

SOUTH ASIAN UNIVERSITY
Faculty of Economics
M.A. (Development Economics)
Industrial Organization
Semester III (Monsoon Semester)

Objective: The course aims at providing an overview of industrial organization theory, with special emphasis on competition policy of the South Asian countries. Students are expected to have some prior training in advanced microeconomics and game theory. The unique feature of the course will be integration of theoretical concepts with practical applications in competition policy, with special emphasis on South Asian countries.

Topics:

1. History of IO and Theory of the firm

Brief history of IO and techniques used in analysis of problems in IO; theories of the firm (contractual view of the firm).

2. Imperfect competition: From monopolistic markets to oligopoly theory

A recollection of the theory of imperfect competition, starting from monopoly, monopsony to oligopolistic markets. Definition of market power and standard measures of market power. We cover natural monopoly, bilateral monopoly, intertemporal price discrimination in durable goods monopoly, bargaining models with a discussion on Nash bargaining equilibrium before discussing monopsony and oligopoly.

3. Product Quality and Advertising

Introducing the notion of product space, competition in quality and advertising. Persuasive advertising: Dorfman-Steiner condition, Informative advertising.

4. Product differentiation

Horizontal versus vertical differentiation, Horizontal differentiation models: Hotelling's linear city model and Salop's circular city model, Vertical differentiation: a modified Hotelling's model, Damaged goods.

5. Entry, Accommodation and Exit

Fixed versus sunk costs, Fixed costs in natural monopoly, Contestable markets, Sunk costs and barriers to entry: the Stackelberg-Spence-Dixit model, Taxonomy of business strategies with applications.

6. Collusion and anti-trust

Tacit collusion and anti-trust policy in South Asian countries; Analysis of some case studies of collusion in India and other countries.

7. Abuse of dominant power, limit pricing , predatory pricing and anti-trust
Definition of relevant market and abuse of dominant power in anti-trust analysis. Limit pricing and predatory pricing; Analysis of anti-trust cases involving limit and predatory pricing in South Asian countries.

8. Network externalities and anti-trust

Definition of network externalities, consumer lock-in, installed base and anti-competitive effects. Network effects and standardization of new technologies. Analysis of a recent anti-trust case in India involving network effects.

References:

Core Texts

1. Tirole, J., *The Theory of Industrial Organization*, MIT Press, 1988
2. Shy, O., *Industrial Organization: Theory and Applications*, MIT Press, 1995
3. Bellafiame, P. and M. Peitz, *Industrial Organization*, Cambridge University Press, 2010
4. Mas-Colell, A., M.D. Whinston and J.R. Green, *Microeconomic Theory*, Oxford University Press, 1995
5. Xavier, V., *Oligopoly Pricing: Old Ideas and New Tools*, MIT Press, 2001

Additional Topic-wise References (Additional Readings will be provided for each topic as well as these readings)

1. Imperfect competition: From monopolistic markets to oligopoly theory
 - a. Dixit, A. (1982), Recent Developments in Oligopoly Theory, *The American Economic Review*, 72(2), Papers and Proceedings of the Ninety-Fourth Annual Meeting of the American Economic Association, 12-17
 - b. Modigliani, F. (1958), New Developments on the Oligopoly Front, *Journal of Political Economy*, 66, 215-32
2. Product Quality and Advertising
 - a. Milgrom, P. and J. Roberts (1986), Price and Advertising Signals of Product Quality, *Journal of Political Economy*, 94 (4), 796-821

- b. Johnsen, T. (1976), Advertising, Market Equilibrium and Information, PhD Dissertation, Carnegie Mellon University
- 3. Product differentiation
 - a. Shaked, A. and J. Sutton (1982), Relaxing Price Competition Through Product Differentiation, *Review of Economic Studies*, XLIX, 3-13
 - b. D'Aspremont, C., Jaskold Gabszewicz, J. and J.-F. Thisse (1979), On Hotelling's 'Stability in Competition', *Econometrica*, 47, 1145-1150
 - c. Hotelling, H. (1928), Stability in Competition, *Economic Journal*, 39, 41-57
 - d. Salop, S.C. (1979), Monopolistic Competition with Outside Goods, *Bell Journal of Economics*, 10, 141-156
 - e. Matshushima, N. (2001), Cournot Competition and Spatial Agglomeration Revisited, *Economics Letters*, 73, 175-177
 - f. Deneckere, R.J. and R. Preston McAfee (1996), Damaged Goods, *Journal of Economics Management and Strategy*, 5 (2), 149-174
- 4. Entry, Accommodation and Exit
 - a. Jaskold Gabszewicz, J. and J.-F. Thisse (1980), Entry (and Exit) in a Differentiated Industry, *Journal of Economic Theory*, 22, 327-338
 - b. Kadiyali, V. (1996), Entry, its Deterrence and its accommodation: a study of the U.S. photographic film industry, *RAND Journal of Economics*, 27 (3), 452-478
 - c. Fudenberg, D. and J. Tirole (1984), The Fat-Cat Effect, The Puppy-Dog Ploy and the Lean and Hungry Look, *American Economic Review*, 74 (2), 361-366
- 5. Collusion and anti-trust
 - a. Cooper, T. E. (1986), Most-favored-customer pricing and tacit collusion, 17 (3), *RAND Journal of Economics*, 377-388
 - b. Werden, G. J. (2004), Economic evidence on the existence of collusion: Reconciling anti-trust law with oligopoly theory, *Antitrust Law Journal*, 719-800
 - c. Porter, R. H. (2004), Detecting Collusion, CSIO Working Paper No. 0051
 - d. Green, E. J. and R. H. Porter (1984), Noncooperative Collusion under Imperfect Price Information, *Econometrica*, 52 (1), 87-100
- 6. Abuse of dominant power, limit pricing , predatory pricing and anti-trust
 - a. Milgrom, P. and J. Roberts (1982), Limit Pricing and Entry Under Imperfect Information: An Equilibrium Analysis, *Econometrica*, 50 (2), 443-459
 - b. Rey, P. and D. Salant (2008), Abuse of Dominance and the Licensing of Intellectual Property, Toulouse School of Economics Working Paper
 - c. Rosenthal, R. W. (1981), Games of Perfect Information, Predatory Pricing and the Chain Store Paradox, *Journal of Economic Theory*, 25651-662, 92-100

7. Network externalities and antitrust

- a.* Economides, N. (1996), The Economics of Networks, International Journal of Industrial Economics, 14 (2), 673-699
- b.* Economides, N. and L. J. White (1994), Networks and Compatibility: Implications for antitrust, European Economic Review, 38, 651-662

Evaluation: There will be a midterm presentation carrying 40 per cent weightage and an end semester project carrying 60 per cent weightage.