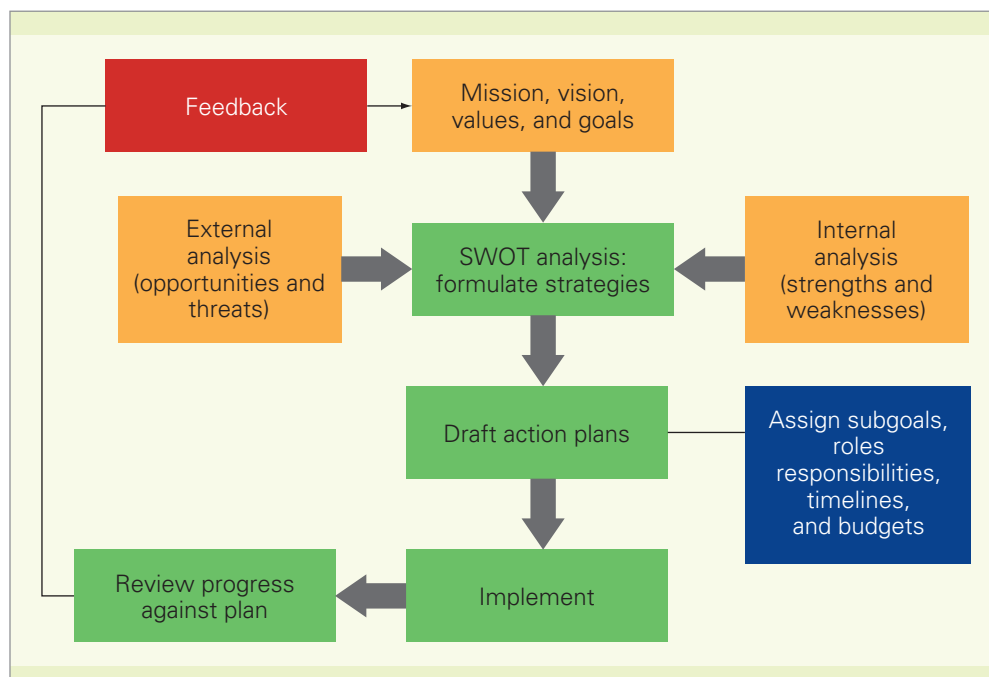
The oil company Royal Dutch Shell has perhaps done more than most to pioneer the concept of scenario planning, and its experience demonstrates the power of the approach.⁸ Shell has been using scenario planning since the 1980s. Today the firm uses two main scenarios to refine its strategic planning. The scenarios relate to future demand for oil. One (“Dynamics as Usual”) sees a gradual shift from carbon fuels such as oil and natural gas to renewable energy. The second scenario (“The Spirit of the Coming Age”) looks at the possibility that a technological revolution will lead to a rapid shift to new energy sources.⁹ Shell is making investments that will ensure the profitability of the company in either scenario, and it is carefully tracking technological and market trends.

The great virtue of the scenario approach to planning is that it can push managers to think creatively, to anticipate what they might have to do in different situations, and to learn that the world is a complex and unpredictable place that places a premium on flexibility. As a result of scenario planning, organizations might pursue one dominant strategy related to the scenario that is judged to be most likely while making some investments that will pay off if other scenarios occur (see Figure 5.3). Thus the current strategy of Shell is based on the assumption that the world will only gradually shift away from carbon-based fuels; but the company is also hedging its bets by investing in new energy technologies and mapping out a strategy to pursue should its second scenario come to pass.

// Strategic Planning: A Closer Look

As noted earlier, most plans within an organization are embedded within the overall strategic plan of the enterprise. Strategic plans form the context within which operating and unit plans are formulated. Because strategic planning is such an important activity, here we examine the steps involved in formulating and implementing a strategic plan and how that plan drives operating and unit plans. Figure 5.4 charts what can be viewed as an archetypal strategic planning process.¹⁰

The process starts with a statement of the mission, vision, values, and goals of an organization. Then it moves on to an analysis of the external operating environment and the internal environment of the organization. As noted in Chapter 2, the aim here is to identify

**FIGURE 5.4**

The Strategic Planning Process

the strengths and weaknesses of the organization and the opportunities and threats in the external environment. Next, in a process known as *SWOT analysis*, managers choose strategies. The aim is to select strategies that are consistent with the vision, values, and goals of the organization and that exploit environmental opportunities, counter threats, build on organizational strengths, and correct weaknesses. Then managers draft action plans. **Action plans** specify with precision how strategies will be put into effect; they include subgoals, responsibilities, timelines, and budgets. Action plans are drafted at the business level, operating level, and unit level within functions. In other words, *each strategic, operating, and unit plan should have a component that is an action plan*. Once action plans have been drafted and agreed on, they are implemented. The process does not stop here, however; planning is also a control mechanism. Thus managers compare actual performance against the plan, and through a feedback process make necessary adjustments to goals and strategies. Planning, in other words, is an iterative process in which plans are adjusted over time in response to new information. Next we take a closer look at each of these elements.

// SETTING THE CONTEXT: MISSION, VISION, VALUES, AND GOALS

The mission, vision, values, and goals of an organization are the starting points of strategic planning. They set the context for the rest of the process and for the operating and unit plans that are embedded within a strategic plan.

Mission The **mission** of an organization describes its purpose. For example, the mission of Kodak is to provide “customers with the solutions they need to capture, store, process, output, and communicate images—anywhere, anytime.”¹¹ This mission focuses on the customer needs that Kodak is trying to satisfy (the need for imaging) as opposed to the products the company currently produces (film and cameras). Kodak’s mission statement is a *customer-oriented* mission statement, not a *product-oriented* one.

There is general agreement that a good mission statement focuses on the *customer needs* an organization is satisfying rather than the goods or services it is producing.¹² A *product-oriented* mission statement, which focuses on the attributes of the products

action plans

Plans that specify with precision how strategies will be put into effect.

mission

The purpose of an organization.



delivered to customers and not on the customer needs the products are satisfying, is inherently dangerous. It ignores the fact that there may be more than one way of satisfying a particular set of customer needs, and that over time new products, which do a better job of satisfying needs, can emerge. By focusing on customer needs, a customer-oriented mission statement can help an organization anticipate changes in its environment and adopt new products to satisfy those needs.

For example, for the better part of a hundred years Kodak sold silver halide film and cameras using that film to satisfy customer needs for capturing and storing images. However, in the early 1990s another technology emerged that could satisfy those same needs—digital imaging. Kodak’s customer-oriented mission statement focused management attention on this new technology, and the company made strategic investments in digital imaging that have enabled it to become a major provider of digital cameras and imaging software. Kodak’s mission helped it to adopt a new product technology that better served customer needs.

vision

A desired future state.

Vision The **vision** of an organization articulates a desired future state; it describes, often in bold, evocative, and succinct terms, what the management of an organization would like to achieve. The vision of Ford is “to become the world’s leading consumer company for automotive products and services.” This vision is challenging: Judged by size Ford is currently the world’s number three company behind General Motors and Toyota. Attaining this vision will be a stretch for Ford—but that is the point. Good vision statements are meant to stretch a company by articulating some ambitious but attainable future state that will help to energize and motivate employees at all levels in the organization and unite them in a common purpose.¹³ A good vision can help employees make sense out of the organization’s strategy. The vision tells them what the strategy is meant to achieve.

