ECONOMIC ANALYSIS OF COMPETITION LAW

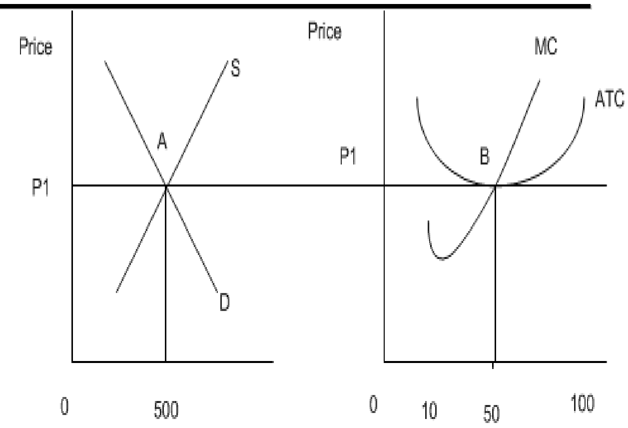
By Naveen Meena
From Gujarat National Law University

INTRODUCTION

Competition is understood to mean as process of rivalry in order to attract more consumers to enhance profits. Competition law aims to protect the free market. It attempts to ensure that there is continuous competition between sellers. Competition law is about identifying market and checking if it's a competitive one. It keeps a check on restrictive trade practices and abuse of dominant position. Competition law is about economics and economic behaviour. Therefore, economic analysis can play a major role in understanding various concepts of competition law. This is because economic analysis of law is the application of economic methods to the analysis of law. It helps in understanding how market works, detecting cartels, and identifying relevant market to prevent abuse of dominant position.

PERFECT COMPETITION

It is widely advocated that consumer welfare is maximized when a market is perfectly competitive. In a perfectly competitive market there are a large number of buyers and sellers who sell homogeneous products in a market where there is free entry and free exit of the players and everyone has perfect information.



In a perfectly competitive market, number of buyers and sellers is very large therefore, each of them influences a very small fraction hence, change in the behaviour of either of them will not affect the market price or market supply. The price in a perfect competition is determined solely by the forces of demand and supply. When consumers are willing to pay a certain price at a given level of output and the sellers are willing to sell that level of output at the same price because they are able to recover their cost of production and also earn normal profit, then at that level of output is the equilibrium point on which prices will be determined.

MONOPOLY

In the monopolistic market, the monopolist possesses maximum market power, having full control over the price and output level. The monopolist will set his output level in such a manner that he earns supernormal profits. This level will be below the level set in a competitive market.

A monopoly industry has the following characteristics:

• it has a single seller

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• high barriers to entrance keep other firms from arriving in the industry, and
• no close substitute exists for its product

A monopoly industry can have a single firm or it can have a number of firms that organize and act together for their joint profit.

Equilibrium and Price Determination

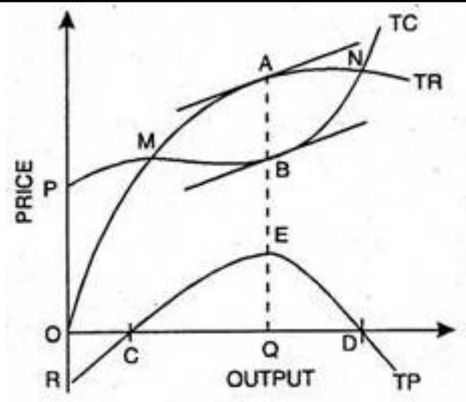
There are two alternatives to arrive at the equilibrium point under a monopoly which will determine the monopoly price.

1. Total Revenue and Total Cost Approach.

2. Marginal Revenue and Marginal Cost Approach.

1. Total Revenue and Total Cost Approach:

Monopolist can make maximum profits when variance between TR and TC is maximum. Difference between TR and TC is nothing but profit. Any rational seller would always strive to maximize his profit. Therefore, the level of output where monopolist earns maximum profits is called the equilibrium situation. This can be explained with the help graph produced below.



