

CHAPTER

12

IMPLEMENTING STRATEGY THROUGH ORGANIZATION



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OPENING CASE

Organization at Microsoft

As is often the case with many start-ups, in its early days Microsoft's organization developed organically. Initially, when the company's main product was its MS-DOS operating system (the forerunner to Windows), the company had a functional organization. The two main functions were engineering, which was responsible for developing software products, and marketing and sales, which sold those products to computer manufacturers, business users, and consumers. The engineering function was initially headed by founder and CEO Bill Gates, while Steve Ballmer (who would ultimately succeed Gates as CEO), ran the marketing and sales function. Support functions included finance, human relations, and legal.

As the company grew and developed new products such as Office, Windows server software, development tools, X-Box, and Internet search, Microsoft developed into a de facto matrix organization. Each major product category was put into its own business division, while the engineering and sales functions cut across these divisions. The rationale for the matrix structure was that it encouraged close coordination between the different businesses. This was seen as a key imperative at Microsoft, where various software products needed to work well with each other. For example, on the engineering side, Office needed to be optimized to run well on Windows; X-Box used a customized version of the Windows operating system, so development had to be synchronized; and the Windows operating system for desktop and laptop computers had to communicate seamlessly with the Windows server software that ran on servers. On the sales and marketing side, coordination was important to ensure that business users had one main point of contact with Microsoft, which was far preferable to having multiple salespeople from different divisions contact the company.

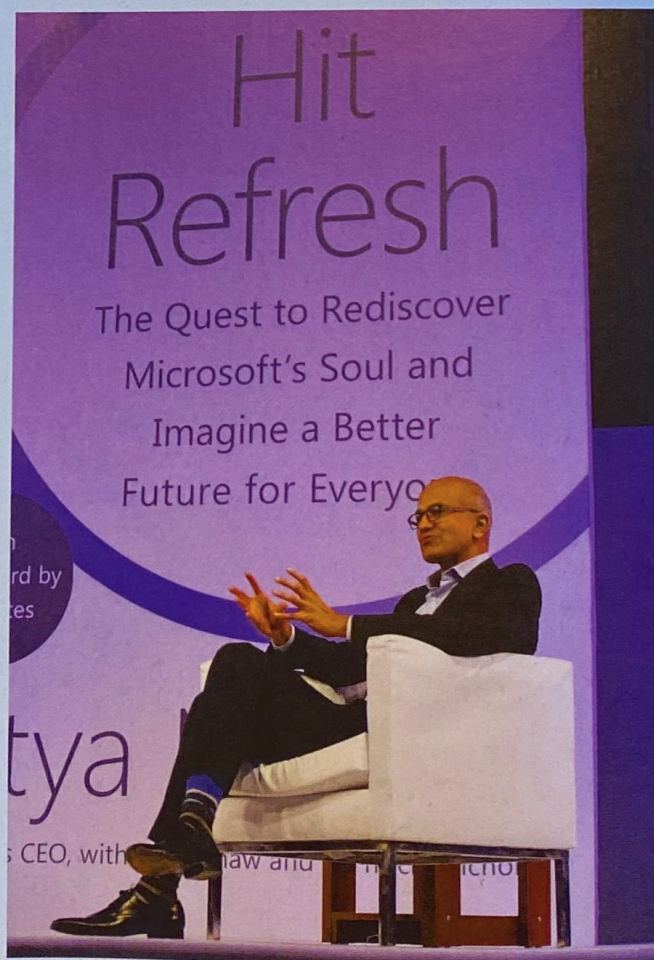
While the matrix organization achieved its main objectives of facilitating coordination between divisions and presenting a main point of contact for businesses, it did create some problems for the organization. In particular, there was a chronic lack of accountability within Microsoft.

LEARNING OBJECTIVES

- 12.1 Explain the concept of organizational architecture
- 12.2 Articulate how strategy is implemented through the right combination of organizational structure, controls, incentives, process, culture, and people
- 12.3 Discuss how effective organizational design enables a company to implement its business-level strategy
- 12.4 Discuss how effective organization design enables a company to implement its corporate-level strategy

When things went wrong, it could be unclear whether this was due to management problems within the business divisions, or due to a lack of execution by the engineering function, or by sales and marketing. It was also the case that engineering was viewed as the premier cultural function within the organization. Most importantly, engineering took the lead in developing new products. This didn't always serve the company well, because its engineers, isolated from customers, were not as focused on the market as they should have been. Over time, the company also became increasingly bureaucratic and slow to respond to innovation by rivals such as Apple and Google.

When Satya Nadella became CEO of Microsoft in January 2014, one of his priorities was to increase accountability within the organization and make Microsoft more agile. By mid-2017, he had reorganized into three main business segments—Productivity and Business Processes (which included Office 365, Dynamics, and LinkedIn), Intelligent Cloud (public, private, and hybrid server products and cloud services), and More Personal Computing (Windows, Xbox, Surface, and search advertising). The heads of each segment report directly to Nadella, and they have primary profit-and-loss responsibility for their segments. The different product offerings within each segment are also profit centers, and the heads of those product divisions report to the head of each segment. Sales continues to operate as a separate function, but engineering and marketing responsibilities are now



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embedded in each segment, and the product groups within each segment. In other words, Microsoft has moved significantly away from its de facto matrix structure. The articulated goal of these changes is to align structure with strategy, drive accountability, and eliminate obstacles to innovation. Judged by Microsoft's financial results and the rapid growth of its cloud offerings since Nadella took over, so far this seems to be working.

Sources: Discussions with Microsoft personnel by the author.

12-1 OVERVIEW

Earlier in this book, we noted that strategy is implemented through the organizational arrangements of a firm and through actions taken at the functional level. We discussed the functional actions required to implement different *business-level strategies* in Chapters 4 and 5. In this chapter, we look at how organizational arrangements are used to implement the business-, corporate-, and global-level strategies of an enterprise.

The Opening Case illustrates some of the issues that we shall be discussing in this chapter. Like most new enterprises, Microsoft started out with a functional organization. Over time, as it developed additional products, it grouped those products into business divisions. At the same time, its two core functions—engineering and marketing and sales—remained strong, resulting in a de facto matrix organization. This organization structure did help Microsoft ensure that all of its product offerings worked well with each other, which was a key competitive requirement, but it also resulted in problems of accountability and control, and a lack of agility. After Satya Nadella became CEO in January 2015, he instituted a number of changes to better align the structure of the organization with its strategy of growing its cloud computing business, increasing accountability, and removing barriers to product innovation. Microsoft is not the first company to wrestle with the problem of how best to organize the enterprise to implement its strategy. This is a major issue in all organizations, and accordingly it is the focus of the current chapter.

12-2 ORGANIZATIONAL ARCHITECTURE

In this chapter, we use the term **organizational architecture** to refer to the totality of a firm's organizational arrangements, including its formal organizational structure, control systems, incentive systems, organizational culture, organizational processes, and people (or human capital).¹ Figure 12.1 illustrates these different elements.

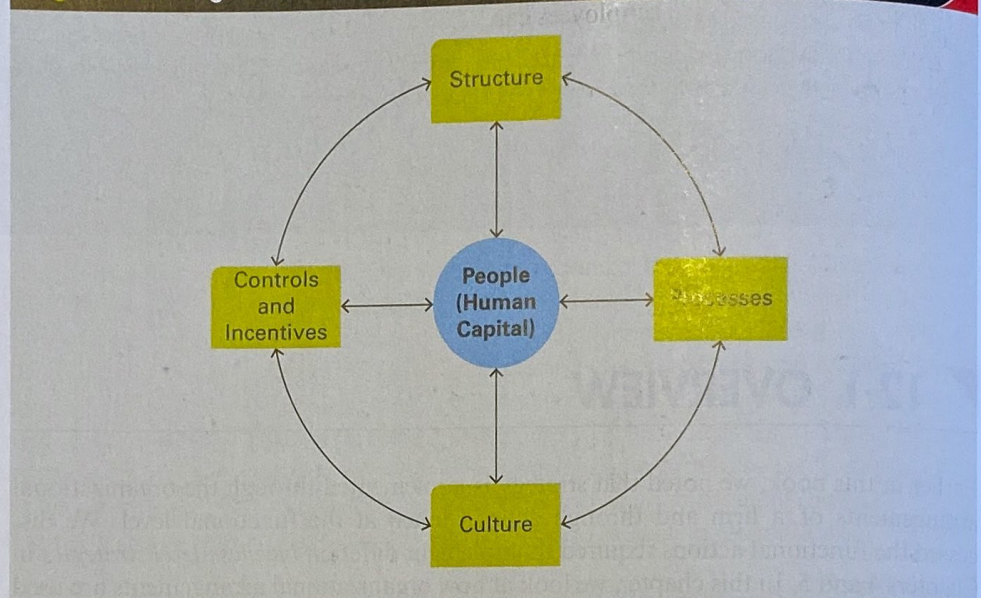
By **organizational structure**, we mean three things: First, the location of decision-making responsibilities in the firm (e.g., centralized or decentralized); second, the formal division of the organization into subunits such as functions, product divisions, and national operations; and third, the establishment of integrating mechanisms to coordinate the activities of subunits.

organizational architecture

The totality of a firm's organizational arrangements, including its formal organizational structure, control systems, incentive systems, organizational culture, organizational processes, and human capital.

organizational structure

The combination of the location of decision-making responsibilities, the formal division of the organization into subunits, and the establishment of integrating mechanisms to coordinate the activities of the subunits.

Figure 12.1 Organizational Architecture**controls**

The metrics used to measure the performance of subunits and make judgments about how well managers are running them.

incentives

The devices used to encourage desired employee behavior.

organizational processes

The manner in which decisions are made and work is performed within the organization.

organizational culture

The norms and value systems that are shared among the employees of an organization.

people

The employees of an organization, as well as the strategy used to recruit, compensate, motivate, and retain those individuals; also refers to employees' skills, values, and orientation.

Controls are the metrics used to measure the performance of subunits and make judgments about how well managers are running those subunits. **Incentives** are the devices used to encourage desired employee behavior. Incentives are very closely tied to performance metrics. For example, the incentives of a manager in charge of General Electric's lighting business might be linked to the performance of that division.

Organizational processes refer to the manner in which decisions are made and work is performed within the organization. Examples include the processes for formulating strategy, for deciding how to allocate resources within a firm, for developing new products, and for evaluating the performance of managers and giving feedback. Processes are conceptually distinct from the location of decision-making responsibilities within an organization, although both involve decisions. For example, while the CEO might have ultimate responsibility for deciding on the firm's strategy (that is, the decision-making responsibility is centralized), the *process* he or she uses to make that decision might include the solicitation of ideas and criticism from lower-level managers and employees.

Organizational culture refers to the norms and value systems that are shared among the employees of an organization. Just as societies have cultures, so do organizations. Organizations are societies of individuals who come together to perform collective tasks. They have their own distinctive patterns of culture and subculture.² As we shall see, organizational culture can have a profound impact on a firm's performance.

Finally, by **people** we mean not just the employees of the organization, but also the strategy used to recruit, compensate, motivate, and retain those individuals, as well as the type of people that they are in terms of their skills, values, and orientation. Collectively, the people within an organization, the employees, constitute the human capital of an enterprise. We have already discussed the role of human resources in recruiting, training, developing, and compensating employees in order to execute the strategy of the firm in Chapters 3 and 4. We will not repeat that discussion here. However, it

is important to note that the value of an organization's human capital is more than the sum of each individual employee's skills and capabilities. Much of the value is *contextual* in the sense that employees can achieve things within an organization that would not be possible if they were working as independent contractors. Put differently, the other elements of the architecture of an organization may create an environment within which it is possible for people to do extraordinary things.

