**fixed costs –** costs that do not change with the level of business activity are called fixed costs and would include the rent of business premises, insurance, salaries of supervisory staff, etc.

**variable costs –** costs that change in proportion to the level of production are variable costs and would include the cost of materials used in the manufacturing process to make each unit, the wages of factory workers per unit, the amount of energy used in production (such as oil, gas or electricity), etc.

**mixed costs –** some costs are a mixture of both fixed and variable costs and would include wages where the fixed element is the normal weekly wages of production staff and the variable component is any overtime required.

**How is the break-even point calculated and why is it necessary for it to be calculated?**

To calculate the break-even point the profit is set at zero (0) and the number of units required are calculated. The break-even point can be expressed as a number of units or as a total dollar value of sales. If a business owner knows the break-even point, they can make informed decisions about pricing, production levels, and other factors that impact the bottom line.

**What is the difference between the contribution margin and the gross profit? What are the relevant expenses that are included in calculating both amounts?**

The contribution margin is the selling price of a unit less the direct variable costs per unit. The amount is the financial contribution each unit makes to cover the fixed costs. When the volume of sales is sufficient, after the fixed costs have been covered, to leave an excess, this is the gross profit.

**Explain the concept of margin of safety and why it is important in management decision-making.**

The margin of safety of a product or service is the amount by which expected sales are greater than the break-even point. The higher the safety of margin, the better when comparing alternative products. This calculation is important in management decision-making, as the percentage by which sales might decrease, before the product begins to incur a loss, can be calculated.

**Apart from the profit contribution, what other factors must a manager consider when making a decision to stop making a product or close a department?**

The contribution margin must be calculated, as well as the fixed costs, in order to correctly assess whether to stop making a product or close a department. However, other qualitative issues need to be considered as well, such as whether these decisions will adversely affect customers, employees, or suppliers, as well as potential retaliation from competitors and legal constraints.

**A bakery can make both cakes and breads but chooses to make cakes only. What cost factors might influence the bakery to restrict its sales to one product only?**

The variable costs would be the major factor to consider in the short term, however fixed costs might increase over the long term as well. An increase in the price of ingredients, electricity or the wages of workers would impact the variable costs, while an increase in insurance of premises or delivery vehicles or the increase of rent of premises would impact the fixed costs.

**Major airlines like Qantas often have alliances with other airlines to transport Qantas passengers on some routes. Why would Qantas not use its own aircraft?**

The most likely reason is that Qantas is running at capacity with its current fleet of aircraft and, therefore, does not have enough aircraft to run all routes itself. Additionally, it is probably cheaper to outsource these flights to other airlines, rather than to purchase additional aircraft to cover those routes.

**Explain what qualitative factors might influence a business to accept or reject a product or service other than profit.**

If accepting the product or service had a negative impact on the business’s customer base, their employees or suppliers, the business might decide against accepting it, even if the figures projected were good (ie. profit). Additionally, they may accept a product or service, even though the figures projected are bad (ie. a loss), in order to stop their competitors from gaining full control of the market.

**If the contribution margin on a special order is positive, explain what might cause a business not to accept the special order.**

The business might not accept a special order, even though the contribution margin is positive, because they might lose existing customers if they cannot meet normal demand due to taking on the special order, there might be a negative impact on their employees (ie. a huge increase in working hours), there might be legal constraints that have caused a roadblock to the special order or their suppliers cannot meet the demand for the raw materials required to produce the special order.