

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Identify five broad purposes of accounting systems
2. Describe cost accounting and its relationship to management accounting and financial accounting
3. Describe the set of business functions in a value chain
4. Understand how accounting can facilitate planning, control, and decision-making
5. Describe the difference between line management and staff management
6. Distinguish between the scorekeeping, attention-directing, and problem-solving functions of the controller
7. Understand the importance of professional ethics to management accountants
8. Describe evolving management themes that are shaping developments in management accounting systems

THE MAJOR PURPOSES OF ACCOUNTING SYSTEMS

The accounting system is the principal—and the most credible—quantitative information system in almost every organization. This system should provide information for five broad purposes:

- ◆ **Purpose 1:** *Formulating overall strategies and long-range plans.* This includes new product development and investment in both tangible (equipment) and intangible (brands, patents, or people) assets, and frequently involves special-purpose reports.
- ◆ **Purpose 2:** *Resource allocation decisions such as product and customer emphasis and pricing.* This frequently involves reports on the profitability of products or services, brand categories, customers, distribution channels, and so on.
- ◆ **Purpose 3:** *Cost planning and cost control of operations and activities.* This involves reports on revenues, costs, assets, and the liabilities of divisions, plants, and other areas of responsibility.
- ◆ **Purpose 4:** *Performance measurement and evaluation of people.* This includes comparisons of actual results with planned results. It can be based on financial or nonfinancial measures.
- ◆ **Purpose 5:** *Meeting external regulatory and legal reporting requirements.* Regulations and statutes typically prescribe the accounting methods to be followed here. Consider financial reports that are provided to shareholders who are making decisions to buy, hold, or sell shares in the company. These reports must follow generally accepted accounting principles (GAAP), as heavily influenced by regulatory bodies such as the Accounting Standards Board in Canada or the Financial Accounting Standards Board in the United States

Each of the purposes stated here may require a different presentation or reporting method. An ideal database for presentations and reports (sometimes called a data warehouse or infobarn) is very detailed and cuts across business functions. Accountants combine or adjust (“slice or dice”) these data to answer the questions from particular internal or external users.

Management Accounting, Financial Accounting, and Cost Accounting

OBJECTIVE 2

Describe cost accounting and its relationship to management accounting and financial accounting

A distinction is often made in practice between management accounting and financial accounting. **Management accounting** measures and reports financial information as well as other types of information that assist managers in fulfilling the goals of the organization. It is thus concerned with purposes 1 to 4. **Financial accounting** focusses on external reporting that is guided by GAAP. It is thus concerned with purpose 5. **Cost accounting** measures and reports financial and other information related to the organization’s acquisition or consumption of resources. It provides information for both management accounting and financial accounting.

ELEMENTS OF MANAGEMENT CONTROL



Microsoft
www.microsoft.com

OBJECTIVE 4

Understand how accounting can facilitate planning, control, and decision-making

Is Microsoft's management control system better than Novell's? Is Labatt's better than Molson's? This section provides an overview of management control systems, illustrating the role of accounting information.

Planning and Control

There are countless definitions of planning and control. Study the left side of Exhibit 1-2, which uses planning and control at *The Daily Sporting News* (DSN) as an illustration. We define **planning** (the top box) as choosing goals, predicting results under various ways of achieving those goals, and then deciding how to attain the desired goals. For example, one goal of DSN may be to increase operating income. Three main alternatives are considered to achieve this goal:

1. Change the price per newspaper
2. Change the rate per page charged to advertisers
3. Reduce labour costs by having fewer workers at DSN's printing facility

