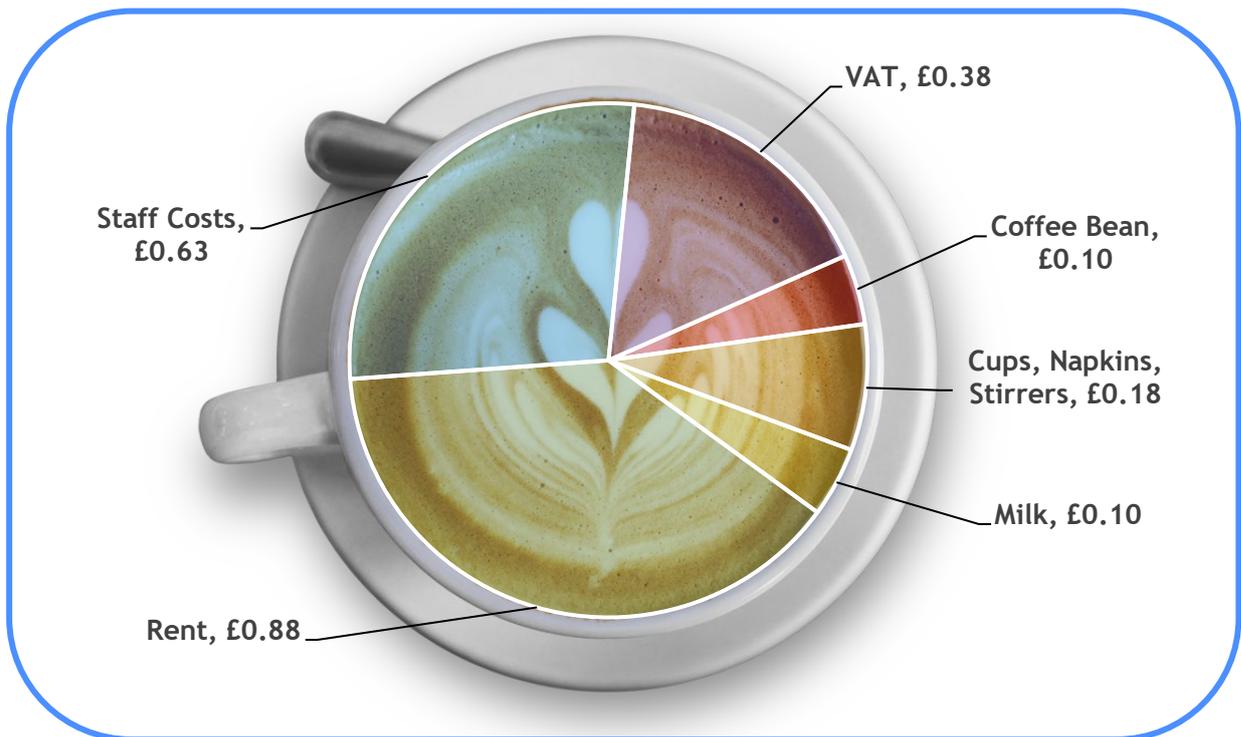


Cost-a-Coffee (Solution)

Barry Sta dreams of running his own coffee shop in the local high street. Before he gives up his current job, he wants to be sure that his idea is viable. The problem is Barry is not confident when it comes to finance, and has asked for your help.

Barry has researched all of the costs that he expects to have to pay per cup of coffee that he sells. These estimated costs are shown in the pie chart below:



Use this information to answer the five questions below for Barry:

- Which of the costs in the pie chart are fixed costs, and which are variable?

Fixed Costs	Variable Costs
<ul style="list-style-type: none"> • Staff Costs • Rent 	<ul style="list-style-type: none"> • Coffee Beans • Milk • Cups, Napkins and Stirrers • VAT

- What is the total cost of a cup of coffee?

£ 2.27

3. Assuming that Barry's research is correct, explain what price Barry should charge for a cup of coffee in order to break-even.

To break-even, Barry would need to charge a price that covers his total costs, but means profit is zero. According to Barry's research, the total cost of a cup of coffee is £2.27, so this is also the break-even price. Charging less than £2.27 would result in a loss, whilst charging more than £2.27 would give him a profit as long as his figures are accurate.

4. Barry wants to make at least 10% profit on each cup. Calculate the minimum price he would need to charge in order to achieve this.

$$\begin{aligned} 10\% \text{ of } £2.27 &= £2.27 \times (10/100) \\ &= £2.27 \times 0.1 \\ &= £0.23 \text{ (to 2 decimal places)} \end{aligned}$$

So Barry needs to make 23p profit per cup, so this is added onto the total cost:

$$£2.27 + £0.23 = £2.50$$

Charging a price of £2.50 is the lowest price that Barry could charge in order to make at least 10% profit

5. Barry decides to charge a price of £2.75 per cup of coffee, as he believes he can sell 3,000 cups a week at this price.
- a. What is the profit per cup if this price is charged?

$$\begin{aligned} \text{a) Profit per cup} &= \text{Price per cup} - \text{Total Cost per cup} \\ &= £2.75 - £2.27 \\ &= £0.48 \end{aligned}$$

- b. What would the total profit per week be if Barry sells 3000 cups?

$$\begin{aligned} \text{a) Total Profit per week} &= \text{Profit per cup} \times \text{Cups sold} \\ &= £0.48 \times 3,000 \\ &= £1,440.00 \text{ per week} \end{aligned}$$