For example, Johnny Ive, the head of product design at Apple, is clearly a remarkably skilled individual. However, Ive probably could not have had the impact that he has without the benefit of working within Apple, where the structure, control systems, incentives, decision-making processes, and culture all supported what he was trying to do in terms of developing elegantly designed digital devices that are as much a fashion statement as they are a computing tool. Much of Ive's human capital, in other words, is the result of the combination of his skills and Apple's organizational architecture.

As suggested by this example, and as illustrated by the arrows in Figure 12.1, the various components of organization architecture are not independent of each other: Each component shapes, and is shaped by, other components of architecture. Again, an obvious example is the strategy regarding people. Human resources can proactively hire individuals whose internal values are consistent with those that the firm emphasizes in its organizational culture. The people component of architecture can be used to reinforce the prevailing culture of the organization. A business enterprise endeavoring to attain a competitive advantage and maximize its performance must pay close attention to achieving internal consistency between the various components of its architecture, and the architecture must support the strategy and functional activities of the enterprise.

12-3 ORGANIZATIONAL STRUCTURE

Organizational structure can be thought of in terms of three dimensions. The first is **vertical differentiation**, which refers to the location of decision-making responsibilities within a structure (that is, centralization or decentralization), and also to the number of layers in a hierarchy (that is, whether the organizational structure is tall or flat). The second is **horizontal differentiation**, which refers to the formal division of the organization into subunits. The third is the establishment of **integrating mechanisms** for coordinating subunits. We will discuss each in turn.

12-3a Centralization and Decentralization

A firm's vertical differentiation determines where in its hierarchy decision-making power is concentrated.³ Are production and marketing decisions centralized in the offices of upper-level managers, or are they decentralized to lower-level managers? Where does the responsibility for R&D decisions lie? Are important strategic and financial decisions pushed down to operating units, or are they concentrated in the hands of top management? And so on. There are arguments for centralization, and other arguments for decentralization. **Centralization** is a condition where decision-making authority is concentrated at a high level in a management hierarchy. **Decentralization** is a condition where decision-making authority is vested in lower-level managers or other employees.

vertical differentiation

The location of decision-making responsibilities within a structure, referring to centralization or decentralization, and also the number of layers in a hierarchy, referring to whether the organizational structure is tall or flat.

horizontal differentiation

The formal division of the organization into subunits.

integrating mechanisms

Processes and procedures used for coordination subunits.

centralization

Structure in which decision-making authority is concentrated at a high level in the management hierarchy.

decentralization

Structure in which decision-making authority is distributed to lower-level managers or other employees.

Arguments for Centralization There are four main arguments for centralization. First, it can facilitate coordination. For example, consider a firm that has a component manufacturing operation in California and a final assembly operation in Seattle. The activities of these two operations need to be coordinated to ensure a smooth flow of products from the component operation to the assembly operation. This might be achieved by centralizing production scheduling at the firm's head office.

Second, centralization can help ensure that decisions are consistent with organizational objectives. When decisions are decentralized to lower-level managers, those managers may make decisions at variance with top management's goals. Centralization of important decisions minimizes the chance of this occurring. Major strategic decisions, for example, are often centralized in an effort to make sure that the entire organization is pulling in the same direction. In this sense, centralization is a way of controlling the organization.

Third, centralization can avoid the duplication of activities that occurs when similar activities are carried on by various subunits within the organization. For example, many firms centralize their R&D functions at one or two locations to ensure that R&D work is not duplicated. Similarly, production activities may be centralized at key locations to eliminate duplication, attain economies of scale, and lower costs. The same may also be true of purchasing decisions. Wal-Mart, for example, has centralized all purchasing decisions at its headquarters in Arkansas. By wielding its enormous bargaining power, purchasing managers at the head office can drive down the costs that Wal-Mart pays for the goods it sells in its stores. It then passes on those savings to consumers in the form of lower prices, which enables the company to grow its market share and profits.

Fourth, by concentrating power and authority in one individual or a management team, centralization can give top-level managers the means to bring about needed major organizational changes. Often times, firms seeking to transform their organizations centralize power and authority in a key individual (or group), who then sets the new strategic direction for the firm and redraw organizational architecture. Once the new strategy and architecture have been decided upon, however, greater decentralization of decision making normally follows. Put differently, the *temporary* centralization of decision-making power is often an important step in organizational change.

Arguments for Decentralization There are five main arguments for decentralization. First, top management can become overburdened when decision-making authority is centralized. Centralization increases the amount of information that senior managers have to process, and this can result in information overload and poor decision making.⁴ Decentralization gives top management time to focus on critical issues by delegating more routine issues to lower-level managers and reducing the amount of information top managers have to process.

Second, motivational research favors decentralization. Behavioral scientists have long argued that people are willing to give more to their jobs when they have a greater degree of individual freedom and control over their work. The idea behind employee empowerment is that if you give employees more responsibility for their jobs, they will work harder, increasing productivity and reducing costs.

Third, decentralization permits greater flexibility—more rapid response to environmental changes. In a centralized firm, the need to refer decisions up the hierarchy for approval can significantly impede the speed of decision making and inhibit the ability of the firm to adapt to rapid environmental changes.⁵ This can put the firm at

a competitive disadvantage. Managers deal with this by decentralizing decisions to lower levels within the organization. Thus, at Wal-Mart, while purchasing decisions are centralized so that the firm can realize economies of scale in purchasing, routine pricing and stocking decisions are decentralized to individual store managers who have some control over pricing and decide upon the products to stock depending on local conditions. This enables store managers to respond quickly to changes in their local environment, such as a drop in demand or actions by a local competitor.

Fourth, decentralization can result in better decisions. In a decentralized structure, decisions are made closer to the spot by individuals who (presumably) have better information than managers several levels up a hierarchy. It might make little sense for the CEO of Procter & Gamble to make marketing decisions for the detergents business in Germany because he is unlikely to have the relevant expertise and information. Instead, those decisions are decentralized to local marketing managers, who are far more likely to be in tune with the German market.

Fifth, decentralization can increase control and be used to establish relatively autonomous, self-contained subunits within an organization. An **autonomous subunit** is one that has all of the resources and decision-making power required to run the operation on a day-to-day basis. Managers of autonomous subunits can be held accountable for subunit performance. The more responsibility subunit managers have for decisions that impact subunit performance, the fewer excuses they have for poor performance and the more accountable they are. Thus, by giving store managers the ability to set prices and make stocking decisions, Wal-Mart's top managers are able to hold local store managers accountable for the performance of their stores, and this increases the ability of top managers to control the organization. Just as centralization is one way of maintaining control in an organization, decentralization is another.

autonomous subunit

A subunit that has all the resources and decision-making power required to run the operation on a day-to-day basis.

The Choice Between Decentralization and Centralization The choice between centralization and decentralization is not absolute. Frequently, it makes sense to centralize some decisions and decentralize others, depending on the type of decision and the firm's strategy. We have already noted how Wal-Mart centralized purchasing decisions and decentralized pricing and stocking decisions. Similarly, Microsoft has centralized major development activities for its Windows operating system at its Redmond corporate campus but has decentralized responsibility for marketing and sales to local managers in each country and region where it does business. Although the choice between centralization and decentralization depends upon the circumstances being considered, a few important generalizations can be made.

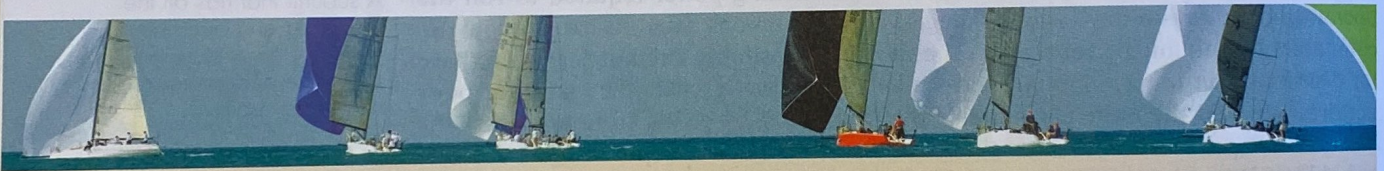
First, decisions regarding overall firm strategy, major financial expenditures, financial objectives, and legal issues are centralized at the senior-management level in most organizations. Functional decisions relating to production, marketing, R&D, and human resource management may or may not be centralized depending on the firm's strategy and environmental conditions.

Second, when the realization of economies of scale is an important factor, there tends to be greater centralization. Purchasing and manufacturing decisions are often centralized in an attempt to eliminate duplication and realize scale economies. In contrast, sales decisions tend to be more decentralized because economies of scale are less of a consideration here.

Third, when local adaptation is important, decentralization is typically favored. When there are substantial differences between conditions in local markets, marketing and sales decisions will often be decentralized to local marketing and sales managers.

Multinational, consumer products firms such as Unilever centralize decisions about manufacturing and purchasing in order to realize scale economies, but decentralize marketing and sales decisions to local brand managers in different countries precisely because competitive conditions differ from country to country and local adaptation is required.⁶

Finally, decentralization is favored in environments characterized by high uncertainty and rapid change. When competitive conditions in a firm's market are changing rapidly, with new technologies and competitors emerging in ways that are difficult to anticipate, centralization, because it slows down decision making, can put a firm at a competitive disadvantage. Due to this, many high-tech firms operate with a greater degree of decentralization than firms operating in more predictable environments.⁷ At Google, for example, lower-level employees are given the ability to develop new business ideas and the right to lobby top managers for the funds to develop those ideas (see the Opening Case). Such decentralization of strategy making might not be found in firms operating in a more stable environment such as the automobile industry. For a vivid example of the costs of making the wrong choice between centralization and decentralization, see Strategy in Action 12.1 on FEMA and Hurricane Katrina.



12.1 STRATEGY IN ACTION

FEMA and Hurricane Katrina

A vivid example of the costs of making the wrong choice between centralization and decentralization occurred in 2005, when the Federal Emergency Management Agency (FEMA) responded to the devastating impact that Hurricane Katrina had on New Orleans. The hurricane flooded much of the city and resulted in a mandatory evacuation. However FEMA, the Federal agency responsible for disaster relief, was widely criticized for being very slow to respond to the plight of the hundreds of thousands of mostly poor people who had been made homeless. For several days, while thousands of homeless people huddled in the New Orleans Superdome, lacking food and adequate sanitary facilities, FEMA was nowhere to be seen.

A postmortem revealed that one reason for FEMA's slow response was that the once-autonomous agency had been placed under the direct supervision of the

Department of Homeland Security after September 11, 2001. FEMA officials apparently felt that they had to discuss relief efforts with their superiors before proceeding. This cost the agency crucial time in the early hours of the disaster and significantly slowed its response, meaning that the relief effort was less effective than it might have been. In addition, FEMA was poorly managed. Its head, Mike Brown, a political appointee, had no experience in disaster relief. Moreover, the agency had been gutted by budget cuts.

In a report that was highly critical of FEMA, the U.S. Senate Committee charged with reviewing the response to Katrina cited a "failure of agility" and concluded that response plans at all levels of government lacked flexibility and adaptability, which often delayed response. In other words, decision making was too centralized, bureaucratic, and inflexible. Decentralization would have helped enormously in this case.

Sources: "A failure to innovate: Final report of the select bipartisan committee to investigate the preparation for and response to Hurricane Katrina" United States Government Printing Office, February 17, 2006; *The Economist*, "When Government Fails – Katrina's Aftermath," September 2005, p. 25.

