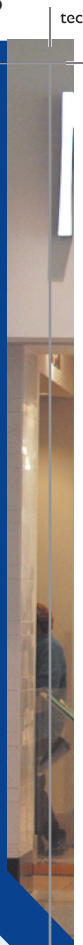
9 CONTROL SYSTEMS



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In 2001 Nordstrom, the venerable high-end department store, was facing some challenges. Despite industry-leading sales per square foot, profits had fallen short of the company's goals for three years in a row and were down some 35 percent from 1999. The problem: Poor inventory controls meant that Nordstrom either had too much merchandise that was in low demand or too little of the merchandise consumers wanted. The failure to have popular items in stock meant Nordstrom was losing high-margin sales. To correct this problem, Nordstrom revamped its inventory control systems. The company invested heavily in information technology to track its inventory on a real-time basis. It also built electronic links with suppliers to show what was selling at Nordstrom and what the reorder pattern would be. The goal was to stock only what consumers demanded by having inventories delivered to stores as needed. To measure the success of this program, Nordstrom focused on two metrics—inventory turnover and the average inventory per square foot of selling space. In 2001 the company was turning over its inventory 3.73 times a year, and on average throughout the year had $60 of inventory for every square foot of selling space in a store. By 2004, as a result of better inventory controls, inventory was turning over 4.51 times a year, and the company held $52.46 of inventory for every square foot of selling space. Due to improved operating efficiency, net profits surged from $125 million in 2001 to $406 million in 2004.[1]

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A critical task of managers is to control the activities of their organization. As we noted in Chapter 8, controls are an integral part of an enterprise's organization architecture. Controls are necessary to make sure an organization is operating efficiently and in a manner consistent with its intended strategy. Without adequate controls, control loss occurs and the organization's performance will suffer. This was clearly the case at Nordstrom in the early 2000s. A lack of adequate systems to track inventory meant that Nordstrom lost control over what was stocked in its stores. This translated into higher costs and lower profits. To rectify this problem and regain control, Nordstrom had to put an inventory control system in place. In this chapter we look in detail at control systems. We begin by reviewing basic control systems and the various ways in which managers control their organizations.

// Control Systems

control
The process through which managers regulate the activities of individuals and units.

standard
A performance requirement that the organization is meant to attain on an ongoing basis.

Within organizations, **control** can be viewed as the process through which managers regulate the activities of individuals and units so they are consistent with the goals and standards of the organization.[2] As we noted earlier in the book, a goal is a desired future state that an organization attempts to realize (see Chapter 5). A **standard** is a performance requirement the organization is meant to attain on an ongoing basis. As we will see, there are several different ways in which managers can regulate the activities of individuals and units so they remain consistent with organization goals and standards. Before considering these, however, we need to review the workings of a typical control system. As illustrated in Figure 9.1, this system has five main elements: establishing goals and standards, measuring performance, comparing performance against goals and standards, taking corrective action, and providing reinforcement.[3]

// ESTABLISHING GOALS AND STANDARDS

subgoal
An objective that, if achieved, helps an organization attain or exceed its major goals.

Most organizations operate with a hierarchy of goals. In the case of a business enterprise, the major goals at the top of the hierarchy are normally expressed in terms of profitability and profit growth (see Chapter 6). These goals are typically translated into subgoals that can be applied to individuals and units within the organization. A **subgoal** is an objective that helps the organization attain or exceed its major goals. As with major goals, subgoals should be precise and measurable, address important issues, be challenging but realistic, and specify a time period.

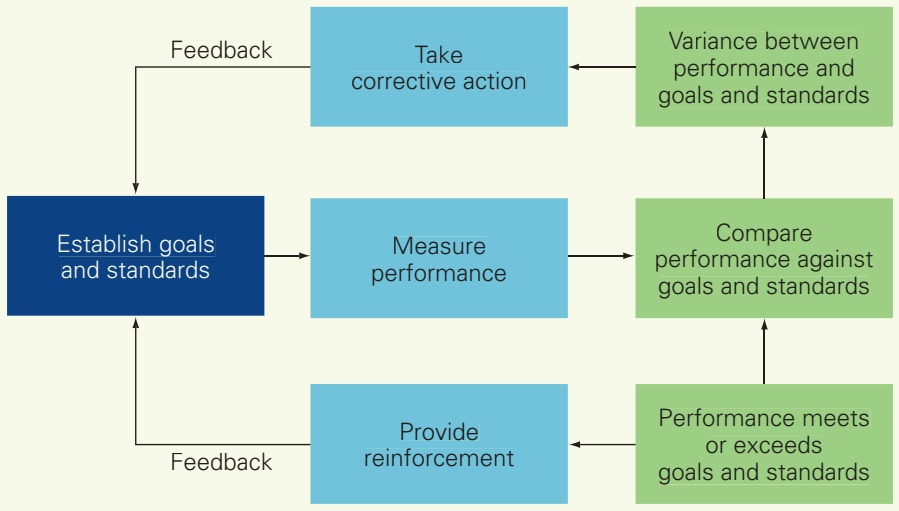

FIGURE 9.1
A Typical Control System

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To illustrate what we mean by a goal hierarchy, suppose Nordstrom decides to achieve a 15 percent return on invested capital (ROIC) in the coming year. This is the company's major profitability goal. One way of doing this is to reduce the amount of capital needed to generate a dollar's worth of sales—perhaps by reducing—the amount of capital tied up in inventory. How does the company do that? By turning over inventory more rapidly! Thus Nordstrom might operate with a subgoal of turning over inventory five times in the next year. If it reaches that subgoal, which is precise, measurable, and challenging and must be achieved within a prespecified period, the company's profitability, measured by ROIC, will increase.

Dell Computer is a good example of a company that adopts a hierarchical approach to goal setting and performance measurement. According to Michael Dell, in an effort to boost performance in the mid-1990s Dell introduced a companywide approach to educate everyone about the importance of boosting profitability as measured by return on invested capital. "We explained specifically how everyone could contribute (to higher ROIC) by reducing cycle times, eliminating scrap and waste, selling more, forecasting accurately, scaling operations effectively, increasing inventory turns, collecting accounts receivable efficiently, and doing things right the first time."[4] Dell went further: It made goals relating to these items the core of the company's control and incentive compensation systems.

Standards are similar to goals in that they too are objectives; but standards tend to be things the organization is expected to achieve as a part of its routine operations rather than a challenging goal it is striving to attain. For example, an organization might operate with a standard that vendors should be paid within 30 days of submitting an invoice, customer inquiries should be answered within 24 hours, all employees should have a formal performance review and be given written feedback once a year, safety checks should be performed on production equipment every six months, or employees should fly coach on business trips.

A key element in the control process is generating the right goals, subgoals, and standards. Managers need to choose goals and standards carefully in case they generate the wrong kind of behavior. There is an old saying: "You get what you measure." If you choose the wrong goals and standards, you will get the wrong behavior. A few years ago a placement agency decided to evaluate and reward its staff based on how many job seekers they sent to job interviews. This productivity measure seemed to produce the desired results—over the next few months more job seekers got interviews. However, after a while the numbers started to drop off alarmingly. When managers looked into the issue, they found that several prospective employers would no longer interview people referred to them by the placement agency. In an effort to hit their numbers, staff members had been sending people to interview for jobs for which they were not qualified. This had damaged the reputation of the placement agency among prospective employers and reduced business for the agency—the opposite of what managers had been trying to achieve. Managers subsequently changed the measure to reflect the number of job seekers who were actually hired.

