

Accounting and the Business Environment

1



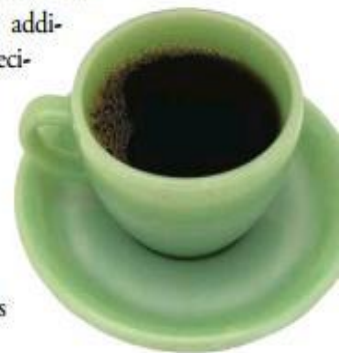
Coffee, Anyone?

Aiden Jackson stared at the list the banker had given him during their meeting. *Business plan, cash flow projections, financial statements, tax returns.* Aiden had visited with the banker because he had a dream of opening a coffee shop near campus. He knew there was a need; students were always looking for a place to study and visit with their friends. He also had the experience. He had worked for the past three years as a manager of a coffee shop in a neighboring town. Aiden needed one thing, though—money. He had saved a small amount of money from his job and received several contributions from family and friends, but he still didn't have enough to open the business. He had decided the best option was to get a loan from

his bank. After the meeting, Aiden felt overwhelmed and unsure of the future of his business.

You might think that Aiden was facing an impossible situation, but you'd be wrong. Almost every new business faces a similar situation. The owner starts with an inspiration, and then he or she needs to provide enough continuous cash flow to build the business. In addition, the owner has to make decisions such as: *Should we expand to another location? Do we have enough money to purchase a new coffee roaster? How do I know if the business made a profit?*

So how does Aiden get started? Keep reading. That's what accounting teaches you.



Why Study Accounting?

The situation that Aiden faced is similar to the situations faced in the founding of most businesses. **Starbucks Corporation**, for example, first opened its doors in Seattle, Washington, in 1971. Three partners, Jerry Baldwin, Zev Siegl, and Gordon Bowker, were inspired by a dream of selling high-quality coffee. We know their dream was successful because Starbucks currently has more than 19,000 stores in 60 countries. How did Starbucks grow from a small one-store shop to what it is today? The partners understood accounting—the language of business. They understood how to measure the activities of the business, process that information into reports (financial statements), and then use those reports to make business decisions. Your knowledge of accounting will help you better understand businesses. It will make you a better business owner, employee, or investor.





Chapter 1 Learning Objectives



- 1 Explain why accounting is important and list the users of accounting information
- 2 Describe the organizations and rules that govern accounting
- 3 Describe the accounting equation and define assets, liabilities, and equity
- 4 Use the accounting equation to analyze transactions
- 5 Prepare financial statements
- 6 Use financial statements and return on assets (ROA) to evaluate business performance

Learning Objective 1

Explain why accounting is important and list the users of accounting information

Accounting

The information system that measures business activities, processes the information into reports, and communicates the results to decision makers.

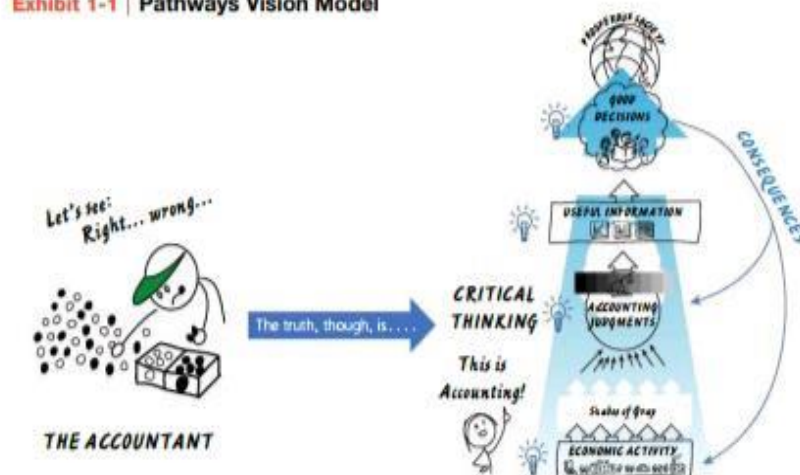
WHY IS ACCOUNTING IMPORTANT?

You've heard the term *accounting*, but what exactly is it? **Accounting** is the information system that measures business activities, processes the information into reports, and communicates the results to decision makers. Accounting is the language of business. The better you understand the language of business, the better you can manage your own business, be a valuable employee, or make wise investments.

We tend to think of accountants as boring and dry. However, accounting is much more than simple recordkeeping or bookkeeping. Today's accountants participate in a broad range of activities such as the investigation of financial evidence, the development of computer programs to process accounting information, and the communication of financial results to interested parties. The knowledge of accounting is used every day to help make business decisions.

Recently, leaders from across the accounting community, called the Pathways Commission, came together to create a vision model (see Exhibit 1-1) to help students and

Exhibit 1-1 Pathways Vision Model



We tend to think of accountants as boring and dry.

Accountants are instrumental in helping to create a prosperous society.

This work is by The Pathways Commission and is licensed under a Creative Commons Attribution—NoDerivs 3.0 Unported License. To learn more, go to <http://www.pathwayscommission.org>.



the public understand what accounting is. The model is intended to explain in a visual way what accountants really do. Accounting starts with economic activities that accountants review and evaluate using critical thinking and judgment to create useful information that helps individuals make good decisions. The model emphasizes that good decisions have an impact on accounting judgments and economic activity, thus creating a circular flow of cause and effect. Accountants are more than boring, tedious number crunchers. Instead, accountants play a critical role in supporting a prosperous society.

Decision Makers: The Users of Accounting Information

We can divide accounting into two major fields: financial accounting and managerial accounting. **Financial accounting** provides information for external decision makers, such as outside investors, lenders, customers, and the federal government. **Managerial accounting** focuses on information for internal decision makers, such as the company's managers and employees.

Exhibit 1-2 illustrates the difference between financial accounting and managerial accounting. Regardless of whether they are external or internal to the company, all decision makers need information to make the best choices. The bigger the decision, the more information decision makers need. Let's look at some ways in which various people use accounting information to make important decisions.

Financial Accounting

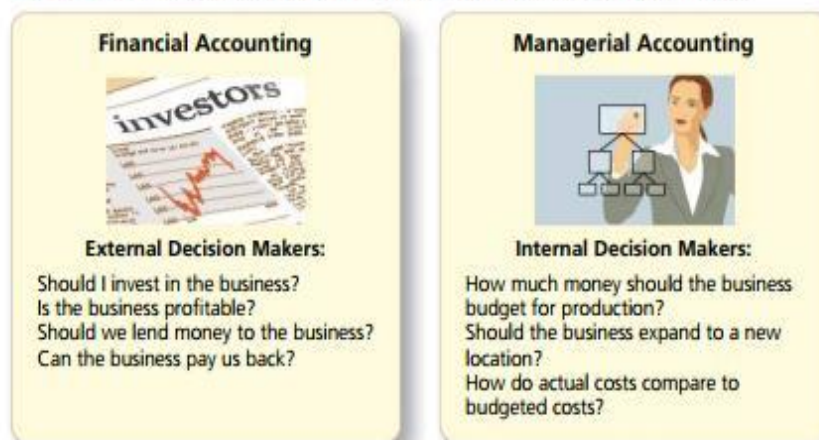
The field of accounting that focuses on providing information for external decision makers.