12-3b Tall Versus Flat Hierarchies

A second aspect of vertical differentiation refers to the number of levels in an organization hierarchy. **Tall hierarchies** have many layers of management, while **flat hierarchies** have very few layers (see Figure 12.2). Most firms start out small, often with only one or at most two layers in the hierarchy. As they grow, management finds that there is a limit to the amount of information they can process and the control they can exert over day-to-day operations. To avoid being stretched too thin and losing control, they tend to add another layer to the management hierarchy, hiring more managers and delegating some decision-making authority to them. In other words, as an organization gets larger it tends to become taller. In addition, growing organizations often undertake more activities, expanding their product line, diversifying into adjacent activities, vertically integrating, or expanding into new regional or national markets. This too creates problems of coordination and control, and once again the organization's response often is to add another management layer. Adding levels in the hierarchy is a problem that mounts when managers have too much work to do. The number of layers added is also partly determined by the span of control that managers can effectively handle.

Span of Control The term **span of control** refers to the number of direct reports that a manager has. At one time, it was thought that the optimal span of control was six subordinates.⁸ The argument was that, if a manager was responsible for more than six subordinates, he or she would soon lose track of what was going on and control loss would occur. Now we recognize that the relationship is not this simple. The number of direct reports a manager can handle depends upon (1) the nature of the work being supervised, (2) the extent to which the performance of subordinates is visible, and (3) the extent of decentralization within the organization. Generally, if the work being performed by subordinates is routine, their performance is visible and easy to measure, and they are empowered to make many decisions and need not refer up the hierarchy

tall hierarchies

An organizational structure with many layers of management.

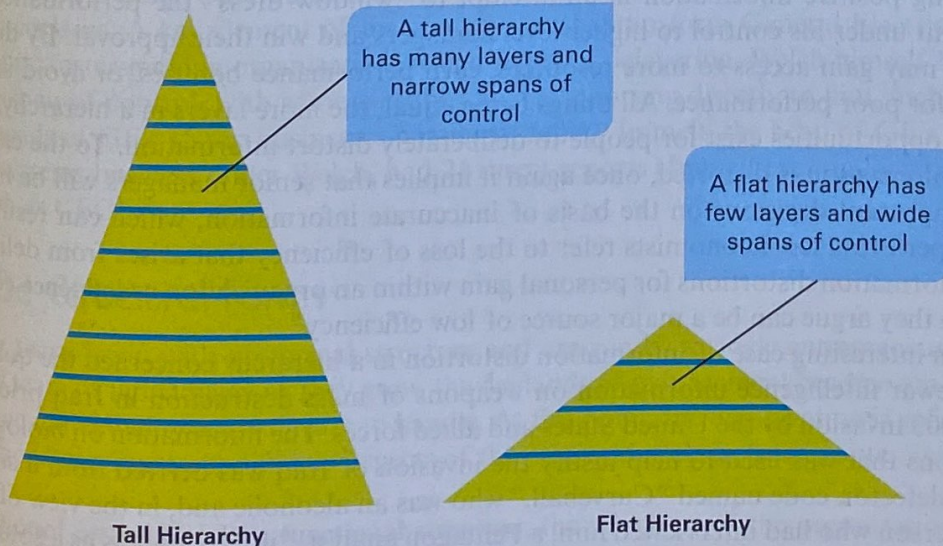
flat hierarchies

An organizational structure with very few layers of management.

span of control

The number of a manager's direct reports.

Figure 12.2 Tall Versus Flat Hierarchies



for approval or consultation, managers can operate with a wide span of control. How wide is the subject of debate, but it does seem as if managers can effectively handle as many as 20 direct reports if the circumstances are right.

In sum, as organizations grow and undertake more activities, the management hierarchy tends to become taller, but how tall depends upon the span of control that is feasible, and that in turn depends upon the nature of the work being performed, the visibility of subordinate performance, and the extent of decentralization within the organization. It is important to note that managers can influence the visibility of subunit performance and the extent of decentralization through organization design, thereby limiting the impact of organization size and diversity on the size of a management hierarchy. This is significant, because we know that while adding layers to an organization can reduce the workload of higher-level managers and attenuate control loss, tall hierarchies have their own problems.

Problems in Tall Hierarchies Several problems can occur in tall hierarchies that may result in lower organizational efficiency and effectiveness. First, there is a tendency for information to get *accidentally distorted* as it passes through layers in a hierarchy. The phenomenon is familiar to anyone who has played the game “telephone,” in which players sit in a circle and each whispers a message to the person sitting next to them, who then whispers the message to the next person, and so on around the room. Often, by the time the message has been transmitted through all the players, it has become distorted and its meaning has changed (this can have amusing consequences, which of course is the point of the game). Human beings are not adept at transmitting information; we tend to embellish or omit data. In a management context, if critical information has to pass through many layers in a tall hierarchy before it reaches critical decision makers, it may well get distorted in the process, resulting in a message that differs from the one originally sent. As a result, decisions may be made based on inaccurate information, and poor performance may result.

In addition to the accidental distortion of information as it travels through a management hierarchy, there is also the problem of *deliberate distortion* by midlevel managers trying to curry favor with their superiors or pursue a personal agenda. For example, the manager of a division might suppress negative information while exaggerating positive information in an attempt to “window dress” the performance of the unit under his control to higher-level managers and win their approval. By doing so he may gain access to more resources, earn performance bonuses, or avoid sanctions for poor performance. All things being equal, the more layers in a hierarchy, the more opportunities exist for people to deliberately distort information. To the extent that information is distorted, once again it implies that senior managers will be making important decisions on the basis of inaccurate information, which can result in poor performance. Economists refer to the loss of efficiency that arises from deliberate information distortions for personal gain within an organization as **influence costs**, which they argue can be a major source of low efficiency.⁹

An interesting case of information distortion in a hierarchy concerned the quality of prewar intelligence information on weapons of mass destruction in Iraq prior to the 2003 invasion by the United States and allied forces. The information on biological weapons that was used to help justify the invasion of Iraq was derived from a single Iraqi defector, code named “Curveball,” who was an alcoholic and, in the view of the one person who had interviewed him, a Pentagon analyst, “utterly useless as a source.” However, higher-level personnel in the intelligence community took the information

influence costs

The loss of efficiency that arises from deliberate information distortions for personal gain within an organization.

provided by Curveball, stripped out the reservations expressed by the Pentagon analyst, and passed it on as high-quality intelligence to U.S. Secretary of State Colin Powell, who included the information in a speech he made to the United Nations to justify the war. Powell was apparently unaware of the highly questionable nature of the data. He stated later that had he been aware of this he would not have included it in his speech. Apparently, gatekeepers who stood between Powell and the Pentagon analyst deliberately distorted the information, presumably to further their own agenda or the agenda of other parties whose favor they were trying to curry.¹⁰

A third problem with tall hierarchies is that they are expensive. The salaries and benefits of multiple layers of midlevel managers can add up to significant overhead, which can increase the cost structure of the firm. Unless there is a commensurate benefit, a tall hierarchy can put a firm at a competitive disadvantage.

A final problem concerns the inherent inertia associated with a tall hierarchy. Organizations are inherently inert—that is, they are difficult to change. One cause of inertia in an organization is that, in order to protect their turf, and perhaps their jobs, managers often argue for the maintenance of the status quo. In tall hierarchies there is more turf, more centers of power and influence, and more voices arguing against change. Thus, tall hierarchies tend to be slow to change.

Delaying—Reducing the Size of a Hierarchy Many firms attempt to limit the size of the management hierarchy. **Delaying** to reduce the number of levels in a management hierarchy has become a standard component of many attempts to boost a firm's performance.¹¹ Delaying is based on the assumption that when times are good, many firms tend to expand their management hierarchies beyond the point at which it is efficient to do so. However, the bureaucratic inefficiencies associated with a tall hierarchy become evident when the competitive environment becomes tougher, at which time managers seek to delay the organization. Delaying, and simultaneously widening spans of control, is also seen as a way of enforcing greater decentralization within an organization and reaping the associated efficiency gains.

The process of delaying was a standard feature of Jack Welch's tenure at General Electric, during which time he laid off 150,000 people and reduced the number of layers in the hierarchy from nine to five, while simultaneously growing GE's profits and revenues. Welch believed that GE had become too top heavy during the tenure of his successors. A key element of his strategy was to transform General Electric into a leaner, faster-moving organization, which required delaying. Welch himself had a wide span of control, with some 20 subordinates reporting directly to him, including the heads of GE's 15 top businesses. Similarly, Jeffery Immelt, the head of GE's medical-systems business under Welch, had 21 direct reports (Immelt eventually replaced Welch as CEO).¹²

12-3c Structural Forms

Most firms begin with no formal structure and are run by a single entrepreneur or a small team of individuals. As they grow, the demands of management become too great for one individual or a small team to handle. At this point, the organization is split into functions that represent different aspects of the firm's value chain (see Chapter 3).

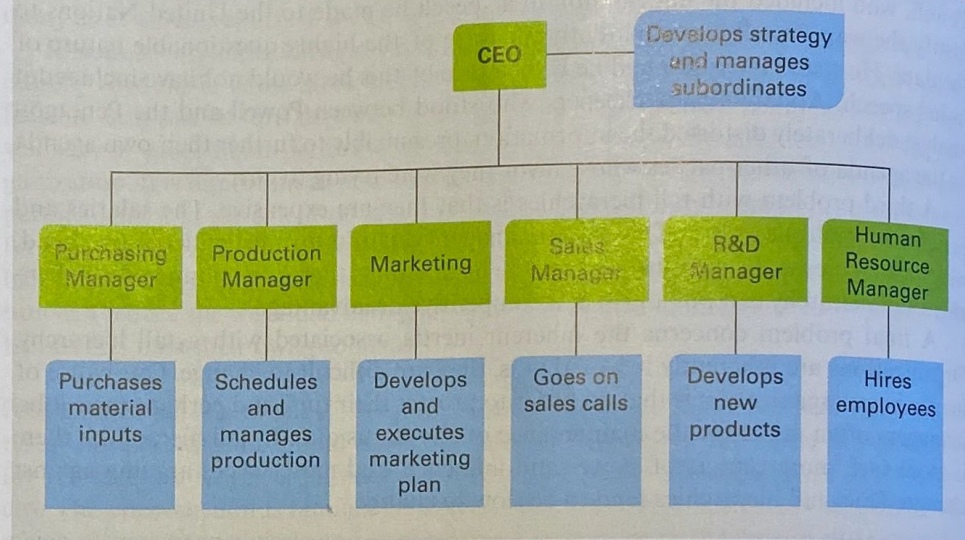
Functional Structure In a **functional structure**, the structure of the organization follows the obvious *division of labor* within the firm with different functions focusing on

delaying

The process of reducing the number of levels in a management hierarchy.

functional structure

An organizational structure built upon the division of labor within the firm, with different functions focusing on different tasks.