A good vision can also generate strategies by communicating to employees what the ultimate goal of a strategy should be and motivating them to search for and formulate strategies that help to attain that goal. For example, at General Electric under the leadership of its legendary former CEO, Jack Welch, the vision was simple yet clear: GE was to be number one or number two in every major business in which it competed. Welch did not tell the managers heading GE’s various divisions what strategies they should pursue—that was left up to them; rather, by articulating a clear and compelling vision Welch helped set the context for strategy formulation at the business level. He in effect told his managers, “Whatever strategies you pursue, they should enable your business unit to become number one or two in your market.”

values

The philosophical priorities to which managers are committed.

Values The **values** of an organization state the philosophical priorities to which managers are committed. Values outline how managers and employees should conduct themselves, how they should do business, and what kind of enterprise they should build to help the organization attain its mission and vision. Given that they help shape behavior within an organization, values can help to determine an organization’s culture, which as you might recall from Chapter 2 refers to the basic pattern of shared values and assumptions adopted by employees within an organization. The culture of a business organization can be an important source of competitive advantage, and because values shape this, they are extremely important.¹⁴ (We discuss the issue of organizational culture in depth in Chapter 10.) For example, Nucor Steel is one of the most profitable steel firms in the world. Its competitive advantage is based in part on the extremely high productivity of its workforce, which, the company maintains, is a direct result of its cultural values that influence how employees are treated at Nucor:

- “Management is obligated to manage Nucor in such a way that employees will have the opportunity to earn according to their productivity.”
- “Employees should be able to feel confident that if they do their jobs properly, they will have a job tomorrow.”
- “Employees have the right to be treated fairly and must believe that they will be.”
- “Employees must have an avenue of appeal when they believe they are being treated unfairly.”¹⁵

Nucor’s values emphasizing pay for performance, job security, and fair treatment for employees help create an egalitarian culture within the company that leads to high employee productivity. In turn this has given Nucor one of the lowest cost structures in the steel industry, which helps explain the company’s profitability in a very price-competitive business.

Goals After the mission, vision, and key values of the organization have been stated, the final step in setting the context for strategic planning is to establish organizationwide goals. A **goal** is a desired future state that an organization attempts to realize. In this context the purpose of goals is to specify exactly what must be done so the company can attain its mission and vision. Well-constructed goals have four main characteristics:¹⁶

1. They are *precise* and *measurable*. Measurable goals give managers a yardstick or standard against which they can judge their performance.
2. They *address important issues*. To maintain focus, managers should select a few major goals to assess the performance of the company. The selected goals should address crucial issues.
3. They are *challenging but realistic*. They give all employees an incentive to look for ways to improve the performance of the organization. If a goal is unrealistic, employees may give up; but a goal that is too easy may fail to motivate managers and other employees.¹⁷
4. They *specify a time period* in which they should be achieved. Time constraints tell employees that success requires a goal to be attained by a given date. Deadlines can inject a sense of urgency into goal attainment and act as a motivator. However, not all goals require time constraints.

Well-constructed goals also provide a means by which to assess strategy effectiveness and evaluate the performance of managers.

Most business organizations establish goals for profitability and profit growth. Thus a company might aim for attaining at least a 10 percent return on invested capital (a key measure of profitability) and growing profits at 15 percent per year. However, managers must not make the mistake of overemphasizing current profitability to the detriment of long-term profitability and profit growth.¹⁸ The overzealous pursuit of current profitability to maximize short-term performance can encourage such misguided managerial actions as cutting expenditures judged as nonessential in the short run—for instance, expenditures for research and development, marketing, and new capital investments. Although cutting current spending increases current profitability, the resulting underinvestment, lack of innovation, and diminished marketing can jeopardize long-term profitability and growth. These expenditures are vital if a company is to pursue its long-term mission and sustain its competitive advantage and profitability. But managers may make such decisions because the adverse effects of a short-term orientation may not materialize and become apparent to shareholders for several years or because they are under extreme pressure to hit short-term profitability goals.¹⁹

To guard against such behavior, managers need to adopt goals whose attainment will increase the long-term performance and competitiveness of their enterprise. Long-term goals emphasize specific targets concerning such things as productivity, product quality, customer satisfaction, employee satisfaction, and innovation. The idea here is that if managers take actions that, for example, boost productivity, in the long run that will lead to lower costs and

goal

A desired future state that an organization attempts to realize.

higher profitability, even if it requires sacrificing some profits today to support higher investments in productivity-enhancing technologies. To do this, it is often recommended that managers adopt a *balanced scorecard* of goals that couple traditional financial measures (such as profitability) with goals linked to customer satisfaction, the efficiency of internal processes, and innovation. (We discuss the balanced scorecard approach in more detail in Chapter 9.)²⁰

// EXTERNAL AND INTERNAL ANALYSIS

Having set the context for strategic planning by defining the mission, vision, values, and major goals of the organization, the next step in the strategic planning process is to analyze the environment of the organization. Two distinct environments are looked at: the external environment within which the organization operates and the organization's own internal environment. Managers must analyze the organization's external environment—including the task (or industry) environment in which it competes and the general environment—for opportunities and threats. (We reviewed the external and internal environments in Chapter 2.) Opportunities arise when competitive or general environmental trends create enhanced potential for the organization to attain its vision and associated goals. For example, deregulation of the U.S. telecommunications industry in 1996 created an opportunity for phone companies to merge with each other and offer an expanded range of services (for example, before 1996 local phone companies could not offer long-distance service). In addition, around the same time two new technologies entered the mainstream: wireless telephony and high-bandwidth Internet access via digital subscriber line (DSL) technology. These two changes created enormous opportunities for phone companies to expand their services. Thus by 2005 Verizon, which was formed by the merger of two local telephone companies in 2000, was also offering Internet access via DSL service, long-distance telephone service, and wireless service.

Threats arise when competitive or general environmental trends make it more difficult for an organization to attain its vision and associated goals. This can also be illustrated by considering the telecommunications industry in the United States. Despite all the opportunities created by deregulation and technological change, these trends also created distinct threats. The entry of new enterprises into the wireless market depressed prices and made it difficult to make a profit. Moreover, new technologies have made it possible for cable companies (not traditionally a competitor) to offer phone service and Internet access over TV cables, enabling companies such as Comcast and Time Warner to emerge as potent competitors to established telephone companies such as Verizon. The resulting increase in competition has put pressure on prices and profits.

Having analyzed the external environment for opportunities and threats, managers should look inside the organization and identify its strengths and weaknesses. A strength is an activity the organization is good at and is a potential source of competitive advantage. A weakness is an activity the organization does not excel at; it may be a source of competitive disadvantage. At Verizon's wireless business, for example, the quality of its telephone service and the excellence of its customer service are seen as strengths that have helped the company outperform rivals.²¹

// SWOT ANALYSIS: FORMULATING STRATEGIES

Once managers have identified the strengths, weakness, opportunities, and threats that confront their organization, they use a SWOT analysis to list these and then start the process of choosing strategies. The goal at this stage is to formulate strategies at the corporate, business, and operating levels that build on organization strengths, correct weaknesses, use strengths to exploit opportunities in the environment, and block threats so the organization can execute its mission, realize its vision, meet or beat its major goals, and do so in a manner that is consistent with its values.

