4-1 Accounting Principles and Practices

OBJECTIVES

- ***Identify important accounting activities and procedures.***
- ***Recognize assumptions, principles, and professional practices that guide accountants' work.***

FINANCE AND ACCOUNTING

The study of finance provides information to individuals, businesses, and organizations on how to raise, allocate, and use monetary resources. Financial planning takes into account the current financial position of the organization, its immediate and long-term financial needs, and the risks in any alternatives being considered.

Both accounting and finance are involved in helping individuals and organizations make effective financial decisions. Some people think accounting and finance are essentially the same. There are major differences, even though both are important in effective financial management.

Accounting. Accounting is responsible for organizing a system of financial records, recording financial data, and preparing, analyzing, and interpreting financial statements. The financial records and financial statements must be timely, and they must be free of errors and bias. Generally Accepted Accounting Principles (GAAP) guide the work of the accounting profession. In the U.S., Generally Accepted Accounting Principles are developed and enforced by the Financial Accounting Standards Board (FASB). Accountants must also follow the accounting rules and regulations of each country in which a business operates, as well as the International Accounting Standards (IAS), when applicable.

Finance. Finance refers to saving, investing, and using money by individuals, businesses, and governments. Finance is broader than accounting and consists of three interrelated areas.

- Money and capital markets, which deals with determining monetary needs and obtaining adequate capital and cash
- Investments, which focuses on analyzing and choosing among investment alternatives while considering returns and risks
- Financial management, which applies management principles to financial decision-making for organizations

One way to look at the difference between accounting and finance is that accounting focuses on history and finance focuses on the future. Accountants analyze the financial performance of individuals, businesses, and organizations to determine what happened. Finance, on the other hand, uses historic and current financial information to predict and plan for the future. Both are essential to effective financial management. Decision-makers must understand the financial past to plan for the financial future.

PRINCIPLES OF ACCOUNTING

For hundreds of years, businesses have tracked their financial progress as an important measure of success. The primary goal of accounting is to determine the value of the resources of a business and the financial claims on those resources. The financial claims on a company's resources are known as equities. Those claims come from both creditors and owners. Accounting organizes the classification and analysis of resources using the fundamental accounting equation.

The Accounting Equation

The fundamental accounting equation is Assets = Liabilities + Owner's Equity. Assets are the resources used by a business in its operations. They include tangible resources such as land, buildings, equipment, inventory, employees, and cash and intangibles such as patents, copyrights, trademarks, and even the image and goodwill of the business. Liabilities are claims against the business resources by those to whom the business has financial obligations. Those claims includes loans, accounts payable, taxes payable, and other obligations. Owner's equity is the financial interest in the business held by all owners. Ownership is determined by the legal form of the organization – sole proprietorship, partnership, corporation, cooperative, or other legal form. Owner's equity is made up of both the investments of all owners and any undistributed earnings of the business. The financial records for each of the specific assets, liabilities, and categories of owner's equity are known as the business' accounts.

Accounting Transactions

The resources of the organization and the claims on those resources must remain balanced. Any changes in the resources of an organization must be reflected on both sides of the accounting equation by additions to or reductions from the company's assets and corresponding additions to or reductions from liabilities or owner's equity.

Any time revenue moves into or out of the business or any time the value of an account changes, it must be reflected in the accounts of the business so that the accounting equation remains balanced.

An accounting transaction is the act of recording a financial activity that results in a change in value of an organization's resource. The transaction will result in financial entries in the accounts of the business in a way that maintains their balance with each other. For example, if a company pays a bill to a creditor, the amount of that liability account (accounts payable) is reduced. At the same time, the amount of the company's cash (an asset account) is also reduced since cash was used to pay the creditor. The two reductions maintain the balance among the accounts. In the same way, if the company makes a sale to a customer for cash, the value of inventory is reduced and the value of the cash account is increased. Other accounts may be affected depending on whether the sale resulted in a profit or loss but the overall accounting equation remains in balance after the transaction is recorded.

Recording Transactions

The basic requirement for maintaining complete financial records for a business is that all financial transactions must be recorded. Recording financial transactions and maintaining records of those transactions is the primary responsibility of accountants. Each transaction should be identified through a source document. In accounting, a source document is the original record of a transaction. Common examples of source documents are sales receipts, invoices, checks, and computer records such as printouts of cash register transactions. Using source documents, transactions are recorded in business records called journals. The journal entry identifies the key information for the transaction, including date, amount, purpose, and the accounts affected. The financial effect on each account is noted so that the accounting equation stays in balance after the transaction is recorded.

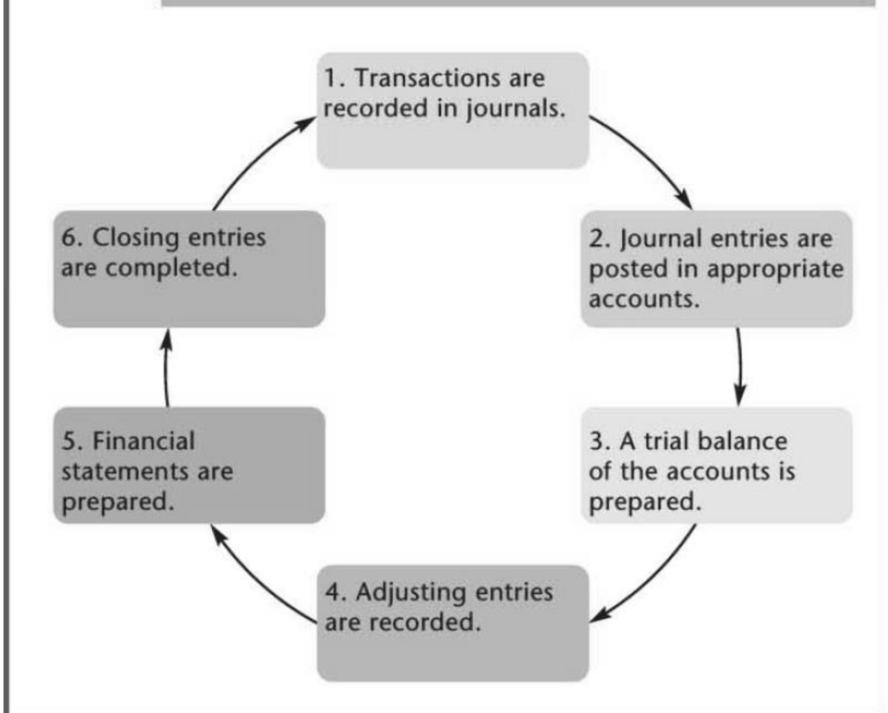
Financial Statements

A business uses financial statements to understand and analyze the financial performance and health of the business. Financial statements are specific reports prepared according to accepted accounting standards that provide financial information about an enterprise. The three primary financial statements-the balance sheet, the income statement, and the cash flow statement-are summary reports prepared at regular times using the company's financial records.