Figure 12.3 A Typical Functional Structure

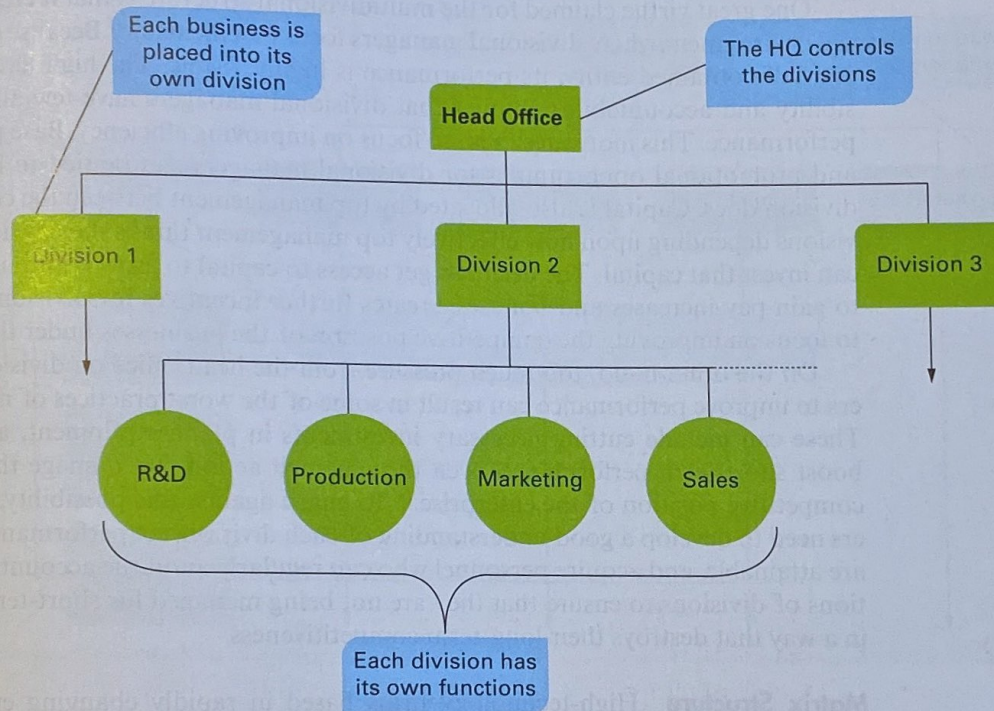
different tasks. There might be a production function, an R&D function, a marketing function, a sales function, and so on (see Figure 12.3). A top manager, such as the CEO, or a small top-management team oversees these functions. Most single businesses of any scale are organized along functional lines.

While a functional structure can work well for a firm that is active in a single line of business, problems develop once the firm expands into different businesses. Google began as a search company, but has expanded into operating systems (Android and Chrome), software applications (Google Apps, Gmail), digital media distribution (Google Play), and social products (Google Plus, Blogspot). Trying to manage these different businesses within the context of a functional structure created problems of accountability, coordination, and control, so Google placed each one into its own product division.¹³

With regard to control, it becomes difficult to identify the profitability of each distinct business when the activities of those businesses are scattered across various functions. It is hard to assess whether a business is performing well or poorly. Moreover, because no one individual or management team is responsible for the performance of each business, there is a lack of accountability within the organization, and this too can result in poor control. As for coordination, when the different activities that constitute a business are embedded in different functions, such as production and marketing, that are simultaneously managing multiple businesses, it can be difficult to achieve the tight coordination between functions needed to effectively run the business. Moreover, it is difficult to run a functional department if it is supervising the value creation activities of several business areas.

Multidivisional Structure The problems that we have just discussed were first recognized in the 1920s by one of the pioneers of American management thinking, Alfred Sloan, who at the time was CEO of General Motors, then the largest company in the world.¹⁴ Under Sloan, GM had diversified into multiple businesses. In addition to

Figure 12.4 A Multidivisional Structure



making cars under several distinct brands, it made trucks, airplane engines, and refrigerators. After struggling to run these different businesses within the framework of a functional structure, Sloan realized that a fundamentally different structure was required. His solution, which has since become the classic way to organize a diversified, multibusiness enterprise, was to adopt a multidivisional structure (see Figure 12.4).

In a **multidivisional structure**, the firm is divided into different divisions, each responsible for a distinct business area. The multidivisional structure has become the standard structural form for managing a diversified enterprise. In most multidivisional enterprises, each division is set up as a self-contained, largely autonomous entity with its own functions. Responsibility for functional decisions and business-level strategy is typically decentralized to the divisions, which are then held accountable for their performance. Headquarters is responsible for the overall strategic development of the firm (corporate-level strategy), for control of the various divisions, for allocating capital between divisions, for supervising and coaching the managers who run each division, and for transferring valuable knowledge between divisions.

The divisions are generally left alone to run day-to-day operations as long as they hit performance targets, which are typically negotiated on an annual basis between the head office and divisional management. Headquarters, however, will often help divisional managers think through their strategy. Thus, while the CEO of General Electric does not develop strategy for the various businesses within GE's portfolio (that is decentralized to divisional managers), he does probe the thinking of divisional managers to see if they have thought through their strategy. In addition, he devotes much effort

multidivisional structure

An organizational structure in which a firm is divided into divisions, each of which is responsible for a distinct business area.

to getting managers to share best practices across divisions, and to the formulation and implementation of strategies that span multiple businesses.

One great virtue claimed for the multidivisional structure is that it creates an internal environment where divisional managers focus on efficiency.¹⁵ Because each division is a self-contained entity, its performance is highly visible. The high level of responsibility and accountability implies that divisional managers have few alibis for poor performance. This motivates them to focus on improving efficiency. Base pay, bonuses, and promotional opportunities for divisional managers can be tied to how well the division does. Capital is also allocated by top management between the competing divisions depending upon how effectively top management thinks the division managers can invest that capital. The desire to get access to capital to grow their businesses, and to gain pay increases and bonuses, creates further incentives for divisional managers to focus on improving the competitive position of the businesses under their control.

On the other hand, too much pressure from the head office on divisional managers to improve performance can result in some of the worst practices of management. These can include cutting necessary investments in plant, equipment, and R&D to boost short-term performance, even though such action can damage the long-term competitive position of the enterprise.¹⁶ To guard against this possibility, top managers need to develop a good understanding of each division, set performance goals that are attainable, and acquire personnel who can regularly audit the accounts and operations of divisions to ensure that they are not being managed for short-term results or in a way that destroys their long-term competitiveness.

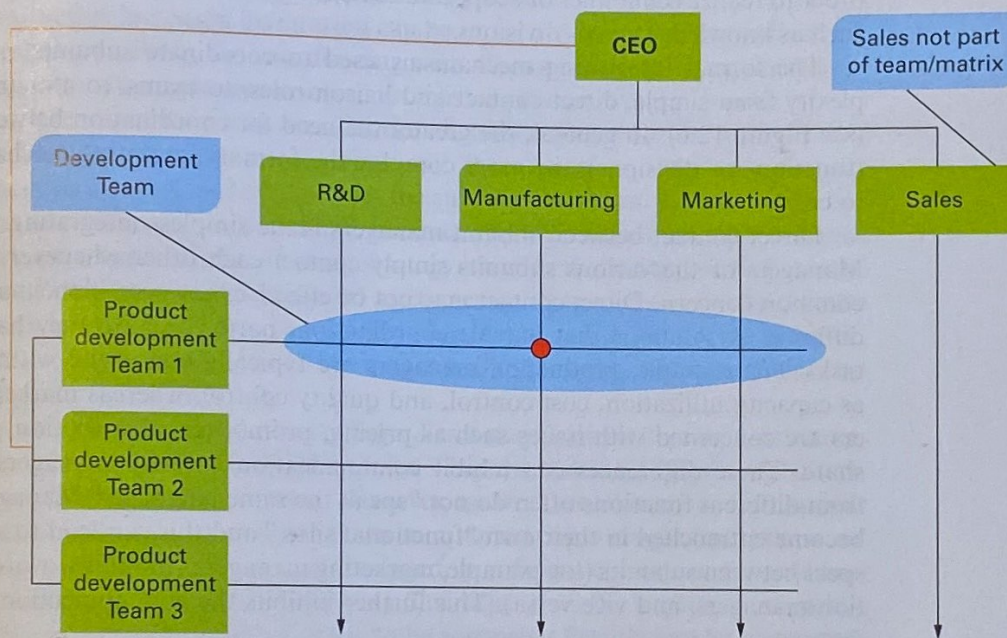
matrix structure

An organizational structure in which managers try to achieve tight coordination between functions, particularly R&D, production, and marketing.

Matrix Structure High-technology firms based in rapidly changing environments sometimes adopt a **matrix structure** in which they try to achieve tight coordination between functions, particularly R&D, production, and marketing.¹⁷ As we saw in the Opening Case, for a long time Microsoft operated with a de facto matrix structure. Tight coordination is required so that R&D designs products that (a) can be manufactured efficiently, and (b) are designed with customer needs in mind—both of which increase the probability of successful product commercialization (see Chapter 4). Tight coordination between R&D, manufacturing, and marketing has also been shown to result in a quicker product development effort, which can enable a firm to gain an advantage over its rivals.¹⁸ As illustrated in Figure 12.5, in such an organization an employee might belong to two subunits within the firm. For example, a manager might be a member of the manufacturing function and a product development team.

A matrix structure looks nice on paper, but the reality can be very different. Unless this structure is managed very carefully it may not work well.¹⁹ In practice, the matrix can be clumsy and bureaucratic. It can require so many meetings that it is difficult to get any work done. The dual-hierarchy structure can lead to conflict and perpetual power struggles between the different sides of the hierarchy. In one high-tech firm, for example, the manufacturing manager was reluctant to staff a product development team with his best people because he felt that would distract them from their functional work. The result was that the product development team did not work as well it might have.

To make matters worse, it can prove difficult to ascertain accountability in a matrix structure. When all critical decisions are the product of negotiation between different hierarchies, one side can always blame the other when things go wrong. As a manager in one high-tech matrix structure said to the author when reflecting on a failed product launch, “Had the engineering [R&D] group provided our development team with

Figure 12.5 Matrix Structure in a High-Tech Firm

decent resources, we would have got that product out on time and it would have been successful.” For his part, the head of the engineering group stated that “We did everything we could to help them succeed but the project was not well managed. They kept changing their requests for engineering skills, which was very disruptive.” The result of such finger pointing can be that accountability is compromised and conflict escalated, and senior management can lose control over the organization.

Despite these problems, there is evidence that a matrix structure can work.²⁰ Making a matrix work requires clear lines of responsibility. Normally this means that one side of the matrix must be given the primary role, while the other is given a support role. In a high-tech firm, for example, the product development teams might be given the primary role, because getting good products to market as quickly as possible is a key to competitive success. Despite taking such steps, managing within a matrix structure is difficult. In light of these problems, managers sometimes try to build “flexible” matrix structures based more on enterprisewide management knowledge networks, and a shared culture and vision, than on a rigid, hierarchical arrangement. Within such companies, the informal structure plays a greater role than the formal structure. We discuss this issue when we consider informal integrating mechanisms in the next section.

