BUSINESS COSTS AND REVENUE

CHAPTER 6

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THE APPRENTICE

As we've seen in 'The Apprentice', it all comes down to cost.. How much have we spent and how much did we make in return?

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THE EQUATION IS SIMPLE…

What we make

−

What we spend

=

PROFIT

OR

LOSS

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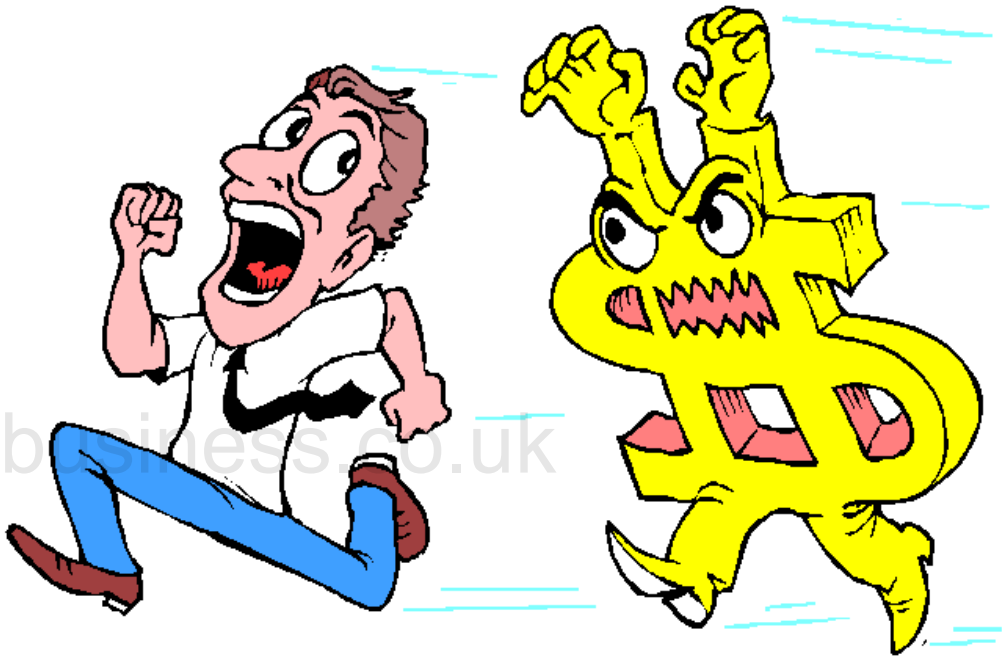
✓If we make more than we spend, we obtain a profit.

✘If we spend more than we make, we encounter a loss.

COST MANAGEMENT

Managers always feel that cost is on their backs.. Since profit is an ultimate objective for any business, managers always want to minimize costs in order to maximize profits..



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Knowing this... we need to keep a sharp eye out for costs at all times.. But first thing's first. Identifying our costs becomes a priority.

It's our dream to open up our very own cupcake shop!

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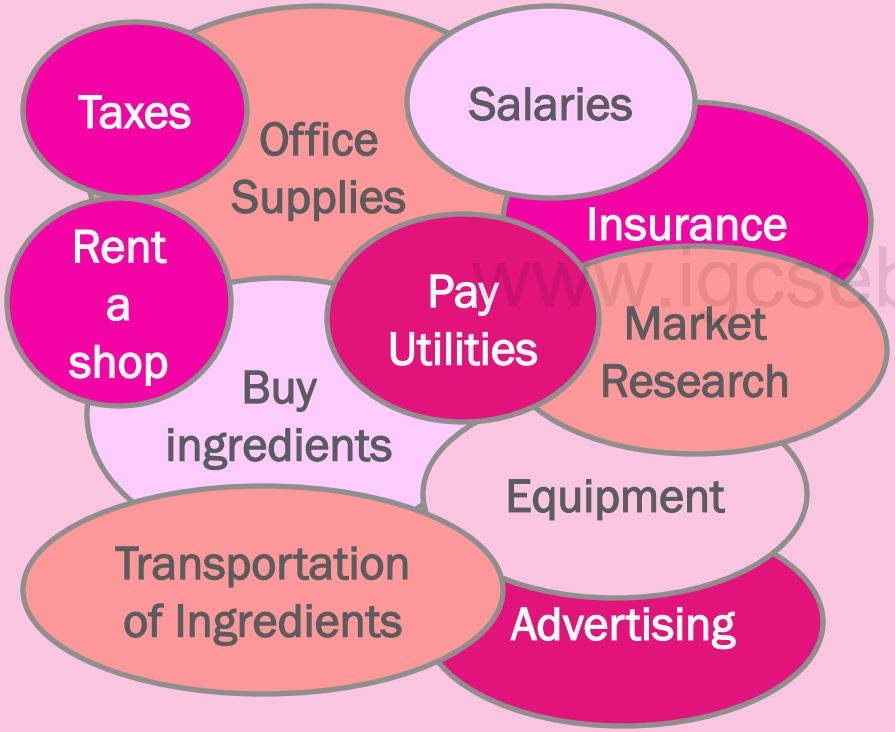
QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