Managerial Accounting

The field of accounting that focuses on providing information for internal decision makers.



Exhibit 1-2 | Decision Making: Financial Versus Managerial Accounting



Accounting is alive! As businesses evolve and the type of business transactions change, so must the language of business. The most significant changes in the business world in the last decade have been the huge increases in international commerce. Because more business is conducted internationally, decision makers are looking for an international accounting language.

Look for more information about International Financial Reporting Standards (IFRS) anywhere that you see this image.

Individuals

How much cash do you have? How much do you need to save each month to retire at a certain age or pay for your children's college education? Accounting can help you answer questions like these. By using accounting information, you can manage your money, evaluate a new job, and better decide whether you can afford to buy a new computer. Businesses need accounting information to make similar decisions.

Businesses

Business owners use accounting information to set goals, measure progress toward those goals, and make adjustments when needed. The financial statements give owners the information they need to help make those decisions. Financial statements are helpful when, for example, a business owner wants to know whether his or her business has enough cash to purchase another computer.



Creditor

Any person or business to whom a business owes money.

Certified Public Accountants (CPAs)
Licensed professional accountants who serve the general public.



What if I want more information about becoming a CPA or CMA?

Certified Management Accountants (CMAs)
Certified professionals who specialize in accounting and financial management knowledge. They typically work for a single company.

Investors

Outside investors who have some ownership interest often provide the money to get a business going. Suppose you're considering investing in a business. How would you decide whether it is a good investment? In making this decision, you might try to predict the amount of income you would earn on the investment. Also, after making an investment, investors can use a company's financial statements to analyze how their investment is performing.

You might have the opportunity to invest in the stock market through your company's retirement plan. Which investments should you pick? Understanding a company's financial statements will help you decide. You can view the financial statements of large companies that report to the SEC by logging on to <http://www.finance.yahoo.com>, <http://www.google.com/finance>, or the Security and Exchange Commission's EDGAR database (<http://www.sec.gov/edgar.shtml>).

Creditors

Any person or business to whom a business owes money is a **creditor**. Before extending credit to a business, a creditor evaluates the company's ability to make the payments by reviewing its financial statements. Creditors follow the same process when you need to borrow money for a new car or a house. The creditor reviews accounting data to determine your ability to make the loan payments. What does your financial position tell the creditor about your ability to pay the loan? Are you a good risk for the bank?

Taxing Authorities

Local, state, and federal governments levy taxes. Income tax is calculated using accounting information. Good accounting records can help individuals and businesses take advantage of lawful deductions. Without good records, the IRS can disallow tax deductions, resulting in a higher tax bill plus interest and penalties.

The Accounting Profession

What do businesses such as Amazon.com, Walmart, or even your local sandwich shop across from campus have in common? They all need accountants! That is why a degree in accounting opens so many doors upon graduation.

You've probably heard of a CPA before. **Certified Public Accountants**, or **CPAs**, are licensed professional accountants who serve the general public. CPAs work for public accounting firms, businesses, government entities, or educational institutions. What does it take to be a CPA? Although requirements vary between states, to be certified in a profession, one must meet the educational and/or experience requirements *and* pass a qualifying exam. **The American Institute of Certified Public Accountants (AICPA) Web site** (<http://www.thiswaytocpa.com>) contains a wealth of information about becoming a CPA, career opportunities, and exam requirements.

Certified Management Accountants, or **CMAs**, are certified professionals who specialize in accounting and financial management knowledge. Generally, CMAs work for a single company. You can find information about becoming a CMA, how a CMA differs from a CPA, and why employers are recognizing the CMA certification on the **Institute of Management Accountants (IMA) Web site** (<http://www.imanet.org>). It's worth spending the time and energy for accountants to get certified—certified accountants generally make 10–15% more than their noncertified colleagues when they enter the workforce.

Studying accounting and becoming certified professionally can lead to a financially secure job. According to Robert Half's *2014 Salary Guide*, the top positions in demand that rely on accounting skills are controllers, financial analysts, tax accountants, auditors, cost accountants, and business systems analysts. How much do these types of accountants make? Exhibit 1-3 provides a snapshot of the earning potential for key positions.

**Exhibit 1-3 | Comparison of Accounting Positions**

Position	Job Description	Salary Range
Controllers	Compile financial statements, interact with auditors, and oversee regulatory reporting.	\$89,000–\$216,000
Financial analysts	Review financial data and help to explain the story behind the numbers.	\$41,250–\$125,000
Business systems analysts	Use accounting knowledge to create computer systems.	\$44,250–\$107,250
Tax accountants	Help companies navigate tax laws.	\$44,000–\$190,750
Auditors	Perform reviews of companies to ensure compliance to rules and regulations.	\$44,500–\$184,750
Cost accountants	Typically work in a manufacturing business. Help analyze accounting data.	\$43,000–\$113,000
Paraprofessional/Bookkeeper	Record financial transactions and help prepare financial records.	\$39,750–\$59,250

Accountants generally work either in public, private, or governmental accounting. Public accounting involves services such as auditing and tax preparation. Well-known public accounting firms include Ernst & Young, Deloitte, PwC, and KPMG. Private accounting involves working for a single company such as Amazon.com, Walmart, or Dell. Other accountants work for the federal or state governments. Wherever accountants work, demand for their services is high. According to the U.S. Bureau of Labor Statistics, employment of accountants and auditors is expected to grow 13% from 2012–2022.



Recently, the AICPA added a certification program in international accounting for those CPAs who want to specialize in global commerce.

Try It!

Match the accounting terminology to the definitions.

- | | |
|-------------------------------------|---|
| 1. Certified management accountants | a. the information system that measures business activities, processes that information into reports, and communicates the results to decision makers |
| 2. Accounting | b. licensed professional accountants who serve the general public |
| 3. Managerial accounting | c. any person or business to whom a business owes money |
| 4. Certified public accountants | d. the field of accounting that focuses on providing information for internal decision makers |
| 5. Financial accounting | e. certified professionals who work for a single company |
| 6. Creditor | f. the field of accounting that focuses on providing information for external decision makers |

Check your answers online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercise S1-1. **MyAccountingLab**



Learning Objective 2

Describe the organizations and rules that govern accounting

Financial Accounting Standards Board (FASB)

The private organization that oversees the creation and governance of accounting standards in the United States.

Securities and Exchange Commission (SEC)

U.S. governmental agency that oversees the U.S. financial markets.

Generally Accepted Accounting Principles (GAAP)

Accounting guidelines, currently formulated by the *Financial Accounting Standards Board (FASB)*; the main U.S. accounting rule book.

Economic Entity Assumption

An organization that stands apart as a separate economic unit.

Sole Proprietorship

A business with a single owner.

Partnership

A business with two or more owners and not organized as a corporation.

Corporation

A business organized under state law that is a separate legal entity.

Limited-Liability Company (LLC)

A company in which each member is only liable for his or her own actions.

WHAT ARE THE ORGANIZATIONS AND RULES THAT GOVERN ACCOUNTING?

All professions have regulations. Let's look at the organizations and rules that govern the accounting profession.

