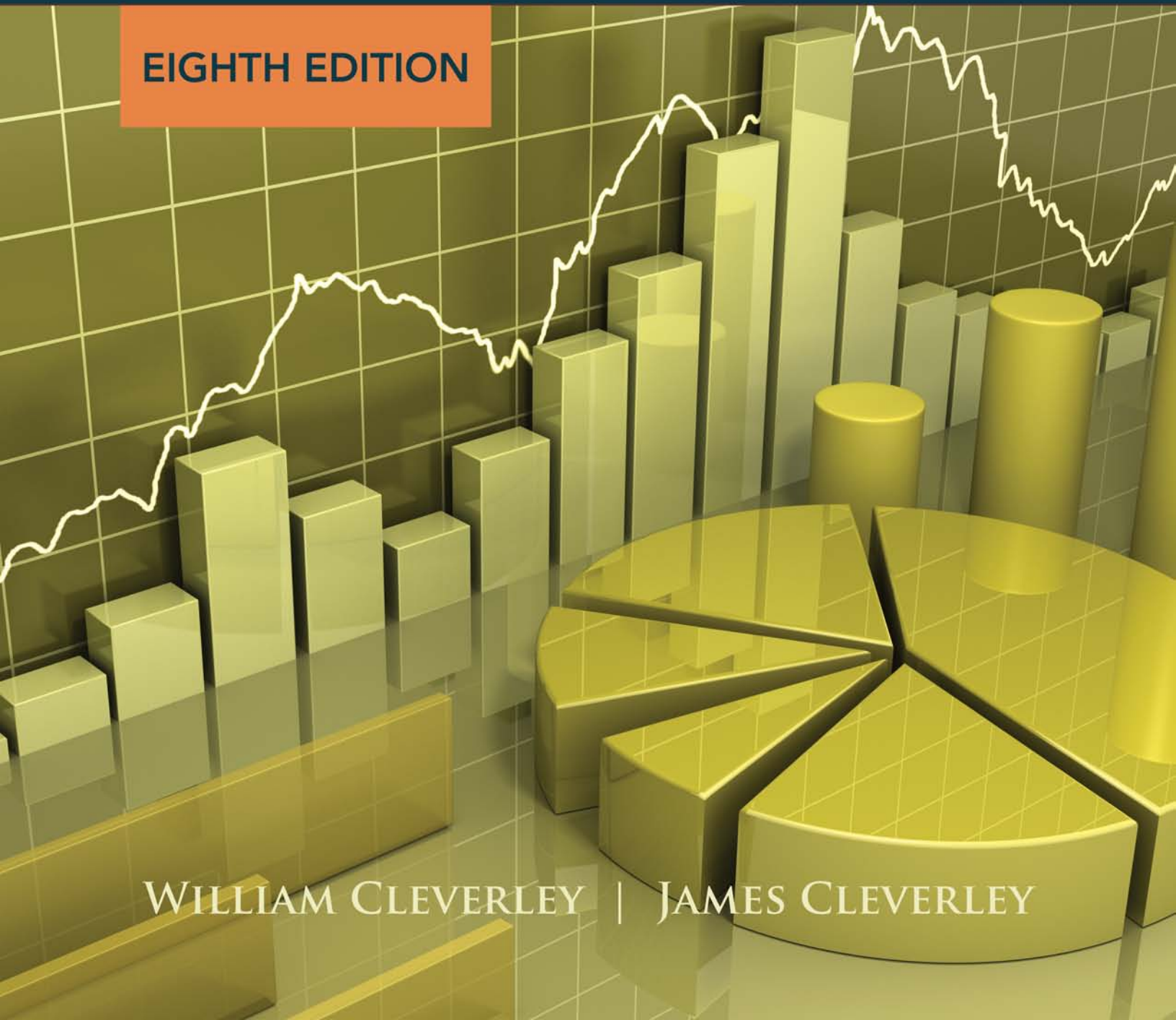
ESSENTIALS OF HEALTH CARE FINANCE

EIGHTH EDITION



WILLIAM CLEVERLEY | JAMES CLEVERLEY

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Preface

This book represents the eighth edition of a book published originally in 1978, entitled *Essentials of Hospital Finance*. The text has evolved from a book containing seven chapters that dealt largely with understanding and interpreting hospital financial statements into a comprehensive financial text. The *Eighth Edition* has 23 chapters that cover most of the major areas of financial decision making that healthcare executives deal with on a daily basis.