A similar example occurred in the customer service call center of a large organization. In an attempt to raise the productivity of call center staff, managers instituted a standard that customer complaints should be resolved within 5 minutes. What happened (predictably perhaps) was that call center staff would cut off customers 4 minutes and 58 seconds into a call, whether the customer problem had been resolved or not! This behavior damaged the company's reputation for service quality.[5]

Another important consideration when choosing goals is to make sure the right goals are assigned to the right individuals and units. A classic mistake is to assign a goal to people who lack the responsibilities and resources required

Hammer It In! American automobile companies discovered that because assembly-line workers were not given goals relating to quality, they did not pay attention to quality when building a car. It took the rise of high-quality Japanese manufacturers to persuade American companies to give quality goals to workers on an assembly line.

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to attain it while not assigning the goal to those who do. In traditional automobile assembly operations, for example, quality goals were assigned to the quality assurance department, which checked finished automobiles for defects when they came off an assembly line. This might seem logical, but it didn't work well. The defects were normally built into cars upstream in the manufacturing process, and the quality assurance department could not improve the manufacturing process. Moreover, the people who made the mistakes (the assembly-line employees) were not given quality goals—rather they were assessed on volume output goals, such as the number of employee hours it took to build a car. Because they were not measured on quality, they had no incentive to pay attention to quality issues, and defect rates remained high. This problem was fixed only when automobile companies started to make assembly-line workers responsible for product quality.[6]

// MEASURING PERFORMANCE

Once goals, subgoals, and standards have been established, performance must be measured against the criteria specified. This is not as easy as it sounds. Information systems have to be put in place to collect the required data; and the data must be compiled into usable form and transmitted to the appropriate people in the organization. Reports summarizing actual performance might be tabulated daily, weekly, monthly, quarterly, or annually. Wal-Mart, for example, produces weekly reports summarizing the performance of every store across a range of key measures such as profits and inventory turnover. Moreover, some performance metrics, such as store sales, are reported daily. Achieving such comprehensive and timely reporting requires significant investments in information technology. Thus for Nordstrom to measure inventory turnover, bar codes have to be placed on all merchandise, which is scanned when it enters a store and scanned again when it is sold. The data are loaded onto a central computer that tracks inventory at all Nordstrom stores, and inventory data are communicated to managers and suppliers. To implement such a system, Nordstrom had to invest in computer technology and scanners.

With the massive advances in computing power that have occurred over the last three decades, managers have seemingly infinite quantitative information at their disposal. As advantageous as this is, there is danger in relying too much on quantitative data. Performance measurement has a soft element; the data might not tell the full story. It is in the interests of managers to leave their desks, visit the field, and try to see behind the numbers. For example, for years Wal-Mart's data showed that individual stores were hitting profit goals. In the early 2000s, however, a blizzard of lawsuits alleged that some store employees had been pressured to work overtime for no extra pay. Apparently some store managers were hitting their performance goals by resorting to behaviors that were not sanctioned by the company and in fact explicitly violated both the law and the values of the organization. Such behavior could not be detected simply by reviewing quantitative data.[7]

// COMPARING PERFORMANCE AGAINST GOALS AND STANDARDS

The next step in the control process is to compare actual performance against goals and standards. If performance is in line with goals or standards, that is good. However, managers need to make sure the reported performance is being achieved in a manner consistent with the values of the organization. If reported performance falls short of goals and standards, managers need to find the reason for the variance. This typically requires collecting more information, much of which might be qualitative data gleaned from face-to-face meetings and detailed probing. The same is true if reported performance exceeds goals or standards. Managers must find the reasons for such favorable variance, and doing so requires collecting more information.

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For example, a hobby game company noted that sales of a new game were falling significantly behind sales goals in the United States while exceeding goals in Europe.[8] To examine these variances, managers met with distributors and retailers to see what was occurring. The U.S. distributor was in financial difficulty and had cut back on its sales force without informing the company: It was not promoting the game to retailers. In contrast, in Europe the major distributor had adopted an aggressive posture, setting up retail displays where potential customers could play the game before purchasing it. This strategy proved successful. Apparently the game was so unusual that customers were initially put off; but once they played it, many former skeptics became enthusiastic customers. Thus by collecting additional qualitative data, managers found the reason for the variances from goals.

// TAKING CORRECTIVE ACTION

Variances from goals and standards require that managers take corrective action. When actual performance easily exceeds a goal, corrective action might include raising the goal. When actual performance falls short of a goal, depending on what further investigation reveals, managers might change strategy, operations, or personnel. After Nordstrom failed to hit its profit goals for three years running, the board of directors fired the CEO and replaced him with a member of the founding family, Blake Nordstrom, who at the time was only 39 years old. Blake Nordstrom led the charge to improve the operating efficiency of the company. His first action was to visit the stores and talk to employees to discover what was going wrong. His actions included putting another family member, James Nordstrom, in charge of revamping Nordstrom's inventory management system (which he successfully executed).

Radical change is not always the appropriate response when an organization fails to reach a major goal. Investigation might reveal that the original goal was too aggressive, or that changes in market conditions outside the control of management accounted for the poor performance. In such cases the response to a shortfall might be to adjust the goal downward.

In the case of the hobby game company just discussed, after discovering the reason for the variance managers terminated the relationship with the U.S. distributor and hired a small sales force to visit retailers. In addition, the company adopted the strategy that had proved so successful in Europe—setting up displays in retail stores so potential customers could play the game. In Europe, managers raised the sales goals.

Fourth-Generation Family Hero Blake Nordstrom took over as president of Nordstrom after the company failed to hit its performance goals for several years. A fourth-generation member of the founding family, he decided to revamp the company's inventory management system.

// PROVIDING REINFORCEMENT

If the goals and standards are met or exceeded, managers need to provide timely positive reinforcement to those responsible—congratulations for a job well done, awards, pay increases, bonuses, or enhanced career prospects. Providing positive reinforcement is just as important an aspect of a control system as taking corrective action. Behavioral scientists have long known that positive reinforcement increases the probability that those being acknowledged will continue to pursue

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such behavior in the future.[9] Without positive reinforcement, people become discouraged, feel underappreciated, may not be willing to work as hard, and might look for other employment opportunities where they are better appreciated.

// Methods of Control

Now that we have a clear idea of how a control system works, we can look at the different ways in which managers can regulate the activities of individuals and units so that they are consistent with organization goals and standards. Here we review six main ways of achieving control: personal controls, bureaucratic controls, output controls, cultural controls, control through incentives, and market controls.[10]

// PERSONAL CONTROLS

personal control
Making sure through personal inspection and direct supervision that individuals and units behave in a way that is consistent with the goals of an organization.

As the name suggests, **personal control** is control by personal contact with and direct supervision of subordinates. Personal control consists of making sure through personal inspection and direct supervision that individuals and units behave in a way that is consistent with the goals of the organization. Personal control can be very subjective, with the manager assessing how well subordinates are performing by observing and interpreting their behavior. As a philosophy for control within an organization, personal control tends to be found primarily in small firms where the activities of a few people might be regulated through direct oversight. By its nature personal control tends to be associated with the centralization of power and authority in a key manager, who is often the owner of the small business. Personal control may work best when this key manager is a charismatic individual who can command the personal allegiance of subordinates.

Personal control has serious limitations. For one thing, excessive supervision can be demotivating. Employees may resent being closely supervised and may perform better with a greater degree of personal freedom. Moreover, the subjective nature of personal control can create a lack of objectivity and procedural justice in the performance review process. Subordinates may feel that favoritism, personal likes and dislikes, and individual idiosyncrasies are as important in performance reviews as actual performance. Personal control is also costly in that managers must devote considerable time and attention to direct supervision of subordinates, which takes their attention away from other important issues. The real problem with personal control, however, is that it starts to break down as an organization grows in size and complexity. As this occurs, the key manager has no choice but to decentralize decision making to others within the hierarchy if the enterprise is to continue growing. Doing so effectively requires the adoption of different control philosophies.