The strategies identified through a SWOT analysis should be congruent with each other. Operating strategies should be consistent with the business-level strategy of the company. Moreover, as we will see in the next chapter, corporate-level strategies should support business-level strategies. Thus as a result of a SWOT analysis, managers should have identified a set of corporate, business, and operating strategies that support each other and enable the organization to attain its goals. The trick now is to put those strategies into action!

// ACTION PLANS

As noted earlier, action plans specify precisely how corporate-level, business-level, and operating strategies will be put into effect. Action plans should include subgoals, responsibilities, time lines, and financial budgets. Consider again the case of Verizon Wireless. A key Verizon strategy has been to differentiate its service by superior geographical coverage. To put this strategy into action, Verizon had to build more cell towers than its competitors (so its wireless signal would cover a larger geographical area, resulting in fewer dropped calls). An action item of this strategic plan might therefore have given operations managers in Illinois, for example, a subgoal of adding 100 cell towers in the state within a year. Responsibility for hitting this goal might have been assigned to a particular individual; let's call her Allison Jones, vice president for operations in Illinois. Jones would have been given a budget containing sufficient funds to achieve this objective. In practice, Verizon would have had similar action plans for every state where it offered service. Action plans thus turn broad statements of strategic intent into concrete actions that have to be undertaken within a given period. Action plans are where strategic planning gets practical.

// IMPLEMENTATION

Once action plans have been drawn up and all members of the organization know what they are supposed to do to execute the strategy, it is on to implementation. At the most basic level, **strategy implementation** consists of putting action plans into effect. At a higher level of abstraction, however, strategy implementation also requires that the enterprise have the right kind of organization structure, incentives, control systems, and culture, as well as the right mix of people. Put differently, strategy is implemented by people, but the way that people work is influenced by the internal organization of the enterprise. (We discuss internal organization architecture in depth in Chapter 8.)

Again consider Verizon Wireless; making sure that Allison Jones, the VP for operations in Illinois, performs up to her potential might require Verizon to create positive incentives for Jones. Thus her annual bonus might be determined in part by how well her unit executes its action plan. Moreover, to let Jones work quickly and make decisions that are appropriate for her unit, Verizon might decentralize all relevant operating decisions concerning the building out of cell towers in Illinois to Jones. Jones's boss, in other words, would leave it to up to her to determine a precise schedule for building cell towers and let her decide where the towers should be placed. The design of incentive systems and decisions concerning the decentralization of operating responsibilities are both aspects of the organization architecture of Verizon. In this example higher-level managers at Verizon are adjusting the company's internal organization architecture to create an internal environment in which Jones is most likely to meet the goals outlined in her unit's action plan. More generally, this is what higher-level managers do: They make decisions about the structure, incentives, controls, culture, and people of the organization in an attempt to create an internal environment that best supports lower-level managers and employees in their quest to implement action plans.

// REVIEW AND ADJUSTMENTS

The final step in the strategic planning process is to periodically review actual performance against the plan and make any needed adjustments. A plan can be viewed as a control mechanism. If parts of an organization (or the entire organization) do not reach the goals outlined in the plan, senior managers will start to ask questions and seek an explanation for the variance between the plan and actual results. Once they understand why the variance is occurring, they may take corrective action to reach the plan; they may decide the plan itself needs tuning; or in extreme situations, they may decide that the plan needs to be scrapped and a new plan formulated. Thus if the unit headed by Allison Jones at Verizon does not

strategy implementation

Putting action plans into effect.

attain the goals outlined in the plan, her boss will start to ask questions. Imagine that after investigation, Jones's boss discovers that Jones has been playing a lot of golf and not putting much time in at work. Jones may be replaced by someone that has a greater appetite for work. Alternatively, Jones may have been working hard but simply lacked the resources required to execute the plan in the specified time. In this case Jones's boss might try to get her more resources. The point is that plans are living documents that can be, and often are, adjusted as new information arrives.

// The Benefits and Pitfalls of Planning

Having reviewed the nature of planning, we can now discuss its benefits and pitfalls. The benefits are implicit in much of the discussion so far:

1. Planning gives direction and purpose to an organization; it is a mechanism for deciding the goals of the organization.
2. Planning is the process by which management allocates scarce resources, including capital and people, to different activities.
3. Planning drives operating budgets—strategic, operations, and unit plans determine financial budgets for the coming year.
4. Planning assigns roles and responsibilities to individuals and units within the organization.
5. Planning enables managers to better control the organization.

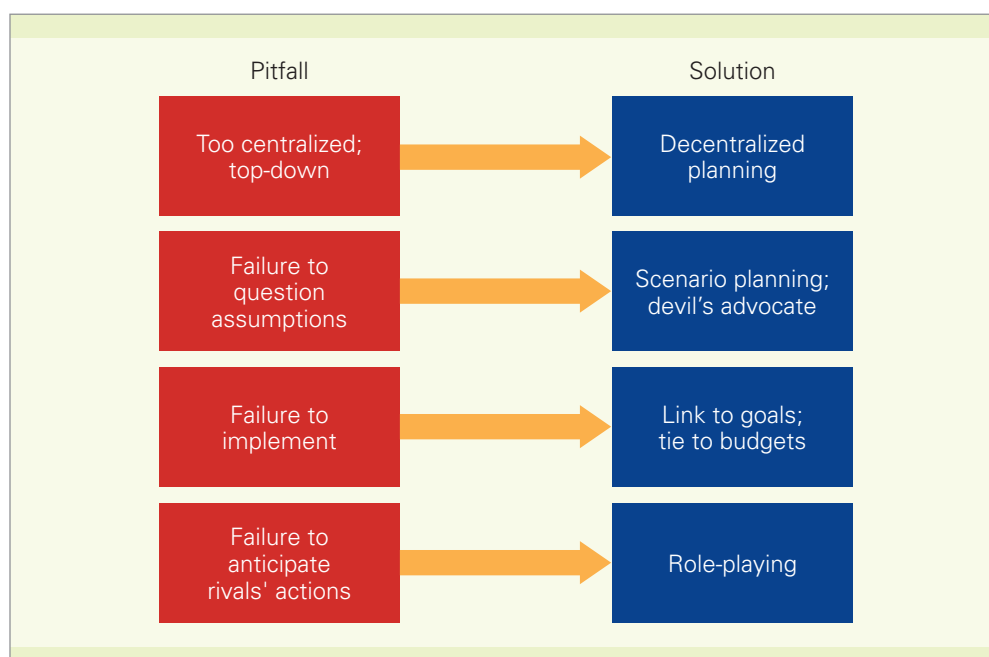
Thus planning is unambiguously a central task of management. Without planning an organization would be chaotic, drifting like a ship without propulsion. Academic research seems to support this view. A study that analyzed the results of 26 previously published studies came to the conclusion that on average, strategic planning has a positive impact on company performance.²² Another study of strategic planning in 656 firms found that formal planning methodologies are part of a good strategy formulation process, even in rapidly changing environments.²³

Despite these obvious benefits, however, planning has a bad name in some circles. Managers often groan when they are told it is time for another round of strategic planning. Some management theorists assert that the best strategies arise in the absence of planning, and that planning can limit creativity and freedom of action.²⁴ Moreover, there are some striking cases of organizations that pursued failed strategies despite having gone through comprehensive planning exercises.

