Micro Economics Fundamentals

Unit III

Que : Explain the Economies and Diseconomies of scale.

When we talk about the scale of production of a firm, we often hear about the fact that large-scale production, usually, helps in reducing the cost of production. Economies of scale refer to these reduced costs per unit arising due to an increase in the total output. Diseconomies of scale, on the other hand, occur when the output increases to such a great extent that the cost per unit starts increasing. In this article, we will look at the internal and external, diseconomies and economies of scale.

Internal and External Economies :

When a firm opts for large-scale production, the economies arising out of it are grouped into two categories:

1. **Internal economies** – economies of production that the firm accrues when it increases the output leading to a drop in the cost of production. These arise due to endogenous factors like entrepreneurial efficiency, talents of the management team, type of machinery, etc. These economies arise within the firm and help the firm only.
2. **External economies** – these are the benefits that each member firm of the industry accrues due to the expansion of the entire industry.

Internal Diseconomies and Economies of Scale :

The returns to scale, we observed that they increase during the initial stages, remain constant for a while, and then start decreasing. The reason is simple – initially, the firm enjoys internal economies of scale and after a certain limit, it suffers from internal diseconomies of scale.

Technical :

Large-scale production is linked to technical economies. When a firm increases its scale of operations, it needs to use a more specialized and efficient form of capital equipment and machinery. Such machinery helps to produce larger outputs at a lower unit cost.

Further, as the scale of production increases and the amount of labor and other factors becomes larger, the firm manages to reduce costs by introducing a degree of division of labor and specialization. However, beyond a certain point, the firm experiences diseconomies of scale. This happens because after reaching a large enough output, the firm utilizes almost all possibilities of the division of labor and employment of efficient machinery.

Post this, any increase in the size of the plant causes the costs to rise. When the scale of operations becomes too large, the management finds it more difficult to control and coordinate the operations.

Managerial :

As the output increases, the firm can apply the division of labor to the management as well. For example, the production manager can look after production, the sales manager can look after sales, etc. When the scale of production increases further, the firm divides each department into sub-departments like sales is divided into advertising, exports, and service.

Thus helps in increasing the efficiency and productivity of the management team since a specialist manages each sub-department. However, as the firm increases its scale of operations beyond a certain limit, the management finds it difficult to control and coordinate between departments. This leads to managerial diseconomies.

Commercial :

As a firm increases its volume of production, it requires large amounts of raw material and components. Hence, it places a bulk order for such material and components and enjoys discounted pricing for them. Economies are also achieved during sales. If the sales staff is working under-capacity, then the firm can sell additional output at little extra cost.

Further, as the scale of production increases, the advertising cost per unit fall. Hence, the firm benefits from economies of advertising too. After an optimum level, these economies start becoming diseconomies though.

Financial :

When a firm wants to raise finance, a large-scale firm has many benefits like:

- Better security to bankers
- Well-known
- Can raise finance at lower costs, etc.

However, after the optimum scale of production, the financial costs rise faster due to the increased dependence on external finances.

Risk-bearing :

A firm enjoys the economies of risk-bearing if it has a large-scale operation with diverse and multi-production capabilities. However, if the diversification increases the economic disturbances rather than covering them, then the risk increases.

External Diseconomies and Economies of Scale :

External diseconomies and economies of scale are very important to a firm. These are the result of the expansion of output of the entire industry and not limited to an individual firm. They are available to one or more firms in the following forms:

Cheaper Raw materials and Capital Equipment :

At times, the expansion of an industry results in new and cheaper sources of raw material, machinery, and other capital equipment. It also results in an increased demand for the various types of materials and equipment required by the industry.

Hence, such materials/equipment can be purchased from other industries on a large scale. This, eventually, leads to a lower cost of production and lower price. Therefore, firms using these materials/equipment get them at lower prices.

Technological External Economies :

Usually, when an entire industry expands, new technical knowledge is discovered leading to new and improved machinery for the said industry. This changes the technological coefficient of production and enhances the productivity of the firms in the industry. Hence, the cost of production reduces.

Development of Skilled Labor :

As the industry expands, the labor gets accustomed to managing various production processes and learns from the experience. This increases the number of skilled workers which in turn has a favorable effect on the levels of productivity.

Growth of Ancillary Industries :

When a certain industry expands, many ancillary industries start specializing in the production of raw materials, tools, machinery, etc. These ancillary industries offer the materials/machinery at a low price.

Similarly, some ancillary industries also start processing industrial waste and create a useful product out of it. Overall, it leads to a lower cost of production.

Better Transportation and Marketing Facilities :

An expanding industry, usually, results in better transportation and marketing networks. These aspects help reduce the cost of production in the firms from the industry.

It is important to note that, certain disadvantages can neutralize the advantages of the expansion of industry and cease the external economies of scale. These are external diseconomies. When an industry expands, the demand for certain materials and skilled labor increases.

If these factors are in short supply, then their prices can increase. Further, the geographical concentration of firms from the industry can lead to higher transportation costs, marketing costs, pollution control costs, etc.