Governing Organizations

In the United States, the **Financial Accounting Standards Board (FASB)**, a privately funded organization, oversees the creation and governance of accounting standards. The FASB works with governmental regulatory agencies like the **Securities and Exchange Commission (SEC)**. The SEC is the U.S. governmental agency that oversees the U.S. financial markets. It also oversees those organizations that set standards (like the FASB). The FASB also works with congressionally created groups like the Public Company Accounting Oversight Board (PCAOB) and private groups like the AICPA, IMA, and International Accounting Standards Board (IASB).

Generally Accepted Accounting Principles

The guidelines for accounting information are called **Generally Accepted Accounting Principles (GAAP)**. GAAP is the main U.S. accounting rule book and is currently created and governed by the FASB. In order to use and prepare financial statements, it's important that we understand GAAP. GAAP rests on a conceptual framework that identifies the objectives, characteristics, elements, and implementation of financial statements and creates the acceptable accounting practices. The primary objective of financial reporting is to provide information useful for making investment and lending decisions. To be useful, information must be relevant and have faithful representation.¹ Relevant information allows users of the information to make a decision. Information that is faithfully representative is complete, neutral, and free from error. These basic accounting assumptions and principles are part of the foundation for the financial reports that companies present.

The Economic Entity Assumption

The most basic concept in accounting is that of the **economic entity assumption**. An economic (business) entity is an organization that stands apart as a separate economic unit. We draw boundaries around each entity to keep its affairs distinct from those of other entities. An entity refers to one business, separate from its owners.

A business can be organized as a **sole proprietorship**, **partnership**, **corporation**, or **limited-liability company (LLC)**. Exhibit 1-4 summarizes the similarities and differences among the four types of business organizations.

In order to demonstrate the economic entity assumption and several other concepts in this chapter, we will use a fictitious company—Smart Touch Learning—an e-learning business that specializes in providing online courses in accounting, economics, marketing, and management. This fictitious business will be used often throughout the book.

Assume Sheena Bright started the business by contributing cash of \$30,000. Following the economic entity assumption, the \$30,000 is recorded separately from Sheena's personal assets, such as her clothing and car. To mix the \$30,000 of business cash with Sheena's personal assets would make it difficult to measure the success or failure of Smart Touch Learning. The economic entity assumption requires that each organization be separate from other businesses and from the owners.

¹ This wording was changed from relevant and reliable by the *Statement of Financial Accounting Concepts No. 8*.

**Exhibit 1-4 | Business Organizations**

	Sole Proprietorship	Partnership	Corporation	Limited-Liability Company (LLC)
Definition	A business with a single owner	A business with two or more owners and not organized as a corporation	A business organized under state law that is a separate legal entity	A company in which each member is only liable for his or her own actions
Number of owners	One (called the proprietor)	Two or more (called partners)	One or more (called stockholders)	One or more (called members or partners)
Life of the organization	Terminates at owner's choice or death	Terminates at a partner's choice or death	Indefinite	Indefinite
Personal liability of the owner(s) for the business's debts	Owner is personally liable	Partners are personally liable	Stockholders are not personally liable	Members are not personally liable
Taxation	Not separate taxable entities. The owner pays tax on the proprietorship's earnings.	Partnership is not taxed. Instead partners pay tax on their share of the earnings.	Separate taxable entity. Corporation pays tax.	LLC is not taxed. Instead members pay tax on their share of earnings.
Type of business	Small businesses	Professional organizations of physicians, attorneys, and accountants	Large multinational businesses	An alternative to the partnership

The Cost Principle

The **cost principle** states that acquired assets and services should be recorded at their actual cost (also called *historical cost*). The cost principle means we record a transaction at the amount shown on the receipt—the actual amount paid. Even though the purchaser may believe the price is a bargain, the item is recorded at the price actually paid and not at the “expected” cost. For example, assume our fictitious company Smart Touch Learning purchased land for \$20,000. The business might believe the land is instead worth \$25,000. The cost principle requires that Smart Touch Learning record the land at \$20,000, not \$25,000.

The cost principle also holds that the accounting records should continue reporting the historical cost of an asset over its useful life. Why? Because cost is a reliable measure. Suppose Smart Touch Learning holds the land for six months. During that time land prices rise, and the land could be sold for \$30,000. Should its accounting value—the figure on the books—be the actual cost of \$20,000 or the current market value of \$30,000? According to the cost principle, the accounting value of the land would remain at the actual cost of \$20,000.

The Going Concern Assumption

Another reason for measuring assets at historical cost is the **going concern assumption**. This assumes that the entity will remain in operation for the foreseeable future. Under the going concern assumption, accountants assume that the business will remain in operation long enough to use existing resources for their intended purpose.

The Monetary Unit Assumption

In the United States, we record transactions in dollars because the dollar is the medium of exchange. The value of a dollar changes over time, and a rise in the price level is called *inflation*. During periods of inflation, a dollar will purchase less. But accountants

Cost Principle

A principle that states that acquired assets and services should be recorded at their actual cost.



Under international reporting standards, the company would be allowed to restate and report the land at \$30,000. The ability to report some assets and liabilities at their current fair value each year under international standards is a significant difference from U.S. rules.

Going Concern Assumption

Assumes that the entity will remain in operation for the foreseeable future.



Monetary Unit Assumption

The assumption that requires the items on the financial statements to be measured in terms of a monetary unit.

International Financial Reporting Standards (IFRS)

A set of global accounting guidelines, formulated by the *International Accounting Standards Board (IASB)*.

International Accounting Standards Board (IASB)

The private organization that oversees the creation and governance of *International Financial Reporting Standards (IFRS)*.

Audit

An examination of a company's financial statements and records.

Sarbanes-Oxley Act (SOX)

Requires companies to review internal control and take responsibility for the accuracy and completeness of their financial reports.

assume that the dollar's purchasing power is stable. This is the basis of the **monetary unit assumption**, which requires that the items on the financial statements be measured in terms of a monetary unit.

International Financial Reporting Standards

The concepts and principles that we have discussed so far apply to businesses that follow U.S. GAAP and are traded on a U.S. stock exchange, such as the New York Stock Exchange. The SEC requires that U.S. businesses follow U.S. GAAP. Companies who are incorporated in or do significant business in another country might be required to publish financial statements using **International Financial Reporting Standards (IFRS)**, which are published by the **International Accounting Standards Board (IASB)**. IFRS is a set of global accounting standards that are used or required by more than 120 nations. They are generally less specific and based more on principle than U.S. GAAP. IFRS leaves more room for professional judgment. For example, unlike U.S. GAAP, IFRS allows periodic revaluation of certain assets and liabilities to restate them to market value, rather than keeping them at historical cost. At one point in time it was thought that the SEC would endorse IFRS. However, the SEC has backed away from this strategy and is currently considering whether a single set of global accounting standards is achievable.