12-3d Formal Integrating Mechanisms

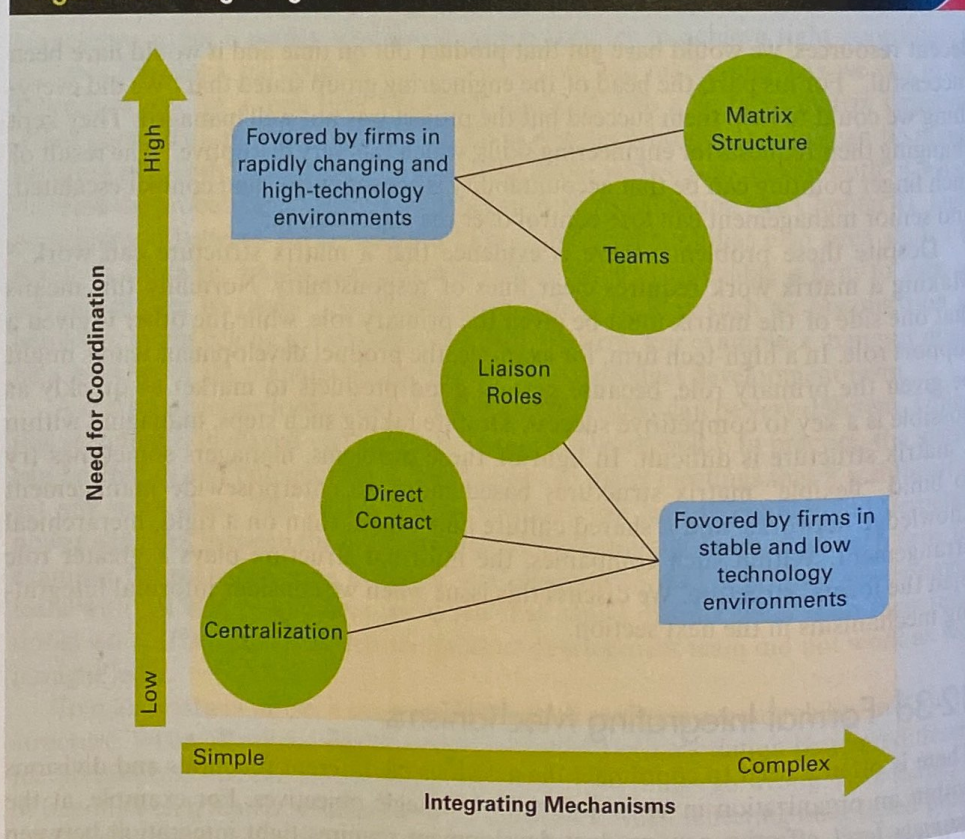
There is often a need to coordinate the activities of different functions and divisions within an organization in order to achieve strategic objectives. For example, at the *business level*, effective new product development requires tight integration between

R&D, production, and marketing functions. Similarly, at the *corporate level*, implementing a related diversification strategy requires **integration** between divisions in order to realize economies of scope and to transfer or leverage rare, valuable resources such as knowledge across divisions.

The formal integrating mechanisms used to coordinate subunits vary in complexity from simple, direct contact and liaison roles, to teams, to a matrix structure (see Figure 12.6). In general, the greater the need for coordination between subunits (functions or divisions), the more complex the formal integrating mechanisms need to be.²¹

Direct contact between subunit managers is the simplest integrating mechanism: Managers of the various subunits simply contact each other whenever they have a common concern. Direct contact may not be effective, however, if the managers have differing orientations that impede coordination, partly because they have different tasks. For example, production managers are typically concerned with issues such as capacity utilization, cost control, and quality control, whereas marketing managers are concerned with issues such as pricing, promotions, distribution, and market share. These differences can inhibit communication between managers. Managers from different functions often do not “speak the same language.” Managers can also become entrenched in their own “functional silos,” and this can lead to a lack of respect between subunits (for example, marketing managers “looking down on” production managers, and vice versa). This further inhibits the communication required to

Figure 12.6 Integrating Mechanisms



achieve cooperation and coordination. For these reasons, direct contact is rarely sufficient to achieve coordination between subunits when the need for integration is high.

Liaison roles are a bit more complex than direct contact. As the need for coordination between subunits increases, integration can be improved by giving one individual in each subunit responsibility for coordinating with other subunits on a regular basis. Through these roles, the employees involved establish a permanent relationship, which helps attenuate the impediments to coordination discussed above.

When the need for coordination is greater still, firms often use temporary or permanent teams composed of individuals from the subunits that need to achieve coordination. Teams are often used to coordinate product development efforts, but they can be useful when any aspect of operations or strategy requires the cooperation of two or more subunits. Product development teams are typically composed of personnel from R&D, production, and marketing. The resulting coordination aids the development of products that are tailored to consumer needs and can be produced at a reasonable cost (through design for manufacturing).

When the need for integration is very high, firms may institute a matrix structure in which all roles are viewed as integrating roles. The structure is designed to facilitate maximum integration among subunits. However, as we have already noted, matrix structures can quickly become bogged down in a bureaucratic tangle that creates as many problems as it solves. If not well managed, matrix structures can become bureaucratic, inflexible, and characterized by conflict rather than the hoped-for cooperation. For such a structure to work, it needs to be somewhat flexible and be supported by informal integrating mechanisms.²²

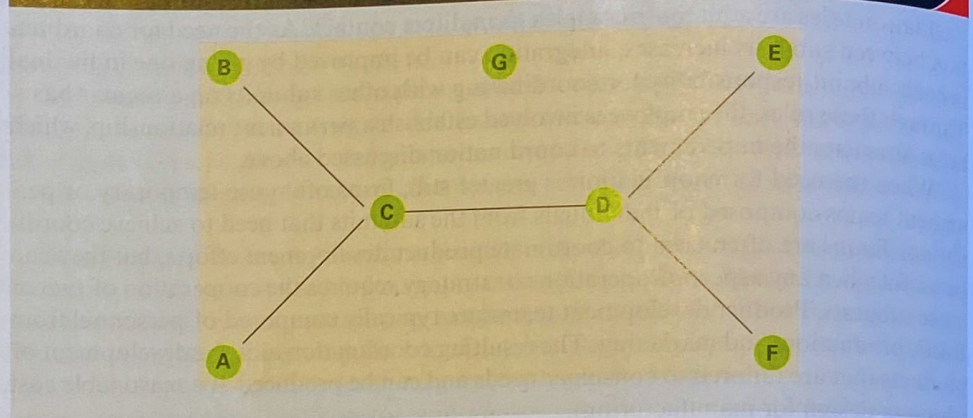
12-3e Informal Integrating Mechanisms

In attempting to alleviate or avoid the problems associated with formal integrating mechanisms in general, and matrix structures in particular, firms with a high need for integration have been experimenting with an informal integrating mechanism: knowledge networks that are supported by an organization culture that values teamwork and cross-unit cooperation.²³ A **knowledge network** is a system for transmitting information within an organization that is based not on formal organizational structure but on informal contacts between managers within an enterprise.²⁴ The great strength of such a network is that it can be used as a nonbureaucratic conduit for knowledge flow within an enterprise.²⁵ For a network to exist, managers at different locations within the organization must be linked to each other, at least indirectly. For example, Figure 12.7 shows the simple network relationships between seven managers within a multinational firm. Managers A, B, and C all know each other personally, as do Managers D, E, and F. Although Manager B does not know Manager F personally, they are linked through common acquaintances (Managers C and D). Thus, Managers A through F are all part of the network; Manager G is not.

Imagine Manager B, a marketing manager in Spain, needs to know the solution to a technical problem to better serve an important European customer. Manager F, an R&D manager in the United States, has the solution to Manager B's problem. Manager B mentions her problem to all of her contacts, including Manager C, and asks if they know of anyone who might be able to provide a solution. Manager C asks Manager D, who tells Manager F, who then calls Manager B with the solution. In this way, coordination is achieved informally through the network, rather than by formal integrating mechanisms such as teams or a matrix structure.

knowledge network

A network for transmitting information within an organization that is based not on formal organization structure but on informal contacts between managers within an enterprise and on distributed-information systems.

Figure 12.7 A Knowledge Network

For such a network to function effectively, it must embrace as many managers as possible. For example, if Manager G had a problem similar to manager B's, he would not be able to utilize the informal network to find a solution; he would have to resort to more formal mechanisms. Establishing firmwide knowledge networks is difficult. Although network enthusiasts speak of networks as the "glue" that binds complex organizations together, it is far from clear how successful firms have been at building companywide networks. The techniques that have been used to establish knowledge networks include information systems, management development policies, and conferences.

Firms are using their distributed computer and telecommunications information systems to provide the foundation for informal knowledge networks.²⁶ E-mail, video-conferencing, intranets, and web-based search engines make it much easier for managers scattered over the globe to get to know each other, identify contacts who might help to solve a particular problem, and publicize and share best practices within the organization. Wal-Mart, for example, uses its intranet system to communicate ideas about merchandizing strategy between stores located in different countries.

Firms are also using their management development programs to build informal networks. Tactics include rotating managers through various subunits on a regular basis, so they build their own informal network, and using management education programs to bring managers of subunits together in a single location so they can become acquainted. In addition, some science-based firms use internal conferences as a way to establish contacts between people in different units of the organization. At 3M, regular, multidisciplinary conferences bring together scientists from different business units and get them talking to each other. Apart from the benefits of direct interaction in the conference setting, the idea is that once the conference is over, the scientists may continue to share ideas, and this will increase knowledge flows within the organization. 3M has many stories of product ideas that were the result of such knowledge flows, including the ubiquitous Post-it Notes, whose inventor, Art Fry, first learned about the adhesive that he would use on the product from a colleague working in another division of 3M, Spencer Silver, who had spent several years shopping his adhesive around 3M.²⁷

Knowledge networks alone may not be sufficient to achieve coordination if subunit managers persist in pursuing subgoals that are at variance with firmwide goals. For a

knowledge network to function properly—and for a formal matrix structure to work as well—managers must share a strong commitment to the same goals. To appreciate the nature of the problem, consider again the case of Manager B and Manager F. As before, Manager F hears about Manager B's problem through the network. However, solving Manager B's problem would require Manager F to devote considerable time to the task. Insofar as this would divert Manager F away from his regular tasks—and the pursuit of subgoals that differ from those of Manager B—he may be unwilling to do it. Thus, Manager F may not call Manager B, and the informal network would fail to provide a solution to Manager B's problem.

To eliminate this flaw, an organization's managers must adhere to a common set of norms and values that override differing subunit orientations.²⁸ In other words, the firm must have a strong organizational culture that promotes teamwork and cooperation. When this is the case, a manager is willing and able to set aside the interests of his own subunit when doing so benefits the firm as a whole. If Manager B and Manager F are committed to the same organizational norms and value systems, and if these organizational norms and values place the interests of the firm as a whole above the interests of any individual subunit, Manager F should be willing to cooperate with Manager B on solving her subunit's problems.

12-4 ORGANIZATION CONTROLS AND INCENTIVES

One critical management task is to control an organization's activities. Controls are an integral part of an enterprise's organizational architecture. They are necessary to ensure that an organization is operating efficiently and effectively, and in a manner that is consistent with its intended strategy. Without adequate controls, *control loss* occurs and the organization's performance will suffer.

12-4a Control Systems

Control can be viewed as the process through which managers *regulate* the activities of individuals and units so that they are consistent with the goals and standards of the organization.²⁹ A **goal** is a desired future state that an organization attempts to realize. A **standard** is a performance requirement that the organization is meant to attain on an ongoing basis. Managers can regulate the activities of individuals and units in several different ways to assure that they are consistent with a firm's goals and standards. Before considering these, we need to review the workings of a typical control system. As illustrated in Figure 12.8, this system has five main elements; establishing goals and standards, measuring performance, comparing performance against goals and standards, taking corrective action, and/or providing reinforcement.³⁰

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. These major goals are typically translated into subgoals that can be applied to individuals and units within the organization. A **subgoal** is an *objective*, the achievement of which helps the organization attain or exceed its major

control

The process through which managers regulate the activities of individuals and units so that they are consistent with the goals and standards of the organization.

goal

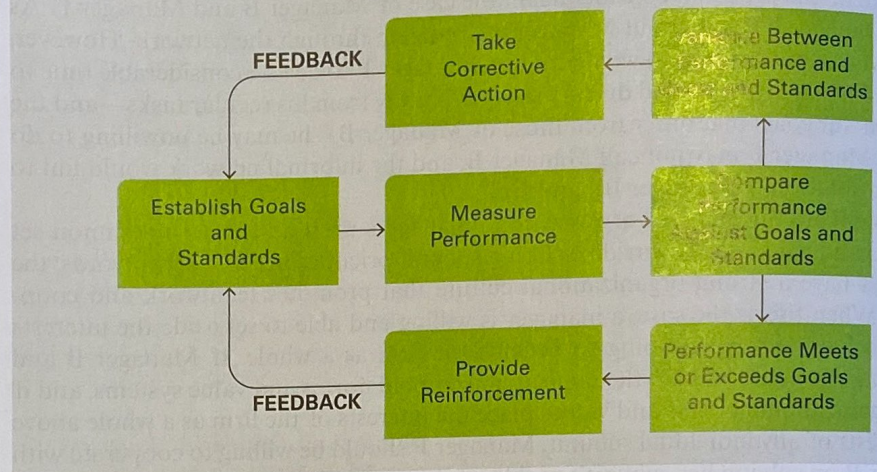
A desired future state that an organization attempts to realize.

standard

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

subgoal

An objective, the achievement of which helps the organization attain or exceed its major goals.

