The Controlling Function 7

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Learning Objectives

After completing this chapter, you should be able to:

- Complete the steps involved in the organization's constant and periodic control systems.
- Prescribe specific corrections for problems identified at the functional/departmental level.
- Use accounting and financial controls to improve company-wide performance.
- Finalize all other aspects of the control process.

7.1 Introduction

The modern organization operates in a complex, ever-changing environment. In fact, the external environment continues to be highly competitive thanks to the ever-increasing expectancies of customers, clients, and key stakeholders. Competitors also constantly vie for market share. Control systems and methods assist managers by providing information about the state of the organization's production expectancies, financial condition, employee demands, operating systems, marketing activities, governmental influences, and other factors as they arise. Such information is essential to drive manager course correction decisions (Etzioni, 1964; Merchant, 1982).

Successful organizations use effective and appropriate control systems to obtain organizational goals and objectives. In this chapter, we explore control systems and their importance to overall organizational success. The first section describes the natures of constant and periodic controls. Next, we consider specific departmental and functional area control systems. In the following section, we examine the role played by financial and accounting standards in an organization's control process. Finally, we look at other forms of control .

MANAGEMENT IN PRACTICE

At McDonald's, Organizational Controls Move Fast Food into the New Millennium

McDonald's has long been known as the industry leader in fast food, specifically in the area of hamburgers, fries, and a soft drink. Numerous business textbooks describe how the company's strategic model has led to growth domestically and internationally. Everything from the company's take on where to place stores (location, location, location) to its mantra of quality, service, cleanliness, and value (McDonalds.com, 2013) to the company's famous Hamburger University management training program suggests that numerous organizational activities and practices have set the standards for success in a crowded marketplace.

The McDonald's organization has shown the ability to adapt to international circumstances. In India, for example, where consuming beef would violate religious norms, the company created a beefless menu complete with vegetarian burgers and even vegetarian "cheese." While critics point out that the children's menu burger is not exactly a healthy choice (Petrun, 2007), it does appeal to a wide audience within that country.

Larry French/AP Images for McDonald's

▲ McDonald's has shown the capacity to adapt to changing circumstances, especially in the area of health-conscious menus.

About a decade ago, however, the tide of public opinion began to turn against the company in some ways. Movies such as *Supersize Me* began a period in which McDonald's and many other food companies experienced criticism regarding the health properties present in their menus. McDonald's first corporate reaction was to change from using

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cooking oil based on beef tallow to a vegetable version. Over time it became clear that, if the company were to succeed in a new era and environment, things would need to change.

The corporate control system led the way. The company's evolving sense of mission and vision created new standards for members of the entire organization to follow, from the CEO to individual employees (Git, 2013). Many stores now post the caloric content of each food offering. In 2013 McDonald's announced plans to sell a greater variety of healthy foods in addition to its traditional menu. In response to concerns about increasing obesity rates among U.S. children, many of these foods were directed at younger consumers.

In this instance, a corporation's control system began to address two major goals. The first was to continue the organization's success by maintaining customer patronage. The second, and perhaps loftier outcome, would be to sell more products that enable individuals to enjoy a quick meal out that may help them live longer with fewer health issues. In the future, you can expect McDonald's and other corporations to continue using control systems as a tool for adapting to a changing world.

Discussion Questions

1. Do you expect fast food to be healthy food?
2. Should McDonald's continue to alter its mission to address public health concerns, or should it just give people what they want?
3. How would the most recent changes at McDonald's affect the marketing department activities, food production, and individual employees waiting on customers in various stores?

Controlling is the process of evaluating performance against established goals and creating methods appropriate to take corrective action to maintain or improve performance in any area of the organization. Control systems allow managers to analyze the state of the organization and its various constituent parts to determine if the plan and structural system are achieving expected results.

The first distinction to be made involves the differences between what may be described as constant controls and periodic controls. **Constant controls** regulate organizational activities on a continual basis. Any time a standard is not met, the management team should immediately react with corrective action. **Periodic controls** assess organizational activities on a regularly scheduled basis. Then managers are able to undertake corrective action as needed. This section examines these two control processes.

Constant Controls

A great deal of organizational activity is guided by ongoing, continual standards. Such standards regulate the behaviors of individual employees, groups and departments, and the overall organization. Without this form of guidance, companies can quickly drift away from the actions, activities, and behaviors that allow them to succeed.

Individual Constant Controls

Each employee in any type of organization will be expected to follow certain standards and behavioral guidelines. The principles constitute the basic necessity of maintaining membership in the company. Two primary forms of individual constant controls include work procedures and the organization's rule/discipline system.

Work procedures, or specific task instructions, guide the day-to-day operations of the firm. Often, such procedures are carefully spelled out in an organizational manual or handbook. At other times, they are part of the employee training process. Work procedures include directions regarding methods of operation for various tasks. Table 7.1 indicates work procedures for various vocations within an organization.

Table 7.1 Examples of work procedures

Food preparation	Methods of cooking Methods of cleaning cooking equipment Methods for disposing of food waste Methods for maintaining a sanitary work area
Accounting procedures	Daily entries into accounting documents Methods for paying accounts due Methods for invoicing accounts receivable payments
Manufacturing	Methods of operating equipment Methods for maintaining/repairing equipment
Sales	Type of sales pitch to be used Methods for making suggestive sales
Office management	Methods for maintaining employee privacy Methods for filing information
Store management	Methods for handling payments, such as checks Methods for closing the store properly
Environmental services	Methods for disposing of waste Cleaning methods

A second set of work procedures covers employee safety. Employees are taught how to complete tasks in the safest manner possible. Examples include wearing protective clothing and eyewear, wearing a hard hat, lifting heavy objects properly, using warning signals when appropriate, handling dangerous materials properly, and so forth.

The company's discipline system ties work procedures, safety procedures, and other elements of employee behavior together. As noted in Chapter 4, the human resources department is largely responsible for creating the system and then assessing penalties when employees violate various rules. All of these ingredients serve to ensure that employees take appropriate actions. Whenever a procedure or rule has been violated, the employee's immediate supervisor is expected to take immediate corrective action. Infractions are normally reported to the human resources office, so that the incident can be recorded and corrective steps taken to make sure the employee does not break the rule or ignore the procedure in the future.

In many organizations, human resources departments prepare policy manuals that spell out company rules, work procedures, and protocols for handling violations of these directives. In addition, various employee manuals spell out procedures across a variety of tasks. These documents,

when combined with direct supervision, provide the basis for constant control over the activities of employees across the organization.

Departmental Constant Controls

Individual departments have two forms of control that guide the entire unit. Group norms and functional area policies both help ensure the department stays aligned with the overall organization's purposes and directives.

Group norms form in both formal and informal settings. Norms, or rules of behavior, dictate how departmental members interact with one another and with managers at higher ranks. Norms tend to operate in the areas of productivity, work behaviors, and social behaviors.

Norms often quickly evolve in the area of productivity. Management's responsibility will be to ensure that such norms emphasize giving full effort to the greatest extent possible. Those who fail to meet the group standards may be "sanctioned" by coworkers to try harder or keep up with the pace set by the group. Sanctions take the forms of praise for positive actions and criticism for negative results.

Brian McEntire/iStock/Thinkstock

▲ Wearing the type of dress that an organization considers acceptable is an example of a work behavior.

Work behaviors include the manner of dress the organization and department deem to be acceptable. In some companies, only a suit and tie are appropriate attire for men, and only conservative outfits are acceptable for women. In others, varying degrees of clothing options may be considered admissible, from work casual to blue jeans and T-shirts. Work behaviors also cover the use of language in daily operations. For some, use of profanity is the norm and takes place constantly. In other departments, such language would quickly meet with disapproval by coworkers and managers. The same holds true for the manner of addressing supervisors and others. In the legal system, a judge is referred to as "Your Honor" in any formal setting, for example.

Social behaviors include views of office romances and relationships between employees and supervisors. Many organizations strongly discourage dating within a specific office, unit, or department. Relationships between employees and their supervisors are also often affected by norms. In some companies, it would be considered very bad form to socialize with someone of a higher rank. In others, such activities would be commonplace.