Ethics in Accounting and Business

Ethical considerations affect accounting. Investors and creditors need relevant and faithfully representative information about a company that they are investing in or lending money to. Companies want to be profitable and financially strong to attract investors and attempt to present their financial statements in a manner that portrays the business in the best possible way. Sometimes these two opposing viewpoints can cause conflicts of interest. For example, imagine a company that is facing a potential million-dollar lawsuit due to a defective product. The company might not want to share this information with investors because it would potentially hurt the business's profitability. On the other hand, investors would want to know about the pending lawsuit so that they could make an informed decision about investing in the business. To handle these conflicts of interest and to provide reliable information, the SEC requires publicly held companies to have their financial statements audited by independent accountants. An **audit** is an examination of a company's financial statements and records. The independent accountants then issue an opinion that states whether the financial statements give a fair picture of the company's financial situation.

The vast majority of accountants do their jobs professionally and ethically, but we often don't hear about them. Unfortunately, only those who cheat make the headlines. In recent years, we have seen many accounting scandals.

In response to the Enron and WorldCom reporting scandals, the U.S. government took swift action. It passed the **Sarbanes-Oxley Act (SOX)**, intended to curb financial scandals. SOX requires companies to review internal control and take responsibility for the accuracy and completeness of their financial reports. In addition, SOX made it a criminal offense to falsify financial statements. The Sarbanes-Oxley Act also created a new watchdog agency, the Public Company Accounting Oversight Board (PCAOB), to monitor the work of independent accountants who audit public companies. More recent scandals, such as the Bernie Madoff scandal in which Mr. Madoff pleaded guilty to defrauding thousands of investors by filing falsified trading reports, have further undermined the public's faith in financial reporting. This may result in more legislation for future reporting.



Try It!

Match the accounting terminology to the definitions.

7. Cost principle	a. oversees the creation and governance of accounting standards in the United States
8. GAAP	b. requires an organization to be a separate economic unit
9. Faithful representation	c. oversees U.S. financial markets
10. SEC	d. states that acquired assets and services should be recorded at their actual cost
11. FASB	e. creates International Financial Reporting Standards
12. Monetary unit assumption	f. the main U.S. accounting rule book
13. Economic entity assumption	g. assumes that an entity will remain in operation for the foreseeable future
14. Going concern assumption	h. assumes that items on the financial statements are recorded in a monetary unit
15. IASB	i. requires information to be complete, neutral, and free from material error

Check your answers online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercises S1-2 through S1-5. **MyAccountingLab**

WHAT IS THE ACCOUNTING EQUATION?

The basic tool of accounting is the **accounting equation**. It measures the resources of a business (what the business owns or has control of) and the claims to those resources (what the business owes to creditors and to the owners). The accounting equation is made up of three parts—assets, liabilities, and equity—and shows how these three parts are related. Assets appear on the left side of the equation, and the liabilities and equity appear on the right side.

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

Remember, the accounting equation is an equation—so the left side of the equation always equals the right side of the equation.

Learning Objective 3

Describe the accounting equation and define assets, liabilities, and equity

Accounting Equation

The basic tool of accounting, measuring the resources of the business (what the business owns or has control of) and the claims to those resources (what the business owes to creditors and to the owners).
Assets = Liabilities + Equity.

Example: If a business has assets of \$230,000 and liabilities of \$120,000, its equity must be \$110,000 (\$230,000 − \$120,000).

Assets	=	Liabilities	+	Equity
\$230,000	=	\$120,000	+	?
\$230,000	=	\$120,000	+	\$110,000



Assets

Economic resources that are expected to benefit the business in the future. Something the business owns or has control of.

Liabilities

Debts that are owed to *creditors*.

Equity

The owners' claims to the assets of the business.

Owner's Capital

Owner contributions to a business.

Revenues

Amounts earned from delivering goods or services to customers.

Expenses

The cost of selling goods or services.

Owner's Withdrawals

Payments of equity to the owner.

Net Income

The result of operations that occurs when total revenues are greater than total expenses.

Net Loss

The result of operations that occurs when total expenses are greater than total revenues.

Assets

An **asset** is an economic resource that is expected to benefit the business in the future. Assets are something of value that the business owns or has control of. Cash, merchandise inventory, furniture, and land are examples of assets.

Liabilities

Claims to those assets come from two sources: liabilities and equity. **Liabilities** are debts that are owed to creditors. Liabilities are something the business owes and represent the creditors' claims on the business's assets. For example, a creditor who has loaned money to a business has a claim to some of the business's assets until the business pays the debt. Many liabilities have the word *payable* in their titles. Examples include accounts payable, notes payable, and salaries payable.

Equity

The owners' claims to the assets of the business are called **equity** (also called *owner's equity*). Equity represents the amount of assets that are left over after the company has paid its liabilities. It is the company's net worth.

Equity increases with owner contributions and revenues. Owner contributions to a business are referred to as **owner's capital**. An owner can contribute cash or other assets (such as equipment) to the business and receive capital. Equity is also increased by revenues. **Revenues** are earnings that result from delivering goods or services to customers. Examples of revenues are sales revenue, service revenue, and rent revenue.

Equity decreases with expenses and owner withdrawals. **Expenses** are the cost of selling goods or services. Expenses are the opposite of revenues and, therefore, decrease equity. Examples of expenses are rent expense, salaries expense, advertising expense, and utilities expense.

Owner's withdrawals (also called *drawings*) are payments of equity (usually of cash) to the owner. Withdrawals can be paid in the form of cash or other assets and are not expenses. An owner may or may not make withdrawals from the business. Owner withdrawals are the opposite of owner contributions and, therefore, decrease equity.

Equity can be broken out into four components shown in the expanded accounting equation.

$$\text{ASSETS} = \left\{ \begin{array}{l} \text{LIABILITIES} + \\ \text{Owner, Capital} \end{array} \right\} + \left\{ \begin{array}{l} \text{EQUITY} \\ \text{Owner, Withdrawals} + \text{Revenues} - \text{Expenses} \end{array} \right\}$$

Businesses strive for net income. When revenues are greater than expenses, the result of operations is a profit or **net income**. When expenses are greater than revenues, the result is a **net loss**.



Try It!

16. Using the expanded accounting equation, solve for the missing amount.

Assets	\$ 71,288
Liabilities	2,260
Owner, Capital	?
Owner, Withdrawals	14,420
Revenues	53,085
Expenses	28,675

Check your answer online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercises S1-6 through S1-8. **MyAccountingLab**

HOW DO YOU ANALYZE A TRANSACTION?

Accounting is based on actual transactions. A **transaction** is any event that affects the financial position of the business *and* can be measured with faithful representation. Transactions affect what the company has or owes or its net worth. Many events affect a company, including economic booms and recessions. Accountants, however, do not record the effects of those events. An accountant records only those events that have dollar amounts that can be measured reliably, such as the purchase of a building, a sale of merchandise, and the payment of rent.

Transaction Analysis for Smart Touch Learning

To illustrate accounting for a business, we'll use Smart Touch Learning, the business introduced earlier. We'll account for the transactions of Smart Touch Learning during November 2016 and show how each transaction affects the accounting equation.

Transaction 1—Owner Contribution

Assume Sheena Bright starts the new business as a sole proprietorship named Smart Touch Learning. The e-learning business receives \$30,000 cash from the owner, Sheena Bright, and the business gave capital to her. The effect of this transaction on the accounting equation of the business is as follows:

ASSETS		}	=	{	LIABILITIES	+	EQUITY
	Cash						Bright, Capital
(1)	+30,000						+30,000

Learning Objective 4

Use the accounting equation to analyze transactions

Transaction

An event that affects the financial position of the business and can be measured with faithful representation.