This book has been widely used over the years for many reasons. No other textbook so fully melds the best of current financial theory with the tools needed in day-to-day practice by healthcare managers. The textbook also encompasses virtually the whole spectrum of the healthcare industry, including hospitals, pharmaceutical companies, health maintenance organizations, home health agencies, skilled nursing facilities, surgical centers, physician practices, hospital departments, and integrated healthcare systems.

Building on the strong foundation of the previous editions, the *Eighth Edition* introduces a number of enhancements. We have continued the inclusion of learning objectives at the beginning of each chapter. The learning objectives orient students to the material in the chapter and highlight some particular concepts and skills they should acquire by studying the chapter. Following the learning objectives, each chapter has a real-world scenario, which places the material in the chapter into the context of how the concepts and tools are used in practice. As with previous editions, each chapter concludes with a summary, followed by a large number of problems with related solutions. We believe the application of finance theory to real-world financial problems is the best way to accomplish learning. One of the primary enhancements of the *Eighth Edition* is the addition and updating of supporting data tables that provide tangible benchmarking information for students and practitioners in a larger number of areas. In summary, the chapters are designed to provide a framework for understanding healthcare financial issues as well as resources for implementing appropriate operational strategies.

Before discussing the coverage of this book, it is important to understand the objective, which has not changed in more than 30 years. This text is intended to provide a relevant and readable resource for healthcare management students and executives. This is important to understand because *Essentials of Health Care Finance* is neither a traditional financial textbook nor a traditional management or financial accounting textbook. It attempts to blend the topics of both accounting and finance that have become part of the everyday life of most healthcare executives. This textbook does not provide as much coverage of cost of capital, capital structure, and capital budgeting topics as is present in most financial management textbooks. *Essentials of Health Care Finance* likewise does not provide major coverage of management control and budgeting systems that are present in most cost accounting and management accounting textbooks. Instead, this text tries to cover those types of financial decisions with which healthcare executives are most likely to be involved and provides the necessary materials to help them understand the conceptual basis and mechanics of financial analysis and decision making as they pertain to the healthcare industry sector.

Content of the Book

The general basis of financial decision making in any business is almost always built on understanding three critical elements. First, most financial decisions are based on the use of accounting information. It is difficult to make intelligent decisions without having at least a basic understanding of accounting information. The user does not need to be a CPA, but it is essential to have a little understanding of what accounting is and is not. Second, all business units operate within an industry. The healthcare industry is a huge, complex industry that in many areas is unlike any other industry. Unless the student has an appreciation for these critical differences, major mistakes can be made. Finally, both accounting and finance are, in many ways, subsets of economics. The principles of economics form the conceptual basis upon which many types of business decisions are made.

Chapter 1 provides an introduction to the role of information in decision making. Chapter 2, "Billing and Coding for Health Services," recognizes the increasing importance that billing and coding play in financial decision making. Chapter 3 provides detailed information about the economic environment of healthcare firms. Specific coverage of payment methods for all types of providers, from hospitals to physicians, is included. Much of Chapter 3 was rewritten for this edition because payment rules are constantly changing. This edition covers current Medicare prospective payment systems for outpatient, home health, and skilled nursing facilities. Chapter 4 provides coverage of the numerous legal and regulatory provisions that affect today's healthcare manager.

Chapter 5, "Measuring Community Benefit," provides expanded coverage of a topic that has gained more attention with the recent passage of healthcare reform. Nonprofit healthcare providers increasingly are being asked to document the community benefits they provide to their communities. Chapter 6, "Revenue Determination," devotes specific attention to pricing and managed-care contract negotiations. Extensive coverage of managed care, its definition, concepts, organizational structures, and its financial implications is included in Chapter 7 and woven throughout the remainder of the text. Managed-care contracting is covered extensively in this edition along with coverage of "bundled payments."

Chapters 8, 9, and 10 cover financial reporting for healthcare firms. Specific discussions of accounting jargon are included. Perhaps of more importance, the accounting terms are related to healthcare issues, such as self-insurance of professional liability.