What costs will the business need to incur to setup our cupcake shop...

Think-Pair-Share!



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Identifying the costs is an important step in understanding the potential success of our business... the nature of these costs is different though..

WHAT ARE COSTS?

There are two main types of costs

1. Fixed Costs

- Costs which *do not vary* with the number of items sold or produced in the short term.
- They *have to be paid* whether the business is making any sales or not.
- They are also known as ***overhead costs***.

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2. Variable Costs

- Costs which *vary* with the number of items sold or produced.
- They are often called ***direct costs*** as they can be directly related to or identified with a particular product.

Total costs = Fixed Costs + Variable Costs

QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

Let's divide our costs into the two categories...

Fixed Costs	Variable Costs
Rent a Shop	Buy Ingredients (Raw materials)
Salaries	Taxes
Insurance	Office Supplies
Equipment	Wages
Advertising (main)	
Market Research	
Transportation of Ingredients	
Bank Charges	
Utilities	

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When business owners are capable of identifying the different costs, they are able to forecast, plan and predict what they are spending and how they can manage their finances!

QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

Despite the fact that we're nice people and we're producing and selling a real mouth-savoring delight, we need to sell for a price and make sure that we're making a profit.. Or else we'll go out of business!

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✓If we make more than we spend, we obtain a profit.

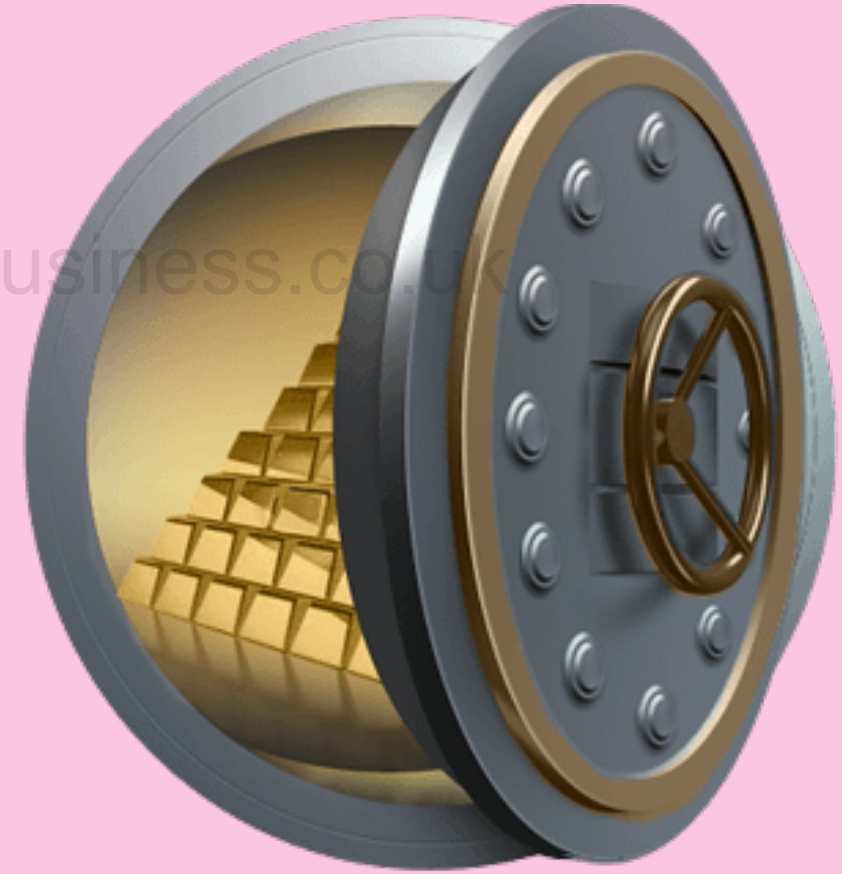
✘If we spend more than we make, we encounter a loss.