Caption to Come

However, even in large organizations some limited personal control is still used, although typically as an adjunct to other control methods. For example, while relying on objective metrics to monitor performance, the CEO may also use personal control to shape the behavior of his or her immediate subordinates. In turn, these managers may use personal control in addition to other control methods to influence the behavior of their subordinates, and so on down through the organization. Jack Welch, the longtime CEO of General Electric, had regular one-on-one meetings with the heads of all of GE's major businesses.[11] He used these meetings to probe the managers about the strategy, structure, and financial performance of their operations and to communicate to his subordinates the importance of certain key values. In doing so he exercised some personal control over these managers and undoubtedly over the strategies they favored. At the same

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time, managers like Welch also give their subordinates considerable autonomy, reviewing their performance by looking at objective measures such as the performance of the units under their control.

// BUREAUCRATIC CONTROLS

The great German sociologist Max Weber was the first to describe the nature of bureaucratic controls.[12] Writing in the early 20th century, Weber described how bureaucratic organizations emerged as a rational and efficient response to the problems of organizing large-scale economic and social activity. According to Weber, bureaucracies are goal-oriented organizations characterized by hierarchical management systems and extensive division of labor into specialized tasks. Weber saw control within a bureaucracy as being achieved by impersonal written rules and standardized procedures. Advancement within such organizations, according to Weber, was based on the ability of an individual to perform well against predetermined standards.

Following Weber, **bureaucratic control** is typically defined as control through a formal system of written rules and procedures.[13] Bureaucratic control methods rely primarily on prescribing what individuals and units can and cannot do—that is, on establishing bureaucratic standards. At the University of Washington, for example, a bureaucratic standard specifies that faculty members can perform no more than one day a week of outside work. Other standards articulate the steps to be taken when hiring and promoting faculty, purchasing computer equipment for faculty, and so on.

bureaucratic control
Control through a formal system of written rules and procedures.

Almost all large organizations use some bureaucratic controls. Familiar examples are budgetary controls and controls over capital spending. Budgets are essentially a set of rules for allocating an organization's financial resources. A subunit's budget specifies with some precision how much the unit may spend and how that spending should be allocated across different areas. Senior managers in an organization use budgets to control the behavior of subunits. For example, an R&D budget might specify how much an R&D unit can spend on product development in the coming year. R&D managers know that if they spend too much on one project, they will have less to spend on others; so they modify their behavior to stay within the budget. Most budgets are set by negotiation between headquarters and subunit managers. Headquarters managers can encourage the growth of certain subunits and restrict the growth of others by manipulating their budgets.

Similarly, capital spending rules might require senior managers to approve any capital expenditure by a subunit that exceeds a certain amount. (A budget lets headquarters specify the total amount a subunit can spend in a given year, whereas capital spending rules give headquarters additional control over how that money is spent.) Headquarters can be expected to deny approval for capital spending requests that are at variance with the overall goals of the enterprise and to approve those that are congruent with enterprise objectives.

As you should realize by now, although the term *bureaucratic* often has negative connotations, in fact bureaucratic control methods can be useful in organizations. They allow managers to decentralize decision making within the constraints specified by formal rules and procedures. However, too great a reliance on bureaucratic rules can lead to problems. Excessively formal rules and procedures can be stifling, limiting the ability of individuals and units to respond in a flexible way to specific circumstances. This can sour performance and sap the motivation of those who value individual freedom and initiative. As such, extensive bureaucratic control methods are not well suited to organizations facing dynamic, rapidly changing environments or to organizations that employ skilled individuals who value autonomy. The costs of monitoring the performance of individuals and units to make sure they comply with bureaucratic rules can also be significant and may outweigh the benefits of establishing extensive rules and standards.

Bureaucratic standards can also lead to unintended consequences if people try to find ways around rules that they think are unreasonable. An interesting and controversial case is forced school busing in the United States. In the 1970s school districts around America started to bus children to schools outside their immediate neighborhoods to achieve a better racial mix. This well-intentioned bureaucratic rule was designed to speed racial integration in a society

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Social Engineering Forced school busing was a well-intentioned effort to speed up racial integration in the United States. Unfortunately, like many bureaucratic rules, it had unintended consequences—in this case "white flight" to the suburbs.

characterized by significant racial discrimination. Unfortunately the rule had unintended consequences. Parents of all races objected to their children being bused to distant schools. In many large cities where forced busing was practiced, white families with children responded by fleeing to suburbs where there were few minorities and busing was not practiced, or by sending their children to expensive private schools within the city. As a result, rather than advancing racial integration, busing had the opposite effect. For example, in Seattle the percentage of white students in city schools dropped from 60 percent to 41 percent over the 20 years of forced busing.[14] In the 1990s most school districts ended forced busing.

// OUTPUT CONTROLS

Output controls can be used when managers can identify tasks that are complete in themselves in the sense of having a measurable output or criterion of overall achievement that is visible.[15] For example, the overall achievement of an automobile factory might be measured by the number of employee hours required to build a car (a measure of productivity) and the number of defects found per 100 cars produced by the factory (a measure of quality). Similarly, Nordstrom measures the overall achievement of the unit responsible for inventory management by the number of inventory turns per year, and FedEx measures the performance of each of its local stations in its express delivery network by the percentage of packages delivered before 10:30 a.m. In a multibusiness company such as GE or 3M, senior management might measure the output of a product division in terms of that division's profitability and profit growth.

output controls
Setting goals for units or individuals to achieve and monitoring performance against those goals.

When complete tasks can be identified, **output controls** are goals set for units or individuals to achieve; performance is monitored against those goals. Unit managers' performance is then judged by their ability to achieve the goals.[16] If goals are met or exceeded, unit managers will be rewarded (an act of reinforcement). If goals are not met, senior managers will normally intervene to find out why and take appropriate corrective action. Thus, as in a classic control system, control is achieved by comparing actual performance against targets, providing reinforcement, and intervening selectively to take corrective action.

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The goals assigned to units depend on their role in the firm. Self-contained product divisions are typically given goals for profitability and profit growth. Functions are more likely to be given goals related to their particular activity. Thus R&D will be given product development goals, production will be given productivity and quality goals, marketing will be given market share goals, and so on.

As with budgets, output goals are normally established through negotiation between units and senior managers at headquarters. Generally headquarters tries to set goals that are challenging but realistic so unit managers are forced to look for ways to improve their operations—but not so pressured that they will resort to dysfunctional behavior. Output controls foster a system of "management by exception" in that so long as units meet their goals, unit managers are granted considerable autonomy. If a unit fails to attain its goals, however, headquarters managers are likely to ask questions. If they don't get satisfactory answers, they are likely to intervene in a unit, perhaps by replacing managers and looking for ways to improve efficiency.

The great virtue of output controls is that they facilitate decentralization and give individual managers within units much greater autonomy than either personal controls or bureaucratic controls. This autonomy lets managers within a unit configure their work environment to match the particular contingencies they face, rather than having a work environment imposed from above. Thus output controls are useful when units have to respond rapidly to changes in the markets they serve. Output controls also involve less extensive monitoring than either bureaucratic or personal controls. Senior managers can achieve control by comparing actual performance against targets and intervening selectively. As such, output controls reduce the workload on senior executives and allow them to manage a larger and more diverse organization with relative ease. Thus many large multiproduct and multinational enterprises rely heavily on output controls in their various product divisions and foreign subsidiaries.

Like personal and bureaucratic controls, output controls have limitations. First, as noted earlier when we discussed control systems, senior managers need to look behind the numbers to make sure unit managers are achieving goals in a way that is consistent with the values of the organization. Second, as also noted earlier, managers need to choose the right output criteria to measure lest they encourage dysfunctional behavior.