Chapters 11, 12, and 13 cover financial analysis and financial planning. Chapter 11 has been thoroughly revised to reflect the best analytical tools and techniques available for financial statement analysis. Chapter 12 provides specific coverage of healthcare firms other than hospitals. Comparative financial and operating benchmark values are included for hospitals, and benchmark values are included for hospitals, health maintenance organizations, nursing homes, and medical groups. These benchmark values are used later to evaluate the financial position of a number of different kinds of healthcare firms.

Chapters 14 through 16 cover cost finding, pricing, break-even analysis, and budgeting, and other managerial-care examples and concepts have been added in this edition. This edition also features more extensive coverage of relative value units. Chapter 17 includes material on the application of variance analysis techniques to both healthcare providers and payers.

Chapters 18 through 21 include coverage of capital budgeting, consolidations, valuation, and capital formation topics as they pertain to healthcare firms. Special attention is given to capital formation in both taxable and voluntary nonprofit situations. Chapter 20 covers the increasingly important topics of consolidations, mergers, and acquisitions. In that chapter we offer detailed coverage of several valuation techniques. Chapter 21 includes extensive coverage of sources of capital used by healthcare providers, especially tax-exempt revenue bonds. Chapters 22 and 23 cover the topics of working capital management and cash budgeting.

Building from the practical educational approach of prior editions, we believe that the enhancements made to the text will provide students and practitioners with a greater understanding of financial application in the complex and changing healthcare industry.

About the Authors

William O. Cleverley, PhD, is the chairman and founder of Cleverley & Associates, which was started in January 2000. Before forming Cleverley & Associates, Dr. Cleverley was the president and founder of CHIPS (Center for Healthcare Industry Performance Studies). United Healthcare acquired the firm in March 1998, and Dr. Cleverley remained on staff as a part-time employee until December 1999. Dr. Cleverley is also professor emeritus at The Ohio State University where he taught courses in healthcare finance starting in 1973.

Dr. Cleverley was the original author of *Essentials of Healthcare Finance* in 1978. In addition, he has authored over 250 articles on healthcare financial issues in a wide variety of both academic and professional journals.

James O. Cleverley, MHA, is the president of Cleverley & Associates, where he has worked since September 2003. Mr. Cleverley consults with hospital and healthcare organizations to identify financial and operating opportunities, as well as related strategies for performance improvement. Before joining the firm, he directed a statewide health services program for a medical association.

Mr. Cleverley has authored over 50 books and articles dealing with healthcare financial analysis and application, including the annual Community Value Index® hospital survey, the State of the Hospital Industry, and *Essentials of Health Care Finance*. He is a two-time recipient of the Healthcare Financial Management Association's Yerger/Seawell Best Article award.

Mr. Cleverley received his master of health administration from The Ohio State University in 2004. He received his bachelor of science in business administration from The Ohio State University in 1999.

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CHAPTER 1

Financial Information and the Decision-Making Process

LEARNING OBJECTIVES

After studying this chapter, you should be able to do the following:

1. Describe the importance of financial information in healthcare organizations.
2. Discuss the uses of financial information.
3. List the users of financial information and their uses for it.
4. Describe the financial functions within an organization.
5. Discuss the common ownership forms of healthcare organizations, along with their advantages and disadvantages.

REAL-WORLD SCENARIO

In 1946, a small band of hospital accountants formed the American Association of Hospital Accountants (AAHA). They were interested in sharing information and experiences in their industry, which was beginning to show signs of growth. First published in 1947, a small educational journal was created in an attempt to disseminate information of interest to their members. Ten years later, in 1956, the AAHA's membership had grown to over 2,600 members. The real growth, however, was still to come with the advent of Medicare financing in 1965.

With the dramatic growth of hospital revenues came an escalation in both the number and functions delegated to the hospital accountant. Hospital finance had become much more than just billing patients and paying invoices. Hospitals were becoming big businesses with complex and varied financial functions. They had to arrange funding of major capital programs, which could no longer be supported through charitable campaigns. Cost accounting and management control were important functions for the continued financial viability of their firms. Hospital accountants soon evolved into hospital financial managers, and so in 1968 the AAHA changed its name to the Hospital Financial Management Association (HFMA).

