

UNDERSTANDING COSTS: FIXED AND VARIABLE

Anyone who runs a business knows that some costs must be paid no matter how many products are offered for sale. For example, Alex owns a shoe store. He must pay his property taxes whether he sells 20 or 200 pairs of shoes each day. Mortgage payments (payments on the loan he took out to buy his building) must be made to the bank. Fire insurance, the lease on a delivery truck, and installments on a remodeling loan are other examples of costs Alex must pay regardless of sales. Expenses that must be paid no matter how many goods or services are offered for sale are called **fixed costs**.

Other types of costs change with the number of products offered for sale. These are called **variable costs**. Variable costs include the wages of production workers or salespeople, raw materials, electric power to run machines, and the cost of maintaining inventory. If Alex decides to offer more types of shoes for sale, he will need to hire more people to stock and sell these items. Alex's inventory costs will grow as well as his shipping costs for any products that he either buys or sends to customers. These are all examples of variable costs.

Entrepreneurs need to understand the important differences between fixed and variable costs and how these

differences affect a firm's success. Fixed costs must be paid. Sometimes they are called "sunk costs" because at the present they are beyond the control of the entrepreneur. If Alex has signed a lease for his store that requires a \$1,000 payment each month, he must make the payment no matter how many products he offers for sale. The only costs an entrepreneur has immediate control over are variable costs. Alex may be required to pay rent for his shoe store, but he can choose how many salespeople to hire or how many products to stock. The fact that entrepreneurs cannot change their fixed costs at the present does not mean they should ignore them. Fixed costs are generally paid out of the money earned from an entrepreneur's sales. If the entrepreneur can sell more products to earn more money, the fixed costs will be a smaller part of income. Let's look at an example of how this works.

Suppose Alex's shoe store has \$500 in fixed costs that must be paid every week. Alex sold 100 pairs of shoes at an average price of \$50 last week. His store took in \$5,000 ($\50×100 pairs sold = \$5,000). Alex's fixed costs equaled 10 percent of his income ($\$500$ fixed costs divided by $\$5,000$ sales = 10 percent). Or you could say he had to pay \$5 in

fixed costs per pair of shoes sold ($\$500$ fixed costs divided by 100 pairs sold = \$5).

If Alex could increase his sales to 200 pairs a week, the amount of fixed costs per pair of shoes would be cut in half. His revenue would grow to \$10,000 ($\50×200 pairs sold = \$10,000). His fixed costs would still be \$500, but now it would be only 5 percent of revenue ($\$500$ fixed costs divided by $\$10,000$ sales = 5 percent). Alex would pay \$2.50 in fixed costs per pair of shoes sold ($\$500$ fixed costs divided by 200 pairs sold = \$2.50). If Alex's other costs did not change, this would increase his profit per pair sold by \$2.50. Alex could accomplish the same objective by offering other types of products for sale, such as wallets, socks, or shoe polish. If these other product lines do not add to his fixed costs, the amount of fixed costs he must pay per item would be less.

Entrepreneurs often try to increase their sales to reduce the amount of fixed costs paid per item sold. This explains why many gas stations have become convenience stores in recent years. If the owner has to pay to have a building and someone there to help customers, it doesn't cost much more to sell milk and bread, too. As the result of selling other products, total sales increase. This reduces the amount of fixed costs that must be paid

out of each dollar of sales, thus increasing profit.

Although it is possible to improve a firm's profitability by offering more types of products, there is no guarantee this approach will always work. Entrepreneurs must keep track of their variable costs. Suppose the owners of a store spent an extra \$250 a week to offer fresh lettuce and other produce for sale. If they sold only \$150 worth of the produce, they would lose \$100 because the amount earned in sales is not sufficient to pay the variable costs of stocking the fresh vegetables and fruit. An entrepreneur should never offer a product for sale that cannot pay for its variable costs. Entrepreneurs need to understand the difference between fixed and variable costs. They should realize that the profit per item can be increased when more products are sold because the fixed cost per item is less. Steps to limit the amount of fixed costs a firm is responsible for often improve its chances for success.