Third, output controls do not always work well if there are extensive interdependencies between units.[17] The performance of a unit may be ambiguous if it is based on cooperation with other units. To illustrate this problem, consider the case of a diversified enterprise—PDN Inc.—that has three product divisions making three different products: paper towels, disposable diapers, and napkins (see Figure 9.2a). Initially the head office places each product into a self-contained product division, each with its own functions, and assigns each division a profitability target. At this point the output controls work well. However, all three divisions sell to the same customers, supermarkets. Imagine that these customers don't want to deal with three different sales forces from the same company, so they pressure PDN Inc. to consolidate its sales force. PDN responds by creating a fourth division that is responsible for marketing and selling the three products to supermarkets (Figure 9.2b). The three product divisions are still assigned profitability goals, whereas the marketing and sales division is evaluated on the basis of sales growth.

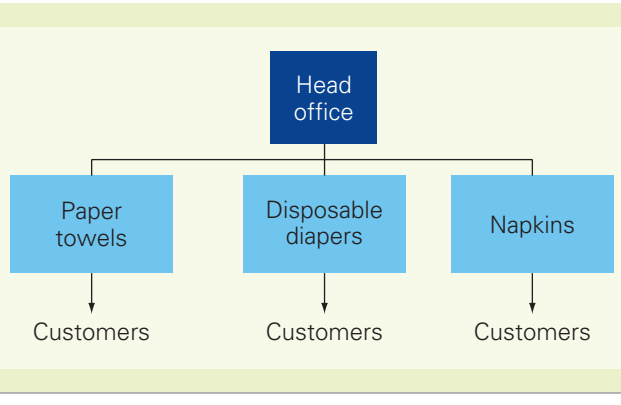

FIGURE 9.2A
PDI Inc. before Reorganization

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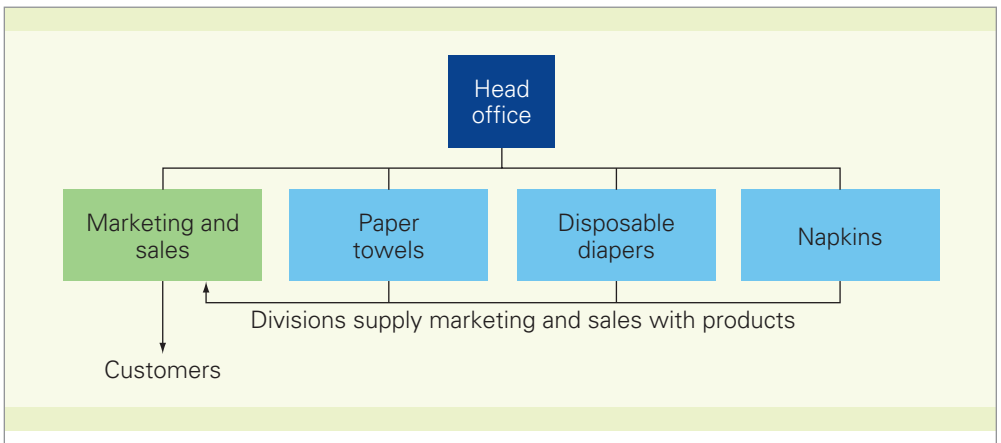
FIGURE 9.2B
PDI Inc. after Reorganization



All this seems reasonable; but now consider what occurs if the disposable diaper business fails to reach its profitability target for the year, and the marketing division misses its sales target for diapers. Top management asks the head of the diaper division to explain why this has occurred. He replies, "It's not my fault; my division executed well, but the guys in the marketing division screwed up. I gave them a great product, and they didn't sell it well." Next the top managers ask the head of the marketing division what the problem was. She says, "My people did everything expected of them and more, but we were dealt a poor hand. The diaper division produced a poor-quality product that cost too much, and try as we might we could not sell enough to hit our sales goal."

The interdependence between the diaper division and the marketing division has created performance ambiguity. **Performance ambiguity** occurs when it is difficult to identify the cause of poor (or strong) performance—that is, when the link between cause and effect is ambiguous. Performance ambiguity means senior managers cannot effectively control the division simply by relying on obvious output controls. They have to discover the true causes of poor or strong performance. In this case, because the statements from the two divisional executives contradict each other, top managers have no choice but to audit the operations of both divisions, collecting more information, to determine the true cause of the poor performance. This of course can be done, but doing so increases the costs of controlling the organization. Thus, in general, interdependence between units within an organization can create performance ambiguities that make output controls more difficult to interpret. Resolving these ambiguities requires managers to collect more information, which places more demands on top management and raises the monitoring costs associated with output controls. It also increases the possibility that managers will become overloaded with information, run into the constraints implied by bounded rationality, and fall back on simple heuristics when making decisions, which can lead to cognitive biases (see Chapter 5).

performance ambiguity
A situation that occurs when the link between cause and effect is ambiguous.

// CULTURAL CONTROL

As noted already, organizational culture consists of the values and assumptions that are shared among employees of an organization. **Cultural control** involves regulating behavior by socializing employees so that they internalize the values and assumptions of the organization and act in a manner that is consistent with them. When this occurs, employees tend engage in **self-control**—they regulate their own behavior so that it is congruent with organizational goals. In enterprises with a strong culture where the values and assumptions of the organization are accepted by most employees and self-control is widely practiced, the need for other control systems, and particularly extensive personal and bureaucratic controls, is correspondingly reduced. By encouraging self-control, cultural controls reduce the monitoring costs associated with managing an organization.

In the last chapter we noted that the steelmaker Nucor Corporation has a strong organizational culture. We could say Nucor uses cultural controls to regulate behavior within the organization.

cultural control
Regulating behavior by socializing employees so that they internalize the values and assumptions of an organization and act in a manner that is consistent with them.

self-control
Occurs when employees regulate their own behavior so that it is congruent with organizational goals.

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Nucor is not alone. Microsoft, for example, has a very strong culture that was set by the company's founder, Bill Gates. Gates always placed a high value on technical brilliance, competitiveness, and a willingness to work long hours, something that he himself did (as did Steve Ballmer, the current CEO). Gates and Ballmer hired people who shared these characteristics and then led by example. As a result, today Microsoft remains a company where technical brilliance and competitiveness are highly valued and where people work long hours—not because any bureaucratic rules tell them to do so, and not because supervisors explicitly require them to do so, but because new employees are socialized into these norms by their coworkers, who themselves were thus socialized in the past. At Microsoft cultural control has reduced the need for bureaucratic and personal controls. The company can trust people to work hard and to behave in a very competitive manner because this is such a pervasive aspect of the culture.

Grrrrrr...Let Me at Them!
Microsoft CEO Steve Ballmer embodies the hard-driving, competitive culture of the company. Because employees are so well socialized into this culture, the company does not have to use other controls to encourage competitive behavior.

Although cultural control can mitigate the need for other controls, thereby reducing monitoring costs, it is not universally beneficial. Cultural control can have dysfunctional aspects too. The hard-driving, competitive aspect of Microsoft's culture was arguably a contributing factor in the antitrust violations of which the company was accused in the 1990s (the U.S. Justice Department, which brought the antitrust case against Microsoft in the United States, used as evidence internal e-mail messages at Microsoft in which one senior manager stated that Microsoft would "cut off a competitor's air supply"). Moreover, Microsoft's culture of working long hours clearly has a downside: Many good employees have burned out and left the company. The company is aware of this; and as its workforce has aged and started families, it has tried to become more accommodating, stressing that output is more important than hours worked. However, culture is difficult to change, and therein lies the problem: If cultural controls need to be changed, it may not be easy to do so.

// CONTROL THROUGH INCENTIVES

Incentives are devices used to encourage and reward appropriate employee behavior. Many employees receive incentives in the form of annual bonus pay. Incentives are usually closely tied to the performance metrics used for output controls. For example, targets linked to profitability might be set to measure the performance of a subunit, such as a product division. To create positive incentives for employees to work hard to exceed those targets, they may be given a share of any profits above those targeted. If a subunit has set a goal of a 15 percent return on invested capital and it actually achieves a 20 percent return, unit employees may be given a share in the profits generated in excess of the 15 percent target in the form of bonus pay.

incentives
Devices used to encourage and reward appropriate employee behavior.