The hospital industry continued to boom through the late 1960s and 1970s. Third-party insurance became the norm for most of the American population. Patients either received insurance through governmental programs

such as Medicare and Medicaid or obtained it as part of the benefit program at their place of employment. Hospitals were clearly no longer quite as charitable as they once were. There was money, and plenty of it, to finance the growth required through increased demand and the new evolving medical technology. By 1980, HFMA was a large association with 19,000 members. Primary offices were located in Chicago, but an important office was opened in Washington, DC, to provide critical input to both the executive and legislative branches of government. On many issues that affected either government payment or capital financing, HFMA became the credible voice that policymakers sought.

The industry adapted and evolved even more in the 1980s as fiscal pressure hit the federal government. Hospital payments were increasing so fast that new systems were sought to curtail the growth rate. Prospective payment systems were introduced in 1983, and alternative payment systems were developed that provided incentives for treating patients in an ambulatory setting. Growth in the hospital industry was still rapid, but other sectors of health care began to experience colossal growth rates, such as ambulatory surgery centers. More and more, health care was being transferred to the outpatient setting. The hospital industry was no longer the only large corporate player in health care. To acknowledge this trend, the HFMA changed its name in 1982 to the Healthcare Financial Management Association to reflect the more diverse elements of the industry and to better meet the needs of members in other sectors.

In 2015, HFMA had over 39,000 members in a wide variety of healthcare organizations (HCOs). The daily activities of their members still involve basic accounting issues—patient bills must still be created and collected, payroll still needs to be met—but strategic decision-making is much more critical in today's environment. It would be impossible to imagine any organization planning its future without financial projections and input. Many HCOs may still be charitable from a taxation perspective, but they are too large to depend upon charitable giving to finance their business future. Financial managers of healthcare firms are involved in a wide array of critical and complex decisions that will ultimately determine the destiny of their firms.

This text is intended to improve decision makers' understanding and use of financial information in the healthcare industry. It is not an advanced treatise in accounting or finance but an elementary discussion of how financial information in general and healthcare industry financial information in particular are interpreted and used. It is written for individuals who are not experienced healthcare financial executives. Its aim is to make the language of healthcare finance readable and relevant for general decision makers in the healthcare industry.

Three interdependent factors have created the need for this text:

1. Rapid expansion and evolution of the healthcare industry
2. Healthcare decision makers' general lack of business and financial background
3. Financial and cost criteria's increasing importance in healthcare decisions

The healthcare industry's expansion is a trend visible even to individuals outside the healthcare system. The hospital industry, the major component of the healthcare industry, consumes about 6.3% of the gross domestic product; other types of healthcare systems, although smaller than the hospital industry, are expanding at even faster rates. **TABLE 1-1** lists the types of major healthcare institutions and indexes their relative size.

Learning Objective 1

Describe the importance of financial information in healthcare organizations.

The rapid growth of healthcare facilities providing direct medical services has substantially increased the numbers of decision makers who need to be familiar with financial information. Effective decision making in their jobs depends on an accurate interpretation of financial information. Many healthcare decision makers involved directly in healthcare delivery—doctors, nurses, dietitians, pharmacists, radiation technologists, physical therapists, inhalation therapists—are medically or scientifically trained but lack education and experience in business and finance. Their specialized education, in most cases, did not include courses such as accounting. However, advancement and promotion within HCOs increasingly entails assumption of administrative duties, requiring almost instant, knowledgeable reading of financial information. Communication with the organization's financial executives is not always helpful. As