For example, in 2000 AOL and Time Warner executed what was then the largest merger in history, valued at \$166 billion. The strategic plan for the new organization, AOL–Time Warner, called for Time Warner to distribute digital versions of its magazines, such as *Fortune*, through AOL and for AOL to benefit from Time Warner's extensive cable TV operations, offering broadband versions of AOL via Time Warner cable. Managers stated that their goal for the merged company was to increase earnings at 25 percent per year compounded. It didn't work. Within three years AOL–Time Warner had taken a massive \$60 billion charge against earnings to write down the value of "goodwill" associated with AOL's assets; AOL's subscriber and revenue growth had stalled; the stock price had fallen by over 80 percent; and all of the top managers associated with the merger had resigned. The new CEO, Richard Parsons, in an admission that the plan had failed, stated that the new goal was to grow earnings by 8–12 percent per year.²⁵



The Best Laid Plans Time Warner CEO Gerald Levin and AOL CEO Steve Case high-five each other after the completion of the largest merger in business history. Within two years their plan for the new company was in tatters, grounded on the hard rocks of market realities.

**FIGURE 5.5**

Countering the Pitfalls of Planning

// THE PITFALLS OF PLANNING

Why do plans sometimes fail to produce the desired results? What goes wrong with carefully made plans such as the postmerger plans for AOL and Time Warner? There several pitfalls managers can fall victim to when they are planning (see Figure 5.5).

Too Centralized and Top-Down Some planning systems are too centralized and top-down. As a result, planners make decisions that do not take market realities into account. This can become a problem when the planners are far removed from daily operations—when they lack the knowledge that comes from a close relationship with the market. For example, General Electric used to be known for its highly centralized strategic planning process. At one time planning was touted as a strength of General Electric. However, corporate planners often drew up plans that made no sense to business unit and operating managers. In one famous example, corporate planners analyzed demographic data, found out that family size was shrinking, and told GE's appliance unit to start making smaller refrigerators. They did; but the smaller appliances did not sell. The reason was that even though family size was shrinking, houses were getting larger; people had more room for refrigerators, and they preferred to buy big refrigerators that they could keep fully stocked. The planners got it wrong because they were removed from the business and failed to understand and take customer preferences into account.²⁶

Good ideas about business and operations strategy are not the preserve of top management; they can and often do emerge from lower down within an organization. Indeed, management scholars have often declared that good ideas can take root almost anywhere within an organization, even at the lowest levels, and that rather than imposing all strategy from the top, good planning systems should give lower-level employees an opportunity to suggest, lobby for, and pursue strategies that might benefit the organization.²⁷

Failure to Question Assumptions All plans are based on assumptions about the future. Sometimes those assumptions are wrong, even when the plans are first made. Other times the assumptions may have initially been reasonable, but unanticipated changes may have invalidated them. In either case the result is that the plans are no longer valid, and unless management recognizes this in a timely manner and makes adjustments, the plans will fail to produce the desired results.²⁸ For example, in the early 1980s oil prices reached record highs of \$35 a barrel following supply reductions by the OPEC cartel. Oil refiners like Exxon then made investment plans

based on the assumption that prices would continue to rise, hitting over \$50 a barrel by the mid-1980s. For Exxon those plans included massive investments in shale oil deposits that would not be profitable unless oil prices stayed over \$30 a barrel. As it turned out, the key assumption about oil prices was wrong. By the mid-1980s oil prices had fallen to less than \$15 a barrel as new supplies came from Alaska and the North Sea; and oil prices stayed low for the next 15 years, making Exxon's investment worthless. Ironically this experience so hurt companies like Exxon that when oil prices climbed again in the early 2000s, they initially held off on making the investments in exploration required to increase supply. The assumption that the 1980s oil boom and bust was about to repeat itself in the early 2000s made them more cautious than they perhaps should have been.

Failure to Implement Plans often fail because they are not put into action. One of the standard quips about strategic planning is that after a planning exercise has been completed, the planning books stay on the shelf, gathering dust, never to be opened again.²⁹ One reason plans are not put into action is that is difficult to do so, particularly if the plan calls for a departure from the regular way of doing business or requires a substantial change in organizational practices. As we will see when we consider organizational change in Chapter 18, effectively managing change is one of the most difficult tasks that can confront a manager; managers often pull back when facing the turmoil associated with change efforts, so the planned change does not occur. A few years ago this author acted as a consultant for a strategic planning process at a city-owned electric utility. The planning process was successful in that the top managers, after extensive consultation with employees, committed themselves to major strategic changes in the utility that would significantly lower costs and enhance service. However, attempts to enact the plan led to protests from unionized employees, who objected to the planned reorganization of the utility, fearing that it might jeopardize their job security. The unions lobbied the city government, and the mayor, who did not appreciate the negative publicity, replaced the CEO of the utility with a city bureaucrat who maintained the status quo. The message to managers from that event was clear: Don't rock the boat! The strategic was never implemented and is now gathering dust on a shelf somewhere.

Failure to Anticipate Rivals' Actions Plans can fail because managers do not consider what rivals are doing. The planners proceed as if the organization has no rivals, and they make investments based on plans without considering how the value of those investments will be affected by rivals' actions. This was a problem in the case of many dot-com companies in the late 1990s and early 2000s. Following the success of early dot-com enterprises such as AOL, Amazon, Yahoo, and eBay, hundreds of companies entered the dot-com arena. Many of these companies had a business model based on advertising revenues. The problem was that each company assumed that it would capture significant advertising revenues; but with many other companies chasing the same advertising dollars, there simply was not enough business to go around, and most of these companies failed. Had these enterprise looked at what their rivals were doing, they might have been more cautious about their investment plans, and the results might not have been so bad.



// IMPROVING PLANNING

Dealing with the pitfalls just discussed requires that managers take a number of steps (see Figure 5.5). To guard against the problems associated with centralized, top-down planning, managers need to ensure that responsibility for planning is decentralized to the appropriate level and that a broad constituency of employees has an opportunity to participate in the planning process. An important

principle of good planning is that *those who have primary responsibility for putting a plan into action should also participate in formulating the plan*. Thus, for example, manufacturing managers should be involved in a planning process that looks at how manufacturing processes might be reorganized to drive down unit costs, and marketing managers should help formulate a plan that calls for the repositioning of a company's product offering in the marketplace.