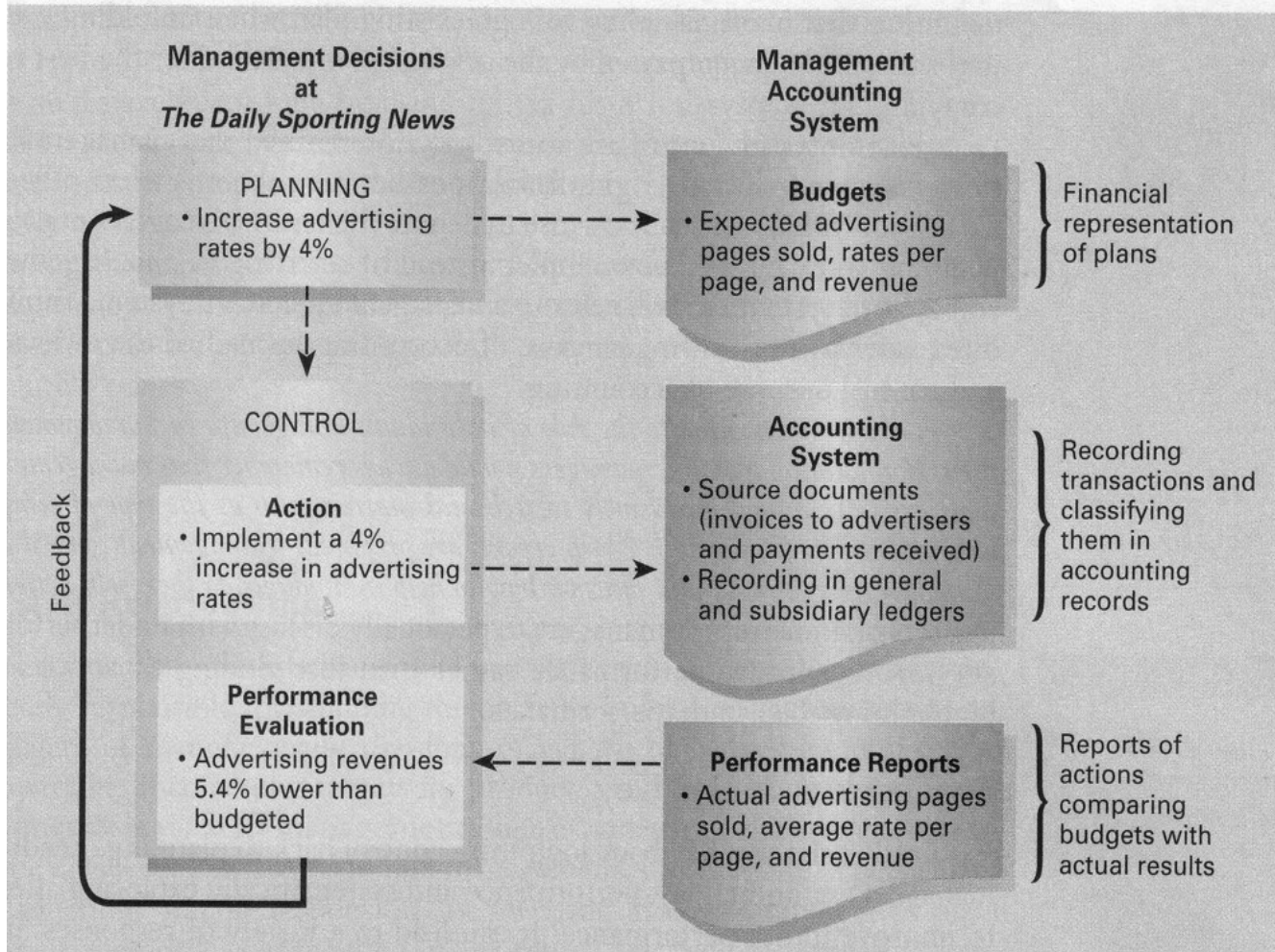
Assume that the publisher, Naomi Crawford, increases advertising rates by 4% to \$5,200 per page for March 19_7. She budgets advertising revenue to be \$4,160,000 ($\$5,200 \times 800$ pages predicted to be sold in March 19_7). A **budget** is the quantitative expression of a plan of action and an aid to the coordination and implementation of the plan.

Control (the bottom box in Exhibit 1-2) covers both the action that implements the planning decision and the performance evaluation of the personnel and operations. With our DSN example, the action would include communicating the new advertising rate schedule to DSN's marketing sales representatives and advertisers. The performance evaluation provides feedback on the actual results.

During March 19_7, DSN sells advertising, sends out invoices, and receives payments. These invoices and receipts are recorded in the accounting system. Exhibit 1-3 shows the March 19_7 advertising revenue performance report for DSN.

EXHIBIT 1-2

How Accounting Facilitates Planning and Control



This report indicates that 760 pages of advertising (40 pages less than the budgeted 800 pages) were sold in March 19_7. The average rate per page was \$5,080 compared with the budgeted \$5,200 rate, yielding actual advertising revenue in March 19_7 of \$3,860,800. The actual advertising revenue in March 19_7 is \$299,200 less than the budgeted \$4,160,000. Understanding the reasons for any difference between actual results and budgeted results is an important part of **management by exception**, which is the practice of concentrating on areas not operating as expected (such as a cost overrun on a project) and placing less attention on areas operating as expected. The term **variance** in Exhibit 1-3 refers to the difference between the actual results and the budgeted amounts.

The performance report in Exhibit 1-3 could spur investigation. For example, did other newspapers experience a comparable decline in advertising revenue? Did the marketing department make sufficient efforts to convince advertisers that, even with the new rate of \$5,200 per page, advertising in the DSN was a good buy? Why was the actual average rate per page \$5,080 instead of the budgeted rate of \$5,200? Did some sales representatives offer discounted rates? Did a major advertiser threaten to transfer its advertising to another newspaper unless it was given a large rate per page reduction? Answers to these questions could prompt Crawford to take subsequent actions, including, for example, pushing marketing personnel to renew efforts to promote advertising by existing and potential advertisers.