TABLE 1-1 Healthcare Expenditures 2008–2024*

Type of Expenditure	2008	2010	2012	2014	2016	2024
Hospital care	728.9	814.9	898.5	978.3	1,087.3	1,755.1
Physician and clinical services	486.5	519.0	565.3	615.0	666.5	1,034.8
Other professional services	64.0	69.8	76.8	85.5	96.0	155.4
Dental services	102.4	105.4	110.0	114.5	123.5	183.4
Other health, residential, and personal care	113.5	128.5	140.1	153.0	167.1	251.1
Home health care	62.3	71.2	77.1	81.9	91.7	156.0
Nursing care facilities and continuing care retirement communities	132.6	143.0	152.2	160.2	176.1	274.4
Prescription drugs	242.7	256.2	264.4	305.1	343.2	564.3
Durable medical equipment	34.9	37.0	41.3	44.2	48.2	76.9
Other non-durable medical products	49.5	51.2	53.7	58.4	62.6	98.7
Personal Health Care	**2,017.3**	**2,196.2**	**2,379.4**	**2,596.1**	**2,862.2**	**4,550.1**
Government administration	29.4	30.5	34.2	39.9	45.5	82.2
Net cost of private health insurance	140.7	152.3	165.3	200.4	235.4	384.3
Government public health activities	71.5	75.5	74.8	78.7	86.2	137.7
Health Consumption Expenditures	**2,258.9**	**2,454.5**	**2,653.6**	**2,915.3**	**3,229.3**	**5,154.2**
Research	44.0	48.7	48.0	45.9	48.7	72.0
Structures and equipment	111.2	101.0	115.7	118.9	124.7	198.9
National Health Expenditures	**2,414.1**	**2,604.1**	**2,817.3**	**3,080.1**	**3,402.6**	**5,425.1**
Gross Domestic Product	**14,718.6**	**14,964.4**	**16,163.2**	**17,418.9**	**18,821.2**	**27,648.0**
National Health Expenditures to GDP	**16.4%**	**17.4%**	**17.4%**	**17.7%**	**18.1%**	**19.6%**
Hospital Care to GDP	**5.0%**	**5.4%**	**5.6%**	**5.6%**	**5.8%**	**6.3%**

*Values are in US$ in billions.

Centers for Medicare and Medicaid Services, Office of the Actuary

a result, nonfinancial executives often end up ignoring financial information.

Governing boards, which are significant users of financial information, are expanding in size in many healthcare facilities, in some cases to accommodate demands for more consumer representation. This trend can be healthy for both the community and the facilities. However, many board members, even those with backgrounds in business, are being overwhelmed by financial reports and statements. There are important distinctions between the financial reports and statements of business organizations, with which some board members are familiar, and those of healthcare facilities. Governing board members must recognize these differences if they are to carry out their governing missions satisfactorily.

The increasing importance of financial and cost criteria in healthcare decision making is the third factor creating a need for more knowledge of financial information. For many years, accountants and others involved with financial matters have been caricatured as individuals with narrow vision, incapable of seeing the forest for the trees. In many respects, this may have been an accurate portrayal. However, few individuals in the healthcare industry today would deny the importance of financial concerns, especially cost. Payment pressures from payers, as described in the beginning-of-chapter scenario, underscore the need for attention to costs. Careful attention to these concerns requires *knowledgeable* consumption of financial information by a variety of decision makers. It is not an overstatement to say that inattention to financial criteria can lead to excessive costs and eventually to insolvency.

The effectiveness of financial management in any business is the product of many factors, such as environmental conditions, personnel capabilities, and information quality. A major portion of the total financial management task is the provision of accurate, timely, and relevant information. Much of this activity is carried out through the accounting process. An adequate understanding of the accounting process and the data generated by it are thus critical to successful decision making.

Information and Decision Making

The major function of information in general and financial information in particular is to oil the decision-making process. Decision making is basically the selection of a course of action from a defined list of possible or feasible actions. In many cases, the actual course of action followed may essentially be no action; decision makers may decide to make no change from their present policies. It should be recognized, however, that both action and inaction represent policy decisions.

FIGURE 1-1 shows how information is related to the decision-making process and gives an example to illustrate the sequence. Generating information is the key to decision making. The quality and effectiveness of decision making depend on accurate, timely, and relevant information. The difference between data and information is more than semantic: data become information only when they are useful and appropriate to the decision. Many financial data never become information because they are not viewed as relevant or are unavailable in an intelligible form.

For the illustrative purposes of the ambulatory surgery center (ASC) example in Figure 1-1, only two possible courses of action are assumed: to build or not to build an ASC. In most situations, there may be a continuum of alternative courses of action. For example, an ASC might vary by size or by facilities included in the unit. In this case, prior decision making seems to have reduced the feasible set of alternatives to a more manageable and limited number of analyses.