As is the case with individual constant controls, violations of group norms often meet with quick and consistent corrections. Someone who acts inappropriately will encounter criticism and worse from peers and supervisors.

Functional area policies are the dictates that guide activities of an organizational department or unit. Each department creates specific directives that should be aligned with overall company policies. When a policy is violated, management will step in and make certain the situation is corrected. Examples of functional area policies are provided in Table 7.2.

Table 7.2 Examples of functional area policies

Accounting	Methods of depreciation of assets Methods of inventory valuation
Marketing	Pricing systems Preferred promotional activities Protocols for hiring advertising agencies and public relations agencies
Human resources	Methods for recruiting and hiring employees that best match the company Pay systems Benefit programs
Production	Methods used for quality control

Once again, departmental managers are expected to abide by functional area policies. Any that are not followed should meet with quick and consistent correction protocols.

Company-Wide Constant Controls

As noted in Chapter 2, mission statements define the organization's overall purpose and reason for being. A corporation's board of directors oversees the application of the company's mission statement and is largely responsible for any alterations or revisions to that statement. Then, the CEO and other top managers will be expected to carry out the mission and prevent the organization from drifting off course. Vision statements then outline the direction for the organization as it moves into the future.

At the most basic level, mission and vision statements serve as the ultimate constant controls because they regulate and guide the entire organization. Top-level managers, even in companies without boards of directors, should constantly examine the path the organization takes, making sure the actions remain consist with these statements. Thus any activity that pulls the organization away from its mission should be corrected as quickly as possible. A few years ago, when Toyota experienced problems in the area of product quality, the CEO quickly apologized and promised to get the organization back on course. Over the years, many similar statements have been made by company executives when they recognized the need to remain true to the organization's mission. In 2013, Chris Franz, CEO of Peak Venture Group, stated the company needed to return to its core mission of reaching out to the community and providing resources to local entrepreneurs (Gillentine, 2013).

In summary, a series of individual, departmental, and company-wide standards and practices create one level of organizational control. Any time one of these guidelines is violated, managers are advised to step in and make immediate corrections. Organizations with high-quality, constant control systems are much more likely to survive and succeed over time. When constant controls are complemented by periodic controls, the company's odds of success rise to an even higher level.

Periodic Controls

Planning and controlling are inseparable parts of the management system. Standards are set in planning, and the controlling system uses those standards to identify and correct problems. The

standard control process consists of four steps (Anthony & Govindarajan, 2007; Steers, Ungston, & Mowday, 1985):

1. Review the standards set in the planning process.
2. Measure performance at the strategic, tactical, and operational levels.
3. Compare performance outcomes with the standards that were set.
4. Make a decision:
   - Successful performance should be rewarded.
   - Unsuccessful performance should be corrected.

Reviewing Performance Standards

Control processes are carried out on three levels: company-wide, departmental or functional area, and individual. These are the same three levels at which plans were written. At the company-wide level, the executive team is responsible for evaluation of activities. Departmental managers assess success in their functional areas. Supervisors working in concert with the human resources department conduct individual performance appraisals.

Planning forms the basis for an effective control system. Managers who fail to prepare quality standards have no basis for evaluating performance. The goal-setting literature (Locke, Shaw, Saari, & Latham, 1981) has taught us that quality goals reflect the following characteristics:

- difficult but attainable
- measurable
- clearly stated
- flexible

At all three levels, members of the organization should be challenged to achieve at the highest levels. Difficult but attainable goals establish an environment in which employees are not tempted to slack off when goals are too easy and are readily met, or to give up when goals are too hard. Measurable goals are a necessity. Without tangible performance targets, control systems cannot work. Clearly stated goals eliminate hedging and fudging. Managers and workers at all levels are accountable for results. Accomplishing the objectives that have been set forms the basis for promotion decisions and other rewards. Goal setting should remain flexible. When organizational circumstances change, the planning and goal-setting systems should be adjusted to the new circumstances.

Measuring Actual Performance

Many individuals and departments gather data to conduct performance analysis. This data can be quantitative, qualitative, or both. Staff members in various positions make reports that measure actual performance across the company.

Top management examines the documents in reports that contain information regarding strategic goals, such as market share, profitability, and well-being of various strategic business units. Judgments are made about the numbers as well as more subjective concepts, such as the strength of the company's brand name and image.

Departmental leaders report on statistics from each area. Examples include the items shown in Table 7.3. In the performance analysis process, individual measures are developed for the performance appraisal process: Production workers are assessed with measures of individual output. Salespeople face sales quotas. Each area has goals that have been set for individual employees.

Table 7.3 Tactical/functional analyses

Function	Examples of factors to analyze
Production	Costs, on-time delivery rates, consumer views of quality
Quality control	Rates of defects/returns
Marketing	Market share, brand loyalty or power
Sales	By total volume, product lines, individual products
Accounting	Errors noted by auditors
Finance	Cost of capital, liquidity, leverage (debt ratio)
Information technology	Quality of website, online ordering systems, support of internal operations
Research and development	Number of innovations adopted
Human resources	Rates of absenteeism, tardiness, turnover

Comparing Performance to Standards

Performance data that has been gathered can be compared with the established standards. For example, the budget is compared to the actual department income statement. The variance between the actual performance and the budget allows the manager to assess how he or she performed during the period in question. When making comparisons, five outcomes are possible:

1. The person or unit greatly exceeded the standard.
2. The standard was met.
3. The standard was missed slightly.
4. The standard was missed.
5. The standard was badly missed.

As an example, suppose a product has been on the market for six months. A sales goal was established for 100,000 units to be produced and sold in the coming year. If the total sales turn out to be 150,000 units, the standard was greatly exceeded and management must establish a more realistic standard for the following year. If the standard is met—for example, sales total 103,450 units—then those responsible receive awards. If the standard is slightly missed—sales total 99,100 units—managers may consider other factors, such as unreported units in December or other variables that contributed to a variance of less than 1%. When the standard has been missed (91,000 units sold), corrections will be made. When the standard is badly missed (63,000 units sold), then management may consider whether the new product is viable in the marketplace.

Making Decisions

Based on the information provided by comparing performance to standards, managers are ready to make decisions. Of the five possible outcomes of this analysis, some lead to relatively straightforward responses or decisions. A standard that is too low will be raised. A standard that is met should lead to rewards for those involved. A standard that has been slightly missed invites some scrutiny.

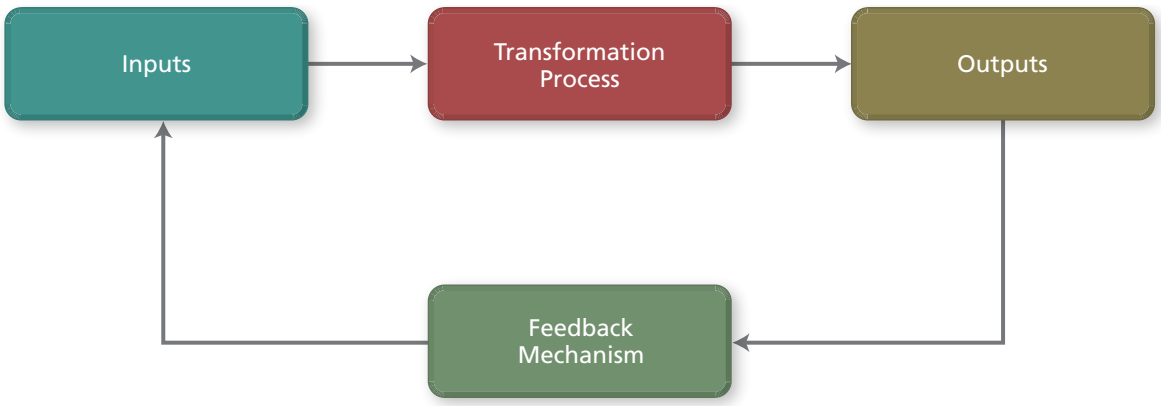
Standards that have been missed—or grossly missed—require the greatest amount of investigation and concern. When the standard has been missed, more substantial corrections need to be made. When the standard has been grossly missed, managers will meet to consider whether to stop the activity or create some kind of major overhaul (Maciariello & Kirby, 1994; Weiner, 1948).