THE ACCOUNTING CYCLE

Financial information must be available for decision-makers in an understandable form and a timely manner. It would be impossible for everyone needing financial information to review all of the financial transactions of the business every time a decision needs to be made. Accountants regularly summarize financial data and prepare financial reports following the accounting cycle. The accounting cycle is a series of steps performed to ensure the completeness and accuracy of accounting records and to prepare summary financial statements. Completing those steps is called "closing the books" for the company and provides a summary of the business' finances as of a particular date. Normally the accounting cycle is completed monthly, quarterly (every three months), and at the end of the company's fiscal (financial) year. The steps in the accounting cycle are summarized in Figure 4-1.

FIGURE 4-1 The Steps in the Accounting Cycle



Steps 3, 4, and 6 are unique accounting activities designed to ensure the accuracy and integrity of the company's financial records. In Step 3, a trial balance of accounts is prepared. The trial balance is a worksheet constructed in the format of the accounting equation. It lists the values of all accounts and determines whether the total of accounts is balanced. If the totals do not balance, accounts and journal entries must be reviewed to identify and correct errors.

In Step 4, adjustments to account balances are made. It is important that all financial statements reflect the accurate financial position of a business as of a specific date. Some accounts reflect earnings or payments for multiple accounting periods. For example, employees may have earned wages for the ending days of the accounting period but paychecks have not yet been issued. The account recording employee wages must be adjusted to reflect the actual wage expenses of the company for the actual period the work was performed. In the same way, the company may have made a six-month insurance payment but some of the cost of that insurance applies to months following the date financial statements are prepared. In this case an adjustment to the insurance expense account will reflect the actual cost of insurance for the time covered by the statements.

Finally, in Step 6 closing entries are made after financial statements are completed. Closing entries prepare all accounts for the next accounting cycle. In completing the financial analysis and financial statements, accountants create temporary accounts to identify income, expenses, and earnings related to the specific accounting period. The balances of the temporary accounts are returned to their original locations and the temporary accounts are closed through a series of closing entries.

ACCOUNTING PROFESSIONAL PRACTICES

Accounting is a highly complex and technical profession. Accounting professionals have a high level of responsibility for the financial success of the companies for which they work. Inaccurate, incomplete, or improperly prepared accounting records and statements misrepresent the financial condition of the business and mislead those who rely on the accountants' work.

ASSUMPTIONS

In order for financial information to be useful and reliable, accounting procedures are based on the following assumptions and principles.

Single Economic Entity. The financial reporting is for an identifiable, independent business. The revenues and expenses are kept separate from those of the owners or from other businesses and reflect the total and unique revenues and expenses of the business.

Going Concern. The financial data is for an ongoing business that will continue to operate beyond the reporting period. This assumption is necessary to reflect decisions made about the value of assets and the allocations of revenues and expenses across financial reporting time periods.

Monetary Unit. The financial records reflect the use of one stable currency even if financial transactions may have been completed using multiple currencies. U.S. companies following the Generally Accepted Accounting Principles accept the U.S. dollar as the monetary unit. There is no adjustment for inflation in reporting monetary values.

Periodic Reporting. The financial basis of business operations can be recorded and analyzed in specific and regular time periods, usually monthly, quarterly, and annually. The use of common and consistent reporting periods is necessary to compare past, current, and future financial performance.

ACCOUNTING PRINCIPLES

Certain accepted accounting principles are used to value and record financial data.

Historic Costs. Companies record and report the value of resources based on their acquisition costs rather than their current market value. The values are more stable and comparable and there is less opportunity to misstate values of resources by applying a subjective, current value assessment.

Revenue Recognition. Companies are expected to record revenues when they are actually earned, not when payment is received. In the same way, expenses are recorded when they are actually applied to the operation of the business, not when payment is made. The accounting procedure that recognizes revenues and expenses when they are incurred rather than when cash is received or spent is known as accrual accounting.

Expense and Revenue Matching. Financial reports are expected to match expenses with related revenue. Expenses are costs of products and services needed for business operations and for increasing the revenue of the business. The matching principle is used to show how much it costs to earn specific revenue. Only when there is no reasonable connection between an expense and any revenue generation can an expense be charged at the time it is incurred.

Full Disclosure. A company's financial statements and supporting information should contain all relevant facts and explanations needed to accurately reflect the company's financial position and make it understandable. Information that does not contribute to understanding and that is costly to obtain and prepare should not be included.

Standard Practice and Conservatism. Accounting procedures used to record, analyze, and report financial information should follow industry practices. When choosing between two interpretations or solutions, the one that will be least likely to overstate assets and income should be chosen.

PROFESSIONAL PRACTICES

As with most professions, accounting is defined by a number of professional practices. Those practices specify requirements and expectations for people who are employed in the profession and provide assurances to the businesses employing professional accountants of the quality and standards they can expect.

Professional Competence. Accountants are expected to have sufficient competence to perform required tasks. Accounting competence includes knowledge of accounting rules and standards and the judgment to apply the rules and standards appropriately. The primary rules of accounting are the Statements of Accounting Standards, Generally Accepted Accounting Principles, and applicable laws and regulations of government agencies. Many accounting responsibilities require a great deal of technical knowledge to understand the business and its operations or to complete complex data analysis and financial calculations. If a person does not have adequate technical knowledge to complete the financial analysis, he or she is required to complete the necessary research, consult with experts, or recommend that another person who has the needed technical expertise be assigned to the task.