The idea is that giving employees incentives to work productively cuts the need for other control mechanisms. Control through incentives is designed to facilitate *self-control*—employees regulate their own behavior in a manner consistent with organizational goals to maximize their chance of earning incentive-based pay. Although paying out bonuses and the like costs the organization money, well-designed incentives typically pay for themselves. That is, the increase in performance due to incentives more than offsets the incentives' costs.

The type of incentive used may vary depending on the employees and their tasks. Incentives for employees working on the factory floor will probably differ from the ones for senior managers. The incentives used must match the type of work performed. The employees on the factory floor of a manufacturing plant may be broken into teams of 20 to 30

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individuals, and they may have their bonus pay tied to the ability of their team to reach or exceed targets for output and product quality. In contrast, the senior managers of the plant may be rewarded according to metrics linked to the output of the entire operation. The basic principle is to make sure the incentive scheme for an individual employee is linked to an output target over which he or she has some control. Individual employees on the factory floor may not be able to influence the performance of the entire operation, but they can influence the performance of their team, so incentive pay is tied to output at this level.

When incentives are tied to team performance they have the added benefit of encouraging cooperation between team members and fostering a degree of peer control. **Peer control** occurs when employees pressure others within their team or work group to perform up to or in excess of the expectations of the organization.[18] Thus if the incentive pay of a 20-person team is linked to team output, team members can be expected to pressure those in the team who are perceived as slacking off, urging them to pick up the pace and make an equal contribution to team effort. Strong peer control reduces the need for direct supervision of a team and can facilitate attempts to move toward a flatter management hierarchy.

peer control
Occurs when employees pressure others within their team or work group to perform up to or in excess of the expectations of the organization.

In sum, incentives can reinforce output controls, induce employees to practice self-control, increase peer control, and lower the need for other control mechanisms. Like all other control methods discussed here, control through incentives have limitations. Because incentives are typically linked to the metrics used in output controls, the points made about output controls also apply here. Specifically, managers need to make sure incentives are not tied to output metrics that result in unintended consequences or dysfunctional behavior. Moreover, incentive systems have been abused in some firms, with senior managers being awarded incentive contracts that set the performance bar so low that they earn significant bonus pay, irrespective of whether there is a substantial improvement in the performance of the organization. In 2004, for example, the CEO of Blockbuster Inc. earned $56.8 million in pay and bonuses (an increase of 541 percent over 2003) in a year when the operating income of Blockbuster fell 50 percent and its share price declined by 47 percent! In part this was achieved because the board of directors replaced 4.3 million of his stock options—which were worthless because the exercise price for them was significantly above the current stock price—with an outright grant of 1.6 million shares of stock as a "retention measure." Incentives like these seem to reward senior managers for mediocre performance or worse, and as such they are not worthy of being called incentives. As an aside, it is worth noting that due to massive boosts in incentive pay, in 2004 the average CEO of an American public company earned 400 times what the average hourly worker took home, up from 42 times since 1980. Looking at these figures, many commentators have argued that senior managers have benefited from an abuse of incentive pay and are reaping huge gains at the expense of other employees and shareholders.[19]

// MARKET CONTROLS

market controls
Regulating the behavior of individuals and units within an enterprise by setting up an internal market for some valuable resource such as capital.

Market controls involve regulating the behavior of individuals and units within an enterprise by setting up an *internal market* for some valuable resource such as capital.[20] Market controls are usually found within diversified enterprises organized into product divisions, where the head office might act as an internal investment bank, allocating capital funds between the competing claims of the different product divisions based on an assessment of their likely future performance. Within this internal market, all cash generated by the divisions is viewed as belonging to the head office. The divisions then have to compete for access to the capital resources controlled

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by the head office. Because they need that capital to grow their divisions, the assumption is that this internal competition will drive divisional managers to look for ways to improve the efficiency of their units. One of the first companies in the world to establish an internal capital market was the Japanese electronics manufacturer Matsushita (best known for its Panasonic brand name), which introduced such systems in the 1930s.[21]

In addition, in some enterprises divisions compete for the right to develop and sell new products. Again, Matsushita has a long history of letting different divisions develop similar new products, then assigning overall responsibility for producing and selling the product to the division that seems to be furthest along in the commercialization process. Although some people might view such duplication of product development effort as wasteful, Matsushita's legendary founder, Konosuke Matsushita, believed that the creation of an internal market for the right to commercialize technology drove divisional managers to maximize the efficiency of product development efforts within their unit. Similarly, within Samsung, the Korean electronics company, senior managers often set up two teams within different units to develop new products such as memory chips. The purpose of the internal competition between the teams is to accelerate the product development process, with the winning team earning significant accolades and bonuses.[22]

Industrial Samurai Konosuke Matsushita, the legendary founder of Japan's Matsushita, which is best known for its Panasonic brand name, believed that fostering internal competition between divisions for the right to develop new products and for access to capital created incentives for divisional managers to run their units efficiently.

The main problem with market controls is that fostering internal competition between divisions for capital and the right to develop new products can make it difficult to establish cooperation between divisions for mutual gain.[23] If two different divisions are racing against each other to develop similar new products and are competing against each other for limited capital resources, they may be unwilling to share technological know-how with each other, perhaps to the detriment of the entire corporation. Companies like Samsung deal with this problem by using integrating mechanisms, such as the liaison role, and assigning the responsibility for leveraging technological know-how across divisions to key individuals.

// SUMMARY

To recap, Managers can use six different control methods to regulate the behavior of individuals and units within their organization: personal controls, bureaucratic controls, output controls, cultural controls, incentive controls, and market controls. In practice, few managers rely on just one control method. Most organizations mix methods to achieve control. Some personal controls might be used to manage relationships with direct reports; bureaucratic controls are frequently used to set standards for budgets and capital spending; output controls are used for relatively self-contained units that produce a measurable output; and incentives may also be tied to the metrics used for output controls. Both cultural and incentive controls can induce employees to regulate their own behavior in a manner that is consistent with the goals of the organization, and market controls might help allocate capital resources between competing divisions within diversified enterprises. Each control method has advantages and disadvantages. As we will see in the next section, the choice between different methods has to be made in light of prevailing circumstances.

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// Matching Controls to Strategy and Structure

Although organizations typically use most of the control methods discussed here, the precise mix of controls tends to vary with the size, strategy, and organization structure of the enterprise. As organizations grow they tend to rely less on personal controls and more on other methods. Beyond this generalization, we need to consider how controls vary with the strategy and structure of an enterprise. Here we look at different controls first in single-business enterprises and then in multibusiness enterprises.

// CONTROLS IN THE SINGLE BUSINESS

In the last chapter we noted that the organization structure of a single business depends on the strategy it is pursuing and the environment in which it is based. Specifically, firms in stable environments with little product innovation tend to operate with functional structures and use simple integrating mechanisms, such as direct contact and liaison roles, to achieve coordination between functions. In contrast, firms in dynamic and uncertain environments, such as those characterized by rapid technological change, tend to operate with functional structures and achieve tight coordination with more complex integrating mechanisms such as temporary or permanent cross-functional teams or matrix structures. How might the controls that managers use vary across such enterprises?