As for opening up the planning process to a broad constituency of employees, here organizations can and do use a variety of mechanisms. At Google, for example, employees are asked to spend 20 percent of their time working on something that interests them away from their main jobs. Companywide, a full 10 percent of employee time at Google is spent dreaming up new projects. Although most of these projects never become products, some do—such as Google Maps, Google mail, Google Earth, and Google books (a controversial service that lets users search inside published books).³⁰ General Electric has a process known as “work out” in which lower-level managers and other employees spend three days at a retreat, without their boss, formulating ideas to would improve the performance of their business unit. They then suggest their ideas to their boss, who has to decide on the spot which ideas to pursue. This process has empowered employees, has made them feel as if they have a role in determining the plans of their unit, and has produced many ideas that improved performance at General Electric.³¹

To try to ensure that plans are not based on unrealistic assumptions and to account for uncertainty about the future, managers can use scenario planning methods. As discussed earlier, scenario planning methods force managers to think about what they would do under different assumptions about the future. One of the great advantages of the scenario method is that it is not based on a single assumption about the future. In addition, managers can use an independent “devil's advocate” to question plans and their underlying assumptions, exposing any flaws or weak assumptions (we discuss this in more detail in the next section).³² Beyond such approaches, senior managers need the courage to walk away from plans that are no longer working because of unanticipated events and to push the organization in a new direction if that is called for. One of the classic examples of this occurred in 1995 when Microsoft's Bill Gates responded to the unanticipated emergence of the World Wide Web based on the Hyper Text Markup Language (HTML) by abandoning Microsoft's established strategy for the Internet, which was based on a version of MSN that used proprietary software. Instead he stated that Microsoft would incorporate HTML language into all of its products, making them Web enabled.

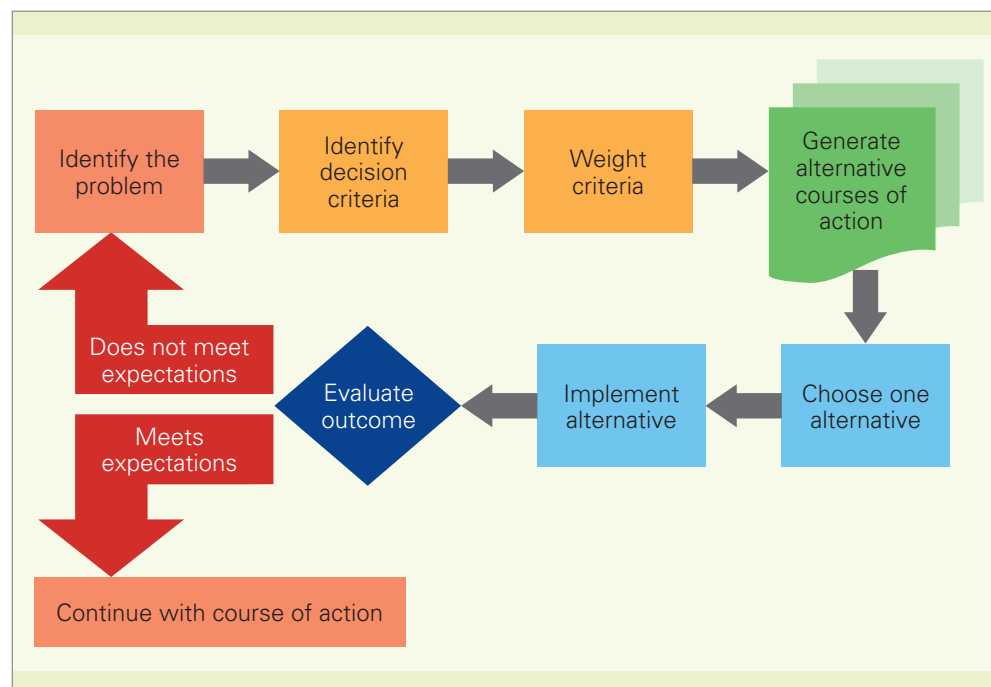
To make sure plans are implemented, managers need to follow the steps of the planning model to their conclusion—drafting action plans, identifying who is responsible for putting the plans into effect, tying budgets to plans, and holding managers accountable for reaching goals. The hard truth is that plans will not work unless they are linked to goals that matter and are tied to operating budgets. Unfortunately, in many organizations the planning exercise is decoupled from the budget process and from performance reviews, which implies that the plans have no teeth.

Finally, managers need to consider how rivals will respond to their plans. One technique for doing this is to engage in strategic role-playing, where groups within the organization take on the role of competing enterprises and state how they would counter the plans of the organization. This technique is a standard feature of Microsoft's regular strategy conferences. At those conferences, groups assigned to take the position of Microsoft rivals draft plans to “beat Microsoft.” The idea is to generate insights into what the strategy of rivals might be and how they might respond to actions by Microsoft.

Decision Making

The strategic planning system we have reviewed in this chapter is an example of a rational decision-making model. In essence, strategic planning is a formal process for making important decisions about strategies, tactics, and operations. More generally, making decisions is a major component of a manager's job. Strategic planning systems are a subset of what is often referred to as the *classic rational model of decision making*.

FIGURE 5.6
The Rational Decision-Making Model



// THE RATIONAL DECISION-MAKING MODEL

The rational decision-making model has a number of discrete steps (see Figure 5.6). First, managers have to identify the problem to be solved by a decision. Problems often arise when there is a gap between the desired state and the current state. For example, if a firm is not attaining its goals for profitability and growth, the gap signifies a problem. Second, managers must identify *decision criteria*, which are the standards used to guide judgments about which course of action to pursue. Imagine, for example, that a manager has to decide what model of car to purchase for a company fleet. The decision criteria might include cost, fuel efficiency, reliability, performance, and styling. Third, managers need to *weight* the criteria by their importance. The weighting should be driven by the overall goals of the organization. Thus for an organization that is trying to reduce costs, a manager choosing cars for a company fleet would probably weight fuel efficiency higher than styling or power. Fourth, managers need to generate alternative courses of action. In the example used here, this would mean specifying the different models of car that fall into the feasible set. Fifth, managers need to compare the alternatives against the weighted criteria, and choose one alternative. Sixth, they should implement that choice (for example, issue a purchase order to buy cars). Finally, after a suitable period they should always evaluate the outcome and decide whether the choice was a good one. If the outcome does not meet expectations, this constitutes a problem that triggers another round of decision making.

// BOUNDED RATIONALITY AND SATISFICING

The rational decision-making model is reasonable except for one problem: The implicit assumption that human decision makers are rational is not valid. This point was made forcibly by Nobel Prize winner Herbert Simon.³³ According to Simon, human beings are not rational calculating machines. Our rationality is bounded by our own limited cognitive capabilities. **Bounded rationality** refers to limits in our ability to formulate complex problems, to gather and process the information necessary for solving those problems, and thus to solve those problems in a rational way.³⁴ Due to the constraints of bounded rationality, we tend not to optimize, as assumed by the rational decision-making model. Rather we **satisfice**, aiming for a satisfactory level of a particular performance variable, rather than its theoretical maximum.

bounded rationality

Limits in human ability to formulate complex problems, to gather and process the information necessary for solving those problems, and thus to solve those problems in a rational way.

satisfice

Aiming for a satisfactory level of a particular performance variable rather than its theoretical maximum.

For example, instead of trying to maximize profits, the theory of bounded rationality argues that managers will try to attain a satisfactory level of profits.

Satisficing (settling for a good enough solution to a problem) occurs not only because of bounded rationality, but also because of the prohibitive costs of collecting all the information required to identify the optimal solution to a problem—and often because some of the required information is unavailable. For example, identifying the optimal strategy for gaining market share from competitors may require information about consumer preferences; consumer responses to changes in key product variables such as price, quality and styling; the cost structure, current and future product offerings, and strategy of rivals; and future demand conditions. Much of this information is costly to gather (data about consumer preferences and responses), private (the cost structure and future product offerings of rivals), and unpredictable (future demand conditions), so managers tend to collect a limited amount of publicly available information and make satisficing decisions based on that.