Therefore our Revenue needs to be higher than our Total Cost.

QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

So when do our accounts turn green? When do we make a profit? When can we say that our cupcake shop is successful? Is it after we sell our first cupcake? After we sell 100 cupcakes? After we sell 2,000? 10,000? 100,000?

We need to know when the gold will strike to properly plan for our business...



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BREAK-EVEN ANALYSIS

Businesses prepare break-even analysis charts and calculations to identify the selling point where they will start making a profit.. This is the point where total cost is equal to profit.

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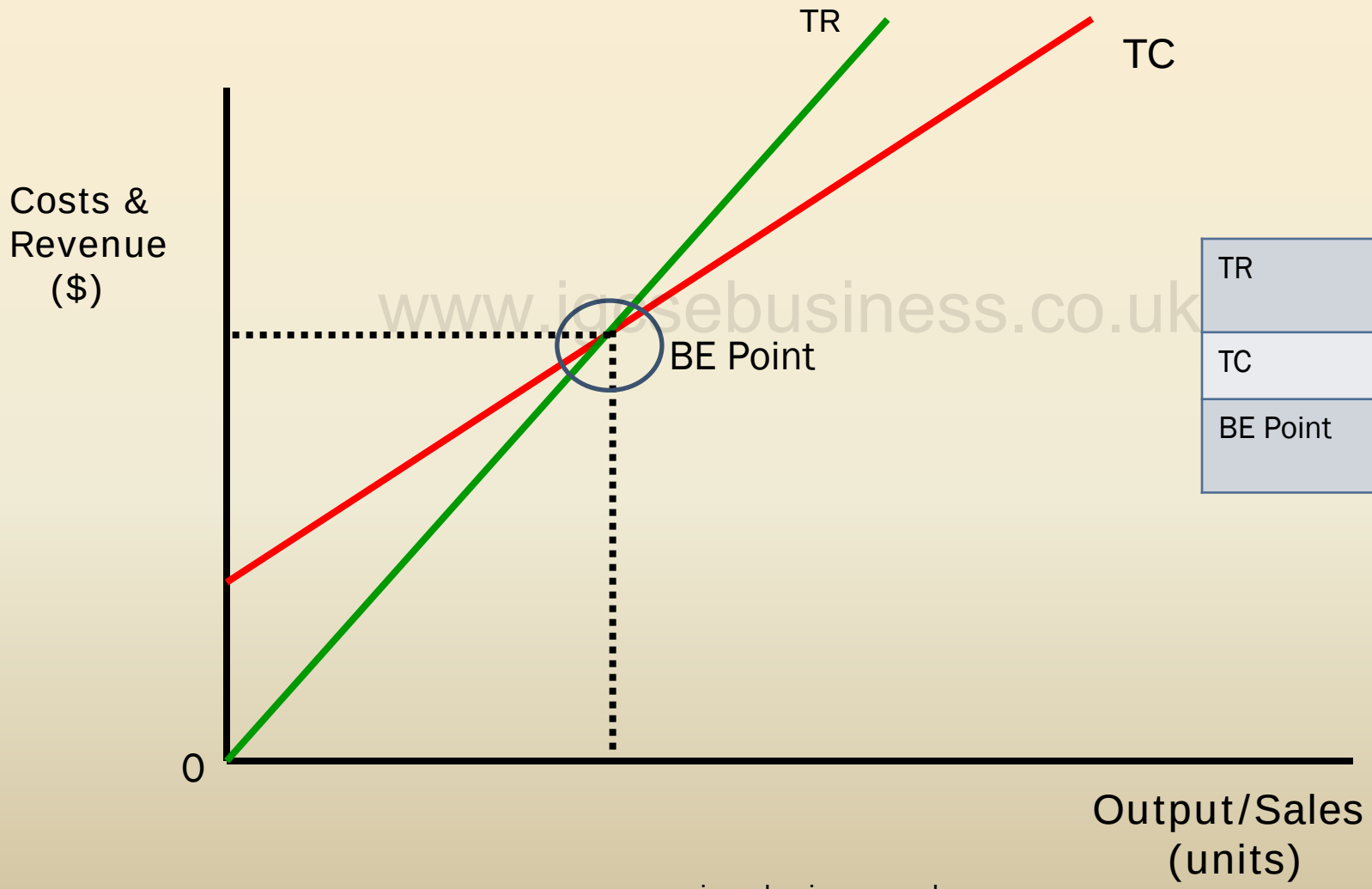

TR	Total Revenue
TC	Total Cost
BE Point	Break-Even Point

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HOW DO WE CALCULATE THE BREAK-EVEN POINT?

