# Quadrant I – Notes

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## Meaning of Economies of Scale

- Scale economies refer to reducing the unit costs of production and providing a lower price for consumers.
- Economies of scale are a key advantage for a business that is able to grow. The scale of production means the size of the production unit of a firm or business establishment.
- The scale of production can vary from very small scale to very large, depending on the quantity of output per unit of time of the firm.
- The motives behind large scale production are desire for economy, desire for large profits, desire for economic power and prestige, desire for increase of demand and desire for self-defense in a competitive market.
- Economies of scale are the cost advantages that enterprises obtain due to their scale of operation, with cost per unit of output decreasing with increasing scale.
- The advantage arises due to the inverse relationship between per-unit fixed cost and the quantity produced. The greater the quantity of output produced, the lower the cost.

- Economies of scale also result in a fall in average variable costs. This is brought about by operational efficiencies and synergies resulting in an increase in the scale of production.

**Types of Economies of Scale:**

- Internal Economies of Scale
- External Economies of Scale

**Internal Economies of Scale:**

When a firm expands its scale of production, the economies which accrue to this firm are known as internal economies of scale.

Basically these economies are unique to a firm. They are those which are open to a single firm independently of the action of other firms. They result from an increase in the scale of output of the firm and cannot be achieved unless output increases. They are not the result of inventions of any kind but are due to the use of known methods of production which a small firm does not find worthwhile.

Internal economies of scale arise from the growth of the business itself.

**Types of Internal Economies of Scale:**

1. Labor economies- As output increases, a large firm can attract more efficient labor, as it can offer a wide vertical mobility, better prospects of promotion, as a result of increasing specialization in the production processes. As such, the skill, efficiency & productivity of labor as a whole in such large firms rise, reducing the cost per unit of output.
2. **Technical economies**- it refers to the reductions in the cost of the manufacturing process itself. These relate to the methods & techniques of production specially to the nature & forms of capital employed. The various kinds of technical economies are as follows-
   a) **Economies of Superior Technique-** As a firm expands, it can use superior techniques & capital goods which produces greater output. This is true in the case of large firms but a small firm uses only ordinary machines which produces lower output.
   b) **Economies of Increased Dimension-** When a firm's dimension is increased, there is a mechanical advantage of using large machines which are more economical & produce greater output.

c) **Economies of linked process-** A large plant usually enjoys the advantage of the linking of processes i.e by arranging production activities in a continuous sequence without any loss of time.

d) **Economies in power-** Large units of machines and their continuous running by a large firm are often more economical in their power consumption as compared to a small machine.

e) **Economies of by products-** Large firms can make a more economical use of raw materials & avoid its wastage by using it for manufacturing certain byproducts.

f) **Economies of continuation-** Technical economy is also realized due to long run continuation of the process of production.

3. **Managerial economies-** With increasing output, greater managerial economies are enjoyed by an expanding firm. For a good manager can organise a large output with the same efficiency as he can organise a small output. An entrepreneur can delegate some of his functions to trained & specialized personnel in his various departments & can get better & more efficient productive management with scientific business administration. But economies in management can be realized only when production is on a large scale.

4. **Marketing economies-** A large firm can generally buy more cheaply than a small one because it can purchase raw materials on a large scale at a low cost and can also reap advantages of large scale marketing.

5. **Financial economies-** The important financial advantage enjoyed by a large firm is the existence of a ready market for its shares & its sound reputation in the capital market. Big firms are usually regarded as less risky by investors, hence they may be willing to lend capital to such firms even at a lower rate of interest than to small firm. Further, big firms can easily raise their capital by issuing shares & debentures.

6. **Risk bearing economies-** A large firm by producing a wide range of products is in a position to eliminate or minimize business risks by spreading them over. Risk- spreading advantages are sought by a big firm in the following ways-

   a) **By diversification of output**- As a big firm can produce a number of items & in different varieties, the loss in one can be compensated by gain in others.

b) **By diversification of market-** When a product is produced on a large scale, it can have an extended market throughout the country so that the danger of fluctuations in demand is reduced to the minimum.

c) **By diversification of sources of supply as well as of process of manufacturing**- In a large firm there are less chances of disruption of output as a result of scarcity of raw materials or breakdown of a particular process.

**External Economies of Scale:**

- External economies refer to gains accruing to all the firms in an industry due to the growth of that industry.
- All the firms in the industry irrespective of their size can enjoy external economies. External economies of scale can also be referred to as positive external benefits of industrial expansion.

