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## **Introduction to Business: Unit 1: Break-Even Analysis and Business Plans**

### **Task 1**

To calculate Break Even from referring to and using the figures in Appendix, I can calculate the break-even point for the 'Cutting Shop' in three applicable methods. The three ways to calculate the break-even point are as follows:

- **By Producing a Table**
- **By Calculations**
- **By Constructing a Graph**

To produce a break-even table, I will firstly have to identify what my **Fixed Costs (FC)** and **Variable Costs (VC)** are. My Fixed Costs are those costs that do not vary with the level of production/output, and my Variable Costs are those costs that vary with the level of output/production. So from establishing this, I can now pick out my FC and VC from Appendix 1. My **Fixed Costs** are as follows:

- The Total Cost to lease the Toning Tables for 6 months from the 1<sup>st</sup> of November 2003 to the 30<sup>th</sup> of April 2004 (£22,620)
- The Cost of Advertising (£1,120)
- The Total Cost of Insurance which is payable by the 1<sup>st</sup> of November 2003 (£620)
- The Total Cost of Additional Staff. (£4,200)

My **Variable Costs** are:

- Electricity (£0.60)
- Maintenance (£0.20)
- Consumables (£0.40)

So to calculate my Fixed and Variable Costs, I will have to just simply add up all of my FC and VC.

**Fixed Costs** = £22,620 + £1,120 + £620 + £42 00 = £28,560

**Variable Costs** = 60p + 20p + 40p = £1.20

**Selling Price** = £8.00 per session

To put my FC into the break-even table, all I have to do is just keep copying the same figure, which is £28,560 because my FC do not vary with the level of output.

My VC per unit, in this case, per sessions because that is what we are dealing with, I do £1.20 and multiply the number of sessions (Quantity) carried out. Subsequently, my TC will then be calculated by adding up my FC and VC per session (unit).

Multiplying the number of sessions (Quantity) with the price per session, which is £8.00, will give me my Sales Revenue (SR) figure for the 'Cutting Shop'.

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**Method 1: By Table On A Spreadsheet Package:**

FC	£28,560
VC per session	£1.20
Selling Price Per Session	£8.00

Number of Sessions	Variable Costs (£)	Fixed Costs (£)	Total Costs (£)	Sales Revenue (£)	P/ - (L)
0	£0.00	£28,560	£28,560.00	£0.00	(-£28,560.00)
10	£12.00	£28,560	£28,572.00	£80.00	(-£28,480.00)
20	£24.00	£28,560	£28,584.00	£160.00	(-£28,400.00)
50	£60.00	£28,560	£28,620.00	£400.00	(-£28,160.00)
100	£120.00	£28,560	£28,680.00	£800.00	(-£27,760.00)
250	£300.00	£28,560	£28,860.00	£2,000.00	(-£26,560.00)
500	£600.00	£28,560	£29,160.00	£4,000.00	(-£24,560.00)
1000	£1,200.00	£28,560	£29,760.00	£8,000.00	(-£20,560.00)
2000	£2,400.00	£28,560	£30,960.00	£16,000.00	(-£12,560.00)
4000	£4,800.00	£28,560	£33,360.00	£32,000.00	(£3,440.00)
4100	£4,920.00	£28,560	£33,480.00	£32,800.00	(£4,240.00)
4200	£5,040.00	£28,560	£33,600.00	£33,600.00	£5,040.00
4300	£5,160.00	£28,560	£33,720.00	£34,400.00	£5,840.00

**Method 2: By Calculation:**

Break-even when using a calculation method can be found by using the **Contribution** Method.

When using this method, we will need to know:

**Fixed Costs** = £28,560

**Variable Costs per session** = £1.20

**Selling Price per session** = £8.00

**Step 1:**

**Contribution** = **Selling Price Per Session** – **Variable Costs**. So therefore

**Contribution** = £8.00 - £1.20 = £6.80 **Contribution**

**Step 2:**

Next step is to divide Our **Fixed Costs (£28,560)** by our **Contribution**, which is £6.80

**£28,560/£6.80 = 4200** units or in this case sessions need to be carried out in order for the 'Cutting Shop' to Break Even.

## Task 2

It is imperative for a company no matter what size it is and what its nature is of, whether it is a small, 'Mickey Mouse' sized company such as a Café or for that matter a large one because every business needs to know when it breaks even.

Break-even can be measured in terms of physical sales in the form of numerical data and serves as a fundamental business tool to all businesses.

Break-even will go a long way to achieving any given business' aims and objectives (sales/profit) because it identifies how many sales have to be made down to the nearest unit before a profit can be realised. It is important to know/calculate the break even point because;

- It helps to show how many units have to be sold over a particular/certain amount of time for Total Costs to equal Sales Revenue
- To show when a profit might be absorbed or gained, and alternatively to show when a loss might be suffered
- To use as a target/objective
- To help spot problems if break even is not being met and to then go onto rectifying the current situation one step further
- To help review the possible action to move towards break-even
- To help analyse the effects of events taking place outside the firm which may affect the chances of break-even taking place

Furthermore it is of the essence or it is vital for finding the break-even point because for a business, break-even is a critical point:

For example, the business needs to know if a product will generate profit, i.e. by selling at above the break-even point. Break-even is then an important tool or part of a Business Plan because a lender will want to know that it can get its money back from the lendee.

Break-even also serves as a method for a business to ask the question 'what if?' For e.g. what if rent increases by 10%? Can be answered in part at least by looking at the break-even chart.

The effect on the profitability of the business can be seen, subject to the limitations – i.e. the relationship between sales revenue, variable costs and fixed costs all remain the same at different levels of production which is not true.

A question such as 'what if sales increase by 50%?' can be answered by examining the effect on the nature of the fixed and variable costs and then re-calculating the BE point.