EXHIBIT 1-3

Advertising Revenue Performance Report at *The Daily Sporting News* for March 19_7

	Actual Results	Budgeted Amounts	Variance
Advertising pages sold	760	800	40 unfavourable
Average rate per page	\$5,080	\$5,200	\$120 unfavourable
Advertising revenue	\$3,860,800	\$4,160,000	\$299,200 unfavourable

A well-conceived plan includes enough flexibility so that managers can seize opportunities unforeseen at the time the plan is formulated. In no case should control mean that managers cling to a preexisting plan when unfolding events indicate that actions not encompassed by the original plan would offer the best results to the company.

Planning and control are so strongly intertwined that managers do not spend time drawing artificially rigid distinctions between them. Unless otherwise stated, we use control in its broadest sense to denote the entire management process of both planning and control. For example, instead of referring to a management planning and control system, we will refer to a management control system. Similarly, we will often refer to the control purpose of accounting instead of the awkward planning and control purpose of accounting.

Do not underestimate the role of individuals and groups in management control systems. Both accountants and managers should always remember that management control systems are not confined exclusively to technical matters such as the type of computer systems used and the frequency with which reports are prepared. Management control is primarily a human activity that should focus on how to help individuals do their jobs better. For example, it is often better for managers to personally discuss with underperforming workers how to improve performance rather than just sending those workers a report highlighting their underperformance.

Feedback: A Major Key

Exhibit 1-2 shows a feedback loop from control back to planning. Feedback involves managers examining past performance and systematically exploring alternative ways to improve future performance. It can lead to a variety of responses, including the following:

USE OF FEEDBACK	EXAMPLE
◆ Changing goals	◆ Canadian Airlines increases emphasis on cash flow rather than income, after prior liquidity problems.
◆ Searching for alternative means of operating	◆ London University Hospital compares internal processing versus third-party managing (outsourcing) of its accounts receivable operations.
◆ Changing methods for making decisions	◆ Chrysler adopts a team-based new product development process with input from both manufacturing and marketing.
◆ Making predictions	◆ British Columbia Telecom incorporates average inflation forecasts for wages when predicting future labour costs.
◆ Changing operations	◆ Sony has materials delivered directly to the assembly floor instead of to a storeroom.
◆ Changing the reward system	◆ IBM considers basing its marketing bonuses on the profitability of sales rather than on the dollar amount of sales.

Line and Staff Relationships

Most organizations distinguish between line and staff management. **Line management** is directly responsible for attaining the objectives of the organization. For example, managers of manufacturing divisions may have objectives for a specified amount of operating income plus targets for product quality, safety, and compliance with environmental laws. **Staff management**, such as a management accountant, exists to provide advice and assistance to line management. For example, a plant manager (a line function) may be responsible for investing in new equipment. A plant management accountant (a staff function) may prepare detailed operating cost comparisons for potential pieces of equipment.

Increasingly, organizations are emphasizing the importance of teams in promoting their objectives. These teams often include both line and staff management with the result that the traditional distinctions between line and staff are less clear-cut than they were a decade ago. Line management and staff management designations are best viewed as different ends of a spectrum.

The Chief Financial Officer and the Controller

The **chief financial officer (CFO)**—also called the **finance director**—is the senior officer empowered with overseeing the financial operations of an organization. The responsibilities of the CFO vary among organizations, but they almost always encompass the following four areas:

- ◆ **Controllershship** includes providing financial information for both reports to managers and reports to investors.
- ◆ **Treasury** includes short- and long-term financing, banking, and foreign exchange and derivatives management.
- ◆ **Tax** includes income taxes, sales taxes, and international tax planning.
- ◆ **Internal audit** includes reviewing and analyzing the financial records and other records to attest to the integrity of its financial reports and adherence to the organization's policies and procedures.

In some organizations, the CFO also has responsibility for information systems. In other organizations, an officer of equivalent rank to the CFO—termed *chief information officer*—has responsibility for information systems.

