Break-even point

Many people in business are not aware of the vital importance of the break-even point and how they should calculate it.

The break-even point is that point at which business covers its costs and thus breaks even. It tells you exactly how much you must sell at the present level of costs in order to avoid making a loss and it can be used regularly to check the progress of your business by comparing sales achieved with the break-even point. To correctly arrive at your business break-even point the details as to fixed cost and variable cost on which it is based must be accurate.

Calculation of the break-even point

To calculate your break-even point you must first look at the cost of running your business. There are 2 types of cost - variable and fixed.

1. Variable costs

Variable costs are directly related to the volume of sales. This means that these costs increase in proportion to the increase in your sales and vice-versa. For example, if your variable costs total $100 and your total sales equal $1,000 then the variable cost percentage is 10%. This means that for every $1 worth of sales 10 cents is spent on buying or producing those goods and services. The amount you have left therefore in this example is 90 cents and this figure is called the contribution towards fixed costs.

2. Fixed costs

Fixed costs continue regardless of how much you sell or don’t sell. These can be made up of such expenses as rent, depreciation, telephone accounts, insurance etc. These costs can be estimated usually from using last year’s figures as a basis because they typically do not change. It is important also to include here the salary for the owner/operator as another fixed cost to arrive at the total business fixed costs.

Break-even formula

The formula for the calculation for the break-even point is therefore as follows (in this case, fixed costs are $60,000):

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\frac{\text{Fixed costs}}{\text{(Sales less Variable Cost)\%}} = \frac{\$60,000}{90\%} = 66,666 \text{ Break-even Point Sales}
\]

If you sell this amount you will have covered all your costs and earned your salary but at this stage you have not made any profit. That is, you have broken even and any margin over and above any further variable or direct cost is a contribution towards profit.
Break-even analysis

Break-even analysis is a technique to establish the effect on profit of different sales volumes and different costs and selling price levels. The break-even point is the volume of sales at which sales enable costs to be covered and no profit or loss is made - in other words, you break even.

Break-even analysis can be a very useful management tool because it enables a manager to determine the following things:

- The profitability of the present product line.
- How far sales can decline before losses will be incurred?
- How many units have to be sold before it becomes profitable?
- What effects will the reduction in selling price or the volume of sales made have on the profitability of the business?
- What will be the effect on profitability if overhead expenses increase?
- How much more has to be sold at current price levels to make up for an increase in the cost of sales?

Further information

The following fact sheets provide further information on these issues:

- Financial analysis overview
- Financial ratios
- Profit and loss ratios