

# The Cost of Doing Business

## OBJECTIVES

- Define and provide examples of fixed expenses
- Explain how variable expenses are calculated
- Define economies of scale



*Think about this question:*

**Why do businesses need to control their expenses?**

*Write your answer on a separate piece of paper. Be prepared to explain your thinking in class.*

## Fixed Expenses

A business tries to earn a profit by selling products or providing services. Every sale has related expenses, so a business can only make a profit if the selling price for its product or service is greater than all of the expenses associated with that product or service.

For example, if you owned a business called Matt's Hats and you paid a wholesaler \$6 for every hat you sold, you would have to charge more than \$6 for a hat to make a profit. Besides paying for the hats, you would have other expenses—rent, utilities, and the other expenses of operating your business. In this chapter, you will examine how an entrepreneur can determine the actual cost of each product sold.

### What Are Fixed Expenses?

After you start your business, you will have to pay certain expenses regularly. Monthly expenses typically include rent, Internet access, salaries, and utilities (gas and electricity). An expense of this type is called a **fixed expense**—an expense that isn't affected by the number of items a business produces. The business will incur fixed expenses no matter how many products it sells. For example, if the rent for your space at Matt's Hats is \$500 per month, it will remain

## VOCABULARY

- cost of goods sold (COGS)
- depreciation
- depreciation expense
- disposal value
- economy of scale
- fixed expense
- salvage value
- straight-line method of depreciation
- variable expense
- volume discount



**Figure 10-1**

**Rent**

Rent is one of the most common fixed expenses.

**Predicting.** *If you were starting a small business, would you rent or buy? Why?*

\$500 even if in September your business makes and sells twice as many items as it produced and sold in August.

Another way of looking at fixed expenses is that they are ongoing expenses a business must pay to be able to operate. The important thing to remember is that fixed expenses don't include expenses directly related to the products the business sells.

An easy way to remember eight of the most common fixed expenses is to remember the phrase:

**I SAID U ROX**

This stands for:

**Common Fixed Expenses**  
**"I SAID U ROX"**

- I**nsurance
- S**alaries
- A**dvertising
- I**nterest
- D**epreciation
- U**tilities (Gas, Electric, Telephone)
- R**ent
- O**ther Fixed **E**xpenses

**Depreciation**

**Depreciation** is an accounting method of spreading the total cost of the equipment a business buys over the number of years it will be used. There are several depreciation methods a company can use. One of the most common ways of determining depreciation is the **straight-line method of depreciation**. The entrepreneur estimates how long the equipment will last and then figures what it could be sold for at the end of its business life (this is often referred to as the equipment's **disposal value** or **salvage value**). Next, to find the total depreciation, the entrepreneur subtracts the disposal value of the equipment from its actual cost. Then he or she divides that number by the estimated number of years during which the equipment will be used. The amount calculated per year is the **depreciation expense**.

For example, suppose a manufacturer buys a \$25,000 machine. The manufacturer estimates that the business will use the machine for five years and then will sell it for an estimated \$4,000 (this would be the disposal value). The total depreciation is \$21,000 (the cost of the machine minus the disposal value). Using the straight-line method of depreciation, you would divide the total depreciation by the number of years the machine was used:

$$\begin{array}{rcccccc}
 \text{Cost} & - & \text{Disposal} & = & \text{Total} & \div & \text{Years} & = & \text{Depreciation} \\
 & & \text{Value} & & \text{Depreciation} & & \text{Used} & & \text{Expense} \\
 \$25,000 & - & \$4,000 & = & \$21,000 & \div & 5 \text{ years} & = & \$4,200
 \end{array}$$

## Self-Esteem

You probably know that having self-esteem means feeling good about yourself. Most adults would agree that the older a person gets, the more important self-esteem is to their overall well-being and happiness.

People who have high self-esteem are content to be themselves. They are sometimes said to be "comfortable in their own skin." Because of this quality, they are able to maintain personal standards. They don't discard their principles for the approval of someone else or just to become part of a group. They feel good about themselves as individuals.

Self-esteem will serve you well in the work world. No matter what a coworker or customer or anyone else may say to you, you will be able to maintain a positive view of yourself. Sometimes people will try to make

you feel uncomfortable. Then you need to remind yourself that those people don't know you well at all. Stand tall and be proud that you feel good about yourself. Keep your self-esteem strong.