The controlling process may be considered as a feedback device for company leaders. Decisions reached in the controlling process lead to new plans for the future. Standards allow for effective management of the organizational system at each level: company-wide, departmental/functional area, and individual. We consider functional area controls next.

7.2 Functional Area Controls

Each department sets goals for its own operations. At times these goals apply not only to the department but also to the overall company. For example, if a manufacturing company has only one production department, then the departmental goal becomes the company's goal. Using the process noted in Figure 7.1, control systems help managers in each functional area (production, marketing, finance, etc.) collect information about operations in their departments. This enables them to make better decisions about how to fix or improve activities in each part of the company. In each department, the fundamentals of the systems approach can be used to make corrections to any problems that have been identified. Figure 7.1 portrays the flow of items in a general control system.

Figure 7.1 A control system



In a departmental system, inputs include whatever items come into the area. For production, this means raw materials; for human resources, it is people. The transformation process is the department's key function, including the assembly of physical products and the development of intangible services. Outputs are the finished items sent on to the next department or to the outside environment. An output for the accounting department would be the annual income summary. The feedback mechanism provides correction and adjustment, keeping the department in tune with other departments and the larger environment. Systems concepts help departmental managers identify problems and find solutions.

Production and Quality Control

Production and quality control are closely linked. Production represents a line function, and quality control is more of a staff function. In the area of production, four standard types of goals are set:

1. Quantity
2. Quality

3. Cost
4. Time

Performance figures in these areas are then met with various responses and corrections.

Quantity Goals

Quantity goals may be established by unit or by volume. DVD players are counted in units. Beer breweries count liters or gallons. At times, quantity goals are more complex. For instance, managers in a construction company that is building a major structure that will take more than one year to complete will still want to know if output levels are sufficient. To access this information, they use benchmarks to note the completion of various tasks. A standard is set for completion of the framing. A second standard applies to finishing the wiring system. In this way, the manager knows more about the level of productivity.

Quality Goals

Quality goals are applied in various ways. For some operations, quality will be represented by exceeding a threshold. For example, a building must pass all inspections to be considered of high enough quality to be sold and inhabited. A customized insurance plan sold to a company must be complete before being put into place.

▲ A building must pass all inspections to be considered of high enough quality to be sold and inhabited; in this case, quality is represented by exceeding a threshold.

Other standards are set and examined by variation and defect levels. An example of this would be an automated injection molding machine tool that produces golf balls. This particular golf ball specification requires a dimpled cover of thermoplastic with a thickness of 0.30 in. and an overall ball diameter of not less than 1.680 in., as defined by the U.S. Golf Association, but less than 1.685 in., as defined by the manufacturer. Each ball is carefully and automatically measured as it moves through the production line just before the finishing process to make sure it meets design specifications. Balls outside of the specifications are rejected and recycled. If more than 0.5% of the balls are rejected, management intercedes, stops production, and requires process recalibrations. In this way, scrap is limited, costs are managed appropriately, and a high-quality golf ball is produced for the golfer. Quality control tests like these are found in many forms of manufacturing.

A third set of quality goals examines intangible, qualitative issues. Examples include customer satisfaction and loyalty. Consider a restaurant setting, where production of food is only part of the story. For the production system to work, people must enjoy the food they eat. No hard standard can be set, yet managers still want to know whether customers are pleased with their purchasing experiences. Surveys and questionnaires can make available numbers that provide helpful information, such as where the company ranks in the industry in terms of customer satisfaction.

Cost Goals

The production manager needs information about the efficiencies, or lack thereof, of the department's operations. For instance, what costs are incurred by using raw materials, paying labor, storing merchandise, and shipping products to buyers? Quality control adds information by measuring the number of defective units that were discarded or required additional funds to repair.

Time Goals

Time goals reflect whether items have been produced on schedule. These goals are set in various ways, such as the number of units per day, week, and month, or other means. A large project will have a goal established as a deadline. For example, the publication of a book has a defined production date and release date. Time goals measure the efficiency of the department.

Measures of Performance: Production and Quality Control

Production managers and quality control officers prepare reports for purposes of control. In many cases, these reports are written every day. For example, a newspaper production manager prepares a report for a daily edition. Each day, the newspaper has a different number of pages. In a smaller community, a Monday paper may be as small as 16 pages. Sunday papers normally have four or five times more pages. The production manager notes the page count of the edition, the amount of newsprint and ink used, and the starting and stopping time for the production run. The report also mentions the number of unusable, discarded papers. In this way the manager has reported on quantity, quality, and time.

Quality control managers also report on defects. They may be asked to provide information about the causes of defects or problems. This information can be used to make the needed corrections. The accounting department will generate the final set of statistics and information. Cost information will be assessed and stored for future use.

These measures can be combined into quarterly, semiannual, and annual reports about the production department's level of efficiency (low cost) and effectiveness (high quality).

Making Corrections: Production and Quality Control

The systems approach (see Figure 7.1) applies most directly to the production department. Inputs are the materials and labor needed to manufacture products. Inputs can be changed through improved **sourcing** or by acquiring high-quality raw materials.

The transformation process is the production process. Production transformation processes can be redesigned or streamlined to reduce defects or improve quantity levels.

Outputs are finished goods and services. Outputs reflect changes in the actual products to be sold. Items such as mobile phones continue to evolve as new technologies make it possible to increase their number of uses.

The feedback mechanism measures performance. Feedback mechanisms can be fine-tuned to identify problems more quickly and correctly. Currently, methods to ensure food safety have been restructured due to outbreaks of *E. coli* and other bacterial foodborne illnesses.

Marketing and Sales

The marketing department manager considers various goals when creating plans. The manager works in conjunction with other departments, most notably production, to make sure that items

are tailored to customer needs. When services are marketed, they must also be of sufficient quality to attract customers and sales. The marketing and sales departments have four common goals (Clow & Baack, 2010):

1. Market share
2. Sales quotas
3. Share of mind (consumer awareness and loyalty)
4. Marketing and sales costs

If there is only one sales department, these standards become company objectives as well.

Market Share

Market share measures the company's percentage of total sales in an industry or a subset of an industry. The executive team and marketing manager examine statistics about the state of the industry, whether the overall marketing is increasing, stable, or declining. Then market share can be assessed in several ways, including total company share, division share, brand or product line share, or individual product share.

Total company share measures how well a company fares in a market. For example, PepsiCo would examine its total in the food and drink industries. Division share would be statistics about sales and market shares of the various major components including snacks (Frito-Lay), breakfast drinks (Tropicana), soft drinks, energy drinks (Gatorade), and breakfast foods (Quaker). Brand or product line would divide Pepsi's soft drinks into products with the Pepsi name and Mountain Dew products. Market share would be assessed at the product level, such as share of Caffeine Free Diet Pepsi.

Sales Quotas

Sales quotas are examined at all three levels: company-wide, departmental, and individual. Additional sales quotas can be assigned to divisions, product lines, and individual products. Marketing and sales managers take both an overall view of sales and a more specific view of sales activities.

Share of Mind

People will not buy a product or use a service unless they know about it. **Share of mind** (also known as *consumer awareness* of the company) indicates that consumers consider a company when they want to buy a product. Share of mind reflects the degree of consumers' awareness of a company's existence and thus how inclined they are to visit that company or store. Loyalty means they will go to a company or one of its specific products first when making a purchase decision (Baack, Till, Magnusson, Zdradkovich, & Baack, 2007).

Marketing and Sales Costs

Marketing and sales managers spend money to generate money. Marketers create advertisements, promotions and sponsorships, contests and sweepstakes, and other activities designed to entice people to come to a store and buy a product. The same is true for sales, where the sales manager pays travel expenses for salespeople, defines commissions, and sets up other rewards for increasing a company's customer base. These managers want to know if the money has been spent wisely.

Measures of Performance: Marketing and Sales

Marketing and sales managers use several devices to measure performance. Market share information is found in industry and trade publications. Market share statistics also are prepared by local agencies, including governments and educational institutions, for small businesses in a town or city. Sales quotas can be examined using sales reports by individual employees as well as sales summaries prepared by various departments for accounting purposes.