Figure 12.8 A Typical Control System

goals. Goals and subgoals should be precise, measurable, address important issues, be challenging but realistic, and specify a time period.

To illustrate the concept of a goal hierarchy, suppose that the retailer Nordstrom has a goal of attaining a 15% return on invested capital (ROIC) in the coming year. This is the company's major profitability goal. One way of achieving it is to reduce the amount of capital needed to generate a dollars' worth of sales, and a good way of doing that is to reduce the amount of capital that Nordstrom has 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 hits that subgoal, which is precise, measurable, challenging, and has to be achieved within a prespecified time period, the company's profitability, measured by ROIC, will increase. In fact, as explained in Strategy in Action 12.2, Nordstrom has done something very much along these lines.

Standards are similar to goals but tend to be objectives that 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 standards specifying that vendors should be paid within 30 days of submitting an invoice, that customer inquiries should be answered within 24 hours, that all employees should have a formal performance review and be given written feedback once a year, that safety checks should be performed on production equipment every six months, or that employees should fly coach when traveling 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 to avoid motivating the wrong behavior. There is a saying, "You get what you measure." If you chose the wrong goals and standards, you get the wrong behavior. Dysfunctional controls will generate dysfunctional behavior. A few years ago, a placement agency decided to start evaluating and rewarding its staff based on how many job seekers they sent to a 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 quite alarmingly. When management looked into the issue, they



12.2 STRATEGY IN ACTION

Goal Setting and Controls at Nordstrom

A few years ago, 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 3 years in a row and were down some 35%. The root of the problem was that poor inventory controls meant that Nordstrom either had too much merchandise that was in low demand, or too little of the merchandise that consumers wanted. To get rid of excess inventory, Nordstrom held frequent sales, marking down items and selling them at a lower profit margin. Moreover, the failure to stock popular items meant that Nordstrom was losing high-margin sales.

To correct this problem, Nordstrom revamped its inventory-control systems. The company invested heavily in information technology so that it could track its inventory on a real-time basis. It also built electronic links

to provide suppliers with visibility of what was selling at Nordstrom and what the reorder pattern would be, so the suppliers could adjust their production schedules accordingly. The goal was to stock only what consumers demanded by having inventories delivered to stores on an as-needed basis. To measure the success of this program, Nordstrom focused on two metrics—inventory turnover and average inventory per square foot of selling space. When the company began to implement these systems, it 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. Three years later, 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 tripled over this time period.³¹

Sources: J. Batsell, "Cost Cutting, Inventory Control Help Boost Nordstrom's Quarterly Profit," *Knight Ridder Tribune News*, February 22, 2002, p. 1; Nordstrom's 2004 10K statement.

found that several prospective employers would no longer interview people referred to them by the placement agency. The problem: 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 led to a fall-off in 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.

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, the point made earlier still holds: Management needs to make sure that the reported performance is being achieved in a manner that is consistent with the values of the organization. If reported performance falls short of goals and standards, management needs to start digging to find out 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 to get behind the numbers. The same is true if reported performance *exceeds* goals or standards. Management needs to find out the reason for such favorable variance, and doing so requires collecting more information.

Variances from goals (and standards) require that managers take corrective action. When actual performance easily exceeds the goal, corrective action might include raising the goal. When actual performance falls short of the goal, depending on what further investigation reveals, management might make changes in strategy, operations, or personnel. Radical adjustment is not always the appropriate response when an organization fails to hit 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.

If the goals and standards are met, or exceeded, management needs to provide timely, positive reinforcement to those responsible. This can run from congratulations for a job well done, to awards, pay increases, bonuses, and enhanced career prospects for those responsible. Providing positive reinforcement is every bit as important an aspect of a control system as is taking corrective action. Behavioral scientists have long known that positive reinforcement increases the probability that those being acknowledged will continue to pursue the rewarded behavior in the future.³² 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.

12-4b Methods of Control

There are several main ways of achieving control within an organization including personal controls, bureaucratic controls, output controls, incentive controls, market controls, and control through culture (which we consider in the next section on organizational culture).³³

personal control

Control by personal contact with and direct supervision of subordinates.

Personal Controls As the term 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 an overarching 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 very 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 several serious limitations. For one thing, excessive supervision can be demotivating. Employees may resent being closely supervised and may perform better if given a greater degree of personal freedom. Moreover, the subjective nature of personal control can lead to a feeling that there is a lack of objectivity and procedural justice in the performance review process. Subordinates may feel that favoritism, personal likes and dislikes, and individual idiosyncrasies may be as important in performance reviews as actual performance. Personal control is also costly in that managers must devote considerable time and attention to the direct supervision of subordinates, which takes their attention away from

other important issues. The real Achilles heel of personal control, however, is that it starts to break down as an overarching control philosophy when 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.

Bureaucratic Control Bureaucratic control is defined as control through a formal system of written rules and procedures.³⁴ As a strategy for control, bureaucratic control methods rely on prescribing what individuals and units can and cannot do; that is, on establishing bureaucratic standards. At the University of Washington, for example, there is a bureaucratic standard specifying that faculty members can perform no more than 1 day a week of outside work. Other standards articulate the steps to be taken when hiring faculty and promoting faculty, purchasing computer equipment for faculty, and so on.

Almost all organizations use 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 cash an R&D unit may 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 other projects, so they modify their behavior to stay within the budget. Most budgets are set by negotiation between headquarters management and subunit management. Headquarters management can encourage the growth of certain subunits and restrict the growth of others by manipulating their budgets.

Although the term "bureaucratic" often has negative connotations, bureaucratic control methods can be very 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. Excessive 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 result in poor 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 that 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 employees try to find ways around rules that they think are unreasonable. An interesting and controversial case in point concerns rules on forced school busing in the United States. In the 1970s, school districts around America started to bus children to schools outside of their immediate neighborhood in order to achieve a better racial mix. This well-intentioned bureaucratic rule was designed to speed racial integration in a society 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 order to comply with a bureaucratic rule. In many large cities where

bureaucratic control

Control through a formal system of written rules and procedures.

forced busing was practiced, white families with children responded by fleeing to the suburbs, where there were few minorities and busing was not practiced, or by sending their children to expensive, private schools within the city. The result: Far from advancing racial integration, busing had the opposite effect. A case in point was Seattle, where the percentage of white students in city schools dropped from 60 to 41% over the 20 years during which forced busing was enforced.³⁵ 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 the sense of having a measurable output or meeting a criterion of overall achievement.³⁶ For example, the overall achievement of an automobile factory might be measured by the number of employee hours it takes 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). Nordstrom measures the overall achievement of the unit responsible for inventory management by the number of inventory turns per year. FedEx measures the “output” 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, profit growth, and market share.

output controls

Setting goals for units or individuals and monitoring performance against those goals.

When complete tasks can be identified, **output controls** involve setting goals for units or individuals, and monitoring performance against those goals. The performance of unit managers is then judged by their ability to achieve the goals.³⁷ If goals are met or exceeded, unit managers will be rewarded (an act of reinforcement). If goals are not met, senior management will normally intervene to find out why and take 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.

The goals assigned to units depend on the unit’s 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.

The great virtue of output controls is that they facilitate decentralization and give individual managers within units much greater autonomy than either personal or bureaucratic controls. This autonomy enables managers within a unit to configure their own work environment in a way that best matches the particular contingencies they face, rather than having a work environment imposed upon them 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, they reduce the workload on senior executives and allow them to manage a larger, more diverse organization with relative ease. Thus, many large, multiproduct, multinational enterprises rely heavily upon output controls to manage their various product divisions and foreign subsidiaries.

Output controls have limitations. Senior managers need to look behind the numbers to make sure that unit managers are not only achieving goals but are doing so in a way that is consistent with the values of the organization. Managers also need to

make sure that they choose the right criteria to measure output. Failure to select the right criteria might result in dysfunctional behavior. Moreover, output controls do not always work well when extensive interdependencies exist between units.³⁸

The performance of a unit may be ambiguous if it is based upon cooperation with other units. For example, if the performance of a unit is declining, it may be because of poor management within that unit, or it may be because a unit with which it is cooperating is not doing its part. 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 and, as a result, make poor decisions.

Market Controls Market controls involve regulating the behavior of individuals and units within an enterprise by setting up an *internal market* for valuable resources such as capital.³⁹ 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 upon 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 have to compete for access to the capital resources controlled by the head office. Insofar as they need that capital to grow their divisions, the assumption is that this internal competition will drive divisional managers to find ways to improve the efficiency of their units. One of the first companies in the world to establish an internal capital market was Japanese electronics manufacturer Matsushita, which introduced such a system in the 1930s.⁴⁰

In addition, in some enterprises divisions compete with each other for the right to develop and sell new products. Again, Japan's Matsushita has a long history of letting different divisions develop similar new products, and then assigning overall responsibility for producing and selling the product to the division that seems to be furthest along in the commercialization process. While some 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 management will often set up two different teams within different units to develop new products such as memory chips. The purpose of the internal competition between the two teams is to accelerate the product development process, with the winning team earning significant accolades and bonuses.⁴¹

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.⁴² If two different divisions are racing against each other to develop very similar new products, and are competing against each other for limited capital resources, they may be unwilling to share technological knowhow with each other, perhaps to the detriment of the entire corporation. Companies like Samsung deal with

market controls

The regulation of the behavior of individuals and units within an enterprise by setting up an internal market for valuable resources such as capital.

this problem by using integrating mechanisms such as liaison role, and by assigning the responsibility for leveraging technological knowhow across divisions to key individuals.

Incentives Control Incentives are the 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, setting targets linked to profitability might be used 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 over above those targeted. If a subunit has set a goal of attaining a 15% ROIC and actually attains a 20% return, unit employees may be given a share in the profits generated in excess of the 15% target in the form of bonus pay.

The idea is that giving employees incentives to work productively reduces 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 in order to maximize their chance of earning incentive-based pay. Although paying out bonuses and the like costs the organization money, well-designed incentives pay for themselves. That is, the increase in performance due to incentives more than offsets the costs of financing them.

The type of incentive used may vary depending on the employees and their tasks. Incentives for employees working on the factory floor may be very different from the incentives for senior managers. The incentives must be matched to the type of work being performed. The employees on the factory floor of a manufacturing plant may be broken into teams of 20 to 30 individuals, and they may have their bonus pay tied to the ability of their team to hit 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 that he or she has some control over and can influence. Individual employees on the factory floor may not be able to exercise much influence over the performance of the entire operation, but they can influence the performance of their team, so their incentive pay is tied to output at this level.