Functional Structure with Low Integration Consider first a firm with a functional structure and no integrating mechanisms between functions beyond direct contact and simple liaison roles. The environment facing the firm is stable, so the need for integration is minimal. Within such a firm, bureaucratic controls in the form of budgets are used to allocate financial resources to each function and to control spending. Output controls assess how well each function is performing. Different functions are assigned different output targets, depending on their specific tasks. The procurement function might be assigned an output target based on procurement costs as a percentage of sales; the manufacturing function might be given productivity and product quality targets such as output per employee and defects per thousand products; the logistics function might have an inventory turnover target; the marketing and sales function might be given sales growth and market share goals; and the success of the service function might be measured by the time it takes to resolve a customer problem. To the extent that each function hits these targets, the overall performance of the firm will improve and its profitability will increase.

Output controls might also be pushed further down within functions. Thus the manufacturing process might be subdivided into discrete tasks, each of which has a measurable output. Employee teams might be formed and empowered to take ownership of each discrete task. Each team will be assigned an output target. To the extent that functions can be divided into teams and output controls applied to those teams, this will facilitate decentralization within the organization, wider spans of control (because it is relatively easy to control a team by monitoring its outputs), and a flatter organization structure.

Within such a structure, the CEO will control the heads of the functions. They in turn will exercise control over units or teams within their functions. There may also be some degree of personal control within the structure, with the CEO using personal supervision to influence the behavior of functional heads, who in turn will do the same for their direct reports. Incentives will be tied to output targets. Thus the incentive pay of the head of manufacturing might be linked to the attainment of predetermined productivity and quality targets for the manufacturing function; the incentive pay of the head of logistics might be linked to increases in inventory turnover; and so on. Incentives might also be pushed further down within the organization, with members of teams within functions being rewarded on the basis of the ability of their teams to reach or exceed targets. A portion of the incentive pay for managers (and perhaps all employees) might also be tied to the overall performance of the enterprise to encourage cooperation and knowledge sharing within the organization.

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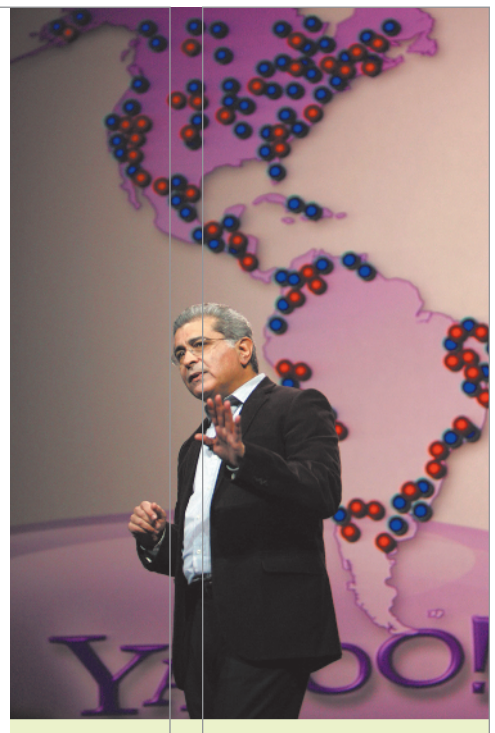
Finally, such an enterprise can have strong cultural controls, which may reduce the need for personal controls and bureaucratic rules. Individuals might be trusted to behave in the desired manner because they accept the prevailing culture. Thus cultural controls might allow the firm to operate with a flatter organization structure and wider spans of control and generally increase the effectiveness of output controls and incentives.



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Functional Structure with High Integration A functional structure with high integration presents managers with a more complex control problem. The problem is particularly severe if the firm adopts a matrix structure. As noted in the last chapter, such a structure might be adopted by a firm based in a dynamic environment where competition centers on product development. Within such an enterprise bureaucratic controls will again be used for financial budgets, and output controls will be applied both to the different functions and to cross-functional product development teams. Thus a team might be assigned output targets covering development time, production costs of the new product, and the features the product should incorporate. For functional managers, incentive controls might be linked to output targets for their functions, whereas for the members of a product development team, incentives will be tied to team performance.

The problem with such an arrangement is that the performance of the product development team depends on support from the various functions, including people and information from manufacturing, marketing, and R&D. Consequently, significant performance ambiguity might complicate the process of using output controls to assess the performance of a product development team. The failure of a product development team to achieve output targets might be due to the poor performance of team members, but it could just as well be due to the failure of functional personnel to support the team. Identifying the cause of performance variations requires senior managers to collect more information (much of it subjective), which increases the time and energy they must devote to the control process, diverts their attention from other issues, and increases the costs of monitoring and controlling the organization. Other things being equal, this reduces the span of control senior managers can handle, suggesting the need for a taller hierarchy—which as we saw in the last chapter creates additional problems.

Performance ambiguity raises the question of whether there is a better solution to the control problem. One step is to make sure the incentives of all key personnel are aligned. The classic way of doing this is to tie incentives to a higher level of organization performance. Thus, in addition to being rewarded for the performance of their functions, functional heads might also be rewarded for the overall performance of the firm. Insofar as the success of product development teams increases firm performance, this gives functional heads an incentive to make sure the product development teams receive adequate support. In addition, strong cultural controls can help establish companywide norms and values emphasizing the importance of cooperation between functions and teams for their mutual benefit.

// CONTROLS IN DIVERSIFIED FIRMS

In the last chapter we discussed how diversified enterprises are organized into a structure based on product divisions. In a classic multidivisional structure, each business is placed into its own division with its own functions as a self-contained entity. The role of the head office is to control divisions, determine the overall strategic direction of the enterprise, and

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allocate capital resources between the different divisions to maximize the economic performance of the enterprise.

In Chapter 6 we saw three ways in which diversified firms might try to improve the performance of their constituent units: leveraging core competencies across divisions, sharing resources across divisions to realize economies of scope, and superior internal governance.

Controls in the Diversified Firm with Low Integration In firms that focus primarily on boosting performance through superior internal governance, the need for integration between divisions is low. These firms are not trying to share resources or leverage core competencies across divisions, so there is no need for complex integrating mechanisms, such as cross-divisional teams, to coordinate the activities of different divisions. In these enterprises the head office typically controls the divisions in four main ways.[24]

First, bureaucratic controls regulate the financial budgets and capital spending of the divisions. Typically each division must have its financial budgets approved for the coming year by the head office. In addition, any capital expenditures in excess of a certain amount have to be approved by the head office. Thus, for example, any item of spending by a division in excess of $50,000 might have to be approved by the head office.

Second, the head office will use output controls, assigning each division output targets that are normally based on measurable financial criteria such as the profitability, profit growth, and cash flow of each division. Typically targets for the coming year are set by negotiation between divisional heads and senior managers at the head office. So long as the divisions hit their targets, they are left alone to run their operations. If performance falls short of targets, however, top managers will normally audit the affairs of a division to discover why this occurred, taking corrective action if necessary by changing strategy or personnel.

Third, incentive controls will be used, with the incentives for divisional managers tied to the financial performance of their divisions. Thus to earn pay bonuses, divisional managers will have to achieve or exceed the performance targets previously negotiated between the head office and the divisions. To make sure divisional managers do not try to "talk down" their performance targets for the year, making it easy for them to earn bonuses, the head office will normally benchmark a product division against its competitors, take a close look at industry conditions, and use this information to establish performance targets that are challenging but attainable.

Fourth, the head office will use market controls to allocate capital resources between different divisions.[25] As noted earlier, in multidivisional enterprises the cash generated by product divisions is normally viewed as belonging to the head office, which functions as an internal investment bank, reallocating cash flows between the competing claims of different divisions based on an assessment of likely future performance. The competition between divisions for access to capital creates further incentives for divisional managers to run their operations efficiently and effectively. In addition, as at Matsushita, the head office might use market controls to allocate rights to develop and commercialize new products between divisions.

Within divisions, the control systems used will be those found within single-business enterprises. Head office managers might also use personal controls to influence the behavior of divisional heads. In particular, the CEO might exercise control over divisional heads by meeting with them and probing for richer feedback about operations.