Let's take a close look at the preceding transaction following these steps:

Step 1: Identify the accounts and the account type. Each transaction must have at least two accounts but could have more. *The two accounts involved are Cash (Asset) and Bright, Capital (Equity).*

Step 2: Decide if each account increases or decreases. Remember to always view this from the *business's* perspective, not from the owner's or customers' perspective. *Cash increases.* The business has more cash than it had before. *Bright, Capital increases.* The business received a \$30,000 contribution from the owner.

Step 3: Determine if the accounting equation is in balance. For each transaction, the amount on the left side of the equation must equal the amount on the right side. $\$30,000 = \$30,000$

Transaction 2—Purchase of Land for Cash

The business purchases land for an office location, paying cash of \$20,000. This transaction affects the accounting equation of Smart Touch Learning as follows:

ASSETS			}	=	{	LIABILITIES	+	EQUITY
Cash	+	Land					+	
Bal. \$30,000								Bright, Capital \$30,000
(2) <u>-20,000</u>		<u>+20,000</u>						
Bal. \$10,000	+	\$20,000						<u>\$30,000</u>

Let's review the transaction using the steps we learned:

Step 1: Identify the accounts and the account type. *The two accounts involved are Cash (Asset) and Land (Asset).*

Step 2: Decide if each account increases or decreases. *Cash decreases.* The business paid cash. *Land increases.* The business now has land.

Step 3: Determine if the accounting equation is in balance. $\$10,000 + \$20,000 = \$30,000$

Transaction 3—Purchase of Office Supplies on Account

Smart Touch Learning buys office supplies on account (credit), agreeing to pay \$500 within 30 days. This transaction increases both the assets and the liabilities of the business as follows:

ASSETS				}	=	{	LIABILITIES	+	EQUITY
Cash	+	Office Supplies	Land					+	
Bal. \$10,000			<u>+ \$20,000</u>				Accounts Payable		Bright, Capital \$30,000
(3) _____		<u>+500</u>					<u>+500</u>		
Bal. \$10,000	+	\$500	<u>+ \$20,000</u>				<u>\$500</u>	+	<u>\$30,000</u>



Step 1: Identify the accounts and the account type. *The two accounts involved are Office Supplies (Asset) and Accounts Payable (Liability).* Office Supplies is an asset, not an expense, because the supplies aren't used up yet but will be in the future. The liability created by purchasing "on account" is an **accounts payable**, which is a short-term liability that will be paid in the future. A payable is always a liability.

Step 2: Decide if each account increases or decreases. *Office Supplies increases.* The business now has more office supplies than it had before. *Accounts Payable increases.* The business now owes more debt than it did before.

Step 3: Determine if the accounting equation is in balance. $\$10,000 + \$500 + \$20,000 = \$500 + \$30,000$

Accounts Payable

A short-term liability that will be paid in the future.

Notice how the steps help when analyzing transactions. It's important that, as you are learning, you use the steps to complete the transactions. Moving forward, try writing the steps out yourself before looking at the transaction analysis.

Transaction 4—Earning of Service Revenue for Cash

Smart Touch Learning earns service revenue by providing training services for clients. The business earns \$5,500 of revenue and collects this amount in cash. The effect on the accounting equation is an increase in Cash and an increase in Service Revenue as follows:

ASSETS			=	LIABILITIES + EQUITY		
Cash	+ Office Supplies	+ Land		Accounts Payable	+ Bright, Capital	+ Service Revenue
Bal. \$10,000	+ \$500	+ \$20,000		\$500	+ \$30,000	
(4) +5,500						+5,500
Bal. \$15,500	+ \$500	+ \$20,000		\$500	+ \$30,000	+ \$5,500

A revenue transaction grows the business, as shown by the increases in assets and equity.

Transaction 5—Earning of Service Revenue on Account

Smart Touch Learning performs a service for clients who do not pay immediately. The business receives the clients' promise to pay \$3,000 within one month. This promise is an asset, an **accounts receivable**, because the business expects to collect the cash in the future. In accounting, we say that Smart Touch Learning performed this service *on account*. It is in performing the service (doing the work), not collecting the cash, that the company *earns*

Accounts Receivable

The right to receive cash in the future from customers for goods sold or for services performed.



the revenue. As in Transaction 4, increasing revenue increases equity. Smart Touch Learning records the earning of \$3,000 of revenue on account as follows:

ASSETS					=		LIABILITIES	+	EQUITY		
Cash	+	Accounts Receivable	+	Office Supplies	+	Land	Accounts Payable	+	Bright, Capital	+	Service Revenue
Bal. \$15,500	+		+	\$500	+	\$20,000	\$500	+	\$30,000	+	\$5,500
(5)		+3,000									+3,000
Bal. \$15,500	+	\$3,000	+	\$500	+	\$20,000	\$500	+	\$30,000	+	\$8,500

The term "on account" can be used to represent either Accounts Receivable or Accounts Payable. If the business will be receiving cash in the future, the company will record an Accounts Receivable. If the business will be paying cash in the future, the company will record an Accounts Payable.

Transaction 6—Payment of Expenses with Cash

The business pays \$3,200 in cash expenses: \$2,000 for office rent and \$1,200 for employee salaries. The effects on the accounting equation are as follows:

ASSETS					=	LIABILITIES	+	EQUITY								
Cash	+	Accounts Receivable	+	Office Supplies		+	Land	Accounts Payable	+	Bright, Capital	+	Service Revenue	-	Rent Expense	-	Salaries Expense
Bal.	\$15,500	+	\$3,000	+	\$500	+	\$20,000	\$500	+	\$30,000	+	\$8,500				
(6)	-3,200												-2,000		-1,200	
Bal.	\$12,300	+	\$3,000	+	\$500	+	\$20,000	\$500	+	\$30,000	+	\$8,500	-	\$2,000	-	\$1,200

Expenses have the opposite effect of revenues. Expenses shrink the business, as shown by the decreased balances of assets and equity. Each expense is recorded separately. We record the cash payment in a single amount for the sum of the expenses: \$3,200 (\$2,000 + \$1,200). Notice that the accounting equation remains in balance (\$12,300 + \$3,000 + \$500 + \$20,000 = \$500 + \$30,000 + \$8,500 - \$2,000 - \$1,200).

Transaction 7—Payment on Account (Accounts Payable)

The business pays \$300 to the store from which it purchased office supplies in Transaction 3. In accounting, we say that the business pays \$300 *on account*. The effect on the accounting equation is a decrease in Cash and a decrease in Accounts Payable as shown here:

ASSETS					=	LIABILITIES	+	EQUITY								
Cash	+	Accounts Receivable	+	Office Supplies		Land	Accounts Payable	+	Bright, Capital	+	Service Revenue	-	Rent Expense	-	Salaries Expense	
Bal.	\$12,300	+	\$3,000	+	\$500	+	\$20,000									
(7)	-300							\$500	+	\$30,000	+	\$8,500	-	\$2,000	-	\$1,200
								-300								
Bal.	\$12,000	+	\$3,000	+	\$500	+	\$20,000	\$200	+	\$30,000	+	\$8,500	-	\$2,000	-	\$1,200



The payment of cash on account has no effect on the amount of Office Supplies (Asset). Smart Touch Learning has not increased the amount of its office supplies; instead, it is paying off a liability (Accounts Payable decreased \$300) with cash (Cash decreased \$300). **To record an increase to Office Supplies, in this transaction, would be accounting for the purchase of office supplies twice.** We have already recorded the purchase of office supplies in Transaction 3; in this transaction, we are now ready to record only the payment on account.