Start by plotting figures on a chart

Back to our cupcake shop..

Assume that...

Fixed Cost	$ 5,000
Variable Cost	$ 3 per cupcake
Selling Price	$ 8 per cupcake

	Units 0 Cupcakes	Units 500 Cupcakes	Units 1,000 Cupcakes	Units 1,500 Cupcakes	Units 2,000 Cupcakes
Fixed Costs					
Variable Costs (Unit*VC)					
Total Costs (FC+VC)					
Revenue (Units*SP)					
Profit/Loss (Rev-TC)					

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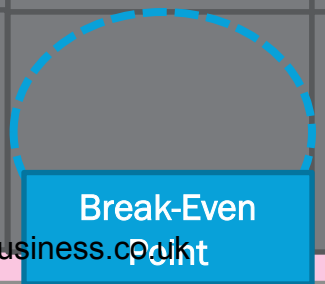

QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

Therefore, our Break-Even Point is when we *sell 1,000 cupcakes*. This is the point where our total costs are equal to our total revenue. After this point, we start making a profit.

Before this point, we were producing cupcakes but making a loss.

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TIPS FOR DRAWING BREAK-EVEN CHARTS

1. Calculate fixed cost, total cost and Sales at different levels of output in a table
2. Plot the money value on the y-axis and the output on the x-axis
3. Identify the maximum total revenue and total costs. (to be able to plot your axis, knowing the maximum limits)
4. Plot the fixed costs line
5. Plot the total costs line
6. Plot the Total Revenue (sales) line
7. Identify the break-even point (the point where the total costs and total revenue lines cross)
8. Label all lines, axis and units
9. Break-even point can be expressed in both value and output

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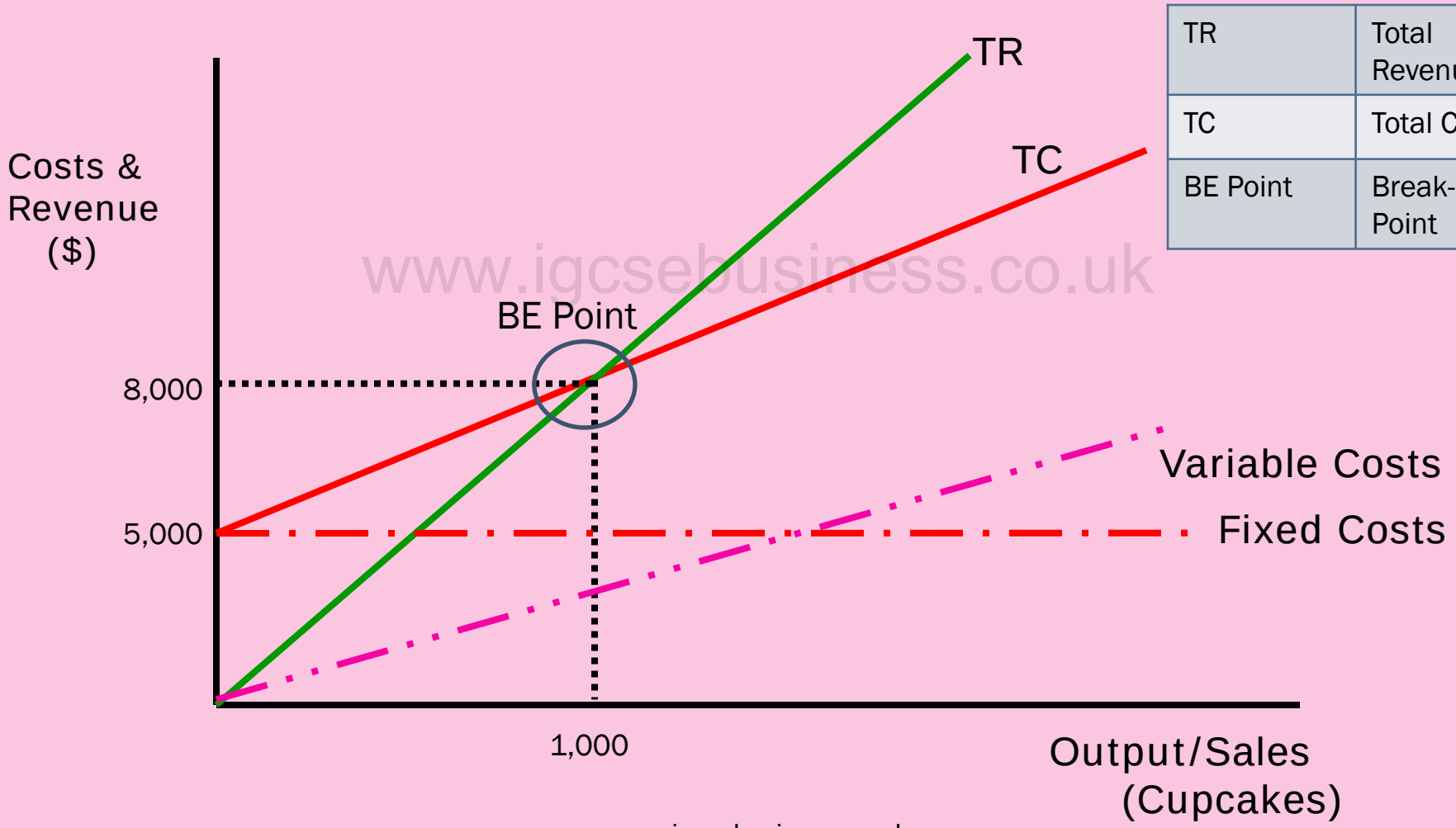
BREAK-EVEN ANALYSIS OF OUR CUPCAKE SHOP