### THINKING CRITICALLY

**Applying Concepts.** Talk with a partner about how a person can boost self-esteem. List ways for moving away from a negative self-image.

To read more about self-esteem, go to "Your Business Career" on the Student Center at [entrepreneurship.pearson.com](http://entrepreneurship.pearson.com).

You can think of the \$4,200 as the cost per year to the business of having the use of the machine. If you want to calculate the cost per month, you would divide the annual total (\$4,200) by 12, to arrive at a monthly total of \$350.

Here's another, more common, example: A company has computers, desks, chairs, tables that it values at \$20,000. However, when the company finishes using these items in four years, the items won't really have any significant value. There will be no disposal value. So the straight-line method of depreciation would look like this:

Cost	–	Disposal Value	=	Total Depreciation	÷	Years Used	=	Depreciation Expense
\$20,000	–	0	=	\$20,000	÷	4 years	=	\$5,000

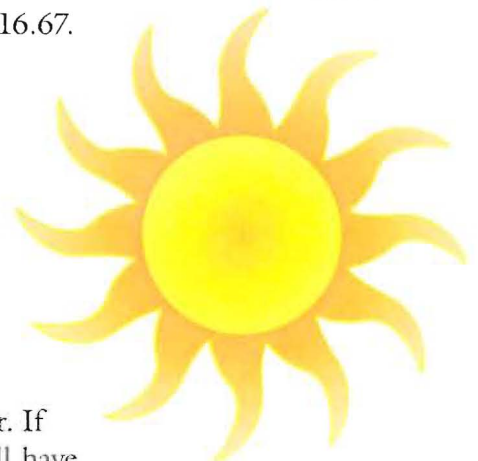
Some fixed expenses might be higher in the summer than in the winter.

The depreciation expense per month would be  $\$5,000 \div 12$  or \$416.67.

### Fixed Expenses Can Change

The word "fixed" doesn't mean the expense will never change. It means *only* that an expense doesn't change in response to sales. For example, if Matt's Hats needs air conditioning, its electric bills will likely be higher in the summer than they are in the winter. The electric bills will fluctuate based on the season. However, they will not change according to sales. The business might even have *more* sales in the winter, when the electric bills are lower.

Here's another example. Suppose you are an automobile dealer. If you pay your sales manager \$5,000 per month in salary, you will have



## Carbon Credits

A carbon footprint is a measure of how much greenhouse gas daily activities emit into the atmosphere. It includes everything from the amount of power you use to dry your hair to the gas needed to drive you to school. But should a small-business owner be concerned about the business's carbon footprint? For an environmentally conscious entrepreneur, reducing the carbon footprint of the business might be an important goal. Purchasing carbon credits (also called carbon offsets) is one option for meeting this goal.

A carbon offset is a tool designed to reduce our greenhouse gas emissions. A business owner purchases the offset. The money for the offset goes toward projects such as reforestation or the development of alternative energy sources, such as solar power. On a larger scale, corporations that are subject to emissions

caps trade carbon credits in an international market. A monetary value is assigned to a unit of carbon, and companies can trade these units to comply with the cap. A company that emits a lot of greenhouse gas can purchase a credit from a company that emits little.

### THINKING CRITICALLY

**Relating Concepts.** Think about three other ways a small business could "go green" in its operations by reducing energy usage or waste products. Working in small groups, write up a list of suggestions for one local business.

*To read more about carbon credits, go to "Entrepreneurship Issues" on the Student Center at [entrepreneurship.pearson.com](http://entrepreneurship.pearson.com).*

to pay that same amount whether the business sells one automobile or a thousand. This is a fixed expense. Now let's say that you decide to give the manager a raise to \$6,000. Your business's fixed expenses will increase by \$1,000 per month, but this figure has no direct bearing on the number of automobiles your business will sell.



*What are some common fixed expenses of a business?*

## Variable Expenses

As you now know, fixed expenses don't vary with the amount of product sold. Most businesses have another type of expense, referred to as a **variable expense**. This is an expense that changes based on the amount of product or service a business sells.



For example, if Matt's Hats pays its hat supplier \$6 per hat, the \$6 is a variable expense. If Matt's Hats sells 500 hats in November, the total variable expense is \$3,000 ( $500 \times \$6$ ). If, in December, it sells 600 hats, the total variable expense will be \$3,600 ( $600 \times \$6$ ). Although the variable expense per hat remained at \$6, the total of the variable expense changed due to the difference in the number of sales.