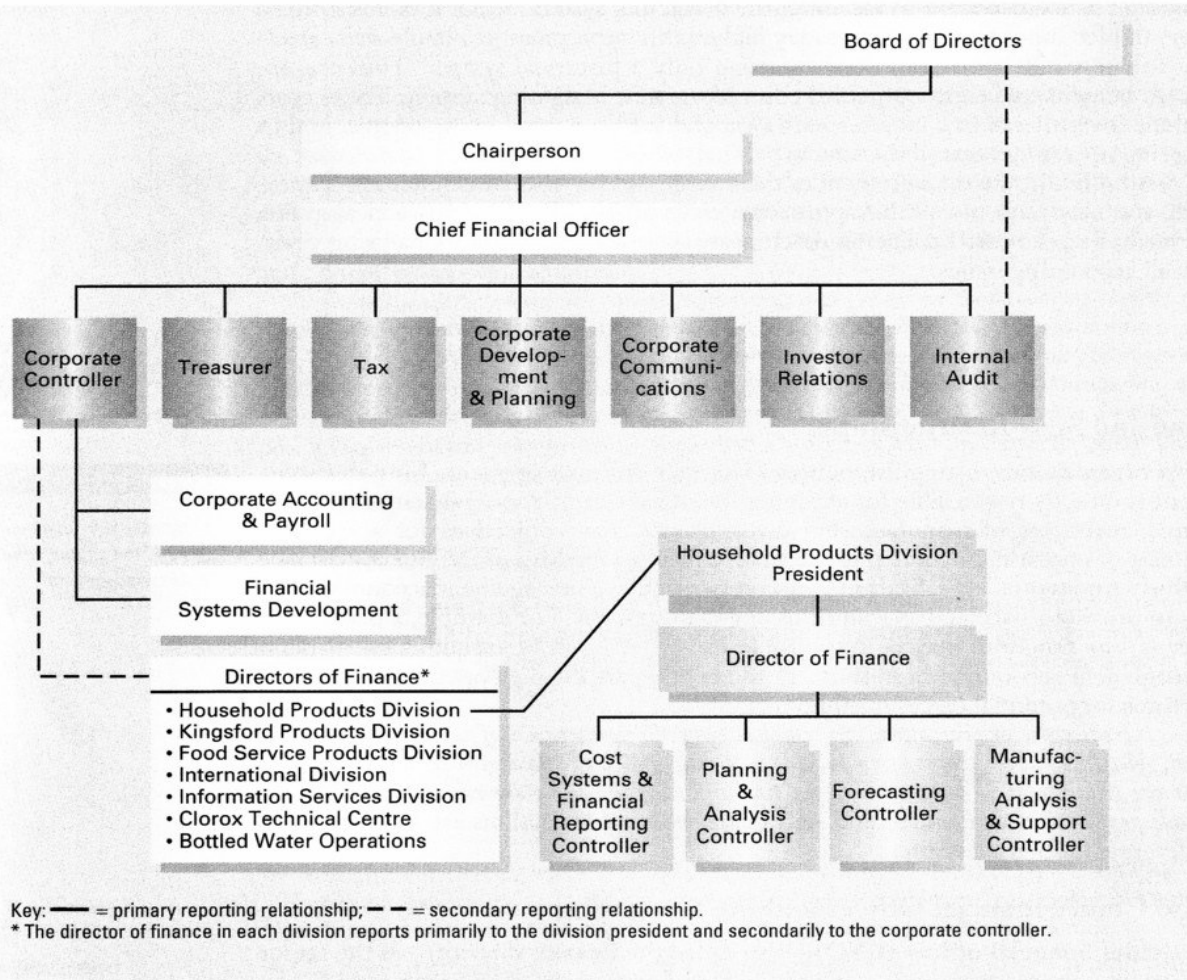
The **controller** is the financial executive primarily responsible for both management accounting and financial accounting. This book focusses on the management accounting function of the controller. The modern controller does not do any controlling in terms of line authority except over his or her own department. Yet the modern concept of controllership maintains that the controller does control in a special sense. That is, by reporting and interpreting relevant data, the controller exerts a force or influence that impels management toward making better-informed decisions.

OBJECTIVE 5

Describe the difference between line management and staff management

EXHIBIT 1-4

The Clorox Company: Reporting Relationships for the CFO and the Corporate Controller



Clorox Company
www.clorox.com

Exhibit 1-4 presents an organization chart showing the reporting responsibilities of the CFO and the corporate controller at the Clorox Company. Clorox is a leading bleach-producing company and also has major brands in charcoal and salad dressing. The CFO is a staff management function that reports to the most senior line managers (who in turn report to the board of directors). As in most organizations, the corporate controller at Clorox reports to the CFO. Organization charts like that in Exhibit 1-4 show formal reporting relationships. In most organizations, informal relationships also exist that are essential to understand when managers attempt to implement their decisions.

Scorekeeping, Attention-Directing, and Problem-Solving Functions

Management accountants perform three important functions—scorekeeping, attention-directing, and problem-solving.

OBJECTIVE 6

Distinguish between the scorekeeping, attention-directing, and problem-solving functions of the controller

- ◆ **Scorekeeping.** Accumulating data and reporting reliable results to all levels of management. Examples are the recording of sales, purchases of materials, and payroll payments.
- ◆ **Attention-directing.** Making visible both opportunities and problems on which managers need to focus. Examples are highlighting rapidly growing markets where the company may be underfunding its investment and highlighting products with higher-than-expected rework rates or customer-return

rates. Attention-directing should focus on all opportunities to add value to an organization and not just on cost reduction opportunities.