Businesses prepare break-even analysis charts and calculations to identify the selling point where they will start making a profit.



TR	Total Revenue
TC	Total Cost
BE Point	Break-Even Point

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MARGIN OF SAFETY

From the break even quantity we can calculate the excess of sales over break even. This is known as the margin of safety.

Margin of Safety = Actual Output – Break Even Output

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The higher the margin of safety is, the greater the profits.

In fact, think of it in terms of once break even has been reached, each unit contribution now adds to the firm's profits.

USES OF BREAK-EVEN CHARTS

ADVANTAGES

- ✓ Helps managers in the decision-making process.
- ✓ The impact on profit or loss of certain business decisions can also be shown by redrawing the graph in case a variable has changed.
- ✓ Shows the margin of safety - the amount by which sales exceed the break-even point.

DISADVANTAGES

- χ Assumes
  - All goods are actually sold
  - Fixed Costs remain constant
  - That the lines are straight
- χ Disregard aspects of the operations of a business such as reducing wastage, etc.

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BREAK-EVEN POINT: THE CALCULATION METHOD

It is possible to calculate the break-even point WITHOUT drawing the graph…

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QUICK ACTIVITY.. SETTING UP OUR CUPCAKE SHOP

LET'S CALCULATE THE BREAK-EVEN POINT WITHOUT DRAWING THE GRAPH, USING A CALCULATION METHOD…

Fixed Cost	$ 5,000
Variable Cost	$ 3 per cupcake
Selling Price	$ 8 per cupcake

It is necessary to calculate the contribution of each cupcake.

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Contribution = Selling Price – Variable Cost
= 8 – 3
= **$ 5**

Therefore, each cupcake sold contributes $5 to the fixed costs and profit of the business.

In order to break even, our cupcake shop must make sufficient cupcakes, contributing $5 each, to cover the fixed costs of $5,000.

Break-Even level of production = Total Fixed Costs/Contribution per unit
= $5,000/$5
= **1,000 units per month**

BUSINESS COSTS: OTHER DEFINITIONS

In some situations, it is important for managers to be able to analyze costs in ways other than just splitting them into fixed and variable costs

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BACK TO OUR CUPCAKE SHOP

To be able to find out on average how much each product we have costs us to make, we need to follow the following equation.