Controls in the Diversified Firm with High Integration The control problem is more complex in diversified firms that are trying not only to improve performance through superior internal governance but also to leverage core competencies across product divisions and realize economies of scope. 3M is an example of such an enterprise. 3M is a diversified enterprise with multiple product divisions. The company devotes a lot of effort to leveraging core technology across divisions (and as we saw in Chapter 8, one way in which the company

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does this is by establishing internal knowledge networks). In addition, the company tries to realize economies of scope, particularly in the areas of marketing, sales, and distribution with a marketing and sales group that sells the products of several 3M divisions. In this sense 3M has an organization structure that is similar in some respects to PDI Inc. (see Figure 9.2b). More generally, when a multidivisional enterprise tries to improve performance through economies of scope and via the leveraging of core competencies across divisions, the need for integration between divisions is high.

In such organizations top managers use the standard repertoire of control mechanisms discussed in the last section. However, they also have to address two control problems that are not found in multidivisional firms with no cooperation and integration between divisions. First, they have to find a control mechanism that induces divisions to cooperate with each other for mutual gain. Second, they need to handle the performance ambiguities that arise when divisions are tightly coupled, sharing resources and performance results.

The solution to both problems is in essence the same as that for single-business firms with high integration between functions. Specifically, the firm needs to adopt incentive controls for divisional managers that are linked to higher-level performance—in this case the performance of the entire enterprise. Improving the performance of the entire firm requires cooperation between divisions; such incentive controls should facilitate that cooperation. In addition, strong cultural controls can create values and norms that emphasize the importance of cooperation between divisions for mutual gain. At 3M, for example, there is a long-established cultural norm that while products belongs to the divisions, the technology underlying those products belongs to the entire company. Thus the surgical tape business might use adhesive technology developed by the office supplies business.

Despite such solutions to control problems, top managers in firms with tightly integrated divisions have to cope with greater performance ambiguities than top managers in less complex multidivisional organizations. Integration between various product divisions means that it is hard for top managers to judge the performance of each division merely by monitoring objective output criteria. To get a true picture of performance and achieve adequate controls, they probably have to spend more time auditing the operating divisions and talking to divisional managers to get a more qualitative picture of performance. Other things being equal, this might limit the span of control they can effectively handle—and thus the scope of the enterprise.[26]

// Choosing Control Metrics: The Balanced Scorecard

An important issue confronting managers, particularly with regard to output and incentive controls, is deciding what metrics to use for a firm's control systems. Historically many firms have relied on financial metrics, such as profitability, profit growth, and cash flow. Such metrics are important and should always be used in a business enterprise; but several commentators have argued that overreliance on a narrow set of financial metrics to control an organization can have negative consequences.[27] Most notably, in an attempt to improve current financial performance managers might pursue actions that boost short-term profitability at the expense of long-term competitiveness and profits. The problem with such an approach, for example, is that a lack of investment in equipment and products can significantly hurt the firm down the road.

One approach to this problem is to use what is known as **the balanced scorecard**. Robert Kaplan and David Norton, who developed the balanced scorecard, suggest that managers use a number of different financial and operational metrics to track performance and control an organization.[28] In addition to traditional financial measures, which they refer to as the *financial perspective,* they suggest that managers use metrics related to how customers see the organization (the *customer perspective*), what the organization must excel at (the *operational*

the balanced scorecard
A control approach that suggest managers use several different financial and operational metrics to track performance and control an organization.

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perspective), and the ability of the organization to learn and improve its offerings and processes over time (the *innovation perspective*).

The precise metric used to capture each of these perspectives will vary from business to business depending on the strategy of the enterprise, the nature of its production process, and the industry in which it is based. Obviously a retailer like Wal-Mart or Costco would use different operational measures from a software company like Microsoft or a manufacturing company such as General Motors. Examples of the kinds of metrics managers might use are given in Figure 9.3, which summarizes some of the measures for a balanced scorecard used by a high-tech medical equipment company that the author consulted for. This company wished to differentiate itself from competitors by being able to fill customer orders quickly (many of its competitors operated with long backlogs) and offering industry-leading after-sale service and support. Thus for the customer perspective, it chose to measure the time from order to delivery and the time taken to solve customer service problems. From the operational perspective the strategic objective was to be an efficient, high-quality manufacturer of medical equipment; thus managers selected a series of operational metrics including unit costs, inventory turnover, and defect rates in manufacturing to track operating efficiency. For the innovation perspective, the company was based in an industry where technology was advancing rapidly and timely new product development was crucial for long-term success. Managers tracked success along this dimension by the percentage of sales generated from

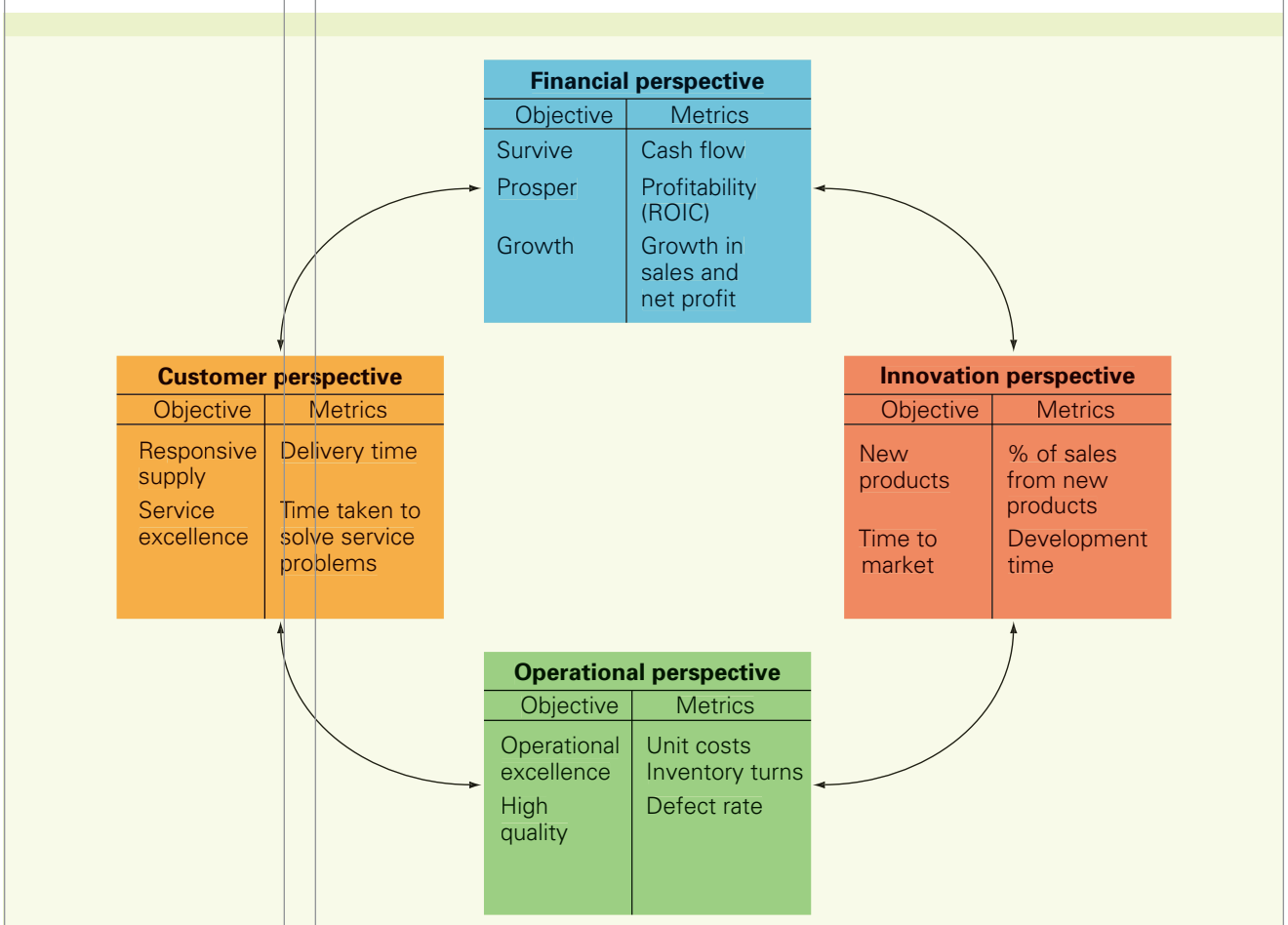

FIGURE 9.3 The Balanced Scorecard

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new products introduced in the last three years and by the time it took to develop a new product. With regard to the *financial perspective,* the company wished to survive, prosper, and grow, so it chose a fairly standard set of financial metrics, including cash flow measures, a profitability measure (return on invested capital or ROIC), and growth measures.

