Final Exam ECO1104

Chapter 12:

COST OF PRODUCTION

The Cost of production: Everything that happens-management, engineering, marketing - is directed toward generating as large a profit as possible.

- ★ BOTTOM LINE: profit is the very last line on the company's income statement
- ★ DOUBLE/TRIPLE BOTTOM LINE value not only $$ social + environmental impacts

Total revenue: Amount received from the sale of goods and services

Total Cost: Amount paid for all inputs that go into producing goods and services

- ★ One-time expenses .... Machines
- ★ Ongoing expenses... rent, salaries, raw materials

Profit: Difference between total revenue/ total cost profit = total revenue- total cost

Revenue: Quantity of each product the frm sells, multiplied by the price at which it's sold

Fixed Cost: Don't depend on the quantity of output produced(machines, buildings..)

Variable Cost: depend on the quantity of output produced (raw materials that go into production

Explicit Costs: Fixed/variable costs (spend $$: rent, labour materials, machines)

- ★ Require a firm to spend money

Implicit Costs: Represent forgone opportunities - that could have generated revenue IF the firm had invested its resources another way

- ★ Do not require a firm to spend money

Accounting profit: Total revenue - Explicit costs

Economic Profit: Total revenue - opportunity costs

- ★ Economic profit = Total revenue - explicit costs - implicit costs
- ★ There is more profit from financial investment than enterprise

Inputs: Go into production (raw material, machine, time, ideas

Outputs: Goods and services produced

Production Function: Relationship between the quantity of inputs and the quantity of outputs.

Marginal production: Increase in output that can be produced by additional investment

Marginal Cost: The cost added by producing one additional unit of a product or service.

Diminishing marginal product: Principle states that the marginal product of an input decreases as the quantity of the input increases

Cost Curve

When a firm increases its output by adjusting its use of inputs, it incurs the costs associated with that decisions

- ★ Cost of an input won't decrease simple because you have reached a point of diminishing marginal product

Total Cost Curve:

- Total cost curve is the sum of variable and fixed costs
- Slope of total cost curve reflects diminishing marginal product
- Each additional worker costs the same, but adds fewer additional pizzas
- Fixed cost stay the same

The Costs of Production

- Average fixed cost decreases as output increases
- Average variable cost reflects the marginal product of inputs
- Average total costs is above added together

Production: the difference between the costs that firms face in the short run and the long run reflect this need for production adjustment time.

- By changing scale, a firm can move along the long-run ATC curve from one short-run ATC curve to another
- When a firm moves along the long-run cost curve, it does so by choosing to move to the **short-run** cost curve associated with a larger/smaller firm

Long run: however long it would take for a firm to vary all of its costs

Reuters to scale: describes the relationship between the quantity of output and
average total cost

Economies of Scale: operating on a larger scale may lower average costs

Diseconomies of scale: Point at which increasing scale leads to higher average costs

Constant Returns to Scale: Various scales at which a firm can operate without experiencing higher or lower average costs.

A supply Curve: gives the relationship between $$ and quantity supplied. In order to examine the firm's willingness to produce and sell at a certain price, one has to know something about the COST STRUCTURE - relationship between a firm's operating level (output) and its per-unit production costs.

1. Distinction between fixed costs and variable costs
    a. Fix cost = rent, property tax, insurance, labour, energy, raw materials
2. Distinction between long-run costs and short-run costs. In the short run, at least one factor of production is fixed(capital stock, land) and one factor is variable(labour). We assume that diminishing marginal returns applies to the labour input, and this is true in the short run only.

3. DIstinction between the cost LEVEL (TOTAL $$ THAT FIRM HAS TO PAY TO ITS FACTOR HOLDER) and the PER-UNIT or AVERAGE costs. These latter quantities are MOST important for firm supply relationships.
    a. These per-unit costs differ according to the level of operation of the firm.
        i. Usually low levels of operation are associated with high per-unit costs,
        ii. Medium-range levels of production are associated with low per-unit costs
        iii. Higher levels of output are associated with rapidly rising per-unit costs
    b. EXAMPLE:
        i. The MORE iphones apple makes
        ii. HIGHER TOTAL COST OF PRODUCTION
        iii. HIGHER LEVELS OF OUTPUT = LOWER COST PER UNIT

CHAPTER 13:

PERFECT COMPETITION

Competition helps make millions of products and services available and affordable to billions of people

- Profits depend not just on revenues, but also costs
- Keep production as long as Marginal cost is less than Marginal revenue
- Stop producing as soon as the two are equal

Profit-maximizing Quantity:

The point where MARGINAL REVENUE of the LAST unit exactly equals the MARGINAL COST

- When MARGINAL REVENUE > MARGINAL COST Profit increases
- When MARGINAL COST > MARGINAL REVENUE Producing another unit is negative
- At which the marginal revenue of the last unit is exactly equal to the marginal cost

- The Most extreme choice a firm can make about how much to produce is to produce nothing at all.