**Types of External Economies of Scale:**

1. **Economies of localization-** When a number of firms are located in one place, all of them derive mutual advantages through the training of skilled labour, provision of better transport facilities, repairs & maintenance & other special services required by the industry. The cost of production is thereby reduced.

2. **Economies of information or technical & market intelligence**- Statistical, technical & other market information becomes more readily available to all firms in a growing industry. And each firm enjoys the benefit of research which is done jointly.

3. **Economies of vertical disintegration**- The growth of industry will make it possible to spilt up production & some subsidiary jobs can be left to do more efficiently by specialized firms which will yield all the internal economies of large scale production.

4. **Economies of By-products-** A large industry can make use of waste raw materials for manufacturing by-products. The firm using it can flourish when waste material available in the industry is converted into by-products.

**Meaning of Diseconomies of scale:**

- Beyond a certain limit, certain disadvantages of large scale production emerge. When there is an expansion of the firm beyond an optimum limit, the very internal & external economies of the firm turn out to be diseconomies.
- These diseconomies by raising the average cost of production, act as a limiting factor on the further expansion of the firm.
- Since economies of large scale production are not available beyond a certain point, a firm cannot expand its size indefinitely

**Types of Diseconomies of Scale:**

- Internal Diseconomies of Scale
- External Diseconomies of Scale

**Internal Diseconomies of Scale-**

- These are factors that are directly controlled by the firm. For instance, the organizational structure and process management can become too complex if it is not controlled efficiently.
- This can lead to miscommunication and duplication of work, and therefore, diseconomies of scale.

**Types of Internal Diseconomies of Scale:**

1. **Technical diseconomies-** occur during the production process. It costs the firm more to produce more goods or services. When expanding, the firm may increase production beyond reasonable capacity. Subsequently, this overcrowding may lead to inefficiencies in terms of poor staff morale, and staff getting in each other's way. Technical diseconomies of scale can happen when a firm grows quicker than it is able to adapt. These generally occur when a firm invests heavily in new capacity. In turn, the average cost of production increases.
2. **Organizational diseconomies-** occur when a larger workforce becomes more difficult to manage and plan the schedules, wages, and other factors for the new workers. In turn, additional managers, accountants and lawyers will have to be hired thereby adding to costs. Inefficiencies arise with regards to the management of people. Such effects include

inefficient communication for all involved and lack of motivation as the firm grows bigger. Employees can feel demotivated, thereby under-performing and creating inefficiencies.

3. **Purchasing diseconomies-** Sometimes, big firms can end up paying more than it would as a small company. Naturally, if a big firm wants an asset, good, or service, it is willing and able to do so despite the price. This is because it has both the desire and resources. The effects of purchasing diseconomies include higher costs as firms are likely to overpay for goods and services. Greater waste generation as management may buy resources that employees do not need.

4. **Financial Diseconomies-** As a firm grows bigger, it may look to buy new factories. In turn, it will require new sources of funding. This creates an additional cost that smaller firms do not always have. As costs of financing increases, so too do the costs of managing financial records. In turn, the final cost of production can increase if productivity does not grow over and above these costs.

**External Diseconomies of Scale:**

External diseconomies refer to costs that increase due to factors outside of the company but impact the whole industry.

In other words, as the industry grows, diseconomies occur that directly impact on the individual firm. So external diseconomies occur when the industry expands other than the individual company.

**Types of External Diseconomies of Scale:**

1. **Diseconomies of Pollution-** As an industry grows larger, it can create additional costs for the local or national population. Pollution is not a cost that is necessarily borne by the company, but it can have a heavy cost to both employees and local residents.

2. **Diseconomies of High Factor Prices-** In all industries, require a number of natural resources. These could range from labour, land to physical resources. The fact is that as an industry grows larger it uses more resources. In turn, the existing resources become rarer and consequently more expensive. As a result, the cost of production

inevitably increases. As a natural resource becomes rarer, it is inevitable that higher prices will result.

**3. Diseconomies of Strains on Infrastructure-** Infrastructure diseconomies occur when an industry grows so large that it starts to put a strain on local infrastructure To be sure, certain industries are prone to infrastructure diseconomies than others.

**Conclusion:**

- Economies of scale occur when more units of a good can be produced on a larger scale with fewer input costs. Diseconomies of scale also exist, which occurs when inefficiencies exist within firms resulting in rising average costs. Growth brings both advantages and disadvantages to a business.
- When making a strategic decision to expand, firms need to balance the effects of different sources of economies of scale and diseconomies of scale, so that the average cost of all decisions made is lower, resulting in greater efficiency all around.

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