

If your sales were to increase by 20% do you know how much of that would be profit? If your fixed expenses increased by 15% do you know how much more you would need to sell to breakeven? These are just some of the questions that business owners can answer if they know how to calculate and utilize the contribution margin formula. Contribution margin can be described as the fraction of sales that contribute to cover fixed costs. You can calculate it by subtracting total variable costs from total sales and then dividing by total sales.

In order to understand how to calculate contribution margin, business owners must understand the difference between variable costs and fixed costs. Variable costs are the portions of labor, materials and overhead costs that change according to the change in the volume of units produced or sold. Fixed costs on the other hand stay constant regardless of the level of sales. Variable costs may include costs of goods sold (COGS), sales commissions, delivery charges and portions of wages. Fixed costs can include advertising costs, depreciation, insurance, rent and utilities.

The first step in determining your company's contribution margin is to categorize each expense into either fixed or variable costs. Let's assume Alpha Incorporated has the following variable costs: COGS \$230,934, sales commissions \$58,852, and delivery charges of \$13,984. Resulting in a total for variable costs of \$303,770. Alpha has total sales of \$462,452. Now subtract the total variable costs from the sales and divide that by the total sales $(\$462,452 - 303,770) / \$462,452$. The total variable costs equal 66% of sales. This means the contribution margin is 34%. For every dollar sold, 34 cents contribute towards paying for indirect costs and profit.

Now consider the company's total fixed costs are \$96,101 and include the following expenses: advertising \$1,850, depreciation \$13,250, insurance \$5,400, payroll taxes \$8,200, rent \$9,600, utilities \$17,801, and fixed wages of \$40,000. How much does the company need to sell in order to breakeven? To determine the breakeven point, you need to divide the fixed costs by the contribution margin or $\$96,101 / 0.34$. The answer is \$282,650.

The contribution margin can also help determine how much more you need to sell in order to obtain a certain profit. For example, if Alpha's fixed costs stay the same and they would like to make a profit of \$200,000 then their sales need to be \$870,886. In order to obtain the answer an Alpha manager needs to solve the following formula: $(\text{Profit} + \text{Fixed Costs}) / \text{Contribution Margin}$ or $(\$200,000 + \$96,101) / 0.34$.

The contribution margin can also help a manager determine whether or not to hire additional help. For example, if an Alpha manager is thinking about hiring a sales representative for \$40,000 a year and is expecting that person to achieve \$100,000 in additional sales, should the hire be made? The answer is no, because in order to breakeven the company would need to increase their sales by \$117,647, $(\$40,000 / 0.34)$. If the new sales representative only increases sales by \$100,000 then the company is short \$17,647 to breakeven.

Contribution margin is one of a handful of helpful financial analysis tools that can be used by business owners to help make important decisions. So make it a point this coming year to learn a few of these tools and have a great 2009!

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