Due Care and Sufficient Data. Accountants are expected to exercise due care in performing their duties. Due care is a commitment to completing all tasks thoroughly and with the highest level of quality. Often the details of financial transactions are not easy to obtain or understand. By exercising due care, accountants use their knowledge and abilities to obtain complete and accurate information when preparing financial records. They need to serve the best interests of Chapter 4 the company, its employees, and others who rely on the financial information by being ethical and objective. They must make sure that everyone they work with and supervise completes assigned tasks correctly and completely.

Independence and Integrity. Accountants must remain objective and not knowingly misrepresent information or allow others, either subordinates or superiors, to do so. There may be pressure in an organization to present the most positive financial picture. That is particularly true if the company is trying to obtain financing or attract investors. There are several recent examples of top-level corporate executives who attempted to misrepresent the financial condition of their organizations in order to hide management and operating problems. The accountants and accounting firms working for those companies faced immense pressure to comply with the executives' demands and several failed to meet their professional obligations to maintain their independence and follow accepted accounting practices.

Every accountant has the responsibility to report all relevant information, report it honestly, and correct any inaccurate or misleading information in financial records and reports. If there are concerns about the quality or accuracy of the work, it is the obligation of the accountant to make those concerns known to management, provide relevant documents and applicable rules and regulations, and, if necessary, ask other experts to review the information.

4-2 Maintain and Use Financial Records

OBJECTIVES

- ***Describe the importance of accurate, complete, and secure financial records for a business.***
- ***Discuss important uses and users of a business' financial records.***

DEVELOP AND MAINTAIN A BUSINESS RECORDS SYSTEM

All business information is important. Companies devote significant financial and human resources to plan, build, maintain, and secure a complex and comprehensive information system. An information system is a structured set of processes, people, and equipment for converting data into information. An effective business information system is under direct management control and is designed to be usable throughout the organization. The system is designed to integrate hardware, software, information, data, applications, communications, and the people who generate, record, and use the information. The components of an effective information system are users, data collection devices, data sharing devices, analysis/interpretation of information, organizational structures, and processes.

TYPES OF FINANCIAL INFORMATION

Among the types of information maintained in an information system, financial information is one of the most important. The information system of an organization must collect, record, store, and securely maintain all financial data, records, and reports. Financial information occurs in many forms. The common types of business financial information include:

- Data raw facts related to financial transactions of the company
- Records a collection of related data organized in a form that can be retrieved and viewed
- Reports the organized presentation of financial data, often with notes, providing specific information on the financial condition or position of the organization

INFORMATION INTEGRITY

The people in charge of an information system as well as each person with access to the system have a responsibility to maintain the integrity of the information. Information integrity means that information remains unchanged from its source and has not been accidentally or maliciously modified, altered, or destroyed. Problems with the integrity of information systems are commonly seen.

- A supermarket scanner is not programmed to record the accurate price of a product.
- Personal credit reports are incorrect due to lack of care by employees responsible for reporting and recording information.
- People working with personal data in an organization's database download it to a laptop where it is essentially unsecured.
- Companies hit by natural disasters such as hurricanes and floods lose essential records.

Each time a situation occurs where data is lost, destroyed, recorded inaccurately, or misused, people's confidence in the organization as well as its information systems and the information itself is shaken. It is particularly important that people maintain their belief in the quality and integrity of a company's financial information. They must feel that they can rely on that information when making decisions about investments and other financial dealings with the company. A lack of confidence and trust will cause people to be reluctant to engage in financial dealings with the business.

MAINTAINING FINANCIAL RECORDS

Developing and maintaining a financial records system that has integrity and the confidence of those who use and rely on the information requires decisions in several areas. Those areas and specific procedures are shown in Figure 4-2.

FIGURE 4-2

Effective and Secure Information Systems

Record Selection

What types of records are needed to
- conduct your type of business and make effective management decisions
- meet stockholder information expectations
- determine your financial progress and health
- meet government reporting and tax requirements
- protect ownership, contractual, and intellectual property rights

Information Maintenance

What hardware, software, and other system components are needed to
- maintain the amount and types of information used in your business
- allow access to critical information
- accurately track the financial progress and health of the company
- make information easily accessible, usable, and understandable by all with legitimate information needs

Information and System Security

What special measures have been taken to
- secure information and important documents away from the business site in case of disaster
- meet the storage requirements of original and legal documents
- provide ready access to critical documents and information in times of crisis or disaster
- provide necessary security for access, reasonable use, and modification of information

Legal Integrity

What are the legal considerations regarding the need to
- authenticate original records and documents
- meet legal requirements for electronic versus hard copy records
- meet government requirements for documentation, review, and retention

System Maintenance and Improvement

What procedures and authority are in place to
- regularly review the quality of the information system and procedures
- meet industry standards and government record-keeping requirements
- remove nonessential records when they are no longer needed
- securely destroy records that are no longer being maintained
- remove roadblocks to efficient information access, use, and exchange
- provide funds to maintain and update information system components

USING FINANCIAL RECORDS

Financial information is important to the business and to everyone interested in or affected by the company's financial performance. Information must be organized to be meaningful and usable. Accounting is responsible for collecting, recording, and organizing financial data into records and reports. Those financial reports and other information are then used by others to draw conclusions and make decisions that affect the financial future of the company.

USERS AND USES

The primary users of financial reports and information are company managers and decision-makers, investors, creditors, and government regulators. Each has a particular need and use for the information.

Company Managers and Decision-Makers. The primary responsibility of managers and company decision-makers is to operate a profitable business and maximize shareholder value. They make decisions about capital expenditures to make sure business assets are as productive as possible. They review the operations and results of each part of the business to increase productivity and profitability and control expenses. Managers must maintain sufficient working capital to continue operations and invest funds not currently being used.

Investors. Investors are concerned about the financial performance of a company to achieve their investment objectives. The major objective of investing is to maximize the value of the investment. That can be achieved through the increasing value of the investment itself and the regular earnings from the investment. For example, with stock ownership, value increases as stock prices increase and earnings are achieved through the payment of dividends.