Total Costs of Cupcakes = Total fixed costs of cupcakes + Total variable costs of cupcakes

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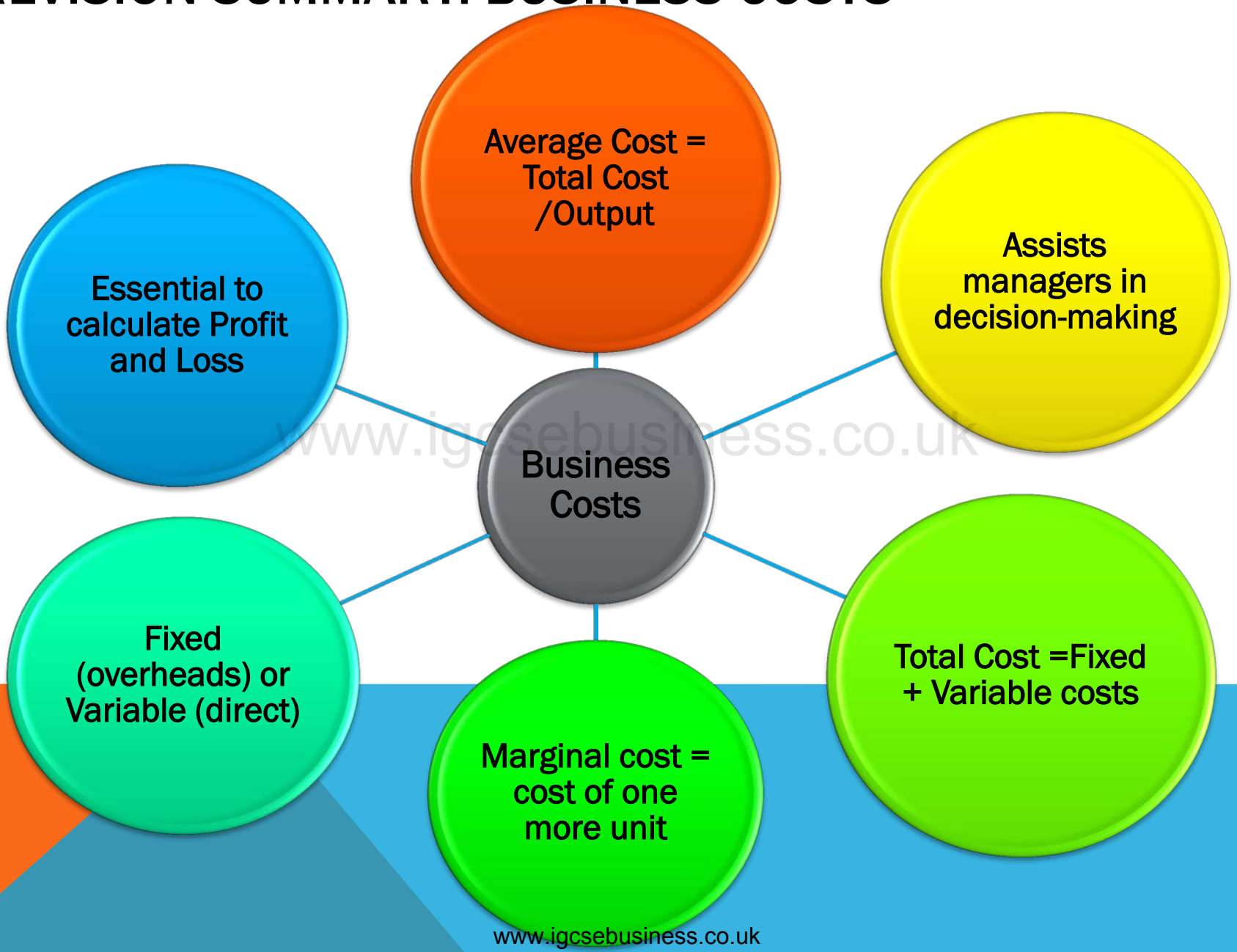
Average Cost of Cupcake = Total Cost / Total Output

Average Cost of Cupcake = 40,000 / 200
= $200 per cupcake

REVISION SUMMARY: BUSINESS COSTS



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So.. Saying this, can we safely assume that the average cost of any product is the same IN THE ENTIRE INDUSTRY?

It would be extremely naïve to assume that... and let's use the example of our cupcake shop to prove it..

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BACK TO OUR CUPCAKE SHOP

Consider the average cost and total output of the following two businesses, (ours and a bigger shop that also sells and produces cupcakes.)

