

NATIONAL UNIVERSITY OF SINGAPORE

NUS Business School

Department of Business Policy

BMA5001 Managerial Economics

Lecturer : A/Prof Shachat Jason

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PART A: PRELIMINARIES

1. Introduction to Market Economy and Managerial Economics (PR: Ch 1 & IP: Ch 1)

Motivation to Study Microeconomics

Endogenous Variables vs Exogenous Variables

Identify Goals and Constraints – Importance of Profit Maximization

Understanding Markets

Concept of Opportunity Cost

2. The Basics of Market Forces: Supply and Demand (PR: Ch2, 9 & IP: Ch 2, 3,6)

Supply, Demand and Market Mechanism

- Define Supply and Demand: Market Equilibrium

- Change in Quantity-Demanded(Supplied) vs. Change in Demand(Supply)

- Shifts in Supply and Demand: Changes in Market Equilibrium

- Predicting Market Prices: Elasticities and Application

Welfare Measures and Government Intervention(PR Ch 4, pp. 116-127 & Ch 9, pp. 288-293)

- Individual Demand and Market Demand

- Consumer Surplus and Producer Surplus

- Tax and Subsidy/Price Ceiling and Price Floors/Quantity Controls

- Deadweight Losses

Managerial Implications

PART B: BEHIND DEMAND AND SUPPLY

3. Consumer Behavior and Demand Analysis (PR: Ch 3 – Ch 4 & IP: Ch 2)

Consumer Behavior: Individual Demand

- Consumer Preferences: Utility Functions and Indifference Curves

Marginal Rate of Substitution

- Budget Constraints

- Consumer Equilibrium and Individual Demand: Utility Maximization

More on Individual Demand

- Price Changes: Individual Demand 'Curve'
- Income Changes: Normal vs. Inferior Goods
- Substitution and Income Effects of a Price Change
- A Special Case: The Giffen's Good
- Derivation of Market Demand
- Consumer Surplus Revisited

Managerial Implications

4. Production Theory (PR: Ch 6 – Ch 7 & IP: Ch 4)

Technology of Production

- Production Functions: Isoquants
- Input Flexibilities: Short Run and Long Run
- Production Function in SR(Labor as Input):

Law of Diminishing returns

- Production Function in LR(Labor and Capital as Inputs)

Diminishing Marginal Rate of Technical Substitution

Input Substitution

- Various Returns to Scale
- Isocost line and Isoquant: Optimal Input choice

Cost of Production

- Which Costs Matter?
- Costs in SR: TC, TVC, TFC, MC, ATC, AVC AFC
- Costs in LR and Optimal Input Choice revisited: Cost Minimization vs. Output Maximization
- Relation between SR and LR Costs
- Economies of Scale in terms of Cost Function

Managerial Implications

Miscellaneous Issues (may be skipped)

- Economies of Scope
- Learning Curves

PART C: MARKET STRUCTURE AND COMPETITIVE STRATEGY

5. Nature of Industry

Market Structure

Conduct

6. Competitive Markets (PR: Ch 8 – Ch 9 & IP: Ch 5-Ch 6)

Characteristics of Perfect Competition

Profit Maximization and Optimal Output Decision

- Short Run Decision and Short Run Profit

Short Run Shut-down Point of a Firm

Short Run Supply Curves/Producer Surplus

- Long Run Decision

Long Run Supply Curves

· Welfare Analysis of a Competitive Market

- **Efficiency of a Competitive Market**

- Market Failure: Introduction

· Government Intervention and Welfare Effects

- Maximum Prices (Price Ceilings)

- Minimum Prices (Price Floors)

- Price Supports (Price Floors + Public Buy-Up) and Production Quotas

- Import Quotas and Tariffs

- Production Tax and Subsidy

· Managerial Implications

7. Monopoly Power and Simple Pricing Strategies (PR: Ch 10 & IP: Ch 8 – Ch 9 to p. 304)

· Monopolist's Output Decision and Pricing Rule

- Single-Plant Monopoly

- Multi-Plant Monopoly

· Sources and Measurement of Monopoly Power

· Economic Efficiency of Monopoly

- Social Costs

- Rent Seeking

- Regulation and Anti-Trust Law

· Monopsony (may be skipped)

8. Sophisticated Pricing Strategies with Market Power (PR: Ch 11 & IP: Ch 9, pp. 305-343)

(1) First-, Second-, and Third-Degree Price Discrimination and Applications

· Managerial Implications

· Example: Coupons and Rebates

· Other Examples

(2) Two-Part Tariffs

(3) Bundling

(4) Transfer Pricing

9. Monopolistic Competition (PR: Ch 12, pp. 436-441)

- Characteristics of Monopolistic Competition
- Short Run and Long Run Equilibrium in a Monopolistic Competition
- Economic Efficiency of Monopolistic Competition
- Applications

10. Oligopoly (PR: Ch 12, pp. 441-)

- Characteristics of Oligopoly
- Strategic Interaction and Importance of ‘Conjectures’
- Oligopoly with Price Competition
 - Homogeneous Products: Bertrand Model
 - Differentiated Products
- Oligopoly with Quantity Competition
 - Simultaneous Move: Cournot Model
 - Sequential Move: Stackelberg Model (First Mover Advantage)
- Competition vs. Collusion
 - Prisoner’s Dilemma and Implicit Collusion
 - Price Rigidity in an Oligopoly
 - Price Signaling and Price Leadership
 - The Dominant Firm Model
 - Cartels

11. Game Theory and Competitive Strategy I: Concepts(PR: Ch 13 & IP: Ch 10)

- Introduction
 - Game, Strategy, and Payoffs
 - Noncooperative vs. Cooperative Games
 - Simultaneous vs. Sequential Movement Games
(Normal/Strategic Form vs. Extensive Form Games)
- Equilibrium Concepts
 - Equilibrium in Dominant Strategy
 - Nash Equilibrium and Refinements
 - Coordination Games
- Role of Rationality
 - Maximin Strategy

- Mixed Strategy

· Comments on Game Theoretic Reasoning and Extra Thoughts under Game Theory

12. Game Theory and Competitive Strategy II: Dynamic Settings (PR: Ch 13 & IP: Ch 10)

· Repeated Games and Backward Induction: Subgame Perfection

· Entry Deterrence and Building a Reputation

· First Mover Advantage and Commitment

· Examples

· Managerial Implications

13. Investment, Time and Capital Markets (PR: Ch. 15 – To be Skipped)

· Introduction

- Stock vs. Flow Variables

- Determination of Interest Rates

- Present Discounted Value

· The Value of a Bond

· Capital Investment Decision: The Net Present Value Criterion

· Risk Premium and Capital Asset Pricing Model (CAPM)

· Investment Decision by Consumers for Durable Goods

· Intertemporal Production Decisions (may be skipped)

PART D. UNCERTAINTY AND INFORMATION

14. Economics of Uncertainty (PR: Ch 5)

· Risk and Expected Utility

· Insurance Problem

· Copayments, Deductibles

· Examples

· Managerial Implications

15. Auctions (PR: Ch 13, pp. 491-497 & IP: Ch 12 – Ch 13 --- May be skipped)

· Sealed Bid Auction

· Dutch Auction

· English Auction

· Winner's Curse

16. Markets with Asymmetric Information (PR:Ch 17 & IP:Ch 12-Ch 13)

- Moral Hazard Problem (Hidden Actions)
- Principal-Agent Problem and Value of Information
- Examples
- Adverse Selection Problem (Hidden Information)
- Lemon Markets
- Insurance
- Other Examples
- Incentive Scheme/Mechanism Design: Signaling and Screening
- Managerial Implications