// DECISION-MAKING HEURISTICS AND COGNITIVE BIASES

Cognitive psychologists argue that when making decisions, due to bounded rationality we tend to fall back on **decision heuristics**, or simple rules of thumb. Decision heuristics can be useful, because they help us make sense out of complex and uncertain situations. An example of a decision-making heuristic is the so-called **80–20 rule**, which states that 80 percent of the consequences of a phenomenon stem from 20 percent of the causes.³⁵ A common formulation of the 80–20 rule states that 80 percent of a firm's sales are derived from 20 percent of its products, or that 20 percent of the customers account for 80 percent of sales. Another common formulation often voiced in software companies is that 20 percent of the software programmers produce 80 percent of the code. It is also claimed that 20 percent of criminals produce 80 percent of all crimes, 20 percent of motorists are responsible for 80 percent of accidents, and so on.³⁶ Managers often use the 80–20 rule to make resource allocation decisions, for example, by focusing sales and service efforts on the 20 percent of customers who are responsible for 80 percent of revenues. Although the 80–20 rule might be verified through empirical measurement, often it is not. People just assume it is true—and there lies the problem: The rule does not always hold. The assumption may be invalid, and decisions made on the basis of this heuristic might be flawed.

Generalizing from this, cognitive psychologists say that as useful as heuristics might be, their application can cause severe and systematic errors in the decision-making process.³⁷ **Cognitive biases** are decision-making errors that we are all prone to making and that have been repeatedly verified in laboratory settings or controlled experiments with human decision makers. Due to the operation of these biases, managers with good information may still make bad decisions.

A common cognitive bias is known as the **prior hypothesis bias**, which refers to the fact that decision makers who have strong prior beliefs about the relationship between two variables tend to make decisions on the basis of these beliefs, even when presented with evidence that their beliefs are wrong. Moreover, they tend to seek and use information that is consistent with their prior beliefs while ignoring information that contradicts these beliefs. To put this bias in a strategic context, it suggests that a CEO who thinks a certain strategy makes sense might continue to pursue that strategy, despite evidence that it is inappropriate or failing.

Another well-known cognitive bias, **escalating commitment**, occurs when decision makers, having already committed significant resources to a project, commit even more resources if they receive feedback that the project is failing.³⁸ This may be an irrational response; a more logical response might be to abandon the project and move on. Feelings of personal responsibility for a project, along with a desire to recoup their losses, can induce decision makers to stick with a project despite evidence that it is failing.

A third bias, **reasoning by analogy**, involves the use of simple analogies to make sense out of complex problems. The problem with this heuristic is that the analogy may not

decision heuristics

Simple rules of thumb.

80–20 rule

A heuristic stating that 80 percent of the consequences of a phenomenon stem from 20 percent of the causes.

cognitive biases

Decision-making errors that we are all prone to making and that have been repeatedly verified in laboratory settings or controlled experiments with human decision makers.

prior hypothesis bias

Decision makers who have strong prior beliefs about the relationship between two variables tend to make decisions on the basis of these beliefs, even when presented with evidence that their beliefs are wrong.

escalating commitment

Arises when decision makers, having already committed significant resources to a project, commit even more resources if they receive feedback that the project is failing.

reasoning by analogy

The use of simple analogies to make sense out of complex problems.

representativeness

Generalizing from a small sample or even a single vivid anecdote.

illusion of control

The tendency to overestimate one's ability to control events.

availability error

Arises from our predisposition to estimate the probability of an outcome based on how easy the outcome is to imagine.

be valid. A fourth bias, **representativeness**, is rooted in the tendency to generalize from a small sample or even a single vivid anecdote. This bias violates the statistical law of large numbers, which says that it is inappropriate to generalize from a small sample, let alone from a single case. In many respects the dot-com boom of the late 1990s was based on reasoning by analogy and representativeness. Prospective entrepreneurs saw some of the early dot-com companies such as Amazon and Yahoo! achieve rapid success, at least judged by some metrics. Reasoning by analogy from a small sample, they assumed that any dot-com could achieve similar success. Many investors reached similar conclusions. The result was a massive wave of start-ups that jumped onto the Internet in an attempt to capitalize on the perceived opportunities. That the vast majority of these companies subsequently went bankrupt is testament to the fact that the analogy was wrong, and the success of the small sample of early entrants was no guarantee that other dot-coms would succeed.

Another cognitive bias, known as the **illusion of control**, is the tendency to overestimate one's ability to control events. General or top managers seem to be particularly prone to this bias: Having risen to the top of an organization, they tend to be overconfident about their ability to succeed. According to Richard Roll, such overconfidence leads to what he has termed the *hubris hypothesis* of takeovers.³⁹ Roll asserts that top managers are typically overconfident about their abilities to create value by acquiring another company. So, they end up making poor acquisition decisions, often paying far too much for the companies they acquire. Servicing the debt taken on to finance such an acquisition makes it all but impossible to make money from the acquisition (the acquisition of Time Warner by AOL, discussed earlier, is a good example of management hubris).

The **availability error** is yet another common bias. The availability error arises from our predisposition to estimate the probability of an outcome based on how easy the outcome is to imagine. For example, more people seem to fear a plane crash than a car accident, and yet statistically people are far more likely to be killed in a car on the way to the airport than in a



Caption to come

plane crash. They overweight the probability of a plane crash because the outcome is easier to imagine and because plane crashes are more vivid events than car crashes, which affect only small numbers of people at a time. As a result of the availability error, managers might allocate resources to a project, with an easily visualized outcome rather than one that might have a higher return.

Finally, the way a problem or decision is framed can result in the **framing bias**.⁴⁰ In a classic illustration of framing bias, Tversky and Kahnemen give the example of what they call the Asian disease problem.⁴¹ They asked participants in an experiment to imagine that the United States is preparing for the outbreak of an unusual disease from Asia that is expected to kill 600 people. Two programs to combat the disease have been developed. One group of participants was told that the consequences of the programs were as follows:

- Program A: 200 people will be saved.
- Program B: There is a one-third probability that 600 people will be saved and a two-thirds probability that no one will be saved.

When the consequences were presented this way, 72 percent of participants preferred program A. A second group of participants was given the follow choice:

- Program C: 400 people will die.
- Program D: There is a one-third probability that no one will die and a two-thirds probability that 600 people will die.

When the consequences were presented this way, 78 percent of the participants preferred program D. However, programs A and C are the same, as are programs B and D! The point, of course, is that the preferences were shaped by how the problems were framed.

The wrong frames can have significant negative implications for a company. A good example concerns Encyclopedia Britannica, which thought it was in the book business until it found out it was really in the knowledge and information business, which had gone digital. The company's sales reportedly peaked at around \$620 million in 1989 and then fell off sharply as CD-ROM and then Internet-based digital encyclopedias, such as Encarta, took away market share. Today, after a close brush with bankruptcy, Encyclopedia Britannica survives as a Web-based business, but it attracts far less traffic than Wikipedia, the dominant online encyclopedia.