If Price < average total cost, the firm should exit the market
If Price > average total cost, the firm should enter the market

Behind the Supply Curve:

- **SHORT-RUN** supply assumes that the # of firms in the market is fixed
    - The total quantity of a good that is supplied at a given price is the sum of quantities each producer supplies
    -
- **LONG-RUN** supply assumes firms can enter and exit the market in the long run
    - # number of firms is not fixed, but changes in response to changing circumstances

SUPPLY INCREASE = INCREASE in QUANTITY

OPTIMAL QUANTITY: MR = MC

Each optimal quantity/ price pair adds a point on the curve

TOTAL QUANTITY SUPPLIED = SUM OF QUANTITY EACH FIRM SUPPLIES

In the LONG-RUN: A perfectly competitive market

- Firms earn 0 eco profit
- Firms operate at an efficient scale
- Supply is perfectly elastic
    - **P = MC = ATC**
    - **P = PROFIT**
    - **MC = MARGINAL COST**
    - **ATC= AVERAGE TOTAL COST**
- If the market moves away from minimum-of-ATC price, forms will enter or exit the market

- Quantity supplied increases/decreases quantity supplied until the equilibrium price
- LONG-RUN $ is the same at any quantity; the supply curve is horizontal

PRICE = min of ATC for the least-efficient firm in the market, not every firm

The last firm to enter the market earns zero economic profit; ATC is equal to $$

EFFICIENT FIRMS, lower ATC, can earn positive economic profits

1. Firms optimal production is he point at which price = marginal cost
2. Marginal cost curve intersects the average total cost curve at irs lowest point
3. Long Run economic profits are zero, meaning that price is equal to average total cost.
    a. **P = MR = MC**
    b. **MC = ATC at min of ATC (lowest point)**
    c. **P = ATC**

4 pre-existing features used to build the model of perfect competition:

1. Free entry into the industry
2. Perfect information regarding prices and quantity
3. Homogenous product
4. Many buyers and sellers

- In a perfectly competitive market **P=MR** always!!
-

SUMMARY

1. A perfectly competitive market has two essential characteristics and one that is non-essential but important. The first essential characteristic of a perfectly competitive market is that it contains a large number of buyers and sellers. The second is that sellers offer standardized goods so that buyers have no reason to prefer one producer over another at a given price. Finally, firms in competitive markets are usually able to enter and exit the market freely.

Key terms

COMPETITIVE MARKET: A market in which fully informed, price-taking buyers and sellers easily trade a standardized good/service

PRICE TAKERS: Buyers or sellers who CANNOT affect the market price

MARKET POWER: The ability to noticeably affect market prices

AVERAGE REVENUE: Total revenue divided by the quantity sold

MARGINAL REVENUE: The revenue generated by selling an additional unit of a good

Chapter 14:

MONOPOLIES

Monopoly: Firms has no competition and is able to totally control what it charges for its products

- KEY CHARACTERISTIC if barriers preventing firms other than the monopolist from entering the market

Perfect Monopoly: Controls 100% of the market in a product

- Firms can still have a large degree of monopoly power if they control slightly less than 100% of the market

Natural Monopoly:

- Gov. gets involved in natural monopoles to try to protect the public from abuse
- GOV. MAY CREATE OR SUSTAIN MONOPOLIES WHERE THEY WOULD NOT OTHERWISE EXIST
- patent/copyright give inventor/creator exclusive right to product/ sell it for a period of time

Barriers

- Scarcity in some key resources or input into the production process

- One firm est. a NATURAL MONOPOLY(market where a single firm can produce, at a lower cost than multiple forms)

Barriers to Market Entry:

- Aggressive tactics
    - Exclusivity agreements
    - Buying out competition
    - Aggressive persuasion
    - **Predatory pricing**
        - tep. slashing prices unit rival local stores are forced out of business
    - Buying innovation

Monopoly revenue

- In a competitive market, marginal revenue equals price
- Price is greater than MR therefore, price is also greater than MC at the optimal point

$$\text{Profit} = (P\text{-}ATC) \times Q$$

- Can achieve lower costs of production.. Chooses to produce at a price that is higher than MC causing deadweight loss.