- ◆ **Problem-solving.** Comparative analysis to identify the best alternatives in relation to the organization's goals. An example is comparing the financial advantages of leasing a fleet of vehicles rather than owning those vehicles.

Accountants serving the scorekeeping function accumulate data and report the results to all levels of management. Accountants serving this function are responsible for the reliability of the reported information. In this regard, accountants are watchdogs for top management. The scorekeeping function in many organizations requires processing numerous data items (millions of items in some cases). The mechanics of the task should be well understood by those handling it and executed as flawlessly as possible.

Many organizations now have management accountants who concentrate solely on the attention-directing or problem-solving function. The titles of these individuals differ. As shown in Exhibit 1-4, Clorox has special staff positions for "cost systems and financial reporting," "planning and analysis," "forecasting," and "manufacturing analysis and support." The Yoplait Company, the French yogurt company, has staff positions for "operations analysis," "budget analysis and reporting," and "marketing and sales analysis."

Many controllers' departments actively promote their attention-directing and problem-solving abilities to their internal customers in the organization. For example, Swissair's corporate controller's group was reorganized so that each of the 13 staff members in the group was assigned responsibility for assisting an individual Swissair division (such as engineering and maintenance, flight services, and marketing for Europe). Their challenge was to demonstrate to the managers of each division the value of their assistance in areas such as financial analysis, the budgeting process, and cost management.

Newly evolving management themes

Management accounting exists to help make better decisions. Changes in the way managers operate require reevaluating the design and operation of the management accounting systems themselves.

1. **Customer satisfaction is priority one.** This theme is central. Customers are pivotal to the success of an organization. The number of organizations aiming to be “customer-driven” is large and increasing. The organization chart of Furon (a manufacturer of polymer) in Exhibit 1-7 shows how the customer is positioned at the apex of its organizational structure.

We discuss this theme in Chapter 16 when we look at customer profitability analysis and Chapter 26 when we address customer feedback in performance measures.

2. **Key success factors.** Customers are demanding ever-improving levels of performance regarding several (or even all) of the following factors:
 - ◆ *Cost.* Organizations are under continuous pressure to reduce the cost of the products or services they sell to their customers.
 - ◆ *Quality.* Customers are expecting higher levels of quality and are less tolerant of low quality than in the past.
 - ◆ *Time.* Time has many components, including the time taken to develop and bring new products to market, the speed at which an organization responds to customer requests, and the reliability with which promised delivery dates are met. Organizations are under pressure to complete activities faster and to meet promised delivery dates more reliably than in the past in order to increase customer satisfaction.
 - ◆ *Innovation.* There is heightened recognition that a continuing flow of innovative products or services is a prerequisite for the ongoing success of most organizations.

Factors that directly affect customer satisfaction, such as cost, quality, time, and innovative products and services, are termed **key success factors**.

We discuss this theme in Chapters 4 and 5 when we address using activity-based costing to guide cost reductions and in Chapter 19 when we examine cost of quality reports.

3. **Total value-chain analysis.** This theme has two related aspects:

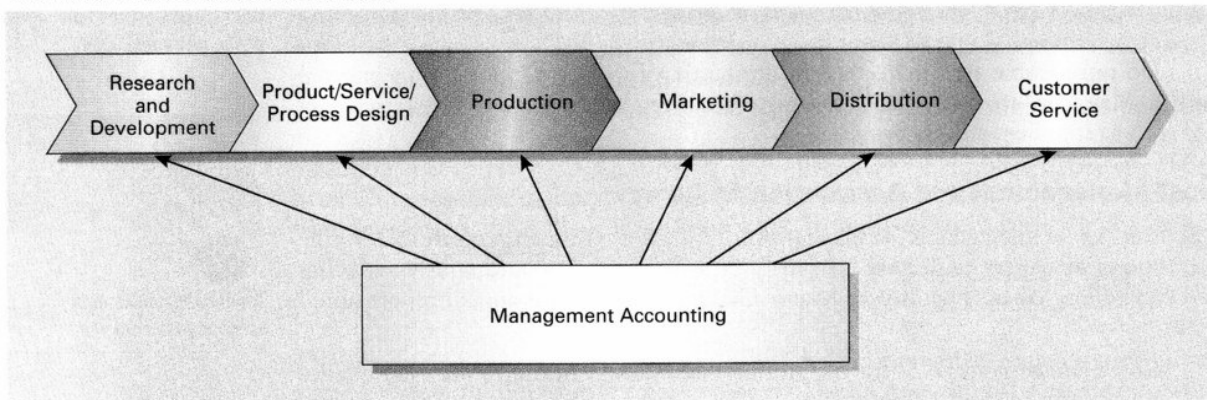
The Value Chain of Business Functions

Throughout this book we organize our look at organizations by using the value chain of the business functions, which appears as Exhibit 1-1. The **value chain** is the sequence of business functions in which utility (usefulness) is added to the products or services of an organization. These functions are as follows:

- ◆ **Research and development (R&D).** The generation of, and experimentation with, ideas related to new products, services, or processes
- ◆ **Design of products, services, or processes.** The detailed planning and engineering of products, services, or processes
- ◆ **Production.** The coordination and assembly of resources to produce a product or deliver a service
- ◆ **Marketing.** The manner by which individuals or groups (a) learn about and value the attributes of products or services and (b) purchase those products or services
- ◆ **Distribution.** The mechanism by which products or services are delivered to the customer

EXHIBIT 1-1

The Value Chain of Business Functions



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say,

cost, quality, and the speed with which new products are developed) from having the individual parts of the value chain work concurrently.

Senior managers of an organization (including those from individual parts of the value chain) have the responsibility of deciding on its overall strategy, how resources are to be obtained and used, and how rewards are to be given. This task covers the entire value chain.

Accounting is a major means of helping managers to administer each of the business functions presented in Exhibit 1-1 and to coordinate their activities within the framework of the organization as a whole. This book focusses on how accounting does in fact assist managers in these tasks.

3. **Total value-chain analysis.** This theme has two related aspects:
- ◆ Treating each area of the business functions in Exhibit 1-1 as an essential and valued contributor
 - ◆ Integrating and coordinating the efforts of all business functions in addition to developing the capabilities of each individual business function

EXHIBIT 1-6

Key Themes in the New Management Approach

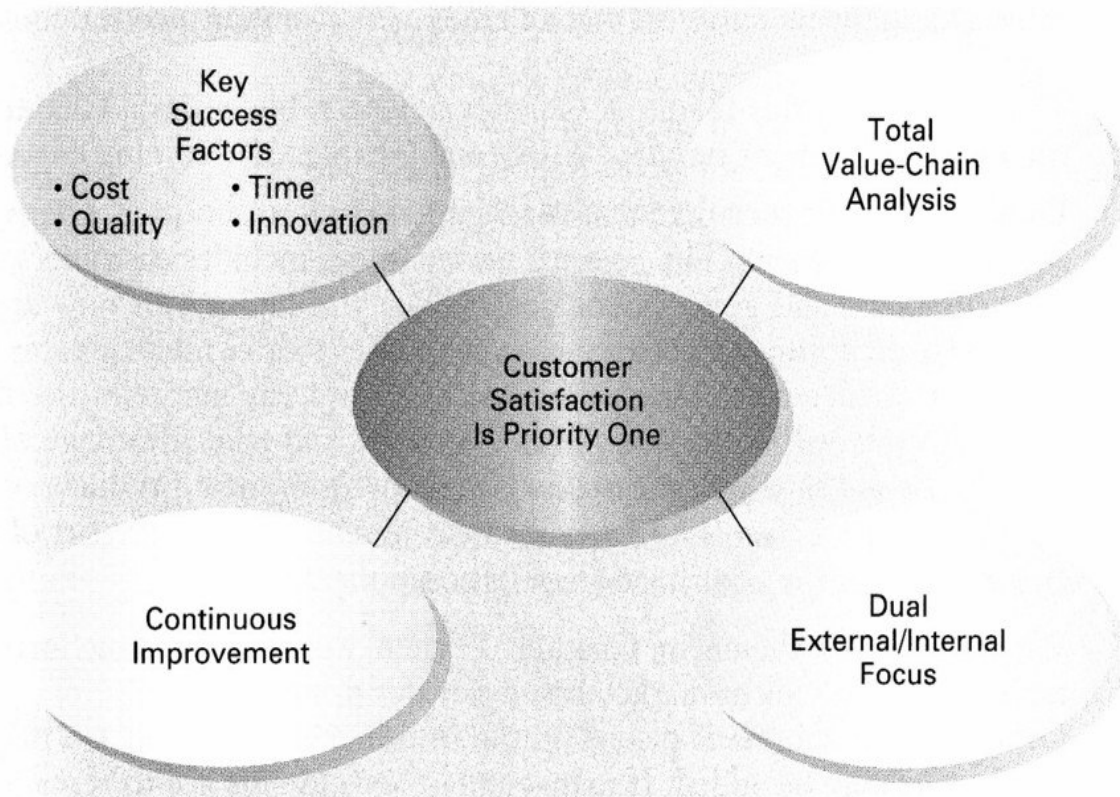
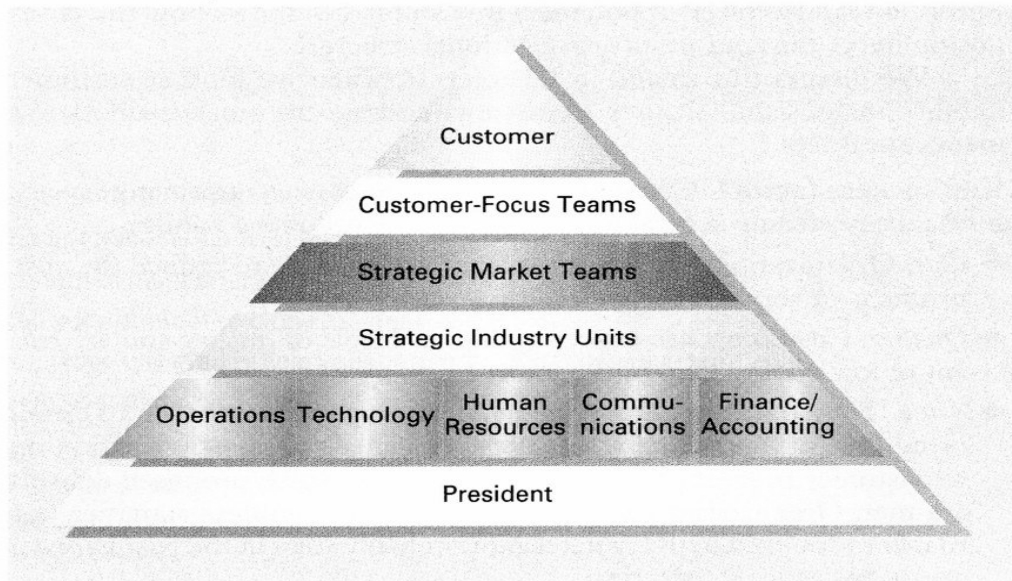