Transaction 8—Collection on Account (Accounts Receivable)

In Transaction 5, the business performed services for clients on account. Smart Touch Learning now collects \$2,000 from a client. We say that Smart Touch Learning collects the cash *on account*. The business will record an increase in the asset Cash. Should it also record an increase in Service Revenue? No, because the business already recorded the revenue when it earned the revenue in Transaction 5. The phrase “collect cash on account” means to record an increase in Cash and a decrease in Accounts Receivable. Accounts Receivable is decreased because the \$2,000 that the business was to collect at some point in the future is being collected today. The effect on the accounting equation is as follows:

ASSETS					=	LIABILITIES +		EQUITY								
Cash	+	Accounts Receivable	+	Office Supplies		Land	Accounts Payable	+	Bright, Capital	+	Service Revenue	-	Rent Expense	-	Salaries Expense	
Bal. \$12,000	+	\$3,000	+	\$500	+	\$20,000	=	\$200	+	\$30,000	+	\$8,500	-	\$2,000	-	\$1,200
(8) +2,000		-2,000														
Bal. \$14,000	+	\$1,000	+	\$500	+	\$20,000		\$200	+	\$30,000	+	\$8,500	-	\$2,000	-	\$1,200

This transaction is recorded as an increase in one asset (Cash) and a decrease in another asset (Accounts Receivable). Is the accounting equation still in balance? Yes. **As long as you record an increase and decrease of the same amount on one side of the accounting equation, the accounting equation remains in balance.** In other words, total assets, liabilities, and equity are all unchanged from the preceding total. Why? Because Smart Touch Learning exchanged one asset (Cash) for another (Accounts Receivable), causing a zero effect on the total amount of assets in the accounting equation ($+ \$2,000 - \$2,000 = \$0$).

Transaction 9—Owner Withdrawal of Cash

Sheena Bright withdraws \$5,000 cash from the business. The effect on the accounting equation is:

ASSETS					}	=	LIABILITIES +		EQUITY									
Cash	+	Accounts Receivable	+	Office Supplies			Land	Accounts Payable	+	Bright, Capital	-	Bright, Withdrawals	+	Service Revenue	-	Rent Expense	-	Salaries Expense
Bal.	\$14,000	+	\$1,000	+	\$500	+	\$20,000	\$200	+	\$30,000			+	\$8,500	-	\$2,000	-	\$1,200
(9)	-5,000											-5,000						
Bal.	\$ 9,000	+	\$1,000	+	\$500	+	\$20,000	\$200	+	\$30,000	-	\$5,000	+	\$8,500	-	\$2,000	-	\$1,200

The owner withdrawal decreases the business's cash and equity. *Withdrawals do not represent an expense because they are not related to the earning of revenue. Therefore, withdrawals do not affect the business's net income or net loss.*

Why didn't we record an increase to Office Supplies? We are making a payment for the supplies; wouldn't we increase Office Supplies and decrease Cash?



Don't I have to put an amount on the left side of the accounting equation and an amount on the right side of the accounting equation for the equation to balance?





A summary of all nine transactions for Smart Touch Learning is presented in Exhibit 1-5.

Exhibit 1-5 Analysis of Transactions, Smart Touch Learning

<div>1. Smart Touch Learning received \$30,000 cash and gave capital to Sheena Bright, owner.</div> <div>2. Paid \$20,000 cash for land.</div> <div>3. Bought \$500 of office supplies on account.</div> <div>4. Received \$5,500 cash from clients for service revenue earned.</div> <div>5. Performed services for clients on account, \$3,000.</div> <div>6. Paid cash expenses: office rent, \$2,000; employee salaries, \$1,200.</div> <div>7. Paid \$300 on the accounts payable created in Transaction 3.</div> <div>8. Collected \$2,000 on the accounts receivable created in Transaction 5.</div> <div>9. Owner withdrew cash of \$5,000.</div>											
ASSETS					LIABILITIES	+	EQUITY				
Cash	+ Accounts Receivable	+ Office Supplies	+ Land		Accounts Payable	+	Bright, Capital	- Bright, Withdrawals	+ Service Revenue	- Rent Expense	- Salaries Expense
(1) +30,000							+30,000				
(2) -20,000			+20,000								
Bal. \$10,000			+ \$20,000				\$30,000				
(3)		+500			+500						
Bal. \$10,000		+ \$500	+ \$20,000		\$500	+	\$30,000				
(4) +5,500									+5,500		
Bal. \$15,500		+ \$500	+ \$20,000		\$500	+	\$30,000		+ \$5,500		
(5)	+3,000								+3,000		
Bal. \$15,500	+ \$3,000	+ \$500	+ \$20,000		\$500	+	\$30,000		+ \$8,500		
(6) -3,200					\$500	+	\$30,000			-2,000	-1,200
Bal. \$12,300	+ \$3,000	+ \$500	+ \$20,000		-300	+	\$30,000		+ \$8,500	- \$2,000	- \$1,200
(7) -300					\$200	+	\$30,000		+ \$8,500	- \$2,000	- \$1,200
Bal. \$12,000	+ \$3,000	+ \$500	+ \$20,000			+	\$30,000		+ \$8,500	- \$2,000	- \$1,200
(8) +2,000	-2,000				\$200	+	\$30,000		+ \$8,500	- \$2,000	- \$1,200
Bal. \$14,000	+ \$1,000	+ \$500	+ \$20,000			+	\$30,000		+ \$8,500	- \$2,000	- \$1,200
(9) -5,000								-5,000			
Bal. \$ 9,000	+ \$1,000	+ \$500	+ \$20,000		\$200	+	\$30,000	- \$5,000	+ \$8,500	- \$2,000	- \$1,200
\$30,500					\$30,500						

Try It!

17. Using the information provided, analyze the effects of Lawlor Lawn Service's transactions on the accounting equation.

May 1	Received \$1,700 and gave capital to Eric Lawlor, owner.
May 3	Purchased a mower on account, \$1,440.
May 5	Performed lawn services for client on account, \$200.
May 17	Paid \$60 cash for gas used in mower.
May 28	Eric Lawlor withdrew cash of \$300.

Check your answer online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercises S1-9 and S1-10. **MyAccountingLab**



HOW DO YOU PREPARE FINANCIAL STATEMENTS?

We have now recorded Smart Touch Learning's transactions, and they are summarized in Exhibit 1-5. Notice how total assets equal total liabilities plus equity (\$30,500 = \$30,500).

But a basic question remains: How will people actually use this information? The information in Exhibit 1-5 does not tell a lender whether Smart Touch Learning can pay off a loan. The exhibit does not tell whether the business is profitable.

