BREAK EVEN POINT (BEP)

BEP is a point at which the total cost (expenses) and revenue are equal. It is a no loss and no gain situation for an entrepreneur.

Types of cost:

1. **Variable cost** : It is directly associated with product and increase by a step every time an extra product is sold. Generally, we assume that it follows linear relation with product (that may not be the case every time). Example – material cost associated with product, labour cost, energy cost etc.

2. **Fixed cost** : Those costs which has to be paid even if no product is sold. Example – rent, machine cost, interest on loans etc.

$$\boxed{\text{Variable cost} + \text{Fixed cost} = \text{Total cost}}$$

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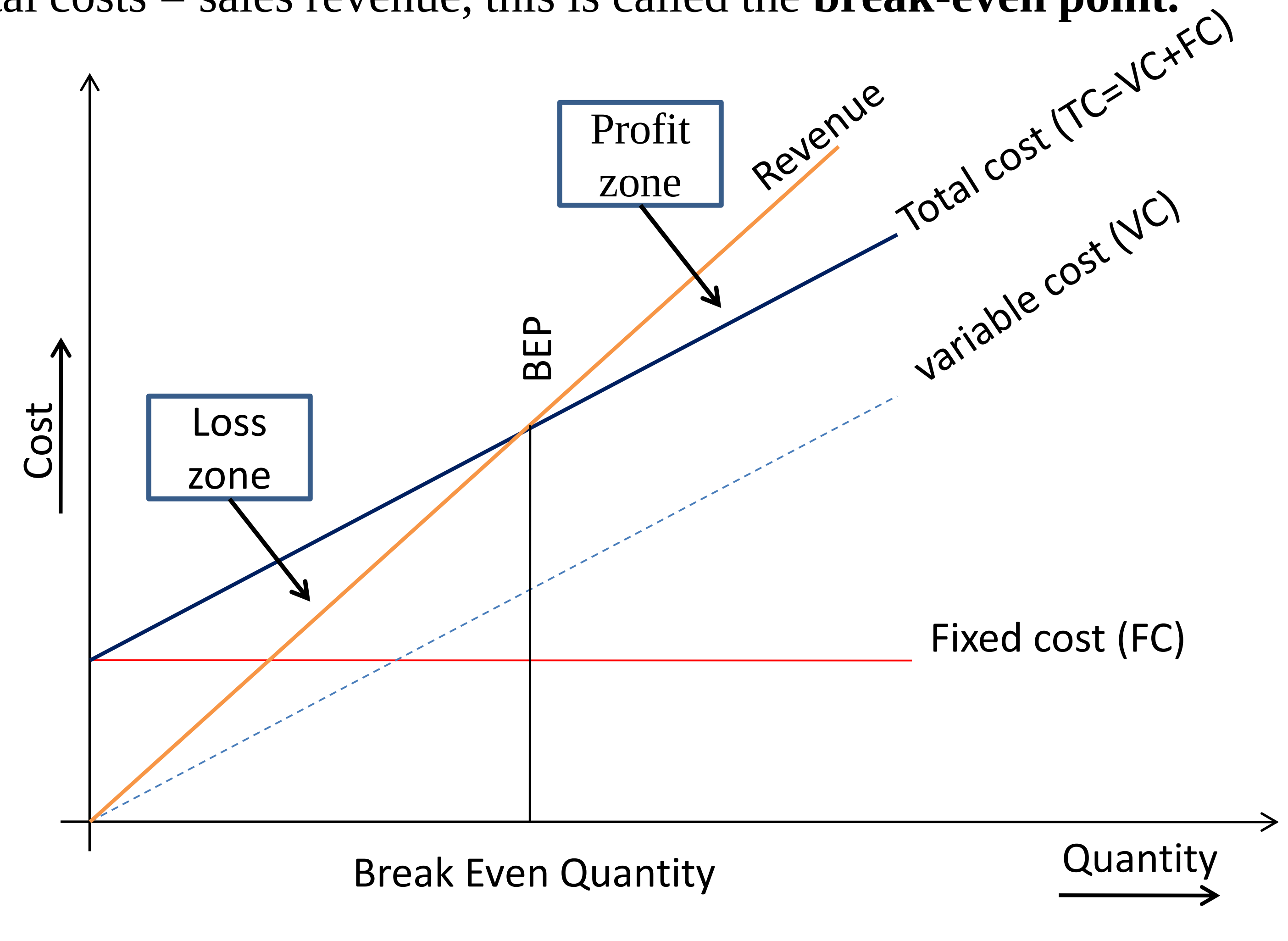
- When total costs = sales revenue, this is called the **break-even point.**



- Break-even point can be calculated by following equation. The equation method is based on the cost-volume-profit (CVP)formula.

$$pq = vq + FC + Profit$$

Where,
p is the price per unit,
q is the number of units,
v is variable cost per unit and
FC is total fixed cost

At break-even point the profit is zero therefore the CVP formula is

$$pq = vq + FC$$

Thus Break-even Sales Units (q)

$$q = \frac{FC}{p-v}$$