

1. ALGEBRAIC METHOD

- BEP is the ratio of Fixed cost to the Contribution per unit

$$\text{BEP} = (\text{Fixed cost}) / (\text{Contribution per unit})$$

where,

Contribution = Selling cost – Variable cost,

Fixed cost = Contribution - Profit

2.GRAPHICAL METHOD

- The point of intersection of the total cost line and the income line is called as the break even point
- Right of the BEP shows the profit potential while to the left represents the loss potentials
- BEP is also called “NO PROFIT NO LOSS POINT”

Break-even Point Representation



Limitations of B-E Chart Analysis

- In practice all the costs are not always either fixed costs or a variable costs. there are some semi variable overhead costs.
- In the long run all costs are variable, so the break even analysis holds good only for short run requirements.
- It is suitable only when the firm produces one type of product.

Relation of Production with Finance

- The relationship is integral.
- Production department is involved and concerned with the making of the product or development of the service.
- It is the heart of the business as they need to provide something that consumer wants.
- Production department deals with the making and development of product to make the consumer want it or feel that they need it in their life.

- The finance department deals with the all kind of monetary transfer that the business is involved with, and of course the production department is one of the biggest areas of loss.
- The production department needs to go about creating the product and in near enough every business ,there is the cost to creating the product of service hence the finance department will deal with how much of the firm's funds or assets are being lost to this and will decide whether the efficiency of the business is sufficient.
- The cost per unit will be monitored by the finance department and this is and incredible important concepts that overlaps between the two firms.

Relation of Production and Marketing

- Both are important parts of total business system aimed at providing consumer with need satisfying goods and services together
- They provides five basic economic utilities-form ,task, possession,time and place utilities that are needed to provide consumers satisfaction.
- Here utility means the power to satisfy human needs.

1. FORM UTILITY:

- This associated primarily with production, the physical and chemical changes that make product more valuable and satisfy consumer needs.
- Marketing thinking guides production side of business.
- Marketing decisions focus on the customers and include decisions about what goods and services to produce.
- Marketing is concerned with what customers want and it should guide what is produced and offered.

2. TASK UTILITY:

- It is provided when some one provide services to other or produces in tangible goods that are services to clients .this is associated with production.

3. TIME UTILITY:

- It means having the product available when the customers wants it . this is also provide it by marketing only.

4. PLACE UTILITY:

- It means having the product available where the customer wants it exists when a product is readily accessible to potential customers . this is also provided by marketing only.

WHAT IS 'KAIZEN'?

- Simply kaizen means '**continuous improvement**'.
- It is daily process, the purpose of which goes beyond simple productivity improvement.
- It is also process that, when done correctly, humanizes the workplace ,eliminates the overly hard work, and teaches the people how to perform experiments on their work by using scientific method and how to eliminate business waste.

Improvements in Production

- If we increase the output and reduce the input then we can increase the production efficiency.

$$\text{Efficiency} = \frac{\text{Output}}{\text{Input}}$$

- General ways of increase output are :
 1. Process improvement
 2. Regulate work flow
 3. Use more modern equipments
 4. Train and motivate employees



- General ways of decreases input are:

1. Improve quality

2. Minimize waste

3. Reduce the cost of labour

4. Reduce cost of supply


❑ Roll of Technology in Production:

- It is now quite difficult to imagine world without modern invention.
- Technology makes way for fast & efficient operations in manufacturing companies, as well as facilitates cost cutting measures.
- Technology brought significant changes to traditional production system that have been so beneficial to all industrial players, including suppliers and customers.
- A pharmaceutical company, for example employees advanced machinery in capsulising & wrapping medicine.

- Traditionally, the making of medicine was manually done.
- However, to prevent contamination & mitigate errors from human intervention, pharmaceutical companies have employed robots & computerized machines.
- It results in mass production of medicine at faster speed & lower cost.
- So advanced technology plays major roll in production. it will improve production rate and also product quality.

❑ Innovation in Production:

- Innovation is the act of introducing something new. it is associated with generation of new idea.
- In contrast, innovation refers to taking those new ideas and actually implementing them in marketplace.
- Developers create an invention designed to satisfy an existing market need.
- Developers assess the feasibility of the innovation in terms of both sales and production potential.

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- After this step, developers conduct research in order to manufacture the product successfully and to ensure that the product will satisfy market demand.
 - Finally, the new product is launched and its success is gauged. if needed , the product's marketing plan can be modified or the product itself improved.
 - Innovation is important part of production to satisfy consumer demand and is needed to be in a competition with others.



THANK YOU