

Production-Costs-Economies

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Introduction

- To produce any good or service we need resources.
 - Resources can be raw material, labor, plant and machinery, land/office, computing infrastructure, etc.
 - Resources = Input/Primary factors
 - By themselves the input factors cannot produce any output.
 - Input factors when optimally deployed in combinations produce the desired output.
 - For e.g., assume you are a breakfast vendor
 - What would be your resources?
 - How will you combine these resources for a desired output?
 - If you have to construct a building what would be your resources?
 - Identify fixed factors/resources
 - Will these factors by themselves help you erect a building?
 - Discuss your strategy on how you will use your resources to construct a sturdy building
- Production function refers to *relationship* between input and output
 - $Y = f(X_1, X_2, \dots, X_n)$
 - What is Y here?

Production Function

- $Y = f(X_1, X_2, \dots, X_n)$
- Relationship between Y and X is purely physical or technological in character.
- Production function ignores the prices of inputs and outputs.
- Establishes the maximum output that can be achieved with a given set of resources and with a given set of technology.
- So basically we are talking of 'allocation efficiencies' or 'economic choice'

Economies of Scale

- When you buy something in bulk you get huge discounts. Why?
 - So the manufacturer is passing on his cost advantage to you. Isn't it?
- When the manufacturer has a large production facility his cost of production is generally lower. How?
 - How about books that you find in the library? Will the producer incur higher/lower costs in producing say 3000 copies versus 1000 copies?
 - How about this class? What would happen if we add 10 more students to the classroom? Will my cost of producing this lecture increase?
 - If yes, how?
 - If no, what are the benefits to MEC?
 - Extra revenues for the same cost incurred. Isn't it?

Economies of Scale

- Check the carrying capacity of this classroom?
 - What if another 30 new admissions happen? What will change?
 - We need an additional classroom, projector, furniture, mic system...
 - What does that mean?
 - Now assume there is no spare capacity. There is no spare classroom. What would MEC have to do?
 - Does it reject the new order/admissions?
 - Does it create a new facility for the new order?
 - If new facility, then would MEC's production cost go up again?
- So now we are talking of two type of costs – Fixed and Variable
 - In the MEC example which are fixed costs and which are variable?

Types of Economies of Scale

- External
 - Available to every firm in the industry
 - Are not specific to the firm
 - For e.g., construction of a new port or a new railway freight line or a new highway; introduction of a new flight sector; industry ready B.Tech students, availability of newer and cheaper technologies, reduction in taxes, etc help all firms to cut down on their costs
- Internal
 - Labor economies – skilled workers and therefore division of labor is easier
 - Managerial economies – better professionals can be hired
 - Financial economies – better collateral and hence easier access to finance
 - Technical economies - Haleem cooking
 - Marketing economies – more reach and frequency can be attained in advertisements
 - Sourcing economies – bulk buying helps get better discounts
- How do you think Reliance Jio is placed now?
- Economies of scale has linkages with fixed costs.