Creditors. Creditors are concerned that the company has adequate assets to secure the amount of money they loan to the business. More important from the creditor's viewpoint is whether the business is generating adequate cash to meet the payment schedule. Creditors want to make sure that the financial condition of the business is strong enough to make it a good credit risk for the length of the loan.

Government Regulators. The interest of the government in a business' financial records is twofold. Businesses are required to pay taxes and other fees based on their legal and financial status. In addition, a variety of government regulations require financial disclosures from businesses. Those disclosures include specific financial data as well as information on financial recordkeeping and financial decision-making procedures.

PRIVATE AND PUBLIC RECORDS AND REPORTS

Requirements differ on the types of financial information companies must disclose. Much of the financial data and records of businesses are private, including records of all financial transactions. The records can be controlled and information shared based upon the decisions of management as long as all legal requirements are met. In general, privately owned companies are not required to publicly disclose financial information. Corporations whose stock is publicly traded do have a public reporting requirement. Those companies must provide an annual report to all stockholders. An annual report is a statement of a company's operating and financial performance issued at the end of its fiscal year. Annual statements often include a letter from the chief executive, a narrative discussion of the year's operations, and plans for the future. In addition, the Securities and Exchange Commission requires public corporations to file a Form 10-K each year. It is similar to an annual report but may be even more detailed. The 10-K includes information about the company history, organizational structure, equity, holdings, earnings per share, subsidiaries, and audited financial statements.

FOCUS ON: What Led to the Sarbanes-Oxley Act?

As the country started into the new century, public confidence in big business and accounting practices was shattered with several major back-ta-back scandals. The most famous was Enron, a Houston-based energy company that had been the darling of investment bankers and the business press. Fortune magazine named Enron “America's Most Innovative Company" for six consecutive years. In late 2001, it all came crashing down when Enron filed for bankruptcy, becoming the largest bankruptcy in U.S. history. It cost thousands of employees their jobs and, even worse, the retirement savings they had invested in the company as the stock price plummeted from over $90 to under $1 per share. The blame for the company's failure was placed on several company executives for illegal financial transactions in moving assets and expenses among company entities as well as approving fraudulent accounting to hide the transactions. The company's auditing firm, Arthur Andersen, was convicted of obstruction of justice and disbanded. The Enron bankruptcy was followed quickly by several other scandals that exposed serious problems with accounting practices and the oversight provided by auditing firms. World Com's founder, Bernard Ebbers, and several other executives manipulated stock prices, misused the Board of

Directors to approve illegal compensation plans, and illegally inflated the value of the company's assets by over $1 1 billion. Tyco experienced a similar problem with overvalued stocks, illegal executive pay, and misleading financial statements. Two top executives were accused of the theft of $600 million from the company. Based on the scandals, several leading public accounting firms-Deloitte & Touche, Ernst &; Young, KPMG, and PricewaterhouseCoopers-were charged with negligence as auditors of their clients' financial information and reports. The federal government responded quickly to restore the public's confidence in corporate finance and accounting practices. The Sarbanes-Oxley Act was passed in July, 2002 by overwhelming majorities in Congress. It established new or more stringent standards for all U.S. public company boards, management, and public accounting firms. It has been called the most important piece of legislation affecting corporate governance, financial disclosure, and public accounting since the securities laws of the 1930s. Executives and corporate directors are held responsible for understanding and approving financial statements, auditing committees and firms must have independence from conflicts of interest or executive pressure, and new enforcement provisions and stiff criminal penalties are established. Rules regulating executive compensation are also imposed.

4-3 Financial Management Analysis Tools

OBJECTIVES

- ***Identify the primary purpose and activities of financial management.***
- ***Describe important tools used in financial management.***

FINANCIAL MANAGEMENT ACTIVITIES

The overall objective of financial management is to maximize the wealth of the owners. Considering the nature of the business and the risk assumed by investors, owner's equity should increase at a rate equal to or better than other investments. Financial managers determine the best mix of assets for a business, how to acquire them, and how to use them to get the best possible financial return from their use.

THE STRUCTURE OF FINANCIAL MANAGEMENT

A corporation is guided by a board of directors. The board of directors represents the shareholders in oversight of the business. It is their responsibility to set direction for the business and establish corporate policy, hire and determine the compensation of the key executives, and review major business decisions.

The employed management of a corporation is headed by the chief executive officer. The chief executive officer (CEO) is charged with carrying out the strategy and policy of the board of directors. The CEO provides leadership for management and employees, sets long-term operational direction, and is accountable to the board for all company activities and results.

Typically, the two positions reporting to the CEO and having primary responsibility for managing the business are the chief operating officer and the chief financial officer. The chief operating officer (COO) directs the actual operations of the business while the chief financial officer (CFO) is responsible for planning and managing its financial resources.

Under the CFO are a number of managers. The top-level financial managers in many companies are the treasurer and controller. Both of these positions are supported by a number of financial specialists. The treasurer has responsibility for the management of a company's cash, investments, and other financial resources as well as relationships with investors and creditors.

The controller is in charge of accounting and the financial records of the organization and provides support for executives and other managers in understanding and using financial data and reports. The efforts of the entire financial management team are directed at accomplishing the overall goal of the business-to maximize ownership wealth.

FINANCIAL MANAGEMENT DECISIONS

Financial management is focused on investment decisions. Three major types of investment decisions define the work of financial management in businesses. Those decisions are (1) what investments need to be made, (2) how the investments should be financed, and (3) how the business' investments can be efficiently managed.

Asset Planning

Investments are made to acquire the assets needed for business operations. The assets needed are determined by the activities of the business and its size. Financial managers work with operations management as well as other managers in the organization to determine what investments in land, buildings, equipment, materials, and other major assets are needed at the current time and in the future. In some cases assets must be added, and in other instances assets can be reduced. One of the most interesting and challenging investment decisions is the area of mergers and acquisitions. Deciding to purchase an existing company or merge the resources of two or more companies is a major financial decision of a company, as is the decision to sell a major part of the business to reduce the company's size and focus its efforts.

