

# Cost-Volume-Profit

Cost-volume-profit analysis studies how profits and costs change for different volumes of output. Specifically, it looks at how profits and costs change for changes in selling prices, volume of items produced, fixed costs and variable costs.

The cost-volume-profit equation is usually depicted as follows:

$$y = a + bx$$

*y = cost of x number of units*

*a = fixed costs*

*b = variable cost per unit of x*

*x = number of units produced*

Some of the questions answered through cost-volume-profit analysis include:

- 1) What level of sales is needed to break even?
- 2) What level of sales is needed to earn a certain profit?
- 3) How sensitive is profit to a change in sales?
- 4) What profit can be expected for a given level of sales?
- 5) How would a change in fixed costs, variable costs, or parameters such as selling price affect profit?