To address these important questions, we need financial statements. **Financial statements** are business documents that are used to communicate information needed to make business decisions. There are four financial statements prepared. These statements are prepared in the order listed in Exhibit 1-6.

Learning Objective 5

Prepare financial statements

Financial Statements

Business documents that are used to communicate information needed to make business decisions.

Exhibit 1-6 Financial Statements

Financial Statement	Information Provided and Purpose	How Is It Prepared?
Income Statement	Provides information about profitability for a particular period for the company.	Revenues – Expenses = Net Income or Net Loss
Statement of Owner's Equity	Informs users about how much of the earnings were kept and reinvested in the company. Shows the changes in the owner's capital account for a specific period.	Capital, Beginning + Owner contribution + Net income or – Net loss for the period – Owner withdrawal = Capital, Ending
Balance Sheet	Provides valuable information to financial statement users about economic resources the company has (assets) as well as debts the company owes (liabilities). Allows decision makers to determine their opinion about the financial position of the company.	Assets = Liabilities + Owner's Equity
Statement of Cash Flows	Reports on a business's cash receipts and cash payments for a period of time.	Cash flows from operating activities Cash flows from investing activities Cash flows from financing activities

Income Statement

Let's start by reviewing the **income statement**. The income statement (also called the *statement of earnings*) presents a summary of a business entity's revenues and expenses for a period of time, such as a month, quarter, or year. The income statement tells us whether the business enjoyed net income or suffered a net loss. Remember:

- Net income means total revenues are greater than total expenses.
- Net loss means total expenses are greater than total revenues.

It's important to remember that the only two types of accounts that are reported on the income statement are revenues and expenses. Exhibit 1-7 (on the next page) shows the income statement for Smart Touch Learning. Every income statement contains similar information.

Income Statement

Reports the *net income* or *net loss* of the business for a specific period.

**Exhibit 1-7 | Income Statement**

SMART TOUCH LEARNING	
Income Statement	
Month Ended November 30, 2016	
Revenues:	
Service Revenue	\$ 8,500
Expenses:	
Rent Expense	\$ 2,000
Salaries Expense	1,200
Total Expenses	<u>3,200</u>
Net Income	<u>\$ 5,300</u>

The header includes the name of the business, the title of the statement, and the time period. An income statement always represents a period of time, for example, a month or year.

The revenue accounts are always listed first and then subtotaled if necessary.

Net income is calculated as total revenues minus total expenses.

Each expense account is listed separately from largest to smallest and then subtotaled if necessary.

Statement of Owner's Equity

Statement of Owner's Equity
Shows the changes in the owner's capital account for a specific period.

The next statement prepared is the **statement of owner's equity**. The statement of owner's equity shows the changes in capital for a business entity during a time period, such as a month, quarter, or year.

Review the statement of owner's equity for Smart Touch Learning in Exhibit 1-8. Notice that the net income for the month is the net income that was calculated on the income statement. This is the main reason why the income statement is prepared before the

Exhibit 1-8 | Statement of Owner's Equity

SMART TOUCH LEARNING	
Statement of Owner's Equity	
Month Ended November 30, 2016	
Bright, Capital, November 1, 2016	\$ 0
Owner contribution	30,000
Net income for the month	5,300
	<u>35,300</u>
Owner withdrawal	(5,000)
Bright, Capital, November 30, 2016	<u>\$ 30,300</u>

The header includes the name of the business, the title of the statement, and the time period. A statement of owner's equity always represents a period of time.

The beginning capital is \$0 because Smart Touch Learning began this month; therefore, it had no beginning capital. The beginning capital will always be the ending capital from the previous time period.

The owner contribution and net income are added to the beginning capital.

Net income is transferred from the income statement.

The owner withdrawal is subtracted from capital. If there had been a net loss rather than a net income, this would also be subtracted.



statement of owner's equity. The net income must first be calculated on the income statement and then carried to the statement of owner's equity.

Balance Sheet

The **balance sheet** (also called the *statement of financial position*) lists a business entity's assets, liabilities, and owner's equity as of a specific date, usually the end of a month, quarter, or year. **The balance sheet is a snapshot of the entity. An investor or creditor can quickly assess the overall health of a business by viewing the balance sheet.**

Review the balance sheet for Smart Touch Learning in Exhibit 1-9. Every balance sheet is prepared in a similar manner.

Balance Sheet

Reports on the assets, liabilities, and owner's equity of the business as of a specific date.

What does the balance sheet tell an investor or creditor?



Exhibit 1-9 | Balance Sheet

SMART TOUCH LEARNING Balance Sheet November 30, 2016			
Assets		Liabilities	
Cash	\$ 9,000	Accounts Payable	\$ 200
Accounts Receivable	1,000		
Office Supplies	500		
Land	20,000		
		Owner's Equity	
		Bright, Capital	30,300
Total Assets	\$ 30,500	Total Liabilities and Owner's Equity	\$ 30,500

Each asset account is listed separately and then totaled. Cash is always listed first.

The heading again shows the name of the business and the title of the financial statement. Notice that the date is different. The balance sheet shows the date as a specific date, not a period of time.

Liabilities are listed separately and then totaled. Liabilities that are to be paid first are listed first.

The balance sheet must always balance.
 $\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$

The ending owner's capital is taken directly from the statement of owner's equity.

When you are preparing the financial statements, start by identifying which account goes on which statement. Each account will only go on one statement, except for Capital and Cash. For example, Service Revenue is only reported on the income statement, Liabilities, such as Accounts Payable, are only reported on the balance sheet, Cash and Capital appear on two statements. Cash is reported on the balance sheet and statement of cash flows, and Capital is reported on the statement of owner's equity and balance sheet.



ETHICS

What constitutes manipulating financial statements?

The executives of Xiaping Trading Company are meeting to discuss the past year's results before releasing financial statements to the bank. Wai Lee, the company's owner, comments, "This has not been a good year! Revenue is down, and expenses are way up. If we are not careful, we will report a loss for the third year in a row. I can temporarily transfer some land that I own into the company's name, and that will beef up our balance sheet. Brent, as accountant, can you shave \$500,000 from expenses? Then we can probably get the bank loan that we need." What should Brent do? What would you do if you were Brent?

Solution

Brent should remind Wai Lee that the intent of the financial statements is to tell the truth about the company's performance and financial position. If Wai Lee does not intend to leave the land in the business, then she should not transfer it to the business for the sole intent of increasing the assets and equity of the business.

It is possible that Brent could "shave expenses" legally, if it meant reducing the amount of expenses that the business had. But if Wai Lee meant that Brent should reclassify expenses or delay the recognition of expenses in an effort to boost net income, then this would be false and dishonest.

Statement of Cash Flows

Reports on a business's cash receipts and cash payments for a specific period.



Would the purchase of land with a mortgage be reported on the statement of cash flows?