Asset Financing

Once decisions are made on the best mix of assets for a business, financial managers determine how to finance the acquisition of those assets. The two major ways to finance asset acquisition are equity financing and debt financing. Equity financing offers an ownership interest in the company to investors. Corporate equity financing is done through the sale of stock. Debt financing is the use of borrowed money to obtain needed assets. Individuals or institutions providing the debt financing become creditors who receive payment in the form of principal and interest. Creditors also have a claim on company assets if repayment is not made. Long-term debt financing is usually done by issuing bonds or signing promissory notes and mortgages. Common methods of short-term financing are obtaining trade credit (buying on credit from vendors and suppliers), operating loans from financial institutions, and commercial paper (short-term money market securities). Investment decisions are made by comparing alternatives based on both financial and nonfinancial advantages, disadvantages, payoffs, and risks to the business.

Asset Management

The third role of financial management in business is to ensure that assets are managed as efficiently as possible. Once again, the primary goal of this activity is to maximize the return on the company's assets. Fixed assets such as buildings and equipment are maintained by operations management. Financial management is concerned with maximizing the financial life of those assets, depreciation costs, and replacement. Managing the liquid assets of a business is an important focus of financial managers. Liquid assets are cash, accounts receivable, inventory, owned stock, and a variety of short-term investments (such as money market funds, certificates of deposit, and securities). As with the management of fixed assets, financial managers are concerned with obtaining the maximum use and value of the company's liquid assets.

FINANCIAL ANALYSIS TOOLS

Corporate finance is responsible for recommending the financial decisions a business should make and for the data and analyses used to make the decisions. Long-term financing decisions determine the types of capital assets needed by the company, how the assets contribute to the company's financial position, and how they will be financed. Short-term financial planning involves decisions about working capital and maintaining an appropriate balance between current assets and current liabilities. Both long- and short-term financial planning is done using the financial data, records, and reports of the business.

USING FINANCIAL RECORDS AND REPORTS

To make effective financial decisions, managers study the value of assets, liabilities, and owner's equity, the revenues and expenses generated by the business, the company's stock position, and its use of earnings. They are concerned about the changes in the financial condition and position of the business over time, its current status, and projections for the future. The primary sources of information for those decisions are:

- Financial Statements: balance sheet, income statement, statement of cash flow, and other supporting statements
- Records of the business for specific assets, liabilities, and owner's equity, as well as revenue and expense records
- Budgets prepared to plan capital acquisition, working capital, cash flow, and earnings

Each of the records and reports is studied for three purposes:

1. Determine current values of each of the business' important financial elements, changes that have occurred compared to prior periods, and values projected for future periods
2. Identify the relationships among the current values, the amount and nature of changes from prior periods, and how relationships will be affected based on future plans
3. Compare, when possible, these values, their relationships, and proposed changes with those of comparable businesses

BALANCE SHEET

The balance sheet is a picture of the financial condition of the business as of a specific date. The important information contained in the balance sheet is the firm's total assets and their division between long-term and current assets, the total liabilities and their division between long-term debt and current liabilities, and the owner's equity and how it is divided among types of equity as well as the value of retained earnings. Retained earnings are profits earned by a company that are not paid to shareholders as dividends.

The balance sheet can provide a view of the current financial position of the company. Is it financially strong or not? The strength of a company can be seen by its overall financial value. Essentially that means how much money the owners would have if the assets and liabilities were converted to cash. This question is only theoretical, because if a business attempted to convert its assets immediately, the assets would not be able to be sold at their actual value. The question also cannot be directly answered from the balance sheet because long-term assets are not carried at their actual value. Age, condition, depreciation methods, and other factors can affect their actual value. In general, the balance sheet shows whether the value of assets is much greater than the value of liabilities or not. If the value of assets is significantly higher it can be assumed that there is greater stockholder value than if liabilities are close to assets in value.

A more important measure of the current financial position is its working capital. Working capital is determined by subtracting current liabilities from current assets. A healthy working capital balance gives companies flexibility in operations. They can invest for growth, add needed assets, and respond to competitive pressures. Excess working capital can be invested for additional earnings. A company with positive working capital is attractive to investors and lenders.

A final component of the balance sheet is the owner's or shareholders' equity. It is normally made up of the value of all classes of stock and retained earnings. Retained earnings are available for financing growth, reducing debt, or investment to generate additional earnings. Of course, stockholders are interested in the earnings they receive on their investment. Earnings that have been retained have not been paid out to stockholders as dividends. A high value in retained earnings may be positive for company executives, but not for stockholders or prospective investors.

In addition to studying and comparing the current values on the balance sheet, changes in value from prior time periods is also important. Categories of assets, liabilities, and owner's equity can be compared with the same categories in previous time periods. Changes in relationships between assets and liabilities should be analyzed as well. Are assets, liabilities, and owner's equity changing? If so, is the change positive or negative for the financial health of the business? Is working capital improving or not? Have profits been distributed to shareholders, held in retained earnings, or used to finance needed assets or reduce debt?

INCOME STATEMENT

The income statement provides a summary and detail about the financial performance or profitability of business operations over an identified period of time. Sales and the costs to generate those sales, other sources of revenue, and all operating, administrative, and other business expenses are detailed in the income statement culminating in net earnings for the period.

Focusing on the income statement for one time period provides a limited amount of information. It shows the values and relationships among the major activities of the business that generate revenue and earnings. The cost of sales compared to net sales, the types and values of various expenses, net income before and after taxes, and the relationship of net income to revenues are important information from the income statement. This information describes the efficiency of various parts of the business' operations as well as the effectiveness of the company in converting resources into revenues and profits.

Greater understanding of the business' financial performance comes from comparisons of income statements over several time periods-monthly, quarterly, and annually. How are revenues and the sources of revenues changing? Are various costs increasing as a direct measure and as a proportion of other values? Is the business improving in profitability and in efficiency and effectiveness of generating revenues and profits? Comparing the actual amounts from the income statement with budgeted amounts helps to improve financial planning for future periods.

Comparisons with the income statements of other companies should be approached cautiously since many factors unique to the business influence the actual values of income and expense items. Comparison of the relationships of cost of sales and net income to revenue may be helpful in analyzing the competitive performance of the business.