Monopoly problems:

- Great for monopolist and not so great for everyone else
- Positive Statement (how things are)
- Normative judgment
    - A statement about how thighs should be
- Can be cases where people believe the advantages to maintain a particular monopoly outweigh the total welfare costs due to lost surplus

Public Policy:

Policy makers developed several policy responses to monopolies to break up monopoly, prevent new ones, and ease the effect of monopoly power on consumers

Competition Act - administered and enforced by the federal competition Bureau to

1. Promote efficiency/adaptability in canadian economy
2. Expand opportunities for Canadian participation in world markets

3. Ensure small/medium companies have equitable opportunities to participate in the canadian economy
4. Provide competition prices and product choices

Public policy

Bid rigging: collusion of the bidders to win a bid
Pyramid selling: business model that recruits member via a promise of payment or services for enrolling others into the scheme, rather than supplying investments or sale of product

Price maintenance: manufacture and distributors agree that the distributors will sell the manufacturer product at certain price

Tied selling: illegal practice of a company providing a product or service on the condition that a customer purchases some other product or service

Exclusive marketing: distribution arrangement when only certain retailers are given the option of carrying a product in its stores

Abuse of Dominance: when a dominant firm in a market, or dominant group of firms engages in conduct that is intended to eliminate or discipline a competitor or to deter future entry by new competitors, with the result that competition is prevented or lessened substantially
Possible solution for governments is to run natural monopolies as public agencies.

Public Ownership:

- Politicians may feel pressure to lower prices below the level of competitive market
    - Create shortages
    - People will demand more than it makes sense for the producer to supply at that price
- Publicly owned companies may make business decisions on basis of political concerns
- Loss of profit motive could reduce the publicly owned monopolist's motivation to improve efficiency and provide better services or lower costs

Public Regulation:

- Common intermediate step is to regulate the behaviour of natural monopolies
- Privatizing natural monopolies creates incentives: more motivation than a public monopoly to increase profits by innovating and reducing costs, resulting in lower prices for consumers
- If price is capped too low, firm will have no incentive to reduce costs or even go out of business

Vertical splits: to induce competition into parts

- Divided the original firm into companies that operate at different points in the production process
- Doing nothing might be preferable if regulation is too difficult to create or manage effectively
- If the government intervention is subject to corruption or political mishandling it might be better not to act.

Price discrimination:

- Practice of charging on aa basis different prices for the same good
- Involves discrimination between customers on basis oft heir willingness to pay
- Sell at price equal to average total cost and earn ZERO economic profit:
    - Unable to afford to offer discounted prices
    - Charging others higher prices would force them to the competition
    - Moving from model of perfect competition makes price discrimination possible.

Chapter 18

EXTERNALITIES

private cost: a cost that falls directly on an economic decision maker

external cost: any other cost that is imposed without compensation on someone other than the person who incurred it

social cost: add private costs to external costs

private benefits: benefits that accrue directly to the decision maker

external benefit: accrues without compensation to someone other than the person who caused it

social benefit:add private and external benefit

Externalities: external costs and external benefits

network externality: effect that an additional user of a good or participant in an activity has on the value of that good or activity for others network externalities imply that people can help

- or harm others simply by participating in a group network externalities can be positive or negative
- negative production externality: external cost when good or service is being produced

negative consumption externality: third-party cost when a good or service is being consume

positive consumption externality: third-party benefit when a good or service is consume

POSITIVE PRODUCTION EXTERNALITY

positive consumption externality: third-party benefit when a good or service is consumed

positive production externality : third-party benefit where a good or service is being produced

market failure: situations in which the actions of private individuals and firms are insufficient to ensure efficient markets

Coase theorem: individuals can reach an efficient equilibrium through private trades, even in the presence of an externality (e.g., pay Brazilian logging companies to maintain the rainforest)

PUBLIC SOLUTIONS TO EXTERNALITIES

Solutions ensure that economic decision makers experience costs/benefits equal in value to true social costs/benefits of their choices most public policy remedies involve taxes, subsidies, quotas, tradable allowances

Pigouvian tax: tax meant to counter effects of a negative externality

- setting the tax at the right level is difficult
- taxes effective at transferring surplus away from consumers/producers to government; no guarantee government can or will do anything to help the people who are bearing the external cost

SUBSIDIES AND QUOTAS

- Using subsidy to increase efficiency does not necessarily equal fairness
- Subsidy would maximize total surplus in society, but
- Distribution of surplus depends on where government gets the money to pay for the subsidies
- Limiting consumption to efficient quantity does not make the market efficient; resources end up allocated to those most willing to pay for them
- Maximizing surplus depends not only on volume manufactured, but also on who manufactures them
- Tax allows market to sort itself out in this way; a quota does not

Tradable allowance: production or consumption quota that can be bought and sold

- Tradable allowances result in efficient quantity of a good being bought and sold and maximizes surplus
- Tradable allowance creates a market in which quota rights are bought and sold among Private parties
- Pigovian tax is revenue collected by government

EXTERNALITIES:

- The height of the D curve represents consumers' willingness to pay for the last unit consumed, and this is also called the marginal benefit or the private value curve.
- The height of the S curve represents producers' willingness to sell the last unit produced, and this is also called the private cost curve .

There are two types of externalities – positive and negative

- For a positive externality,
    - the production (or the consumption) of the good in question confers an unintended benefit on another firm or party.
- For a negative externality,
    - the production of the good in question confers an unintended cost on another firm or party.

In either case, the producer does not care at all about the side effects (whether they be good or bad) that are imposed on others.