	Our Cupcake Shop	Other Cupcake Shop
Total Output per year	10,000 cupcakes	60,000 cupcakes
Average cost per cupcake	$2	$1

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The other company is bigger than ours and so has a lower average cost per cupcake... this cost advantage results from the economies of scale of being a large business. These are called the economies of scale.

ECONOMIES OF SCALE

Economies of Scale are the factors that lead to a *reduction* in average costs as a business increases in size.

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There are five economies of scale...

1. Purchasing Economies

- When businesses buy large amounts of components, they are able to gain discounts for buying in bulk.
- Therefore, the unit cost per item is reduced for businesses who buy in bulk rather than those which buy in smaller quantities.

2. Marketing Economies

- Marketing becomes easier for larger firms since they can but their own distribution vehicles, advertising companies offer better rates for an advertisement and it's easier to convince the people to sell their product lines than a smaller business.

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3. Financial Economies

- Larger businesses are often able to raise capital more cheaply than small businesses, since it's less risky and so they offer smaller interest rates.

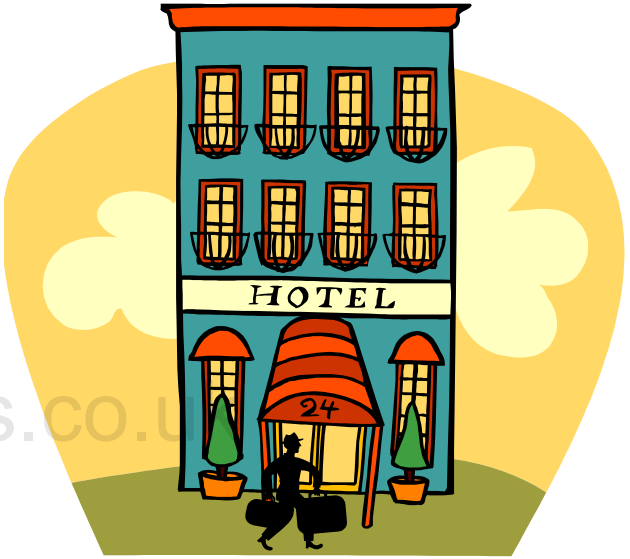
4. Managerial Economies

- Larger companies can afford specialists and this increases their efficiency and helps to reduce their average costs.

5. Technical Economies

- Flow production methods such as division of labor, the latest technology in machines and systems are luxuries that only large businesses can afford to have.

ACTIVITY – EXPLAIN HOW THE RITZ HOTEL MAY BENEFIT FROM INTERNAL ECONOMIES OF SCALE COMPARED TO HOTEL 24.



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The Ritz Hotel in Mayfair, W1

- 300 beds
- Open all year
- Offers a vast range of entertainment
- Employs 10 managers, 4 chiefs, 7 bar staff, 20 waiters, 30 room attendants, 15 general staff.

Hotel 24 in Wood Green, N22

- 24 beds
- Open Spring and Summer
- Offers entertainment from the same stand up comic every evening.
- Employs 1 manager
- 2 General workers, that cook, clean and everything else.

DISECONOMIES OF SCALE

Diseconomies of Scale are the factors that lead to an *increase* in average costs as a business grows beyond a certain size.

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There are three diseconomies of scale...

1. Poor Communication

- The larger the organization, the more difficult it becomes to send and receive accurate messages.

2. Slower Decision Making

- Due to the large organization, it often takes longer for decisions to be made.
- Management are very busy and may become distracted and removed from their customers and their needs.

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3. Low Morale

- Since there are many employees in the business, sometimes the workers may never see the top managers, causing them to feel unimportant and not valued by the management.
- The lack of these relationships can lead to low morale and low efficiency amongst the workers. This will tend to push up average costs.

TYPES OF COST

It is important not to confuse total cost with average cost. As a firm grows in size its total costs rise because it is necessary to use more resources. However, the benefits of becoming bigger can mean a fall in the average cost of making one item.

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Small firms compete in two ways. They either operate in service industries such as hairdressing where there are few opportunities for economies of scale, or they offer high priced, premium, niche products. Customers are prepared to pay more for exclusive goods made by small businesses.

BACK TO OUR CUPCAKE SHOP

So… do you think we should start off by just swooping into the market, with a fresh, naïve and completely innocent outlook on what to expect?

If you do so, we'll probably look like this…

Or this…

Or this!