EXHIBIT 1-7

The Pivotal Position of Customers in the Organization Chart of the Furon Corporation



Total value-chain analysis means focussing on all the business functions related to a product or service from its cradle to its grave (“womb to tomb”), irrespective of whether those functions occur in the same organization or in a set of legally independent organizations. For example, Pepsi-Cola bottlers work with their materials suppliers to reduce materials-handling costs. Similarly, Fujitsu works with the customers of its microchip division to better plan its production scheduling of microchips.

We discuss this theme in Chapter 6 as we look at budgeting and Chapter 12 when we address target costing.

4. **Continuous improvement.** Continuous improvement by competitors creates a never-ending search for higher levels of performance within many organizations. Phrases such as the following capture this theme:

- ◆ “A journey with no end.”
- ◆ “We are running harder just to stand still.”
- ◆ “If you’re not going forward, you’re going backward.”

Sumitomo Electric Industries, the Japanese manufacturer of electric wires and cables, has daily meetings so that all employees maintain a continuous focus on cost reduction.

We discuss this theme in Chapter 6 (kaizen budgeting), Chapter 7 (continuous improvement standard costs), and Chapter 10 (learning curves).

5. **Dual external/internal focus.** Managers operate in both an external and an internal environment. The external environment includes customers, competitors, suppliers, and government bodies. Many organizations now are restructuring the definition of manager responsibilities to give much greater emphasis to the external environment. This greater emphasis increases the likelihood that managers will anticipate external changes and take advantage of such external changes as the introduction of competitors’ new products or shifts in customer preferences. The internal environment covers each part of the value chain as well as the coordination of its components.

Quality in Accounting at Motorola

Providing a quality product or service is often defined in terms of consistently meeting or exceeding customers' expectations. Motorola, a \$20 billion global company, is a winner of many awards for the quality of its products. The accounting group at Motorola views Motorola managers as its customers and is constantly seeking ways to meet or exceed their expectations. Consider the timeliness of the financial reports. Motorola managers place a premium on receiving timely reports. For many years, Monthly results were not available to managers until eight working days after month-end. While an eight-working-day "close period" is faster than that of most companies, managers viewed the provision of more timely reports as very important. The accounting group at Motorola decided to set itself a target of a two-working-day close.

Motorola now requires its six operating groups and its administrative group "to send monthly numbers no later than two working days after month-end in a uniform layout that is compatible with the accounting group's software." As numbers are received, accounting performs real-time checks for "unusual transactions, numbers that don't jibe, and other potentially inaccurate entries." The consolidated financial reports are now provided to senior company executives and board members by noon of the third workday after the month-end.

Motorola managers, with more timely information about business trends, can now make any adjustments at least six working days earlier than before. Moreover, the streamlining undertaken to speed the closing process has resulted in lower costs of monthly closing (a 30% reduction in employees) and a lower errors rate (less than 1,000 errors per 2 million transactions).

What has been the response of the accounting group to this success? They now have a goal of closing in one-and-one-half days! Motorola has a culture of continuous improvement that is applied to all aspects of its business.

