TUTORIAL #23: THEORY OF THE FIRM & MARKET STRUCTURE

Part 1: Costs of Production

Section A – Complete BEE questions 1- 2 in lecture notes (Part 1) and the following Concept Check Questions [*Answers will be available on Moodle*]

Concept Check Questions

Q1. Are the following short-run or long-run adjustment? (a) Wendy's builds a new restaurant; (b) Acme Steel Corporation hires 200 more production workers; (c) A farmer increases the amount of fertilizer used on his corn crop; and (d) An Alcoa plant adds a third shift of workers

In theory, the SR is defined as a period when quantity of fixed factors cannot be altered or changed. Whereas, the LR is defined as a period when ALL factors (including fixed factors) can be altered/changed.

(a) Long run (Plant is a fixed factor)
(b) Short-run (Production worker is a variable factor)
(c) Short-run (Fertilizer is a variable factor)
(d) Short-run (Factory workers/factory operator is a variable factor)

FYI: However, in reality firms are always operating in the SR. The LRAC is a planning curve.
Once a given plant size, no matter how big is built, it cannot be altered in the SR.

Q2. Distinguish between explicit and implicit costs, giving examples of each.

Firms use 2 types of resources to produce an output:
(1) Paid for (resources that doesn't belong to the owners of the firm)
(2) Unpaid for (resources that belong to the owners of the firm)

These gave rise to the distinction between explicit and implicit costs.

Explicit costs are cost incurred when an actual monetary payment is made.

These are direct payments to <u>factors of production that are not owned by the firm</u>.
For example, wages to its employees, utilities bills, cost of raw materials.

Implicit/Imputed costs are not actual payment made for the use of resources. They represent <u>opportunity cost incurred</u> in using resources which belong to the owners of the firm.
Typical examples:

(1) O.C. of using own premises (ie Forgone rentals – rentals that could have been collected if building is rented out to others)

(2)O.C of using owner's labour (ie forgone salary - salary the owner of a firm forgoes by operating his or her own firm and not working for someone else

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(2) O.C. of using own capital (ie forgone interest – interest that could have been earned should he save in a bank or loan it out to others)

Q3. Gomez runs a small pottery firm. He hires one helper at $12,000 per year, pays annual rent of $5,000 for his shop, and spends $20,000 per year on materials. He has $40,000 of his own funds invested in equipment (pottery wheels, kilns, and so forth) in the previous year that could earn him $4,000 per year if alternatively invested. He has been offered $15,000 per year to work as a potter for a competitor.
He estimates his entrepreneurial talents in other areas are worth $3000 per year.
Total annual revenue this year from pottery sales is $72,000. Calculate accounting profits and economic profits for Gomez's pottery this year.

Explicit costs (direct payments to factors of production that are not owned by the firm) : $37,000 (= $12,000 for the helper + $5,000 of rent + $20,000 of materials).
Implicit costs (do not involve direct payment to a third payment, but which nevertheless involve a sacrifice of some alternative which means an opportunity cost is incurred): $ 22,000 (= $4,000 of forgone interest + $15,000 of forgone salary + $3,000 of entrepreneurship/ implicit cost of risk bearing/normal profits).

Accounting profit = $35,000 (= $72,000 of revenue - $37,000 of explicit costs)
Economic profit = $13,000 (= $72,000 - $37,000 of explicit costs - $22,000 of implicit costs).

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