// PROSPECT THEORY

Prospect theory, which was developed by psychologists Daniel Kahnemen and Amos Tversky, is a widely cited model that gives an example of how the cognitive biases arising from simple heuristics can influence managerial decision making.⁴² Prospect theory has been used to explain the observation that people seem to make decisions that are inconsistent with the rational model. Prospect theory suggests that individuals assign different subjective values to losses and gains of equal magnitude that result from a decision (see Figure 5.7). According to this theory, when evaluating the potential gains and losses associated with a course of action, people start by establishing a reference point or anchor. The reference point is usually the current situation. Thus if a firm is currently making a return on invested capital of 10 percent, this might be the reference point for a decision that affects this measure of profitability. However, as just noted when we discussed the framing bias, the reference point can be influenced by how a problem or decision is framed. Prospect theory predicts that decision makers will subjectively overweight the value of potential losses and underweight the value of potential gains relative to their objective, or monetary, value. Put differently, decision makers are *loss averse*—they avoid actions that have a potential negative outcome.

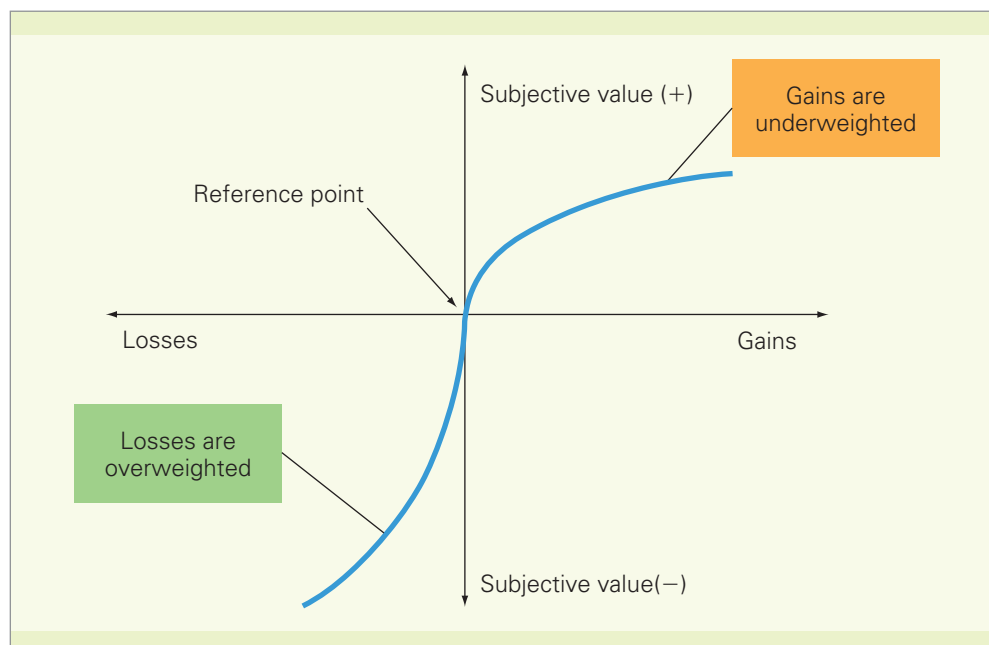
An interesting implication of prospect theory is that if decision makers have incurred significant losses in the past, they become distressed (they assign a subjectively high negative value to those losses); this shifts their reference point, and they tend to make riskier decisions than would otherwise have been the case. In other words, loss averse decision makers try to recoup losses by taking bigger risks—paradoxically they become risk seekers. This explains a

framing bias

Bias arising from how a problem or decision is framed.

FIGURE 5.7

Prospect Theory



well-documented tendency for gamblers who are losing to place progressively riskier bets. Similarly, investors in the stock market who have lost significant money have been observed trying to recoup their losses by investing in more speculative stocks.⁴³ For a managerial example, look no further than Enron, the now-bankrupt energy trading company, where the response to mounting losses was increasing pursuit of the risky strategy of trying to hide those losses by shifting them into off-balance sheet entities and engaging in illegal trades to inflate profits.⁴⁴ Had the reference point for Enron been more positive, it seems unlikely that the managers would have taken these risks. Note that prospect theory also explains the phenomenon of escalating commitment we discussed earlier.⁴⁵

// GROUPTHINK

Because most decisions are made by groups, the group context within which decisions are made is an important variable in determining whether cognitive biases will adversely affect the strategic decision-making processes. Psychologist Irvin Janis asserts that many groups are characterized by a process known as *groupthink* and as a result make poor strategic decisions.⁴⁶ **Groupthink** occurs when a group of decision makers embarks on a course of action without questioning underlying assumptions. Typically a group coalesces around a person or policy. It ignores or filters out information that can be used to question the policy, develops after-the-fact rationalizations for its decisions, and pushes out of the group members who question the policy. Commitment to mission or goals becomes based on an emotional rather than an objective assessment of the “correct” course of action. The consequence can be poor decisions.

It has been said that groupthink may help to explain why organizations often make poor decisions in spite of sophisticated planning processes. Janis traces many historical fiascos to defective policy making by government leaders who received social support from their in-group of advisers. For example, he suggests that President John F. Kennedy’s inner circle suffered from groupthink when the members of this group supported the decision to launch the Bay of Pigs invasion of Cuba in 1961, even though available information showed that it would be an unsuccessful venture (which it was). Similarly, Janis argues that the decision to escalate the commitment of military forces to Vietnam by the Johnson administration and increase the bombing of North Vietnam, despite the availability of data showing that this probably would not help win the war, was the result of groupthink. Indeed, when a member of the in-group of decision makers, Defense Secretary Robert McNamara, started to express doubts about this

groupthink

Arises when a group of decision makers embarks on a course of action without questioning underlying assumptions.

policy, he was reportedly asked to leave by the president and resigned. However, despite the emotional appeals of such anecdotes, academic researchers have not found strong evidence in support of groupthink.⁴⁷

// IMPROVING DECISION MAKING

The existence of bounded rationality, cognitive biases, and groupthink raises the issue of how to bring critical information into the decision mechanism so that the decisions of managers are more realistic, objective, and based on thorough evaluation of the available data. Scenario planning can be a useful technique for counteracting cognitive biases: The approach forces managers to think through the implications of different assumptions about the future. As such, it can be an antidote to hubris and the prior hypothesis bias. Two other techniques known to counteract groupthink and cognitive biases are devil's advocacy and dialectic inquiry.⁴⁸ **Devil's advocacy** requires the generation of both a plan and a critical analysis of the plan. One member of the decision-making group acts as the devil's advocate. The purpose of the devil's advocate is to question assumptions underlying a decision and to highlight all the reasons that might make the proposal unacceptable. In this way decision makers can be made aware of the possible perils of recommended courses of action. **Dialectic inquiry** is more complex: It requires the generation of a plan (a thesis) and a counterplan (an antithesis) that reflect *plausible but conflicting* courses of action.⁴⁹ Managers listen to a debate between advocates of the plan and counterplan and then decide which plan will lead to higher performance. The purpose of the debate is to reveal problems with definitions, recommended courses of action, and assumptions of both plans. As a result of this exercise, managers can form a new and more encompassing conceptualization of the problem, which becomes the final plan (a synthesis). Dialectic inquiry can promote thinking strategically.