CASH FLOW STATEMENT

Cash flow is the movement of cash into and out of a business. It demonstrates the solvency of a business. Solvency is the ability of an organization to meet its financial obligations as they become due. Cash flow is a very important short-term measure of a business' financial health. A business may generate a large amount of cash in a full year of operations and end with a healthy cash position. If that company has several months in which cash inflows do not meet cash payment requirements it will need to obtain short-term financing. Statements of cash flow are prepared and analyzed frequently, at least monthly.

The analysis of cash flow should be approached carefully. Cash is certainly not the equivalent of profit. A company can have a large cash balance yet be struggling with profitability. In the same way, a profitable company may have difficulty generating cash for immediate needs. As a general conclusion, a company with an increasing positive cash flow is a healthy company.

Cash is generated in one of three ways and each provides important information about company operations. Cash from operating activities describes the revenues from the primary work of the business such as the sale of products and services. A company needs to be able to generate a positive cash flow consistently from its operations. Some operations will not generate a positive cash balance. The cash flow can vary significantly from month to month and quarter to quarter in some businesses such as those with seasonal sales. Cash from investing activities describes revenues earned from purchasing or selling assets. Examples include stock ownership in other companies, securities, real estate, and the purchase and sale of long-term assets. The third category of cash is cash from financing activities. Those activities include cash from the sale of stock and from taking on long- or short-term debt (loans and notes). Each of the categories reports cash reductions as well as cash revenues. For example, when a retailer uses cash to purchase inventory, it reduces the cash balance for operating activities.

There is not a particular cash balance that is an indication of financial health. It is more important to look for major changes in cash flow, areas where cash balances are small or negative, and the types of activities that are generating or consuming cash. Comparing a company's cash position to the cash flow of its major competitors is meaningful since a company that is not maintaining an equivalent amount of cash may find itself in a difficult position.

4-4 Financial Analysis and Decision Making

OBJECTIVES

- ***Recognize financial ratios used to analyze the financial condition of a business.***
- ***Discuss how ratios aid in financial decision making.***

UNDERSTANDING FINANCIAL RATIOS

Analysis of a business' financial information over time is very important in understanding management's approach to financial planning, the company's competitive position, and its attractiveness to investors. Financial managers pay a great deal of attention to financial records and financial statements of their own company and of competing companies. One important tool for analyzing financial statements is financial ratios. Financial ratios are comparisons of important financial data used to evaluate business performance. The financial data used to calculate ratios comes from the company's financial statements.

Ratio analysis is the study of relationships in a company's finances in order to understand and improve financial performance. Ratio analysis includes comparing relationships in current performance, making comparisons between current and past performance, and comparing the financial performance of the business with competitors' performance. Ratio analysis is used to determine areas of financial strength and weakness in order to make decisions that will strengthen the company's financial position. There are many financial ratios that can be calculated. Financial managers and investors decide which ratios provide the information for the decisions they need to make. Ratios can be categorized in terms of the important types of financial performance and decisions in a business.

LIQUIDITY RATIOS

No matter how profitable a company is, an important measure of its financial health is its ability to pay debts on time. To be able to finance short-term debt, a company should be in a favorable liquid position. That means it either has a good cash balance or other current assets than can be converted quickly to cash without substantial loss of their value. Commonly used liquidity ratios are the current ratio, the quick ratio, and the cash ratio.

CURRENT RATIO

A measure of the ability to meet current debt.

$$\textit{Current Ratio} = \frac{\textit{Current Assets}}{\textit{Current Liabilities}}$$

The current ratio shows how well the company is prepared to pay current liabilities, those debts that will come due within a year. Of course it is expected that a business have more current assets than current liabilities. A strong position in most industries is a ratio of 2:1. Financial managers and investors will look at the current assets to determine how quickly they can be converted to cash and the value of the assets listed on the company's balance sheet to make sure it is an accurate reflection of an asset's real cash value.

QUICK RATIO (ACID TEST RATIO): A more precise liquidity measure that reduces the value of current assets by the value of the inventory.

$$\textit{Quick Ratio} = \frac{\textit{Current Assets - Inventory}}{\textit{Current Liabilities}}$$

Current assets cannot all be disposed of quickly in order to obtain cash to pay a company's short-term debts. Inventory is a particular problem in some industries. An inventory level is developed and maintained to meet customer needs over a period of time. If it must be liquidated quickly, prices may have to be reduced dramatically. By reducing the value of current assets by the value of the inventory, the quick ratio provides a more specific value of available current assets to cover the liabilities. The quick ratio does not have to be as high as the current ratio since the current assets used are highly liquid. A ratio of 1:1 may be acceptable in many industries.

CASH RATIO: The cash ratio is an indicator of a company's liquidity that further refines both the current ratio and the quick ratio by measuring the amount of cash, cash equivalents or invested funds there are to cover current liabilities.

$$\textit{Cash Ratio} = \frac{\textit{Cash + Cash Equivalents + Investments}}{\textit{Current Liabilities}}$$

The cash ratio is the most stringent and conservative of the three short-term liquidity ratios. It only looks at the most liquid short-term assets of the company, which are those that can be most easily used to payoff current obligations. It also ignores inventory and receivables, as there are no assurances that these two accounts can be converted to cash In a timely matter to meet current liabilities.

ASSET MANAGEMENT RATIOS

Businesses use their assets to make money. Assets produce sales and sales generate profits. A company that can use assets efficiently by keeping their values low in relation to sales and profits is financially stronger than companies that require a higher value of assets for the same results. Asset management ratios compare the value of key assets to sales performance.

INVENTORY TURNOVER RATIO: Measures the efficiency of a company in maintaining inventory to generate sales.

$$\textit{Inventory Turnover Ratio} = \frac{\textit{Sales (or Revenues)}}{\textit{Inventory}}$$

A company doesn't earn money on its inventory until it is sold. The more rapidly inventory is sold, the lower the amount of financing required. If a company can maintain low inventory levels and still have high sales volume, it is using inventory very efficiently. Some industries require a lower volume of inventory or have lower total inventory costs to generate sales. Other industries require a high inventory level or the cost of inventory is quite high. A business with a low ratio should be evaluated to see if the inventory is dated or obsolete or if there is another reason that it is not being converted to sales more quickly.