Share of mind and customer loyalty figures are collected in various ways. Share of mind can be measured through ratings of advertisements in various forms. Other measures come from redeemed coupons, entries into contests, and website hits. Customer loyalty normally requires more in-depth market research. The accounting department reports the costs of marketing and sales programs.

Making Corrections: Marketing and Sales

Using the systems model, corrections in the area of inputs include attracting and hiring quality marketing experts and salespeople. Most corrections are made in the transformation process, where the marketing manager considers changes in pricing and discounting programs, product positioning, distribution methods, and methods of promotion including advertising, personal selling, promotions (coupons, contests, rebates, bonus packs), and public relations activities such as sponsoring charities or various events. Marketers may have some control over outputs, although it is limited.

At times, marketers consider changing feedback mechanisms, or how performance is measured. A salesperson may be generating high sales figures but is doing so by spending a great deal of money on travel and offering huge discounts to entice purchases. The marketing and sales manager might wish to fine-tune how sales success is measured.

Human Resources

The human resources department often serves the entire company. Departmental goals represent company-wide goals as a result. The standard measures of performance in human resources, in addition to the cost of running the department, include the rates of absenteeism, tardiness, turnover, accidents, grievances, and vandalism. Statistics like these reflect the degree of employee satisfaction within the company. Happy, satisfied workers tend to arrive at work on time. They pay attention and are less likely to be accident victims. They see no reason to file grievances or damage company property. They wish to keep their jobs. Conversely, if you have ever held a job you did not like, these factors probably came into play. Human resource managers

▲ Human resources managers' performance can be measured based on the degree of employee satisfaction.

are held accountable for these goals, because their primary responsibility is attracting the right people to the company. Matching people with jobs constitutes a key ingredient in success.

The cost of the department reflects the concept that human resource managers spend money on recruiting and selection processes. They should spend the money carefully and efficiently. Human resource managers often are asked to balance the costs of benefit programs. The accounting department provides cost information for the purposes of control.

Measures of Performance: Human Resources

Typically, the human resources department is actively involved in evaluation operations. These managers are asked to prepare statistics regarding accidents (lost work time), absenteeism, tardiness, turnover, disciplinary actions, grievances, and instances of vandalism.

Making Corrections: Human Resources

Human resource managers use the systems model (see Figure 7.1) to create various corrections. Inputs are associated with recruiting and selection methods. The company needs to identify and use the best possible employee sources. The transformation process includes orientation, training, discipline and rules, and workplace safety programs. Each of these areas can be improved to increase worker satisfaction. Outputs are normally not a consideration for human resources. The feedback mechanisms include all methods of assessing performance for individuals and for the department. This includes performance appraisal programs and statistics used to evaluate the effectiveness of employee placements.

Information Technology and Research and Development

Performance in the areas of information technology and research and development is more difficult to assess. The problem is due largely to the inability to create measurable, tangible standards. Company leaders clearly need an effective information technology system; however, what numbers can be assigned to that concept? The same holds true for research and development. Establishing concrete goals is problematic.

A **management by objectives** system, which is a participative annual goal-setting program, has value in these areas. Individual employees and their managers can establish work-specific goals, such as completing a website update or completing a product's physical form. At the least, these goals give company leaders an idea of how well the departments are functioning.

Further, a company's statement of vision and mission can direct the activities of the information technology (IT) and research and development (R&D) departments. These departments should focus on activities that support the overall direction of the organization. When the work moves the company away from its intended direction, corrections can and should be made.

In summary, the four parts of a system can be used to make corrections on a departmental or company-wide basis. Various parts of a systems model are emphasized, depending on the functional area corrections required. Production, quality control, marketing, sales, human resource, information technology, and research and development goals all deserve careful attention as part of the controlling system.

MANAGEMENT IN PRACTICE

Management by Objectives

Beyond the use of the systems approach to understanding the activities of a department and corrections to be implemented when performance is lower than expected, other devices are available to link planning and control in meaningful, useful ways.

Over the past half century, a variety of organizations have used management by objectives, due to its ability to link planning and control. In a quality management by objectives program, the following steps are carried out at every level, from entry-level employee to CEO:

1. Job analysis (states the primary emphasis of the job)
2. Employee preparation of an annual goal list
3. Manager preparation of personal and employee goal lists
4. Supervisor and employee meeting to negotiate a goal list
5. Follow-up

In this type of system, employees begin by outlining their intended goals for the coming year, based on the primary emphasis of the job. By the end of step 3, an employee has a personal goal list as well as the one prepared for him or her by an immediate supervisor. The meeting in step 4 merges the two lists into one. Then, performance evaluation follows after the year has gone by.

The value of using management by objectives as a control system is that individual performance at the lowest level is aligned with goals and performance measures at each level of the organizational hierarchy. Consequently, the control system becomes based on quality standards set by individuals and supervisors. This benefit explains the popularity of the management by objectives system.

Remember, however, that an effective management by objectives program must be sponsored by top management. Companies should be in a position to reward the performances of those who achieve their goals. Effective goals are clearly stated, measurable, and attainable. The system must be designed as part of the annual calendar, so that employees are comfortable with it. When these conditions can be met, the program can contribute to employee morale and organizational performance through an effective planning/control system program that can be tailored and adapted to each function and department.

7.3 Accounting and Financial Controls

Accounting and financial officers are responsible for planning and control in unique ways. Each department manager sets departmental goals. At the same time, planning processes in these areas affect numerous parts of the company. Three common goals are established for these departments: profitability, cost of capital, and increasing efficiencies in company operations. The first two goals pertain to departmental activities; the third applies to the entire organization.

Profitability Goals

Profitability goals are assessed using a variety of instruments. The income summary or P&L (profit and loss) statement is the most common. Figure 7.2 provides an example of an income summary. Other profitability standards are calculated, such as the company's return on investment (ROI), earnings per share of common stock (EPS), and dividends per share (DPS) paid to shareholders. Profits are required to stay in business, making profitability goals key elements.

Figure 7.2 An income summary

Income Summary	
	Amount
Total Sales	$100,000.00
Cost of Goods	(30,000)
Gross Profit	$ 70,000.00
Operating Expenses	(15,000)
Gross Operating Income	$ 45,000.00
Depreciation	(5,000)
Net Operating Income	$ 40,000.00
Other Expenses	(10,000)
Unusual Income	5,000
Net Income Before Taxes	$ 45,000.00
Taxes	(25,000)
Net Income After Taxes	**$ 20,000.00**

Cost of Capital

The minimum return that investors expect to see from a company they invest in is described as the cost of capital. A **balance sheet** reports on investing and other business financing activities of the organization (Table 7.4). It lists amounts for assets, liabilities, and equity at a specific time and does so by using the accounting balance sheet equation (Assets = Liabilities + Equity). Accounting for these amounts gives both the organization's management and other organizational stakeholders a realistic view of the organization's financial condition.

Table 7.4 Balance sheet information

Assets		Liabilities		Equity
		(short term)		
Cash		Trade credit		
Short-term securities	=	Bank loans	+	Common stock
Accounts receivable		Commercial paper		Paid in surplus
Inventory		(long term)		Retained earnings
		Bonds payable		
		Notes payable		

Increasing Efficiencies of Company Operations

Accounting and financial managers oversee the operations of the entire company. They are responsible for conducting the types of financial analyses and annual financial planning that will lead to the efficient use of company operating funds. The three primary methods for conducting this research and making reports to the executive management team are ratios, budgets, and audits.

Ratio Analysis

Ratio analysis takes the financial information made available to the accounting and finance departments and helps company leaders understand how well various operations are running. When problems are identified, managers can make the appropriate adjustments and corrections. Four types of ratios are presented in Table 7.5.