Another technique for countering cognitive biases championed by Daniel Kahneman (of prospect theory fame) is known as the outside view.⁵⁰ The **outside view** requires planners to identify a reference class of analogous past strategic initiatives, determine whether those initiatives succeeded or failed, and evaluate the project at hand against those prior initiatives. According to Kahneman, this technique is particularly useful for countering biases such as the illusion of control (hubris), reasoning by analogy, and representativeness. Thus, for example, when considering a potential acquisition planners should look at the track record of acquisitions made by other enterprises (the reference class), determine if they succeeded or failed, and objectively evaluate the potential acquisition against that reference class. Kahneman asserts that such a "reality check" against a large sample of prior events tends to constrain the inherent optimism of planners and produce more realistic assessments and plans.

Finally, decision makers are more likely to run into problems of bounded rationality, and resort to simple decision-making heuristics, when they have too much information to process.⁵¹ A solution to this problem is to reduce the amount of information that managers have to process, giving them more time to focus on critical issues, by delegating routine decision-making responsibilities to subordinates. We return to this issue in Chapter 8 when we discuss internal organization structure.

devil's advocacy

The generation of both a plan and a critical analysis of the plan by a devil's advocate.

dialectic inquiry

The generation of a plan (a thesis) and a counterplan (an antithesis) that reflect plausible but conflicting courses of action.

outside view

Identifying a reference class of analogous past strategic initiatives, determining whether those initiatives succeeded or failed, and evaluating a project at hand against those prior initiatives.

IN CONCLUSION WHY DOES IT MATTER?

Why should students studying management care about planning and decision making? Planning is one of the central activities of managers, who devote a lot of time and energy to formulating and then implementing plans; it is crucial that managers plan well because the evidence suggests that whereas good planning can improve the performance of an organization, bad planning may be as damaging as no planning at all. Without planning, the organization can lack purpose, and there may be no agreement about its strategy. Without planning, different parts of the organization may pull in different directions, there may be a lack of synchronicity between actions, and different units may pursue inconsistent

strategies. Without planning, resources may be allocated in a haphazard fashion, with no link between strategy and budgets. Finally, there may be a lack of control in the enterprise: By allowing managers to compare performance against goals, planning becomes a crucial link in the process of controlling the organization.

At the same time it is wise to keep the limitations of planning in mind. Planning does not guarantee perfect strategy formulation. Good ideas can emerge in the absence of planning: Much of what organizations do is not planned but rather is a response to unanticipated circumstances. However, if such responses are something other than a quick tactical move, they may subsequently be incorporated into the plans of the enterprise. Thus although Microsoft did not plan for the emergence of a World Wide Web based on HTML, when it did emerge Microsoft quickly made plans based on that new reality. So although planning does not have a monopoly on the generation of good ideas, and plans can be made obsolete by unforeseen events, coordinated action is still needed to exploit good ideas and respond to unforeseen events.

In addition, much of a manager's work involves making decisions. Planning is nothing more than a formal process for making decisions. As we have seen, decision makers suffer from bounded rationality and tend to fall back on simple heuristics when making complex decisions. In turn, these heuristics can give rise to cognitive biases. Even the best-designed decision-making systems will fail to produce the desired results if managers let cognitive biases skew their decisions. Thus managers should use techniques that have been shown to minimize the likelihood that cognitive biases and groupthink will contaminate the decision-making process. These techniques include scenario planning, devil's advocacy, dialectic inquiry, and taking an outside view.

MANAGEMENT CHALLENGES

1. "In high-technology industries, where things are moving quickly, it is impossible to plan, so don't bother!" Is this statement reasonable?
2. What decision-making biases help explain why many acquisitions fail to create value for the acquiring company? What should managers do to guard against these biases?
3. What role can a lower-level manager play in his or her company's strategic planning process? What might occur if lower-level managers have no input into the strategic planning process of the organization?
4. How are planning systems also a control device?
5. Microsoft describes its mission as follows: "At Microsoft, we work to help people and businesses throughout the world realize their full potential. This is our mission. Everything we do reflects this mission and the values that make it possible." Is this a customer-oriented mission statement? How might this mission influence product development decisions within Microsoft?

THE MANAGEMENT PORTFOLIO

FOR THE ORGANIZATION YOU HAVE CHOSEN TO FOLLOW:

1. Find out as much as you can about the mission, vision, values, and major goals of the organization.
2. Evaluate the firm's mission, vision, values, and goals. What are the positive aspects of these statements? Is there anything you would criticize?

3. Do you think the firm is living up to its mission, vision, values, and goals? What evidence do you have to support your conclusion?
4. Can you find any evidence that managers at the organization might have made any significant strategic errors over the last decade? If they have, what role did poor planning, a lack of planning, or decision-making traps play in these errors?

CLOSING CASE

BOOM AND BUST IN TELECOMMUNICATIONS

In 1997 Michael O'Dell, the chief scientist at WorldCom, which owned the largest network of "Internet backbone" fiber optic cable in the world, stated that data traffic over the Internet was doubling every hundred days. This implied a growth rate of over 1,000 percent a year. O'Dell went on to say that there was not enough fiber optic capacity to go around, and that "demand will far outstrip supply for the foreseeable future."

Electrified by this potential opportunity, a number of companies rushed into the business. These firms included Level 3 Communications, 360 Networks, Global Crossing, Qwest Communications, WorldCom, Williams Communications Group, Genuity Inc., and XO Communications. In all cases the strategic plans were remarkably similar: Raise lots of capital, build massive fiber optic networks that straddled the nation (or even the globe), cut prices, and get ready for the rush of business. Managers at these companies believed that surging demand would soon catch up with capacity, resulting in a profit bonanza for those that had the foresight to build out their networks. It was a gold rush, and the first into the field would stake the best claims.

However, there were dissenting voices. As early as October 1998 an Internet researcher at AT&T Labs named Andrew Odlyzko published a paper that debunked the assumption that demand for Internet traffic was growing at 1,000 percent a year. Odlyzko's careful analysis concluded that growth was much slower—only 100 percent a year! Although still large, that growth rate was not nearly large enough to fill the massive flood of fiber optic capacity that was entering the market. Moreover, Odlyzko noted that new technologies were increasing the amount of data that could be sent down existing fibers,

reducing the need for new fiber. But with investment money flooding into the market, few paid any attention to him. WorldCom was still using the 1,000 percent figure as late as September 2000.

As it turned out, Odlyzko was right. Capacity rapidly outstripped demand, and by late 2002 less than 3 percent of the fiber that had been laid in the ground was actually being used! While prices slumped, the surge in volume that managers had bet on did not materialize. Unable to service the debt they had taken on to build out their networks, company after company tumbled into bankruptcy—including WorldCom, 360 Networks, XO Communications, and Global Crossing. Level 3 and Qwest survived, but their stock prices had fallen by 90 percent, and both companies were saddled with massive debts.⁵²

CASE DISCUSSION QUESTIONS

1. Why did the strategic plans adopted by companies like Level 3, Global Crossing, and 360 Networks fail?
2. The managers who ran these companies were smart, successful individuals, as were many of the investors who put money into these businesses. How could so many smart people have been so wrong?
3. What specific decision-making biases do you think were at work in this industry during the late 1990s and early 2000s?
4. What could the managers running these companies have done differently that might have led to a different outcome?

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