TOTAL ASSETS TURNOVER RATIO: Measures how efficiently all assets generate sales.

$$\textit{Total Assets Turnover Ratio} = \frac{\textit{Sales (or Revenues)}}{\textit{Total Assets}}$$

The total assets turnover ratio is similar to the inventory turnover ratio except that it focuses on the efficient use of all company assets. By comparing the value of all current and fixed assets to sales, the company can determine if it has a reasonable amount of assets for the sales being produced. A low value suggests assets are not being used efficiently. Some businesses also calculate a fixed assets turnover ratio to examine the efficiency of land, buildings, and major equipment.

ACCOUNTS RECEIVABLE TURNOVER RATIO: Measures how quickly credit sales are converted to cash.

$$\textit{Accounts Receivable Turnover Ratio} = \frac{\textit{Sales (or Revenues)}}{\textit{Accounts Receivable (or Net Receivables)}}$$

The accounts receivable turnover ratio identifies how quickly customer accounts are paid. Higher ratios mean that accounts receivable are collected quickly. Long collection periods usually result in losses when older accounts are not paid. Some companies use total credit sales rather than total sales to determine the accounts receivable turnover. Another related ratio is the average collection period ratio, determined by dividing accounts receivable by the average daily sales. This ratio identifies how many days on average it takes to collect accounts receivable. A smaller number of days demonstrates effective credit procedures.

DEBT MANAGEMENT RATIOS

Using debt to finance some parts of a business' operations allows owners to maintain control of the business with a lower level of investment. If debt is used effectively it is possible to get a higher rate of return on the use of the money than the actual cost of the debt. Using debt financing to increase the rate of return on assets is known as financial leverage. As long as a company can pay its debts when they come due, a high level of debt financing is not necessarily a problem. Stockholders like to see higher debt ratios as long as the firm is profitable because they provide higher potential earnings. Creditors on the other hand get concerned when debt ratios are high because they have fewer claims on assets if the business should fail.

DEBT RATIO: Measures how much of a company's assets are owned by creditors.

$$\textit{Debt Ratio} = \frac{\textit{Total Debt*}}{\textit{Total Assets}}$$

** total debt includes all payables, short-term debt, and long-term debt.*

The appropriate ratio is guided by the industry in which the company operates and the financial stability of the company. A stable company with a long operating history can carry a ratio where debt is greater than 50 percent of total assets. A new company, risky industry, or volatile economy may require a ratio where debt is one-third or one-fourth of the asset value. Related debt management ratios are total debt divided by net worth, which provides a direct comparison of equity and debt financing levels; and long-term debt divided by total assets, which shows the extent to which the company's assets are financed by long-term debt.

TIMES-INTEREST-EARNED RATIO (TIE): Shows how well-positioned the company is to pay interest on its debt.

$$\textit{Times-Interest-Earned Ratio} = \frac{\textit{Operating Income}}{\textit{Interest Expense}}$$

A high times-interest-earned ratio means the company has a high margin of safety in being able to pay creditors. Operating income would have to decline significantly before the company would be at risk from its creditors. To be particularly cautious, the ratio could be calculated by using the total of interest and principal charges rather than just the interest. Most creditors are satisfied if interest payments are kept up to date, but to remove debt obligations a business needs adequate income to make full payments.

PROFITABILITY RATIOS

All of the financial decisions and operations of a company ultimately result in bottom-line performance. Both financial managers and investors are interested in tracking improvement in profitability and comparing it to the profitability of competitors as well as the results that could be obtained from other possible investments.

PROFIT MARGIN ON SALES RATIO: Measures the profit generated by each dollar of sales.

$$\textit{Profit Margin on Sales Ratio} = \frac{\textit{Net Income}}{\textit{Sales (or Revenues)}}$$

The main revenues of a business come from sales. The greater the return on sales, the more efficient is the business. A lower ratio may indicate there is pressure on prices so little margin is available for profit after expenses have been paid. To assist with that analysis, companies calculate the gross profit margin ratio which divides gross profit by net sales. Carrying a high level of debt with accompanying interest payments could also reduce the profit margin on sales. The effect of interest and taxes on profit margins can be determined by calculating the operating profit margin ratio. It is determined by dividing operating income by net sales. Operating income is the company's earnings before interest and taxes.

RETURN ON TOTAL ASSETS (ROA): Ratio Measures the company's earnings on each dollar of assets. This ratio is sometimes called "Return on Investment".

$$\textit{Return on Total Assets Ratio} = \frac{\textit{Net Income}}{\textit{Total Assets}}$$

This ratio is particularly meaningful to managers, creditors, and investors because it evaluates the efficiency of the assets of the company. Does the company have too much money invested in assets based on the profit or are the assets particularly effective in generating income? When managers make plans for capital investments, consideration of the contribution to this ratio will be very important. A similar important profitability ratio is the return on equity ratio.

RETURN ON EQUITY RATIO (ROE): Measures how each dollar of investment by stockholders contributes to net income.

$$\textit{Return on Equity Ratio} = \frac{\textit{Net Income}}{\textit{Stockholders' Equity}}$$

Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. The ROE is especially useful for comparing the profitability of a company to that of other firms in the same industry.

MARKET PERFORMANCE RATIOS

The final set of ratios examines the overall financial performance of the business in contributing to shareholder value. The results are usually examined over several years to see changes in the company's performance. These ratios are considered by both stockholders and the board of directors as important evidence of the effectiveness of executive leadership. Market performance ratios are most useful as a way to compare the financial performance of similar companies or of several companies being considered for investment purposes.

EARNINGS PER SHARE (EPS): Measures the amount of profit earned by each share of stock.

$$\textit{Earnings Per Share} = \frac{\textit{Net Income}}{\textit{Number of Shares Issued}}$$

If the company issues preferred stock, the dividends paid to preferred stockholders are subtracted from net income before dividing by the number of shares of common stock issued. Preferred stockholders receive a specified dividend which affects the overall earnings for other stockholders.