Table 7.5 Types of ratios

Liquidity ratios	Measure the company's ability to meet its short-term obligations by paying its debts on time
Activity ratios	Measure efficiencies in company operations
Leverage ratios	Measure company debt and risk
Profitability ratios	Assess company profits

Liquidity Ratios

To remain solvent, the company must pay bills on time. **Liquidity ratios** are designed to make sure the company has enough money on hand. Two liquidity ratios are the current ratio and the quick or acid test ratio. A current ratio is calculated as follows:

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}} = 2{:}1$$

Current assets are all items that convert to cash in the coming year, including cash on hand, accounts receivable, inventory, and any other payments due to the company. Current liabilities are all items that must be paid in the next year. These are normally accounts payable, bond/loan payments, and any other credit accounts. The 2:1 figure suggests that the company has twice as many current assets on hand as current liabilities—a fairly typical ratio in industry.

The quick or acid test ratio is calculated as follows:

$$\text{Quick ratio} = \frac{\text{current assets} - \text{inventory}}{\text{current liabilities}} = 1{:}1$$

The reason for eliminating inventory is that normally it could not be quickly sold at full value. Therefore, the acid test indicates whether a company could make payments without liquidating inventory. A 1:1 ratio suggests that the answer is yes.

Activity Ratios

Activity ratios assist managers in understanding how well certain company activities are being carried out. Two common activity ratios are inventory turnover and average collection period. To calculate inventory turnover, the following formula is used:

$$\text{Inventory ratio} = \frac{\text{total annual sales}}{\text{average inventory}} = 7 \text{ times}$$

The manager will see from this outcome that the store or unit sold its entire amount of inventory seven times during the course of the year. It will depend on the industry whether this is a good

or a bad number. If it were a grocery store, the company would be in trouble. If it were a tractor manufacturer, the retailer would be having a great year.

Average collection period measures the time it takes to collect on debts. It is calculated as follows:

$$\text{Average collection period} = \frac{\text{sales per day}}{\text{average accounts receivable}} = 23 \text{ days}$$

Sales per day results from dividing total annual sales into 360. The resulting figure tells the manager that, from the time an item was sold until it was paid for, 23 days passed. Some accountants prefer to use the total credit sales per day rather than total sales per day, thereby eliminating the effects of cash sales from the outcome.

Leverage Ratios

Leverage ratios measure company debt and company risk. As noted previously, the greater the amount of borrowed money, the greater the risk. Many formulas are available to assess leverage. One simple version, a ratio of debt to equity, is calculated as follows:

$$\text{Debt-to-equity ratio} = \frac{\text{total debt}}{\text{total assets}} = 45\%$$

In this instance, debt represents 45% of the value of all company assets. The manager would know the company owes 45% and owns 55% of its assets. Top management preferences normally dictate the amount of debt to be assumed by the company. Using more debt will likely increase profitability per share of common stock, but at the same time it will increase the risk level.

Profitability Ratios

Besides the income summary, company leaders may wish to examine profitability in other ways. **Profitability ratios** measure company financial success. One common ratio used for that purpose is profit margin.

$$\text{Profit margin} = \frac{\text{net income after taxes}}{\text{total annual sales}} = 12\%$$

This figure tells the manager that after every bill has been paid, including the tax bill, the company earned 12 cents on every dollar of sales.

Analyzing Ratios

When analyzing ratios, it helps to remember that they can be either used or misused. Two common ways ratios are misused include manipulating the numbers and overemphasizing a single ratio.

Managers can manipulate numbers through tactics such as miscounting inventory and overstating or understating sales. Doing so may keep a manager from having poor performance exposed in the short term; however, over time the truth will come out. When top managers overemphasize a single ratio, they are not looking at the full picture. One number might be unusual or off, but without seeing how all other figures fit in, the manager fails to see the big picture.

Effective use of ratios begins with having a frame of reference. Two of the best are industry averages and past year's ratios. The manager can see how a company's operations compare to what happens in the industry. For example, if the company's average collection period is 23 days, but the industry average is 32 days, it may be that other companies are offering more generous repayment terms. The company may lose sales to these competitors as a result. Past year's ratios provide guideposts to current operations. When numbers begin to trend or drift in a certain way, the manager can respond with corrective action when needed (Bedeian, 1986, pp. 561–563; Belverd & Powers, 2010).

The Budgeting Process

As noted in Chapter 1, a budget is an annual financial plan. In most organizations, the budgeting process is complex. In government organizations it can be especially complex as public policy and politics come into play. In a business organization, the distribution of precious resources can enhance interdepartmental conflicts and rivalry, further complicating the budgeting process. Nonetheless, managers are called upon to construct a budget that will allow the organization's goals to be met by following a staged process across the organization. The typical steps in the budgeting process are as follows (Steers et al., 1985):

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▲ The process of budgeting allows managers to plan ahead, allocate resources, and establish priorities.

1. Executive management initiates the budget process. The CEO or CFO informs department managers of the periodic organizational goals and advises on estimated resource availability. Normally, this is an annual process.
2. Each operating unit or department prepares a preliminary budget. With the goals and objectives as well as the financial resources, each department manager prepares a preliminary budget, which defines how those resources will be used to attain their unit's productive activities.
3. Executive management—the CEO/CFO (or budget committee reporting to the CEO and CFO)—reviews, modifies, and approves the preliminary budget. At this step in the process, critical coordination of organizational activities is achieved.
4. Budget performance is evaluated during the budget period to assess compliance. Variances from the approved budget are reported to the CEO or CFO by each manager (typically on a monthly or quarterly basis), and correction plans and initiatives are designed to bring operating realities into conformance with the approved budget.

The first three steps in this process are planning steps. The final step represents the controlling function.

Forms of Budgets

Various types of budgets are part of the planning and control system. A pro forma income summary spells out expected revenues and expenses during the course of the year. Departmental

budgets are generated at that point. Each department manager knows the amount of funds he or she will be assigned to operate over the next 12 months.

As noted in Chapter 2, three types of budgets are common in business: incremental budgets, zero-based budgets, and rolling budgets. These budgets are used to allocate funds to individual departments. Incremental budgets are easier to prepare; however, they exhibit the greatest tendency to allow managers to build "slack" into the system, where they have excess funds. Zero-based and rolling budgets facilitate coordination of activities and tend to reveal process redundancies, excessive spending, and planning problems. Budgets tend to improve resource allocations by helping managers make decisions about what is important in the organization.

Benefits of Budgeting

Budgeting programs offer various benefits to company leaders. First, by putting together an annual financial plan, the manager engages in the planning process. In some organizations, that alone is a major accomplishment. Far too often, managers want to run things by the seat of their pants rather than planning ahead. Budgeting forces managers to plan.

Budgeting allocates resources. The budgeting process designates amounts of money to be spent by various departments. Some of the funds are set aside for pay programs, bonuses and pay raises, and other incentives. Budgeting can become part of the motivational system.

Budgeting establishes priorities. Funded items are clearly more important. Budgets can be used for special projects and assignments as well as for the yearlong normal funding program. A manager has a sense that management values his or her project when it receives money. Budgeting is an excellent controlling device. Budgets can be established for departments along with other standards and objectives. In that way, a manager has a clear idea of what needs to be accomplished in the timeframe involved.

Budgeting Problems

As was the case with ratios, budgets can be used or misused. Problems emerge when managers abuse the budgeting process. Issues can arise on both the planning and controlling side of the budgeting program (see Table 7.6).

Table 7.6 Budgeting problems

Planning	Control
Poor forecasts	Overemphasis on the short term
Politics	Manipulating outcomes
over-asking	Using as a policing device
horse trading	

On the planning side, two major problems that occur are poor forecasts and company politics. Poor forecasts of future sales distort the entire budgeting program. When revenues are badly overestimated or underestimated, departmental allocations no longer work. Managers who do not take the time to obtain quality forecasts hurt the budgeting process.

Company politics take two forms. The first, over-asking, means departmental managers put in budget requests with amounts that far exceed their needs. The goal is to build a "war chest" or "slush fund" to hold for use in emergencies. Funds are not allocated efficiently when this occurs, and the budgeting program becomes essentially a guessing game.

The second problem, horse trading, involves trading favors in exchange for larger budget allocations. A manager essentially plays politics rather than seeking to achieve organizational goals. The net result will be companies in which distrust of the budgeting process is commonplace.