When incentives are tied to team performance, as is often the case, 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.⁴³ Thus, if the incentive pay of a 20-person team is linked to team output, members can be expected to pressure those in the team who are perceived as slacking off and freeloading on the efforts of others, urging them to pick up the pace and make an equal contribution to team effort. Well-functioning peer control within an organization reduces the need for direct supervision of a team and can facilitate attempts to move toward a flatter management hierarchy.

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, controls through incentives have limitations. Because incentives are typically linked to the metrics used in output controls, the points made with regard to output controls also apply here. Specifically,

peer control

The pressure that employees exert on others within their team or work group to perform up to or in excess of the expectations of the organization.

managers need to make sure that incentives are not tied to output metrics that result in unintended consequences or dysfunctional behavior.

12-5 ORGANIZATIONAL CULTURE

Organizational culture refers to the values, norms, and assumptions that are shared among employees of an organization. By **values** we mean abstract ideas about what a group believes to be good, right, and desirable. Put differently, values are shared assumptions about how things ought to be. By **norms**, we mean social rules and guidelines that prescribe the appropriate behavior in particular situations.

Culture can exert a profound influence on the way people behave within an organization, on the decisions that are made, on the things that the organization pays attention to, and ultimately, on the firm's strategy and performance.

An organization's culture has several sources. There seems to be wide agreement that founders or important leaders can have a profound impact on organizational culture, often imprinting their own values upon it. In addition, the culture of an enterprise can be shaped by landmark events in its history. Culture is maintained and transmitted over time through formal and informal socialization mechanisms. These include hiring practices, procedures regarding rewards, pay, and promotions, and the informal rules of behavior that employees are expected to adopt if they want to fit in and succeed within the organization.⁴⁴

Microsoft, for example, has a strong culture that was influenced by the company's founder and long-time CEO, Bill Gates. Gates always placed a high value on technical brilliance, competitiveness, and a willingness to work long hours—something that he himself did. Gates hired and promoted people who shared these characteristics, and he led by example. He also had a tendency to dismiss the opinions of people who lacked technical brilliance. Talented engineers often “walked taller” within Microsoft, and they had a disproportionate impact on strategic decisions. The employees who gained Gates's confidence themselves hired and promoted individuals who were technically strong, competitive, and hardworking. The culture of the company was thus transmitted and enforced throughout the organization. As a result, Microsoft became a company where technical brilliance, competitiveness, and working long hours were highly valued attributes of behavior. New employees were socialized into these norms by coworkers who themselves had been similarly socialized.

History also shaped the culture at Microsoft. Most notably, it took three versions and 6 years before sales of Windows started to take off with the introduction of Windows 3.1 (Windows 1.0 and 2.0 did not do well). The lesson that Microsoft gained from this was that persistence can pay off. “We will get it right by version 3” is a phrase that is still used frequently at Microsoft. This culturally embedded value influences strategic decisions regarding investments such as Microsoft's long-running commitment to its money-losing Bing search business. Reflecting the culture of Microsoft, many employees believe that if they stick with it, Bing will eventually turn profitable.

Culture as a Control Mechanism Given that organizational culture shapes behavior, culture can be viewed as a control mechanism that mandates expected behaviors.

values

The ideas or shared assumptions about what a group believes to be good, right, and desirable.

norms

Social rules and guidelines that prescribe the appropriate behavior in particular situations.

At Microsoft, under the leadership of Gates, staff worked long hours not because bureaucratic rules told them to do so, and not because supervisors explicitly required them to do so, but because that was the cultural norm. In this sense, culture shaped behavior, thereby reducing the need for bureaucratic and personal controls. The company could trust people to work hard and behave in a competitive manner because those norms were such a pervasive aspect of the culture.

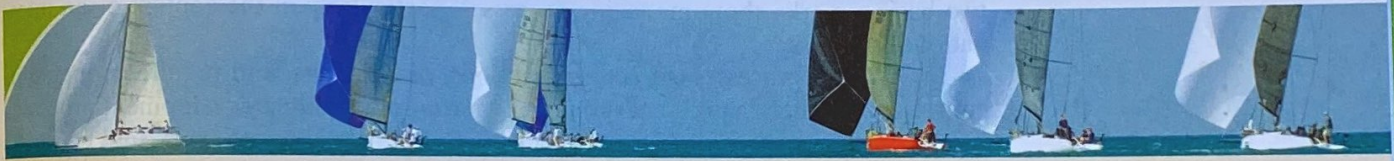
Although cultural controls can mitigate the need for other controls, thereby reducing monitoring costs, they are not universally beneficial. Cultural controls can have dysfunctional aspects. The hard-driving, competitive aspect of Microsoft's culture was arguably a contributing factor in the antitrust violations that the company was found to have made in the 1990s (the U.S. Justice Department, which brought the antitrust case against Microsoft in the United States, used as evidence internal e-mails where one senior manager stated that Microsoft would "cut off a competitor's air supply"). Moreover, Microsoft's culture of working long hours clearly had a downside: Many good employees burned out and left the company. In the post-Gates era, the company has become attuned to this. As its workforce has aged and started families, it has become more accommodating, stressing that the output produced is more important than the hours worked.

Implementing Strategy Through Culture Given that culture can have such a profound impact upon the way in which people behave within organizations, it is important for managers to get culture right. The right culture can help a company execute its strategy; the wrong culture can hinder strategy execution.⁴⁵ In the 1980s, when IBM was performing very well, several authors sang the praises of its culture, which among other things placed a high value on consensus-based decision making.⁴⁶ These authors argued that such a decision-making process was appropriate given the substantial financial investments that IBM routinely made in new technology. However, this process turned out to be a weakness in the fast-moving computer industry of the late 1980s and 1990s. Consensus-based decision making was slow, bureaucratic, and not particularly conducive to corporate risk taking. While this was fine in the 1970s, IBM needed rapid decision making and entrepreneurial risk taking in the 1990s, but its culture discouraged such behavior. IBM was outflanked by then-small enterprises such as Microsoft, almost went bankrupt, and went through a massive change to shift its organizational culture.

One academic study concluded that firms that exhibited high performance over a prolonged period tended to have strong but adaptive cultures. According to this study, in an adaptive culture most managers care deeply about and value customers, stockholders, and employees. They also strongly value people and processes that create useful change in a firm.⁴⁷ While this is interesting, it does reduce the issue to a very high level of abstraction; after all, what company would say that it doesn't care deeply about customers, stockholders, and employees? A somewhat different perspective is to argue that the culture of the firm must match the rest of its architecture, its strategy, and the demands of the competitive environment for superior performance to be attained. All these elements must be consistent with each other. Lincoln Electric provides a useful example (see Strategy in Action 12.3). Lincoln competes in a business that is very competitive, where cost minimization is a key source of competitive advantage. Its culture and incentive systems both encourage employees to strive for high levels of productivity, which translates into the low costs that are critical for its success. These aspects of Lincoln's organizational architecture are aligned with its low-cost strategy.

12-6 ORGANIZATION PROCESSES

Processes, defined as the manner in which decisions are made and work is performed within an organization,⁴⁸ are found at many different levels within an organization. There are processes for formulating strategy, allocating resources, evaluating new-product ideas, handling customer inquiries and complaints for improving product quality, evaluating employee performance, and so on. Often, a firm's core competencies or valuable, knowledge-based resources are embedded in its processes. Efficient, effective processes can lower the costs of value creation and add additional value to a product. For example, the global success of many Japanese manufacturing enterprises in the 1980s was based



12.3 STRATEGY IN ACTION

Organizational Culture at Lincoln Electric

Lincoln Electric is one of the leading companies in the global market for arc welding equipment. 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. 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 Lincoln 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 gains in productivity 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 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 have responsibility for the quality of their output and must repair defects spotted by quality inspectors before the pieces are included in the piecework calculation. Production workers are awarded a semiannual bonus 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 generate innovations that boost productivity, for 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%, and they receive a bonus on top of this which, in good years, could double their base pay. Despite high employee compensation, its workers are so productive that Lincoln has a lower cost structure than its competitors.⁴⁹

Sources: J. O'Connell, "Lincoln Electric: Venturing Abroad," Harvard Business School Case No. 9-398-095, April 1998; www.lincolnelectric.com.

in part on their early adoption of processes for improving product quality and operating efficiency, including total quality management and just-in-time inventory systems. Today, the competitive success of General Electric can in part be attributed to a number of processes that have been widely promoted within the company. These include the company's Six Sigma process for quality improvement, its process for "digitalization" of business (using corporate intranets and the Internet to automate activities and reduce operating costs), and its process for idea generation, referred to within the company as "workouts," where managers and employees gather for intensive sessions over several days to identify and commit to ideas for improving productivity.

An organization's processes can be summarized by means of a flow chart, which illustrates the various steps and decision points involved in performing work. A detailed consideration of the nature of processes and strategies for process improvement and reengineering is beyond the scope of this book. However, it is important to make two basic remarks about managing processes, particularly in the context of an international business.⁵⁰

First, many processes cut across functions, or divisions, and require cooperation between individuals in different subunits. For example, product development processes require employees from R&D, manufacturing, and marketing to work in a cooperative manner to make sure new products are developed with market needs in mind and designed in such a way that they can be manufactured at a low cost. Because they cut across organizational boundaries, performing processes effectively often require the establishment of formal integrating mechanisms and incentives for cross-unit cooperation.

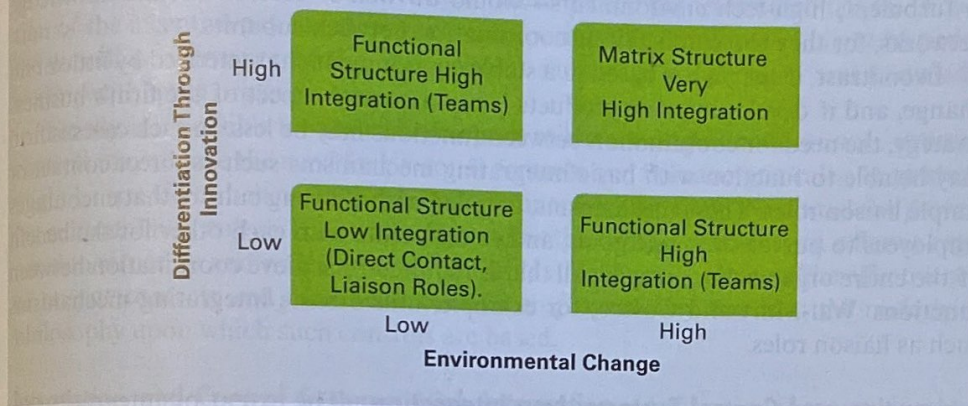
Second, it is particularly important for an enterprise to recognize that valuable new processes that might lead to a competitive advantage can be developed anywhere within the organization's network of operations.⁵¹ Valuable and rare new processes may be developed within a team, function, product division, or foreign subsidiary. Those processes might then be valuable to other parts of the enterprise. The ability to create valuable processes matters, but it is also important to leverage those processes, and this requires both formal and informal integrating mechanisms such as knowledge networks.

12-7 IMPLEMENTING STRATEGY THROUGH ORGANIZATIONAL ARCHITECTURE

We are now in a position to make observations about the kind of organizational arrangements required to implement different strategies. Rather than construct an exhaustive list, we will focus on a limited number of business- and corporate-level strategies. We start by considering strategy and organization within the single-business firm. Then we look at strategy and organization within the diversified firm.