Kaplan and Norton's contention is that the balanced scorecard is akin to the dials and indicators in an airplane cockpit. It gives managers a fast but comprehensive view of the business that balances financial measures with operational, customer-centered, and innovation measures; and it gives a better view of the overall health of the business than relying on just financial measures. Implementing the balanced scorecard approach requires managers to identify which individuals and units within the organization should be responsible for achieving which metrics, linking output controls and incentives to those metrics. Thus manufacturing managers might be given the responsibility for achieving the unit cost, inventory turn, and defect rate goals detailed in Figure 9.3. They might also be given responsibility for goals related to delivery time because that is largely within the control of manufacturing. Customer service managers might be responsible for goals related to the time taken to solve customer service problems; reducing product development time might be a responsibility shared by marketing, manufacturing, and R&D managers because all three functions must work together closely to develop products quickly.

// Backchannel Control Methods

backchannel
An informal channel through which managers can collect important information.

The control methods discussed so far in this chapter all rely for their execution on formal reporting channels within an organization. In addition to these formal systems, managers often use backchannel methods to collect additional qualitative information that gives them another view of how the organization is performing, adds richness to the data collected through formal channels, and enables them to achieve greater control. A **backchannel** is an informal channel via which managers can collect important information. To establish a backchannel, managers have to develop a network of contacts within the organization that gives an honest picture of how the organization is performing.

At Starbucks, for example, the first thing CEO Jim Donald does every morning is call 5 to10 stores to talk to the managers and other employees there and get a sense of how their stores are performing. Donald also stops at a local Starbucks every morning on the way to work to buy his morning coffee. This has allowed him to get to know individual employees there well. Donald finds these informal contacts a useful source of information about how the company is performing.[29]

Managers often buy products from their own organization, interacting with it as customers, to see how well it is treating this crucial constituency. Some senior managers work alongside lower-level employees—partly to build a network of contacts and partly to understand how the organization is performing at that level. Herb Kelleher, the charismatic founder and former CEO of Southwest Airlines, would often help airline attendants on Southwest flights, distributing refreshments and talking to customers. One frequent flyer on Southwest Airlines reported sitting next to Kelleher three times in 10 years. Each time Kelleher asked him and others nearby how Southwest Airlines was doing in a number of areas, looking for trends and spotting inconsistencies.[30]

Would You Like Some Peanuts? Herb Kelleher, the founder of Southwest Airlines, used to delight in helping flight attendants give out refreshments on Southwest flights.

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IN CONCLUSION WHY DOES IT MATTER?

It is difficult to overemphasize the importance of the material covered in this chapter for managers. Control is a fundamental task of management. Without adequate control systems in place, an organization can drift from its goals and will not attain a satisfactory level of performance. Without adequate control systems in place, managers will not know how well the organization is actually operating, what is working and what is broken, or whether employees are complying with critical standards.

It is not enough, however, just to put any old control systems in place: Managers must put the *right* systems in place. As we have seen in this chapter, the wrong systems can have unintended consequences. They can produce dysfunctional behavior, stifle employee initiative with too much bureaucracy, and inhibit needed cooperation. Managers can choose a number of different metrics and control methods; the best choice depends on the strategy of the firm and its organization structure. Strategy, structure, and controls must be matched. A business operating in a stable environment may require very different control systems from a dynamic enterprise based in a rapidly changing environment. Deciding which methods are best, and what criteria to use to judge the performance of the organization, is one of the most challenging tasks of management—and one of the most critical.

MANAGEMENT CHALLENGES

1. "As the name suggests, bureaucratic control systems are demotivating and should be avoided at all costs." Do you agree with this statement?
2. Why might cooperation between two units in an organization to achieve a common goal lead to performance ambiguities? What can managers do to overcome these ambiguities?
3. What are the benefits of using market controls within an organization? What are the potential costs? When do you think it makes most sense to establish market controls?
4. Why might it pay managers to develop backchannel control methods? Can you see any drawbacks of such methods?
5. For a long time in Britain, the National Health Service paid dentists for each filling they installed. What might be the unintended consequences of this system? Can you think of a better system?

THE MANAGEMENT PORTFOLIO

FOR THE ORGANIZATION YOU HAVE CHOSEN TO FOLLOW:

1. Try to discover all you can about the main methods top managers use to control the organization.
2. Do these control methods make sense given the structure and strategy of the enterprise? How?
3. Would you suggest any change in control methods for the organization? If so, what?

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CLOSING CASE

LINCOLN ELECTRIC

Lincoln Electric is one of the leading companies in the global market for arc welding equipment. This is a cost-competitive businesses in which consumers are price sensitive. Lincoln's success has been based on extremely high levels of employee productivity. The company attributes its productivity to a strong organizational culture and an incentive scheme based on piecework. Lincoln's organizational culture dates back to James Lincoln, who in 1907 joined the company his brother had established a few years earlier. Lincoln had a strong respect for the ability of the individual and believed that, correctly motivated, ordinary people could achieve extraordinary performance. He emphasized that the company should be a meritocracy where people were rewarded for their individual effort. Strongly egalitarian, Lincoln removed barriers to communication between workers and managers, practicing an open-door policy. He made sure that all who worked for the company were treated equally; for example, everyone ate in the same cafeteria, there were no reserved parking places for managers, and so on. Lincoln also believed that any productivity gains should be shared with consumers in the form of lower prices, with employees in the form of higher pay, and with shareholders in the form of higher dividends.

The organizational culture that grew out of James Lincoln's beliefs was reinforced by the company's incentive system. Production workers receive no base salary but are paid according to the number of pieces they produce. The piecework rates at the company enable an employee working at a normal pace to earn an income equivalent to the average wage for manufacturing workers in the area where a factory is based. Workers are responsible for the quality of their output and must repair any defects spotted by quality inspectors before the pieces are included in the piecework calculation. Since 1934 production workers have been awarded semiannual bonuses based on merit ratings. These ratings are based on objective criteria (such as an employee's level and quality of output) and subjective criteria (such as an employee's attitudes toward cooperation and his or her dependability). These systems give Lincoln's employees an incentive to work hard and to generate innovations that boost productivity—doing so influences their level of pay. Lincoln's factory workers have been able to earn a base pay that often exceeds the average manufacturing wage in the area by more than 50 percent, and they also receive bonuses that in good years can double their base pay. Despite high employee compensation, the workers are so productive that Lincoln has a lower cost structure than its competitors.[31]

Productivity Beaters! The pay of employees at Lincoln Electric is tied closely to productivity targets. So successful have these incentive systems been that the company has the highest productivity in its industry, along with the lowest cost structure.

CASE DISCUSSION QUESTIONS

1. What kind of control systems does Lincoln Electric rely on to generate high employee productivity?
2. Can you think of any possible unintended consequences of an incentive pay system based on piecework? How does Lincoln guard against these unintended consequences?
3. Do Lincoln's control systems match the strategy of the enterprise? How?

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