On the controlling side, budgets create problems when managers overemphasize the short term. For example, suppose a department manager faces a budget in which 100,000 units were to be produced during the year. It is December, and only 88,000 units have been finished. Due to worrying about what will happen if the target is not met, the manager authorizes overtime, ignores routine maintenance of equipment, and angrily chastises workers to hit the target. Even if the goal is reached, workers are upset, tired, and the equipment becomes more likely to break down in January (Argyris, 1952).

Some managers simply cut corners in order to manipulate outcomes. They create sales that will be made into returns at the beginning of the next budgeting period. Others count defective items as finished goods in order to reach quotas.

When a budget becomes a policing device, it is used to justify personnel decisions: A manager is informed that she will not receive a pay raise due to failures to meet standards. Another manager is being passed over for promotion because she did not manage her budget adequately. At the extreme, a manager who failed to meet budget requirements is terminated. These tactics turn budgeting into the enemy of workers. Budgets that are used to place blame serve little other purpose (Nobles, Mattison, & Matsumura, 2014; Tosi, 1974).

Creating Effective Budgeting Programs

To overcome potential problems with budgets, managers must take proactive steps to make sure the process works properly. Doing so involves activities in three areas: planning, control, and both planning and control (see Table 7.7).

Table 7.7 Effective budgeting programs

Planning	Control	Both
Effective forecasting	Correct problems	Participation
Reduced politics	Long-term view	Future oriented
		Systematic approach

On the planning side of budgeting, accurate forecasts of sales and revenues are crucial. Only then do the budget allocations work properly. You can never eliminate politics, but you can become aware of them. Employees who try to play games with the system should be admonished.

On the control side, budgets should be viewed as methods for solving problems rather than placing blame. When employees see the budget as a tool rather than a whip, the system works better for both short-term and long-term tasks.

On both sides, employee participation should be encouraged when setting standards and creating budgets as well as when measuring results. Doing so creates a sense of empowerment in the work force. Individual employees are more likely to "buy in" and try to set and achieve quality standards. Budgets that focus attention on the future rather than dwelling on the past are of greater value. And finally, budgets should be built into the calendar. Every employee should know when

it is time to set standards and when performance will be measured. The budgeting process should feel like a natural part of the yearlong work cycle (Welsch, 1976).

In summary, the budget process offers the potential to establish reliable links between a company's planning and controlling systems. The standards set for individuals and departments can be used to increase performance and keep the organization on track. Effective managers take the time to make sure a budgeting system works the way it should.

Auditing

Auditing is a crucial component of any control system, but it is especially critical in financial reporting and control activities. Auditing takes many forms, including internal auditing, external auditing, tax auditing, software auditing, risk-based auditing, and fraud auditing. In this section, we discuss auditing as a control function, not as a practice experienced in an accounting course of study. **Auditing** is an assessment of a person, organization, system, process, operation, project, or product. Auditing is most commonly used to make sure that all financial and accounting statements are accurate. However, auditing processes also exist for cost management, project management, quality management, hotel front desk operations, energy conservation, and, of course, tax return auditing conducted by the Internal Revenue Service (IRS), state tax agency, or local government office.

In most organizations, auditing systems (either internal or external) exist to assure that financial statements are reasonably free from material error, accounts reasonably reflect their actual balances, and systems procedures are sufficient to provide accurate and reliable data. External financial audits for publicly traded companies are often conducted by applying standards defined by American Institute of Certified Public Accountants and potentially the International Standards on Auditing.

Quality auditing is conducted to assure conformance with standards defined by the organization or potentially an externally defined process such as ISO 9001. Quality audits, somewhat like financial audits, require review of objective evidence associated with the defined process, except the quality auditor is an internal agent of the organization with the authority to pass such judgments. Quality audit processes often judge the conformance or nonconformance as well as operational practices that lead to the result evaluated.

Auditing at any level of the organization or individual level is an assurance and conformance process intended to ensure that defined policy, procedure, practice, and compliance are carried out. Auditing benefits the organization and its management as a critical control function, without which both internal and external stakeholders would be unable to make firm judgments and decisions on behalf of the organization.

In summary, the accounting and finance departments have major responsibilities that include managing money and assisting in the planning and controlling processes. Ratio analysis, budgeting programs, and audits make the job of managing the entire company run more smoothly. These processes enable management to make the kinds of corrections that will put the organization back on course when problems have been discovered.

7.4 Other Forms of Control

Controlling systems also allow managers to identify variation from expectations and suggest actions appropriate to return the process to standards. When controlling systems (and methods) are not managed properly, some workers are bound to view them as unpleasant nuisances. Ensuring employee acceptance of controls is essential to effective organizational management. If organizations fail to be efficient and effective, they are unlikely to survive long in a competitive environment. Managers must be able to measure the use of organizational resources (capital, labor, raw materials, etc.) in producing a particular form of organizational output and to control variables continuously with the intent of improving the quality and quantity of that output. Managers must also take the initiative to continuously improve the organization's output methods with the intent of improving the efficiency or quality of that output. Without doing so, organizations likely will find competitors taking market share. Control is essential to the very success of the organization. Other forms of control include feedforward controls, concurrent controls, feedback controls, and Total Quality Management systems.

Feedforward Control

Feedforward controls are used to anticipate problems (Koonz & Bradspies, 1972). In this system, managers establish methods to identify potential problems and incorporate solutions into the process in advance. An example of this type of control is a well-conceived employee handbook that defines work rules, clear shift hours (including starting hours, break times, and shift end), and other important policies. The handbook anticipates most employment problems and defines correction systems before the employee is hired. The use of proficient employment applicant screening such as interviewing techniques and background checks allow managers to increase the potential of a satisfied and productive work force.

As another example of feedforward control, consider a university leader who receives a report that the population of potential college-aged students will decline significantly in the next decade. The university could begin to implement actions that would entice students from greater distances to apply or design programs for other groups to help continue to fully use the university's facilities and staff in the future.

Concurrent Control

Concurrent controls manage problems as they are encountered. This type of control alerts managers when machine parts fail to meet specifications and enables managers to address the problem immediately at the point of defect. Concurrent controls are central to continuous improvement initiatives designed to increase quality and reduce defects in production operations. Concurrent controls are used when a salesperson adjusts the sales pitch in response to customer questions. Concurrent controls appear when a building project must be modified midcourse due to an unexpected change. Any time an individual employee or manager can respond in real time to a problem or concern, concurrent controls are present.

Feedback Control

Feedback controls involve managing problems after the fact. Many of the control systems discussed in this chapter have feedback elements, which solve problems after they have been discovered. These systems assist managers in making decisions about product quality, product features, pricing, and so forth. In this way, managers can make appropriate changes to meet market

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▲ Occasional control is a form of feedback control that is undertaken only for specific incidents, such as an accident.

demands and expectations. Managers may discover that a particular design feature can be easily damaged in service and, as such, may require some redesign or complete abandonment to improve product life or customer usage. Managers may have estimated sales to be higher than realized, and production output must be reduced.

One form of feedback control is an occasional control, which is undertaken only for specific incidents or problems. For example, at the customer or user stage of the product or service cycle, managers use various feedback or occasional control systems to gather detailed information through satisfaction surveys, customer product returns, service complaints reports, sales reports, and so forth. Then a report or memo may be written to help the manager in charge address a specific problem. The same would be true in the case of an accident. Management investigates the incident, looking for causes that could have been prevented as well as methods for coping in the event of an accident. Reports and proposed changes will follow and are implemented.

Total Quality Management

One form of concurrent control is a total quality management (TQM) program. A key principle of both TQM and a similar program, called Six Sigma, is the philosophy that it is best to identify and correct defects in any process to produce a more reliable and higher-quality product. In doing so, managers often delegate significant responsibility to workers to stop production lines as soon as they detect a problem.

Quality is one of the significant functions in the value proposition customers consider in selecting products and services in the broader marketplace. In the modern organization, quality is everyone's business. In this section, we explore quality as a value that can be controlled by applying practices and controls.

Quality control emphasizes testing of products and services, typically by applying sampling and statistical analytic techniques (Deming, 1960). The purposes are to uncover defects in manufacturing or delivering services by using predefined quality matrices as well as to improve, stabilize, and increase production. Quality assurance through quality auditing, as previously discussed, is intended to identify the issues leading to the creation of product service defects and to advise management on measures to correct and improve the processes.