- 17 Purposes of accounting systems.** The International Sports Management Group (ISMG) manages and promotes sporting events and sporting personalities. Its managers are currently examining the following reports and accounting statements:
- a. Five-year projections for expanding into managing sports television networks for cable television
 - b. Income statement to be included in a six-month interim report to be sent to investors and filed with the securities regulators
 - c. Profitability comparison of golf tournaments directed by different managers, each of whom receives a percentage of that tournament's profits
 - d. Monthly reports of office costs for each of the 14 ISMG offices worldwide
 - e. Statement showing the revenues ISMG earns from different types of sporting events (for example, golf, motor racing, and tennis)

REQUIRED

Classify the reports in parts (a) to (e) into one of the five major purposes of accounting systems (on p. 2).

- 1-19 Value chain and classification of costs, computer company.** Apple Computer incurs the following costs:
- a. Electricity costs for the plant assembling the Macintosh computer line of products
 - b. Transportation costs for shipping Macintosh software to a retail chain
 - c. Payment to David Kelley Designs for design of the Powerbook carrying case
 - d. Salary of a computer scientist working on the next generation of mini-computers
 - e. Cost of Apple employees' visit to a major customer to illustrate Apple's ability to interconnect with other computers
 - f. Purchase of competitors' products for testing against potential future Apple products
 - g. Payment to a television station for running Apple advertisements
 - h. Cost of cables purchased from an outside supplier to be used with the Macintosh printer

REQUIRED

Classify each of the cost items in parts (a) to (h) into a component of the value chain shown in Exhibit 1-1.

- 1-22 Scorekeeping, attention-directing, and problem-solving.** For each of the following activities, identify the major function (scorekeeping, attention-directing, or problem-solving) the accountant is performing.
- a. Preparing a monthly statement of Australian sales for the IBM marketing vice-president
 - b. Interpreting differences between actual results and budgeted amounts on a performance report for the customer warranty department of General Electric
 - c. Preparing a schedule of amortization² for forklift trucks in the receiving department of a Hewlett Packard plant in Scotland
 - d. Analyzing, for a Mitsubishi international manufacturing manager, the desirability of buying some auto parts made in Korea
 - e. Interpreting why a Birmingham distribution centre did not adhere to its delivery costs budget
 - f. Explaining a Xerox shipping department's performance report
 - g. Preparing, for the manager of production control of a U.S. steel plant, a cost comparison of two computerized manufacturing control systems
 - h. Preparing a scrap report for the finishing department of a Toyota parts plant
 - i. Preparing the budget for the maintenance department of Mount Sinai Hospital
 - j. Analyzing, for a General Motors product designer, the impact on product costs of some new headlight lamps

1-25 **Planning and control, feedback.** In April 19_7, Naomi Campbell, editor of *The Daily Sporting News* (DSN), decides to reduce the price per newspaper from \$0.70 in April 19_7 to \$0.50 starting May 1, 19_7. Actual paid circulation in April is 7.5 million (250,000 per day \times 30 days). Campbell estimates that the \$0.20 price reduction would increase paid circulation in May to 12.4 million (400,000 \times 31 days). The actual May circulation turns out to be 13,640,000 (440,000 \times 31 days). Assume that one goal of DSN is to increase operating income. The budgeted increase in circulation would enable DSN to charge higher advertising rates in later months of 19_7 if those budgeted gains actually occur. The actual price paid in May 19_7 was the budgeted \$0.50 per newspaper.

REQUIRED

1. Distinguish between planning and control at DSN, giving an example of each.
2. Prepare a newspaper revenue performance report for DSN for May 19_7 showing the actual results, budgeted amounts, and the variance.
3. Give two types of action Campbell might take based on feedback on the May 19_7 circulation revenue.

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- 1-30 **Responding to allegations of fraud.** You are the controller of Broad Street Finance (BSF). BSF is an investment banking company that has recently encountered severe financial difficulties and has had to lay off over 200 employees. The only bright spot in this picture is BSF's bond trading division, but you have just received the following anonymous letter:

Dear Sir,

Last year's reported earnings for the bond trading division are fictitious. The top three managers of the division recently received bonuses of over \$12 million, based on their share of last year's reported earnings. The head of bond trading has been inventing bond trades that are supposed to be highly profitable. They are not. The division profits are like a deck of cards about to collapse. The head of bond trading cares only about "how much you reportedly made" and nothing about how you made it. The auditors don't understand the complexity of today's bond trading operations. This problem will blow up in your face unless handled quickly and carefully. I am sending a copy of this letter to the Ontario Securities Commission, *The Financial Post*, *Canadian Business*, *The Globe and Mail*, and all members of Broad Street's board of directors.

Sincerely,

Concerned Ex-employee

INSTRUCTIONS

Form groups of three or more students. One is to be the chief financial officer, one the president, and one the chairperson of the board of directors. Other members are on the board of directors.

REQUIRED

Develop a group consensus on how you should respond to this letter. Like many firms in the financial services industry, BSF has no formal code of ethics. Should BSF formalize a code of ethics statement?