The two types of variable expenses are:

- **Cost of Goods Sold (COGS).** For manufacturing and merchandising (retailing and wholesaling) businesses, the variable expense that is associated with each unit of sale is called the **cost**

**of goods sold.** This includes the cost of materials and labor used to make the product or provide the service.

- **Other Variable Expenses.** These can include such expenses as commissions for salespeople, shipping and handling charges, or packaging.

Returning to the example of Matt's Hats: Suppose you have purchased hats from a wholesaler for \$6 per hat. Because you are buying a finished product (the hats), no labor or other materials are involved. Your cost of goods sold per unit is \$6.

Let's say Matt's Hats prints interesting designs on hats you buy from a wholesaler. You would still have a variable expense for each hat of \$6, but you also have printing expenses—labor and materials (ink). The cost of labor and materials is other variable expenses added to your cost of goods sold. In this case they add another \$2.50 per hat. You also have to pay shipping (\$1) and handling (\$0.25).

### Cost of Each Hat

#### Cost of Goods Sold

Cost of Hat	\$ 6.00
Labor & Materials	<u>2.50</u>
Total Cost of Goods Sold	\$ 8.50

#### Other Variable Expenses

Shipping	\$ 1.00
Handling	<u>.25</u>
Total Other Variable Expenses	<u>1.25</u>
<b>Total Variable Expenses</b>	<b>\$ 9.75</b>

Knowing the variable expenses, you can calculate how much profit your business makes on each unit sold. Your goal would be to sell enough units each month to pay your variable and fixed expenses and have profit left over.



*What is a variable expense?*

## Economies of Scale

Check the prices of paper towels at your local supermarket. The price of three single rolls will be greater than the price of a three-pack of the same brand. The supermarket is offering you a lower price if you purchase a larger quantity of product. Typically in business the price per unit declines as you buy larger amounts.



**Figure 10-2**

### Economy of Scale

Stores offer you lower prices when you purchase larger quantities.

**Predicting.** Can you name some other products for which you pay lower prices when you purchase more?

Similarly, as a business grows, it may be able to negotiate better prices from suppliers because it is purchasing larger quantities of goods. The cost reduction made possible by spreading costs over a larger volume is called an **economy of scale**. Two of the most common ways to gain an economy of scale are:

- **Spreading fixed expenses over as much output as possible.** If you have a monthly rent of \$500 and you have \$10,000 in monthly sales, 5% of your sales is being used for rent ( $\$500 \div \$10,000$ ). If you can increase sales to \$20,000, you will be paying only 2.5% of your monthly sales in rent ( $\$500 \div \$20,000$ ). Typically, as your fixed expenses per unit decrease, your profit increases.
- **Getting better deals from suppliers.** You can get discounts from suppliers if you buy in quantity. (A discount for buying greater quantities is called a **volume discount**.) Typically, as your cost of goods sold per unit decreases, your profit increases. For example, normally Matt's Hats purchases 100 hats at a time at a price of \$6.00 per hat. If Matt's Hats purchased 200 hats at a time, the price per hat would be reduced to \$5.75 because of the volume discount.



What is an economy of scale?



**Your Business Plan.** Continue developing your standard business plan. Go to "Section 10.1" of the *Business Plan Project* in your *Student Activity Workbook*, or "Section 10.1" of the BizTech Software.

## ASSESSMENT 10.1

### Reviewing Objectives

1. What is a fixed expense? Provide at least three examples.
2. What is a variable expense?
3. What is an economy of scale?

### Critical Thinking

4. **Applying Concepts.** What are some methods a business can use to minimize its fixed expenses?
5. **Analyzing Data.** How can a business decrease its cost of goods sold?

### Working Together

Form two teams. Together, choose a retail business. The first team will create a list of fixed expenses for the business. The second team will

create a list of variable expenses for it. Each team will present its list to the class. The rest of the class will evaluate the lists and make suggestions for additional items.

### Math

#### Percentages

Often, businesses convert their fixed and variable expenses to percentages of the total sales. Convert the individual variable expenses for Matt's Hats in this chapter to a percentage of the Total Variable Expenses. For example, the cost of a hat would be  $\$6.00 \div \$9.75 \times 100$ . Also show the Total Cost of Goods Sold and the Total Other Variable Expenses as percentages of the Total Variable Expenses.