W. Edwards Deming is often rightly credited with initiating the quality movement, first in postwar Japan and later in the United States. His philosophies of quality have become part of virtually every business organization and likely are the foundation of the modern quality orientation. Deming emphasized constant quality improvement for the purposes of increasing the productivity and profitability of the entire business or TQM (Deming, 2000). While Deming emphasized testing and statistical analysis, he recognized the focus of quality-infused pride of workmanship, job security, and organizational stability.

Modern quality control systems are largely automated and address both corrective and preventive components. Systems now streamline audit management, provide integrated customer complaint modules, and allow all information to be delivered via networked computer systems. Even though automation has emerged, easing the backend workload and conducting many statistical processes, attention to quality remains the responsibility of the work force.

TQM and Organizational Change

While control is a central management function intended originally to keep organizations and organizational processes on track, a by-product of control is the ability of managers to use control systems to help guide organizations through change. A notable example of this approach is the Ford Motor Company, which in 1973 produced an all-time high of 2.35 million vehicles in one year. Company leaders discovered during the late 1970s that Japanese automobile competitors were overtaking them in critical areas of consumer satisfaction, quality control, delivery to sales units, cost control, and even sales. These influences were beginning to eat away at Ford's sales and profitability. The company management at the time was determined to overcome these obstacles by studying Japanese manufacturing systems (influenced by the philosophies of Deming) at Toyo Kogyo, the manufacturer of Mazda automobiles.

Ford officials implemented two new approaches to managing the business: just-in-time (JIT) manufacturing and TQM. While the implementation of JIT and TQM took nearly three years of difficult change in the organization's culture, not just in its process, Ford emerged with a profit in 1984. These invaluable control systems created the foundation for advancing a new corporate strategy. The company soon sported new models, including the then heralded Ford Taurus and Mercury Sable line and a new company vision statement: "Quality is job one!" Those lessons from 30-plus years ago again helped Ford in its most recent crisis, experienced during the recession of 2008 through 2011, when the company found itself the last domestic automobile brand not in bankruptcy. Company management's experience in developing appropriately designed control systems likely provided the foundation for maintaining solvency during difficult times as well as moving the business forward into the emerging and competitive realities of the market. Ford's business rebounded again, and customer satisfaction, sales, and profitability increased.

Control System Challenges

While most control systems serve the intended purpose, no control system is perfect. They often do not work as intended. The reasons behind this phenomenon are many, but often can be categorized in one of the general systems problem areas attributable largely to humans involved in the process. Some of the challenges that affect control systems include

- rigid bureaucratic behavior
- invalid data reporting
- employee resistance

To create an effective control program, each of these challenges must be overcome.

Rigid Bureaucratic Behavior

The modern, highly productive organization typically demands extremely precise work in large quantities to meet market expectations and pricing demands. Job requirements are specific, and employees must follow processes carefully to produce what is expected. In these mechanistic

organizations, employees need to be highly skilled. They also must learn and apply organizational rules and regulations (Fayol, 1949). In such organizations, the system reinforces process decision making with little or no flexibility. Workers, therefore, continue to execute their duties as defined, and managers respond only to address the exceptional occurrences.

These processes, with their emphasis on reliability and repeatability, seem designed to ensure complete organizational bliss. But such conditions can and often do lead to unintended and dysfunctional consequences. Workers (like all humans) tend to exhibit forms of behavioral momentum that can lead them to dogmatically follow organizationally sanctioned behavior even when conditions change. Such behavior can and does lead to inflexibility and problems with organizational customers, clients, other employees, vendors, and others.

A restaurant waiter may be disinclined to allow a modification to a menu, a university employee may resist a student's request for an unusual course schedule change, or a salesperson may not accept an order with specifications different from standard on the product or the billing schedule. A worker may reject making even simple changes that do not follow the rigid, bureaucratic organization standard.

Invalid Data Reporting

The most deceitful of the control system challenges occurs when workers purposely report inaccurate, incomplete, or distorted information. Examples include manipulating budgets to receive unneeded resources, changing numbers to reach better ratio figures, and altering findings in the control process. It is not that workers are particularly dishonest, but that they work under a control system that may make them feel compelled to provide inaccurate, incomplete, or distorted information in order to survive and maintain a job in the system.

Courtesy Everett Collection.

▲ The Enron scandal is a well-known example of the problems that result from invalid data reporting.

An infamous example of the problems caused by invalid data reporting comes from Enron. This business scandal of enormous proportions has numerous threads: many, many people were implicated, and dozens were tried and convicted. But the real lesson from a control systems perspective is that the seemingly honest, hardworking people in this company and "Big Six" accounting firm Arthur Andersen were lured into reporting false data.

Until the Enron scandal, Arthur Andersen had a long history of business success, much of it from providing auditing services to publicly traded firms like Enron. Each of the auditors associated with the scandal had spent years preparing to enter the field. They earned accounting degrees, certifications, and worked up the chain of command in the firm. All of them had excellent reputations. Arthur Andersen's lead auditor, David Duncan, arguably shredded documents to prevent the scandal from leaking and to minimize the impact of the scandal on his employer while also shielding himself from liability in the case. His act was likely one of self-survival. Although the U.S. Department of Justice eventually dropped Mr. Duncan's case, accounting giant Arthur Andersen was convicted of crimes and no longer exists.

Employee Resistance

Workers often resist change in the work environment—even a positive change (Baack & Cullen, 1994). Control systems can lead to resistance. The resistance can take various forms, including individual resistance (defiance, reduced productivity, etc.), organized resistance (unionizing, strikes, slowdowns, "blue flu," etc.), or even complete employee disregard for the control system. When resistance occurs, the response by the worker's supervisor is critical. Generally, workers do not seek to be controlled and do not appreciate receiving orders from their supervisors. Yet control systems, orders, and corrections are a part of every organization. Everyone is subject to these forms of control in one way or another. To overcome resistance, the positive elements must be emphasized (see feature box).

Overcoming Resistance to Control Systems

1. Emphasize the value of control systems to workers.
   How: Explain how feedback can be used to improve performance, leading to rewards such as positive performance appraisals and pay raises.
2. Incorporate fair and reasonable standards.
   How: Encourage participation in setting standards. Do not use them to punish.
3. Use specific, concrete objectives workers can understand and relate to their jobs.
   How: Use the tools provided by control systems, including management by objectives, budgets, and the performance appraisal system.
4. Aim for improvement.
   How: In all cases, focus on the improvement of worker skills, abilities, knowledge, and organizational performance.
5. Be consistent.
   How: Build the control system into the calendar. Remain impartial and fair when making judgments about individual and departmental performance.

Characteristics of Effective Control Systems

Efficient and effective systems of control share several common characteristics. Many of these ideas are associated with the overall control system and with individual programs such as performance appraisals and budgets. Seven key characteristics of control systems are the most important.

1. *Controls must focus on the critical points or process path in the organization.* Specific controls are most effective when they are directed to points in the organizational system that are most susceptible to failure or where manufacturing or operating costs variances are unacceptable. Critical points include the areas of an organization's operations that directly affect its success over time.
2. *Controls must easily integrate into established processes.* The control system has to be compatible with existing organizational culture and operational realities, and all formal standards for performance must be realistic and achievable.
3. *Controls should achieve acceptance by employees.* For a control system to be accepted by organization members, the controls must be related to meaningful and generally accepted goals. If *goals are not widely accepted, control systems will be dysfunctional.*
4. *Control systems should provide information as needed.* Information must be collected, routed, and evaluated quickly if action is to be taken in time to produce improvements. Data delivered

out of production sequence is of less value and may not appropriately support decision processes. Information on performance must be accurate.