And if we're starting a new business, any of these scenarios is not what we're looking for…

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BACK TO OUR CUPCAKE SHOP

Therefore, we need to know exactly what we're getting into. How much is in demand for our product by our consumers to produce? The exchange rate of the currency. Wages, economies, etc...

All these predictions are called forecasts.

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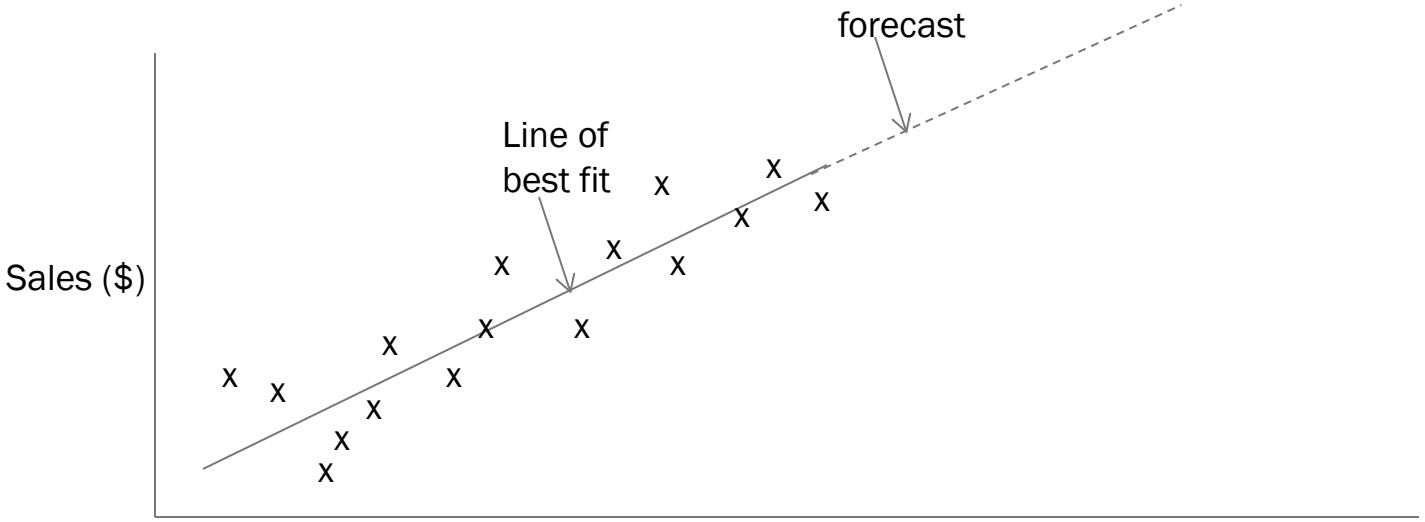
FORECASTING METHODS

The most common forms of forecasting sales figures are as follows:

1. Past sales figures could be used to calculate the *TREND*, which can then be extended into the figure.
2. Past sales figures could be plotted on a graph *(called a scatter diagram)* to draw a *line of best fit* which can then be extended into the future.
3. A panel of experts could be asked for their opinions on the most likely level of sales in the future. This is called *panel consensus*.
4. Market research surveys are particularly useful for forecasting sales of products which have not yet been launched onto the market. Obviously these do not have previous sales figures.



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BUDGETS

Forecasts are of extreme importance, but they do not tell a business *how* to react to the future. To help businesses with their planning, all managers use a method of planning and control known as *budgets*.

Budgets contain the following:

Targets for the future expressed in numerical or financial terms.

Well-managed businesses will set budgets for revenue, costs, production levels, raw materials required, labor hours needed and cash flow.

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Once these budgets have been set for all departments in the organization, an overall or *master budget* can be established. This will show the planned revenue, costs and profit or loss for the business over the next period of time, usually one year.

THE ADVANTAGES OF BUDGETS

- Provide targets to work towards.
- Used to show how the business is performing by comparing what the budget says by what was actually done. This form of budgetary control is called variance analysis.
- The setting can involve all workers and managers.
  - Budgets are likely to be more accurate if the people who have to put them into effect are asked to help set the original targets.
  - This participation leads to greater motivation and more realistic budgets.
  - Workers will probably work harder to achieve a target that they have set themselves.
- Budgets help to control the whole business. They control the amount allocated to each department and in this way resources should be efficiently allocated within the business.

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