Statement of Cash Flows

The **statement of cash flows** reports the cash coming in (positive amounts) and the cash going out (negative amounts) during a period. It only reports transactions that involve cash because it reports the net increase or decrease in *cash* during the period and the ending *cash* balance. **If a transaction does not involve cash, such as the purchase of land with a mortgage, it will not be reported on the statement of cash flows.**

The statement of cash flows is divided into three distinct sections: operating, investing, and financing. *Operating activities* involve cash receipts for services and cash payments for expenses. *Investing activities* include the purchase and sale of land and equipment for cash. The third section, *financing activities*, includes cash contributions by the owner and withdrawals of cash by the owner.

Take a look at the statement of cash flows for Smart Touch Learning (Exhibit 1-10). Notice the important items that every statement of cash flows contains.

**Exhibit 1-10 | Statement of Cash Flows**

SMART TOUCH LEARNING Statement of Cash Flows Month Ended November 30, 2016		
Cash flows from operating activities:		
Receipts:		
Collections from customers		\$ 7,500
Payments:		
For rent	\$ (2,000)	
For salaries	(1,200)	
For office supplies	(300)	(3,500)
Net cash provided by operating activities		4,000
Cash flows from investing activities:		
Acquisition of land	(20,000)	
Net cash used by investing activities		(20,000)
Cash flows from financing activities:		
Owner contribution	30,000	
Owner withdrawal	(5,000)	
Net cash provided by financing activities		25,000
Net increase in cash		9,000
Cash balance, November 1, 2016		0
Cash balance, November 30, 2016		\$ 9,000

The header includes the name of the business, the title of the statement, and the time period. A statement of cash flows always represents a period of time.

Each dollar amount is calculated by evaluating the cash column on Exhibit 1-5. For example, collections from customers is calculated by adding the cash received from customers in Transaction 4 (\$5,500) plus Transaction 8 (\$2,000).

Operating activities involve cash receipts for services provided and cash payments for expenses paid.

Investing activities include the purchase and sale of land and equipment for cash.

Financing activities include cash contributions by the owner and owner withdrawals of cash.

The ending cash balance must match the cash balance on the balance sheet.



Try It!

18. Using the following information, complete the income statement, statement of owner's equity, and balance sheet for DR Painting for the month of March 2016. The business began operations on March 1, 2016.

Accounts Receivable	\$ 1,400	Salaries Expense	800
Accounts Payable	1,000	Service Revenue	7,000
Cash	22,300	Office Supplies	1,800
Owner contribution during March	40,000	Truck	20,000
Owner withdrawal during March	1,500	Utilities Expense	200
Richardson, Capital, March 1, 2016	0		

Check your answer online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercises S1-11 through S1-15. **MyAccountingLab**



Learning Objective 6

Use financial statements and return on assets (ROA) to evaluate business performance

HOW DO YOU USE FINANCIAL STATEMENTS TO EVALUATE BUSINESS PERFORMANCE?

Each of the financial statements provides different information about the company to the users of the financial statements. Review Exhibit 1-6 for the information provided and the purpose of each financial statement.

Green Mountain Coffee Roasters, Inc.

In this chapter, we have reviewed the transactions and financial statements of Smart Touch Learning, a fictitious company. Now it's time to apply what we have learned to a real-world company. In each chapter, we will review the financial statements of **Green Mountain Coffee Roasters, Inc.** You will learn how to analyze its financial statements and apply the concepts presented in the chapter.

Take a moment to review the 2013 financial statements for Green Mountain in Appendix A, located at the end of your book, or online at <http://investor.gmcr.com>. Let's start by identifying the financial statements that we've discussed in this chapter. The income statement is presented on page A-5 of the Annual Report and is called the Consolidated Statements of Operations. Notice that the income statement calculates **net income** (revenue minus expenses). Green Mountain's net income for the year ending September 28, 2013, was \$483,232,000.

Next the balance sheet is presented on page A-4 of the Annual Report. Can you find assets, liabilities, and equity? As we have learned in this chapter, Green Mountain's assets of \$3,761,548,000 are equal to its liabilities and equity, \$3,761,548,000.

Return on Assets (ROA)

Measures how profitably a company uses its assets. $\text{Net income} / \text{Average total assets}$.

Return on Assets (ROA)

One of the many tools that users of financial statements can use to determine how well a company is performing is the company's **return on assets (ROA)**. Return on assets measures

DECISIONS

How can individuals make decisions about investing in the stock market?

Lori Cummings just inherited \$10,000 from her grandmother. She has decided that she will invest the money in the stock market. She is thinking about investing in one of her favorite clothing stores. The problem is she can't decide between Urban Outfitters or The Gap.

How should Lori decide between the companies? What resources should she use?

Solution

Lori should begin by reviewing the financial statements of each business. She can locate them on the companies' Web sites or on the Securities and Exchange Commission's Web site (<http://www.sec.gov/edgar.shtml>). She should review the income statements and compare net income. Which business was more profitable?

She should look at the balance sheets, carefully reviewing each part of the accounting equation. What was the dollar amount of assets? How much debt does the business have? In addition, she could go online and research the individual companies using a Web site such as Yahoo! Finance. These Web sites provide news and information about the company, such as current headlines, key statistics, and industry comparisons.

Lori should also consider diversifying her investment. Diversifying involves investing in more than one company and in a variety of industries and companies of different sizes. Diversification reduces the risk of an investment. Lori should consider investing half of the \$10,000 in a company in a different industry, such as her favorite restaurant or food manufacturer.



how profitably a company uses its assets. Return on assets is calculated by dividing net income by average total assets. Average total assets is calculated by adding the beginning and ending total assets for the time period and then dividing by two.

$$\begin{aligned}\text{Return on assets} &= \text{Net income} / \text{Average total assets} \\ \text{Average total assets} &= (\text{Beginning total assets} + \text{Ending total assets}) / 2\end{aligned}$$

Let's take a moment to calculate Green Mountain's ROA and measure how profitably it uses its assets. On its 2013 income statement, Green Mountain reported net income of \$483,232 (in thousands). The business reported beginning total assets (found on the balance sheet) of \$3,615,789 (in thousands) and ending total assets of \$3,761,548 (in thousands). Green Mountain's return on assets for 2013 is:

$$\begin{aligned}\text{Return on assets} &= \$483,232 / ((\$3,615,789 + \$3,761,548) / 2) \\ &= \$483,232 / \$3,688,669^* \\ &= 0.131 = 13.1\%^*\end{aligned}$$

*rounded

How do we as an investor know if 13.1% is good or bad? We have to compare the return on assets of competing companies such as Caribou Coffee Company, Inc., **Starbucks Corporation**, and Dunkin' Brands Group, Inc. What if we told you that Dunkin' Brands Group, Inc.'s return on assets was 4.5%? Due to Green Mountain's higher ROA, we now know that Green Mountain has a stronger return on its assets than does Dunkin'. What does this mean? It means that Green Mountain produces more profit per every dollar of assets than Dunkin' does. As you learn more about accounting, you will explore more financial tools that are available to help investors evaluate a company's performance. Only after an investor looks at the big picture of a company will he or she have a good sense of the company's investment potential.



Try It!

19. Using the following information, calculate the return on assets (ROA).

Net income for November, 2016	\$ 5,000
Total assets, November 1, 2016	76,000
Total assets, November 30, 2016	80,250

Check your answer online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercise S1-16. **MyAccountingLab**