Once a course of action has been selected in the decision-making phase, it must be accomplished. Implementing a decision may be extremely complex. In the ASC example, carrying out the decision to build the unit would require enormous management effort to ensure that the projected results are actually obtained. Periodic measurement of results in a feedback loop, as in Figure 1-1, is a method commonly used to make sure that decisions are actually implemented according to plan.

As previously stated, results that are forecast are not always guaranteed. Controllable factors, such as

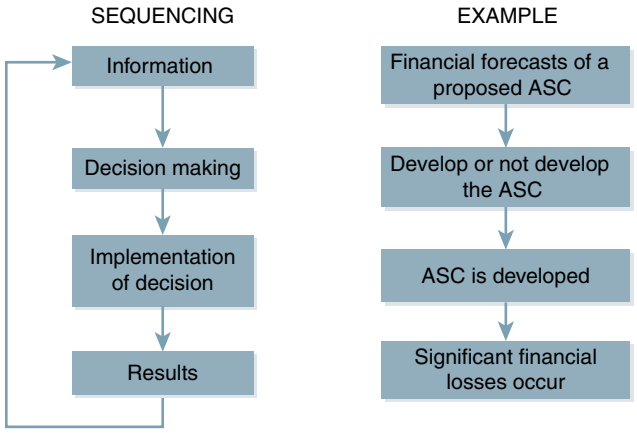

FIGURE 1-1 Information in the Decision-Making Process

TABLE 1-2 Results Matrix for the ASC

	Possible Events (Utilization Percentages)		
Alternative Actions	**25% Usage**	**50% Usage**	**75% Usage**
Build the ASC	$400,000 loss	$10,000 profit	$200,000 profit
Do not build the ASC	0 profit	0 profit	0 profit

failure to adhere to prescribed plans, and uncontrollable circumstances, such as a change in reimbursement, may obstruct planned results.

Decision making is usually surrounded by uncertainty. No anticipated result of a decision is guaranteed. Events may occur that have been analyzed but not anticipated. A results matrix concisely portrays the possible results of various courses of action, given the occurrence of possible events. **TABLE 1-2** provides a results matrix for the sample ASC; it shows that approximately 50% utilization will enable this unit to operate in the black and not drain resources from other areas. If forecasting shows that utilization below 50% is unlikely, decision makers may very well elect to build.

A good information system should enable decision makers to choose those courses of action that have the highest expectation of favorable results. Based on the results matrix of Table 1-2, a good information system should, specifically, do the following

- List possible courses of action.
- List events that might affect the expected results.
- Indicate the probability that those events will occur.
- Estimate the results accurately, given an action/event combination (e.g., profit in Table 1-2).

One thing an information system does not do is evaluate the desirability of results. Decision makers must evaluate results in terms of their organizations' preferences or their own. For example, construction of an ASC may be expected to lose $400,000 per year, but it could provide a needed community service. Weighing these results and determining criteria is purely a decision maker's responsibility—not an easy task, but one that can be improved with accurate and relevant information.

Learning Objective 2

Discuss the uses of financial information.

Uses and Users of Financial Information

As a subset of information in general, financial information is important in the decision-making process. In some areas of decision making, financial information is especially relevant. For our purposes, we identify five uses of financial information that may be important in decision making:

1. Evaluating the *financial condition* of an entity
2. Evaluating *stewardship* within an entity
3. Assessing the *efficiency* of operations
4. Assessing the *effectiveness* of operations
5. Determining the *compliance* of operation with directives

Financial Condition

Evaluation of an entity's financial condition is probably the most common use of financial information. Usually, an organization's financial condition is equated with its viability or capacity to continue pursuing its stated goals at a consistent level of activity. Viability is a far more restrictive term than solvency; some HCOs maybe solvent but not viable. For example, a hospital may have its level of funds restricted so that it must reduce its scope of activity but still remain solvent. A reduction in payment rates by a major payer may be the vehicle for this change in viability.

Assessment of the financial condition of business enterprises is essential to our economy's smooth and efficient operation. Most business decisions in our economy are directly or indirectly based on perceptions of financial condition. This includes the largely nonprofit healthcare industry. Although attention is usually directed at organizations as whole units, assessment of the financial condition of organizational divisions is equally important. In the ASC