



Break Even Point

Introduction:

How to calculate breakeven point is a key financial analysis tool used by business owners. Once you know the fixed and variable costs for the product your business produces, or a good approximation of them, you can use that information to calculate your company's breakeven point. It is a popular tool used by small business owners to determine how much volume of their product they must sell in order to make a profit. It is also an important part of cost-volume-profit analysis. One thing is sure. In order to know how price your product, you first have to know how to calculate break even point.

What is Break Even Point?

A company's break even point is the point at which its sales exactly cover its expenses. The company sells enough units of its product to cover its expenses without making a profit or taking a loss. If it sells more, then it makes a profit. On the other hand, if it sells less, it takes a loss.

To compute a company's break even point in sales volume, you need to know the values of three variables. Those three variables are fixed costs, variable costs, and the price of the product. Fixed costs are those which do not change with the level of sales, such as overhead. Variable costs are those which do change with the level of sales, such as cost of goods sold. The price of the product has been set by the company through looking at the wholesale cost of the product, or the cost of manufacturing the product, and marking it up.

How to Calculate Break Even Point?

In order to calculate Break Even Point, Use the following formula:

Fixed Costs/Price - Variable Costs = Break Even Point

In this formula, fixed costs are stated as a total the - total fixed costs for the firm. Basically, this means the total overhead for the firm. Price and variable costs, however, are stated as per unit costs - the price for each product sold and the variable cost for that unit of the product. The denominator of the equation, price minus variable costs, is called the contribution margin. In other words, this is the amount, per unit of product sold, that the firm can contribute to paying its fixed costs.

An Example of Break Even Point:

If ABC Ltd has calculated that it has fixed costs that consist of its lease, depreciation of its assets, executive salaries, and property taxes. Those fixed costs add up to Rs.1, 00,000. Their product is the widget. Their variable costs associated with producing the widget are raw material, factory labor, and sales commissions. Variable costs have been calculated to be Rs.0.80 per unit. The widget is priced at Rs.2 each.

Given this information, we can calculate the breakeven point for ABC Ltd product.

Fixed Costs/Price - Variable Costs

$$1, 00,000/2 - 0.80 = 49999/-$$

ABC Ltd has to produce and sell 49999 widgets in order to cover their total expenses, fixed and variable. At this level of sales, they will make no profit but will just breakeven.

What Happens to the Break Even Point if Sales Change?

What if your sales change? For example, if the economy is in a recession, your sales might drop. If sales drop, then you won't sell enough to make your breakeven point. In the example of ABC Ltd, you might not sell the 49999 units necessary to breakeven. In that case, you would not be able to pay all your expenses. What can you do in this situation?

If you look at the breakeven formula, you can see that there are two solutions. You can either raise the price of your product or you can find ways to cut your costs, your fixed or variable costs.

Let's say you find a way to cut the cost of your overhead or fixed costs by reducing your own salary by 10,000. That makes your fixed costs drop from 59999 to 49999. The breakeven point is, holding other variables the same.

$$49999/2 - 0.80 = 24999 \text{ units}$$

Predictably, cutting your fixed costs drops your break Even point.

If you reduce your variable costs by cutting your costs of goods sold to Rs.0.60 per unit, then your break Even point, holding other variables the same, becomes:

$$49999/2 - 0.60 = 24999 \text{ units}$$

From this analysis, you can see that if you can reduce the cost variables, you can lower your break Even point without having to raise your price.

Relationships between Fixed Costs, Variable Costs, Price, and Volume

As the owner of a small business, you can see that any decision you make about pricing your product, the costs you incur in your business and the resulting volume that you sell are interrelated. Calculating the breakeven point is just one component of cost-volume-profit analysis. You also have to consider how you allocate costs in your business the direct and indirect costs that contribute to overhead.



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