

Business guide

Calculating your break-even point

Before you start a business and perhaps leave a job, try working out if the venture will be worth the risk.

By now you may be confident there is a genuine demand for your product or service, and that the market will pay your price for it. The next step is to work out how much you need to sell each month (hours of time, or quantities of product) to make a profit.

It's usually unrealistic to expect that your business will be profitable from day one, especially as you need to spend money on marketing to gain customers. Sales are likely to be slow at first, but you will be hoping they gain momentum.

Meanwhile, you have certain fixed costs (business overheads) that you have to pay each month to keep running. These include rent, rates or mortgage payments, utilities, interest on debts, and phone and Internet connections.

You also have other costs to meet that will vary with sales levels. These variable costs include supplies to make a product or stock shelves (sell more and you'll need more), freight, commissions or extra labour to produce the goods.

All of this means that a typical business in the early stages will run at a loss until the point where sales match costs. This is known as the break-even point. If sales continue to climb, you start making a profit each month.

Below are two quick and ready ways to test the feasibility of your venture. In each case they presume you know both the fixed costs of running your business and the variable costs of producing a product or selling a service.

Manufacturing business

Here's an example for a business making wooden garden benches.

First, work out the gross margin on each bench. This is the difference between the selling price of the product and its variable production costs. For example:

Cost of each bench

You decide a realistic market price for each bench is \$120

Labour cost (\$40) and materials (\$25) for each chair come to \$65

The difference between \$120 and \$65 is your gross margin \$55

What you want from the business

To justify the risk, you want this salary each year: \$80,000

The overhead costs of running your business are: \$20,000

Business guide



Therefore, the gross margin you need on sales is: \$100,000

Sales required

To find out how many benches you have to sell each year to meet your income goal, you divide the required \$100,000 annual gross margin by the gross margin per bench of \$55. The result shows you need to sell 1,818 benches a year.

How does that average out per week? If you decide you want at least a four-week break every year, divide 1,818 by 48 weeks and your break-even sales target is 38 benches a week.

Do you think you can sell an average of 38 benches a week? Remember, this is break-even only. It will pay your required salary, but there's no extra profit margin in there to grow your business.

Try your own figures.

Service business

In a service business, you're selling your time, so you can take a slightly different angle. Let's presume the goals remain similar and you're working alone, except for one part-time person doing office tasks so you can spend more time with customers. This salary adds \$20,000 to your overhead costs.

What you want from the business

To justify the risk, you want this salary each year: \$80,000

The overhead costs of running your business are:	\$40,000
Therefore, you need to bill out:	\$120,000

Time available

You decide to work 5 days a week, for 48 weeks, or 240 days a year. Subtract another 15 days for sickness and public holiday, leaving a total of 225 working days.

You plan to put in at least 8 hours work a day, but allow 3 hours for travelling and work such as tenders and quotations. This leaves 5 billable hours a day.

Hourly charge-out rate

Now you're ready to calculate your charge-out rate.

Billable hours a year = 5 x 225, or 1,125 hours.

Divide your goal of \$120,000 by 1,125 billable hours and your minimum charge-out rate per hour must be \$107. Remember that this is just the break-even figure to cover your costs and desired salary. There's no extra profit to market and expand the business.

Questions to ask here are:

Business guide



- How does an hourly rate of \$107 compare with the industry average? Is it competitive?
- Can you really bill out \$535 a day (107 x 5 billable hours), or \$2,675 each 5-day working week?

Try your own figures to see what hourly rate you come up with and decide if the rate is both competitive and feasible. Will you be able to meet that goal of 25 billable hours each week? Your business will be running at a loss until you reach that target.

Use a cash flow forecast

A cash flow forecast is a useful way to check your break-even calculations. Completing the forecast will force you to think more carefully about both variable costs and fixed costs. Get advice if necessary from an accountant because a proportion of some costs, such as extra electricity use, may properly belong in variable costs of production rather than fixed costs.

Completing the sales side of the cash flow forecast will also help you identify how long it might take for your venture to break even.

For example, in the manufacturing example, the business needed to sell 1,818 garden benches over the course of the year. However, demand would likely be very slow in the winter months before picking up again in the spring. Meanwhile, the business's running costs still have to be paid every month.

The bottom-line figure for each month will show you both when the business is likely to break even and how much funding you will need to keep the business going until then.

Next steps

- Work out the break-even point for your business and get an accountant to check your figures for realism.
- Pay careful attention to any sales expectations make sure they are based on solid market research.
- Check that you have not overlooked any running costs, such as tax payments or irregular payments, such as insurance premiums.
- Use a cash flow forecast to work out what funds you will need as working capital to keep the business afloat until it turns a profit.
- Decide if you can make enough from your venture to justify the effort and risk.