PRICE EARNINGS RATIO (P/E RATIO): A measure of the strength of a company's earnings in affecting the price of its stock.

$$\textit{Price Earnings Ratio} = \frac{\textit{Market Stock Price}}{\textit{Earnings Per Share}^*}$$

** as calculated above.*

When investors decide on the price to pay for a company's stock, an important consideration is the earnings they expect to receive on their investments. A company with a strong record of earnings is likely to command a higher price than one with poor earnings.

MARKET TO BOOK RATIO: The relationship between the value of stock as recorded on the company's balance sheet and its value determined by the stock price.

$$\textit{Market to Book Ratio} = \frac{\textit{Market Stock Price}}{\textit{Book Value Per Share}^*}$$

** book value per share is calculated by dividing stockholders' equity by the number of shares issued.*

The book value of stock is calculated by dividing the stockholder equity by the number of shares issued. Market to book ratios are often greater than 1, meaning that investors are willing to pay more for stock than it is valued by the company. One of the reasons is that accounting valuations are conservative so the value of assets listed on the balance sheet is lower than their actual value. Also, a company has intangible assets such as goodwill that affect its market value.

USE OF FINANCIAL RATIOS

Financial ratios should be used carefully because they are only general measures of a company's financial condition. Ratios calculated from only one set of a company's financial statements can be used to examine current relationships among key financial elements. For example, ratios can illustrate the proportion of assets and liabilities that are liquid versus long-term or the proportion of assets that are owned versus financed. That one-time analysis may point out strengths of the company's current financial position and performance and, more importantly, identify areas of concern if ratios indicate potential problems with some of the proportions.

Those relationships are likely to change over time, so comparing ratios over several time periods provides a better picture of the company's financial condition. Another use of ratios is to compare specific aspects of the company's financial condition and performance with that of similar businesses. Examining industry trends in financial performance using financial ratios is an important part of financial analysis.

DEVELOP A FINANCIAL ANALYSIS PLAN

Companies follow these steps to use financial ratios in financial planning:

1. Organize financial records and statements in order to access the information needed to calculate ratios.
2. Determine the key financial ratios needed to evaluate financial performance and develop financial goals. Consider the major areas of financial decisions (asset planning, asset financing, and asset management) as well as the categories of financial information needed (liquidity, asset management, debt management, profitability, and market performance).
3. Develop baseline data by calculating the first set of ratios. Because companies maintain historic financial records and financial statements, financial ratios for prior years can be calculated to serve as baseline information. Financial ratios can be calculated for several years to study the history of the company's financial performance.
4. Identify sources of comparative information in order to compare the company's financial performance with other companies. Comparison should be made with companies in the same industry and with a select group of companies that have similar characteristics affecting financial performance, such as the corporate ownership structure, age of the company, company size defined by sales and assets, and geographic location of major operations and markets.
5. Identify benchmark companies to serve as financial performance targets. A benchmark company is a competitor that has historically demonstrated outstanding financial performance.
6. Run analyses and calculate ratios regularly. Once-a-year analysis might be misleading because the financial data such as cash flow, sales, inventory level, and accounts receivable and payable may change dramatically from quarter to quarter. Complete trend analysis where ratios are monitored over an extended period of time looking for trends that indicate improving or declining financial conditions.
7. Use the results of ratio analysis as one factor in establishing financial goals and implementing changes in business activities designed to improve financial performance.

SOURCES OF COMPARATIVE INFORMATION

One of the uses of financial ratios is to compare specific aspects of a company's financial performance with other companies. Since most public corporations are required to publish financial statements at least annually, it is relatively easy to obtain comparative financial information. Investors also use financial statement information and financial ratios to evaluate companies in order to make sound investment decisions. Many companies serving investors collect and publish that information.

Industry and trade associations frequently collect information from their members and provide comparative financial performance data. Often that information is provided only to members or to others for a fee. Some organizations make information available to the public for free.

FOCUS ON: Analyzing Personal Financial Progress

"Why do I never seem to have enough money at the end of the month?"
"How will I ever have the money to purchase a house?"
"How can I be sure I will have enough savings to retire?"

Each of these questions reflects the importance of personal financial planning. They demonstrate on a personal level the same types of financial issues facing businesses . Being able to pay bills at the end of the month is a matter of cash flow. Financing a major purchase such as a home requires taking on long-term debt. Planning for retirement requires increasing your personal net worth. Just as executives carefully study reports to plan for growth and profitability, individuals need to maintain financial records and develop expertise in financial analysis. Financial ratios can be an important personal financial planning tool. In order to use financial ratios you will need to prepare a balance sheet and an income statement.

The following ratios provide useful information on your current status and guidance on what you can do to improve your personal financial health:

- *Do you have enough cash and liquid assets to pay immediate expenses? Current Ratio*
- *What proportion of your assets is really owned by your creditors? Debt to Total Assets Ratio*
- *How much debt do you own compared to your net worth? Debt to Equity Ratio*
- *How does your income compare to the value of your assets and your personal net worth? ROA and ROE*

Chapter Summary

- ***Accounting is responsible for organizing a system of financial records, recording financial data, and preparing, analyzing, and interpreting financial statements.***
- ***Inaccurate, incomplete, or improperly prepared accounting records and statements misrepresent the financial condition of the business and mislead those who rely on the accountants' work.***
- ***The components of an effective information system are users, data collection devices, data sharing devices, analysis/interpretation of information, and organizational structures and processes.***
- ***Financial reports and other financial information are prepared by accountants and used to draw conclusions and make decisions that affect the financial future of the company.***
- ***Financial management is responsible for asset management in a business. It determines the best mix of assets for a business, how to acquire them, and how to use them to get the best possible financial return from their use.***
- ***To make effective financial decisions, managers study the value of assets, liabilities, and owner's equity, the revenues and expenses generated by the business, the company's stock position, and its use of earnings. They are concerned about the changes in the financial condition and position of the business over time, its current status, and projections for the future.***
- ***An important tool for analyzing financial statements is financial ratios. Ratio analysis includes comparing relationships in current performance, making comparisons between current and past performance, and comparing the financial performance of the business with competitors' performance.***
- ***Ratios calculated from a company's financial statements can be used to examine current relationships among key financial elements. Comparing ratios over several time periods provides a better picture of the company's financial condition. Another use of ratios is to compare specific aspects of the company's financial condition and performance with that of similar businesses.***