5. *Controls must be economically feasible.* The cost of implementing a control system should be less than, or at most equal to, the benefits derived from the control system. Data delivery systems designed in ways that exceed utility are soon abandoned by managers and line staff.
6. *Information must be accurate.* Evaluating the accuracy of the information they receive is one of the most important control tasks that managers face. If the control system provides inaccurate and invalid data, it is of no use or value to the managers and the organization.
7. *Controls must be comprehensible.* The information generated via control systems should be understandable and be seen as generally objective by those using it to make decisions. (Deming, 2000)

Summary

Controlling is the process of evaluating performance against established goals and creating methods appropriate to take corrective action to maintain or improve performance in any area of the organization. Constant controls apply to every level of the organization on a continuous basis. Periodic controls are regularly scheduled control systems designed to identify problems and then solve them as needed.

Effective control systems apply to company-wide, departmental/functional area, and individual levels. The standard control process consists of four steps: Establish and review standards set in the planning process; measure performance at the strategic, tactical, and operational levels; compare performance outcomes with the standards that were set; and make a decision to reward or correct.

Many times, control standards at the functional area level also serve as company-wide goals. Typically, goals are set in the areas of production, quality control, marketing, sales, human resource management, information technology, research and development, and accounting and finance. Accounting and finance officers are charged with reaching goals within their departments as well as assisting in assessing overall company operations. Ratios, budgets, and audits assist in this process.

Control can take the form of feedforward, concurrent, feedback, and systems such as Total Quality Management. Numerous challenges to successful control systems exist. The challenges include rigid bureaucratic behavior, invalid data reporting, and employee resistance. Effective managers overcome these challenges to help ensure organizational success over time. Tactics include focusing on the critical points or process path in the organization, integrating into the established processes, achieving employee acceptance, providing needed information in an efficient manner, and remaining accurate.

CASE STUDY

Tony's Pizza Business

Tony Valencia returned to the United States after a six-month visit to Italy. He discovered major problems in what had been his lifelong labor of love—his own pizza parlor.

Tony came to the United States in the mid-1990s as an immigrant. His main desire was to take care of his parents, who had arrived five years earlier. Tony opened a pizza parlor, Valencia Pizza, on the north side of Sioux City. His business was located near the agriculture campus of South Dakota University and in a part of the city that had a large Italian community. Tony's sales grew quickly. He was making far more income than he ever could have imagined. Valencia Pizza had so much business that a one-hour wait to be seated was normal. He opened a takeout window to accompany his delivery service.

The secrets to Tony's success included high-quality food products combined with a pleasant dining experience. Tony personally screened every server before the individual was hired. His wife, Louisa, who was a terrific cook with experience in restaurant meal preparation, personally selected the kitchen staff.

Valencia Pizza operations continued smoothly until Louisa's sister died, leaving behind two small children. Louisa took them into the Valencia home and stopped working at the restaurant. Tony had to manage the kitchen staff and the dining area by himself. He worked long, exhausting hours.

Tony contacted a business school professor from the university. He wanted to know how to manage his time effectively and keep earning a good income. The professor suggested hiring a store manager for his current location plus opening a second location on the south side of town. Tony hired a nephew, who was 24 years old and eager to please. Tony quickly trained him and believed his unit was in good hands. He then opened the second outlet with the idea that he would repeat the process and hire a store manager for that unit as well. Unfortunately, it took several months to launch the new location. As it began to succeed, Tony realized he was working as many hours as before.

A return visit to his professor friend led to the concept of franchising. His friend taught him how to sell units to other locations in the Upper Midwest, and Tony quickly made enough money to be comfortable. He maintained ownership of his two original stores and hired a manager who was able to run the second location.

Many of the new franchise outlets did not fare well. Tony had given up almost total control of the other units to a management firm that was accomplished at franchising small businesses. The new owners quickly cut back kitchen staff pay to slightly above minimum wage. Servers were not chosen as carefully. Food costs were reduced by cutting back on the generous portions of sauces and toppings that had made the store famous in Sioux City. Store managers were instructed to copy any promotion used by other pizza chains. The company was not able to remain competitive with other businesses, and within two years, six of the new franchise locations had closed.

Upon returning from his visit to Italy, Tony felt revitalized. But when he had dinner at one of the Valencia franchise locations, he did not recognize his own business. He found servers were impersonal and more concerned with a television program playing in the dining room than with taking care of customers. The quality of the food he received frustrated him. The restaurant had plenty of open tables, and it was early Friday night, a prime time in the pizza business.

Tony contacted the franchising company. He told them the other units were diminishing the reputations of his two stores. The management group was more than willing to sell the remaining units to Tony. He found himself, in his mid-50s, with 12 restaurants in eight cities that needed attention. He

(continued)

wanted to get back to basics: high-quality food and friendly service. The challenge would be finding a way to make it happen without sacrificing all of his free time.

Discussion Questions

1. What kinds of strategic changes will Tony need to implement in the franchise units?
2. What kinds of functional area corrections will be required in each of the departments of the franchise units?
3. What type of audit should Tony use in the franchise units?
4. When a restaurant has gained a bad reputation in a community, it is hard to change. Can Tony overcome this problem in his chain of stores? Why or why not?

Key Terms

activity ratios Ratios that assist managers in understanding how well certain company activities are being carried out.

auditing An assessment of a person, organization, system, process, operation, project, or product.

balance sheet A report on investing and business financing activities of the organization.

concurrent controls Control systems that manage problems as they are encountered.

controlling The process of evaluating performance against established goals and creating methods appropriate to take corrective action to maintain or improve performance in any area of the organization.

constant controls Controls that regulate organizational activities on a continual basis, which means that any time any of these standards are not met, the management team immediately reacts with corrective action.

feedback controls Controls that manage problems after the fact.

feedforward controls Controls used to anticipate problems in advance.

leverage ratios The ratios used to measure company debt and company risk.

liquidity ratios The ratios designed to make sure the company has enough money on hand.

management by objectives A participative annual goal-setting program used in both planning and control systems.

market share A measure of the company's percentage of total sales in an industry or a subset of an industry.

periodic controls Control systems that assess organizational activities on a regularly scheduled basis.

profitability ratios The ratios used to measure company financial success.

share of mind (or consumer awareness) The degree to which consumers are aware of the existence of a company, which inclines them to visit that company or store.

sourcing The methods used to acquire raw materials.

Critical Thinking

Review Questions

1. Define controlling, constant controls, and periodic controls.
2. Name the types of constant controls that apply to individuals, departments, and the overall organization.
3. What four characteristics should standards have that will aid in the periodic controlling process?
4. When comparing performance to standards, what five outcomes are possible?
5. What are the four parts of a system?
6. What standards are set and evaluated in the areas of production and quality control?
7. What standards are set and evaluated in the areas of marketing and sales?
8. What standards are set and evaluated in the area of human resources?
9. What standards are set and evaluated in the accounting and finance departments?
10. Name and define the four main types of ratios used by accountants and managers.
11. What steps are involved in the budgeting process?
12. What problems are associated with budgeting in the areas of planning and controlling?
13. Name the things managers can do to create effective budgeting programs.
14. Describe auditing in the context of this chapter.
15. Define feedforward control, concurrent control, and feedback control.
16. What challenges are associated with control programs?
17. What are the characteristics of effective control systems?

Analytical Exercises

1. Using the four elements of quality standards and goals, provide an example of a well-stated goal and a poorly stated goal in the following areas:
   - production
   - marketing and sales
   - human resources
   - finance and accounting
2. Using four elements of a system, explain how they could be used in the area of performance appraisal for an individual worker.
3. Apply the four production standards of quantity, quality, cost, and time to these two services:
   - an insurance company
   - a nonprofit hospital
4. Explain how the four main standards in marketing and sales would be applied to control systems in the following companies:
   - a local tavern
   - a local dry cleaning operation

- a local radio station
- Walmart

5. Explain how the following profitability goals are related and how they are different:
   - total income on income summary
   - earnings per share of common stock
   - dividends per share of common stock
   - profit margin
6. How are the four types of ratios related to each other? Explain why it is important to look at all four together rather than at a single ratio figure.
7. Make a list of the benefits of budgets and the problems associated with budgets. Explain how these might apply to your own personal finances.
8. Choose the appropriate form or forms of control from feedback (or occasional), concurrent, and feedforward, for the following situations:
   - creating a hurricane safety program
   - managing a major league baseball team
   - creating and airing a television game show
   - operating a major airline
   - explaining an accident that injured an employee