12-7a Strategy and Organization in the Single-Business Enterprise

As noted earlier, single-business enterprises are typically organized along functional lines (see Figure 12.3). However, the need for integration between functions will vary depending upon (1) the business-level strategy of the firm, and (2) the nature of the environment in which the firm competes (see Figure 12.9).

Figure 12.9 Strategy, Environment, and Organization

Strategy, Environment, and the Need for Integration In general, the need for integration between functions is greater for firms that are competing through product development and innovation.⁵² This is typically the case when an organization's business-level strategy involves differentiation through the introduction of new and/or improved product offerings. Apple, Google, Ford, Microsoft, Tesla, and Toyota, for example, all try to differentiate themselves through product development and innovation. As discussed earlier, in such organizations there is an ongoing need to coordinate the R&D, production, and marketing functions of the firm to ensure that (1) new products are developed in a timely manner, (2) that they can be efficiently produced and delivered, and (3) that they match consumer demands. We saw that a matrix structure is one way of achieving such coordination (see Figure 12.5). Another, more common, solution is to form temporary teams to oversee the development and introduction of a new product. Once the new product has been introduced, the team is disbanded and employees return to their functions or move to another team.

Firms that face an uncertain, highly turbulent, competitive environment, where rapid adaptation to changing market conditions is required, need coordination in order to survive.⁵³ Environmental change, such as that which occurs when an industry is disrupted by radical innovations, may require a change in product, process, business model, and strategy. In such cases, it is critical to make sure that the different functions of the firm all pull in the same direction, so that the firm's response to a changing environment is coherent and organizationwide. Temporary teams are often used to effect such coordination.

For example, in the mid-1990s, the World Wide Web emerged with stunning speed and in a way that almost no one anticipated. The rise of the Web produced a profound change in the environment facing computer software firms such as Microsoft, where managers quickly shifted their strategy so as to make their products Web enabled, and position their marketing and sales activities to compete in this new landscape. This shift required very tight coordination between different software engineering groups, such as those working on the software code for Windows, Office and MSN, so that all products not only were Web enabled but also worked seamlessly with each other. Microsoft achieved this by forming cross-functional teams.

In addition to using formal integrating mechanisms such as cross-functional teams, firms with a crucial need for coordination between subunits—for instance, those based in turbulent, high-tech environments—would do well to foster informal knowledge networks, for they too can facilitate coordination between subunits.

In contrast, if the firm is based in a stable environment characterized by little or no change, and if developing new products is not a central aspect of the firm's business strategy, the need for coordination between functions may be less. In such cases, a firm may be able to function with basic integrating mechanisms such as direct contact or simple liaison roles. These mechanisms, coupled with a strong culture that encourages employees to pursue the same goals, and to cooperate with each other for the benefit of the entire organization, may be all that is required to achieve coordination between functions. Wal-Mart and Costco, for example, utilize basic integrating mechanisms such as liaison roles.

Integration and Control Systems: Low Integration The extent of integration required to implement a strategy has an important impact upon the control systems that management can use. Consider a firm with a functional structure where there are 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 control spending by the functions. *Output controls* will then be used to assess how well a function is performing. Different functions will be 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; a manufacturing function might be given productivity and product quality targets such as output per employee and defects per thousand products; the logistics function might be given 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 increase.

Output controls might also be pushed further down within functions. A production process might be subdivided into discrete tasks, each of which has a measurable output. Employee teams might be formed and empowered to take ownership over 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 (1) decentralization within the organization, (2) wider spans of control (because it is relatively easy to control a team by monitoring its outputs, as opposed to regulating behavior through bureaucratic rules), and (3) a flatter organization structure.

Within such a structure, the CEO will monitor the functional heads. They in turn will exercise control over units or teams within their function. There may also be some degree of *personal control*, with the CEO using personal supervision to influence the behavior of functional heads; they in turn do the same for their direct reports. *Incentives* will be tied to output targets. 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; the pay of the head of marketing and sales

to gains in market share, 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 team to hit or exceed predetermined targets. A portion of the incentive pay for managers—and perhaps all employees—might be tied to the overall performance of the enterprise to encourage cooperation and knowledge sharing within the organization.

Finally, it is possible for such an enterprise to have strong *cultural controls*. Cultural controls may reduce the need for personal controls and bureaucratic rules. Individuals might be trusted to behave in the desired manner because they “buy into” 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, because employees may buy into the underlying philosophy upon which such controls are based.

Integration and Control Systems: High Integration A functional structure where the strategy and/or environment requires a high degree of integration presents managers with a complex control problem. The problem is particularly severe if the firm adopts a matrix structure. As noted earlier, a firm based in a dynamic environment where competition centers on product development might adopt such a structure. Within such an enterprise, *bureaucratic controls* will again be used for financial budgets and, as before, *output controls* will be applied to the different functions. *Output controls* will also be applied 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 is dependent upon the support it gets from the various functions. The support needed includes people and information from production, 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. **Performance ambiguity** arises when it is difficult to identify with precision the reason for the high (or low) performance of a subunit such as a function or team. In this context, the failure of a cross-functional product development team to hit predetermined output targets might be due to the poor performance of team members, but it could just as well be due to the failure of the functions to provide an appropriate level of support to the team. Senior management cannot determine which explanation is correct simply by observing output controls tied to team performance, because such outputs are not an unambiguous indicator of performance. Identifying the true cause of performance variations requires senior managers to collect information, much of it subjective, which increases the time and energy they must devote to the control process, diverts their attention from other important issues, and hence increases the costs of monitoring and controlling the organization. Other things being equal, this reduces the span of control that senior managers can handle, suggesting the need for a taller hierarchy which, as we saw earlier, gives rise to all kinds of additional problems.

The nature of the performance ambiguity problem in such an enterprise raises the question of whether there is a better solution to the control problem. In fact, there is.

performance ambiguity

The difficulty of identifying with precision the reason for the high (or low) performance of a subunit such as a function or team.

One step is to make sure that the incentives of all key personnel are aligned; that is, to use *incentive controls* in a discriminating way. The classic way of doing this is to tie incentives to a higher level of organization performance. Thus, in addition to being rewarded on the basis of the performance of their function, functional heads might also be rewarded on the basis of 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 that the product development teams receive adequate support from the functions. In addition, strong *cultural controls* can be very helpful in establishing companywide norms and values that emphasize the importance of cooperation between functions and teams for their mutual benefit.

12-7b Strategy and Organization in the Multibusiness Enterprise

As discussed earlier, multibusiness enterprises typically organize themselves along divisional lines (see Figure 12.4). Within each division, there will be a functional organization. The extent of integration between functions *within divisions* may differ from division to division depending upon the business-level strategy and the nature of the environment. The need for integration *between divisions*, on the other hand, depends upon the specific corporate strategy the firm is pursuing. This will have an impact not only on the integrating mechanisms used, but also on the type of control and incentive systems employed.⁵⁴

If the firm is pursuing a strategy of related diversification and trying to realize economies of scope by sharing inputs across product divisions, or is trying to boost profitability by transferring or leveraging valuable competencies across divisions, it will have a need for integrating mechanisms to coordinate the activities of the different product divisions. Liaison roles, temporary teams, and permanent teams can all be used to ensure such coordination. On the other hand, if top management is focusing primarily on boosting profitability through superior internal governance, and if each division is managed on a stand-alone basis, with no attempt to leverage competencies or realize economies of scope, as is the case in firms pursuing a strategy of unrelated diversification, the firm may well operate well with minimal or no integrating mechanisms between divisions.

Controls in the Diversified Firm with Low Integration In firms that focus primarily on boosting performance through superior internal governance where the strategy is one of unrelated diversification, the need for integration between divisions is low. Firms pursuing a strategy of unrelated diversification 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.⁵⁵

First, they use *bureaucratic controls* to regulate the financial budgets and capital spending of the divisions. Typically each division will have to have its financial budgets approved for the coming year by the head office. In addition, capital expenditures in excess of a certain amount have to be approved by the head office; 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 produced by each division. Typically targets for the coming year are set by negotiation between divisional heads and senior managers at the head office. As long as the divisions hit their targets, they are left alone to run their own operations. If performance falls short of targets, however, top managers will normally audit a division to discover why this occurred, and take corrective action if necessary by instituting a change in strategy and/or personnel.

Third, *incentive controls* will be used, with the incentives for divisional managers being tied to the financial performance of their divisions. To earn pay bonuses, divisional managers have to hit or exceed the performance targets previously negotiated between the head office and the divisions. To make sure that divisional managers do not try to “talk down” their performance targets for the year, making it easy for them to hit their targets and 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.⁵⁶ 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 capital market, 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, which they need to grow their businesses, is assumed to create further incentives for divisional managers to run their operations as efficiently and effectively as possible. In addition, the head office might use market controls to allocate the right to develop and commercialize new products between divisions.

Within divisions, the control systems used will be those found within single-business enterprises. It should also be noticed that head office managers might utilize some *personal controls* to influence the behavior of divisional heads. In particular, the CEO might exercise control over divisional heads by meeting with them on a regular basis and probing them to get rich feedback about the operations of the entity for which they are responsible.

Controls in the Diversified Firm with High Integration The control problem is more complex in diversified firms pursuing a strategy of related diversification where they are trying to improve performance not only through superior internal governance, but also proactively attempting to leverage competencies across product divisions and realize economies of scope. Consider, for example, 3M, a highly diversified enterprise with multiple product divisions. The company devotes great effort trying to leverage core technology across divisions (for instance, by establishing internal knowledge networks). In addition, 3M tries to realize economies of scope, particularly in the areas of marketing and sales, where a marketing and sales division might sell the products of several 3M divisions. More generally, when a multidivisional enterprise tries to improve performance through the attainment of 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 (e.g., bureaucratic, output, incentive, and market controls). However, in addition, they have to deal with two control problems that are not found in multidivisional firms pursuing a strategy of unrelated diversification

where there is 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 find a way to deal with the performance ambiguities that arise when divisions are tightly coupled with each other, share resources, and the performance on one cannot be understood in isolation but depends upon how well it cooperates with others.

The solution to both problems is in essence the same as that adopted by 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. Insofar as improving the performance of the entire firm requires cooperation between divisions, such incentive controls should facilitate that cooperation. In addition, strong cultural controls can be helpful in creating values and norms that emphasize the importance of cooperation between divisions for mutual gain. At 3M there is a long-established cultural norm that, while products belong to the divisions, the technology underlying those products belongs to the entire company. Thus, the surgical tape business might utilize adhesive technology developed by the office supply business to improve its own products.

Despite such solutions to control problems, there is no question that top managers in firms where divisions are tightly integrated have to deal 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 just by monitoring objective output criteria. To accurately gauge performance and achieve adequate controls, they probably have to spend time auditing the affairs of operating divisions, and talking to divisional managers to get a comprehensive, qualitative picture of performance than can help them “dig behind” objective output numbers. Other things being equal, this might limit the span of control managers can effectively handle, and thus the scope of the enterprise.⁵⁷

KEY TERMS

organizational
architecture 391
organizational
structure 391
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incentives 392
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processes 392
organizational
culture 392
people 392

vertical
differentiation 393
horizontal
differentiation 393
integrating
mechanisms 393
centralization 393
decentralization 393
autonomous subunit 395
tall hierarchies 397
flat hierarchies 397

span of control 397
influence costs 398
delaying 399
functional structure 399
multidivisional
structure 401
matrix structure 402
knowledge network 405
control 407
goal 407
standard 407

subgoal 407
personal control 410
bureaucratic control
411
output controls 412
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norms 415
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