In Fig. 2, TC is the total cost curve. TR is the total revenue curve. OP represents the fixed costs.

TP is the total profits curve. It begins from point R presenting that at first firm is faced with negative profits. Now as the firm upsurges its production, TR also growths. But in the preliminary stage, the rate of increase in TR is less than TC.

As the TP curve extents point E then the firm will be getting maximum profits. This sum of output will be termed as equilibrium output.

2. Marginal Revenue and Marginal Cost Approach:

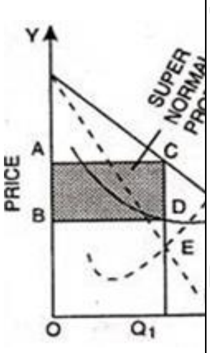
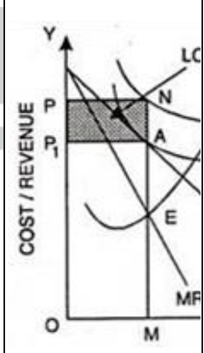
There are two conditions which must be fulfilled at the point of equilibrium.

- Marginal revenue = marginal cost.
- MC must cut MR from below.

The equilibrium under this approach can be examined in short run as well as long run.

Short Run Equilibrium under Monopoly:

Short run is period during which a firm cannot change its fixed capital. Therefore, in the short run fixed cost remains constant and any increase in production which is desired would through making fuller use of the variable factors of production. Capacity of production cannot be expanded. There are three possible outcomes in short run, that the firm will earn supernormal profits, normal profits or incur losses. This is because the monopolist might have to incur losses in short run due to various reasons like fall in demand, economic crisis but that doesn't necessarily mean that the firm will stop production as soon as it stops earning profit. The firm can feasibly continue production till the time it's able to recover the average variable cost of production from the price.

Super Normal Profits	**Normal Profits**	**Minimum Losses**
• MC= MR. • Price > AC Price is the Average Revenue earned by firm on each output.	• MC = MR • Price = AC Average cost includes normal profits	• MC = MR • Price = SAVC Short run average cost includes both fixed and variable cost.
		

In this graph it can be seen that the monopolist is in equilibrium at point E where the conditions of equilibrium are fulfilled i.e., MR = MC and MC intersects the MR curve from below. The price at which output is sold at E is more than average cost. Consequently, in this situation total profits of the monopolist will be equal to shaded area ABDC.	In the above graph M is the level of equilibrium output and at this point average cost is equal to average revenue. Hence, the monopoly firm enjoys the normal profits.	In the above graph SAVC or the short run average variable cost is equal to the average revenue at the equilibrium point E. It denotes that the firm will only cover average variable cost from the prevalent price. At OP_1 price, firm will tolerate loss of fixed cost.

Long Run Equilibrium under Monopoly:

Long-run is the phase in which output can be altered by changing the factors of production. There is no fixed cost. The monopolist could chose to expand his plant capacity to whatever extent he finds desirable considering the demand. Here, equilibrium would be accomplished at that

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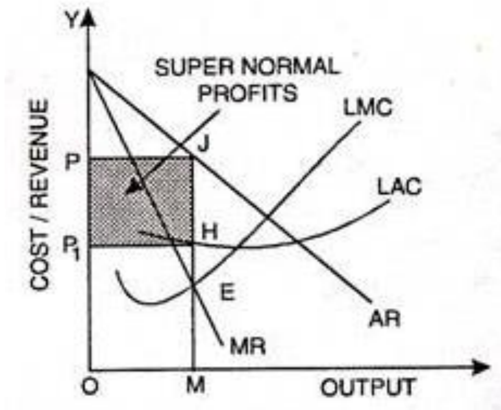
level of output where the long-run marginal cost cuts marginal revenue curve from below.



In the graph point E is the point of equilibrium and the level of output OM is sold at a price OP which is definitely more than the average cost thus, resulting in supernormal profits. His over-all super normal profits will be equivalent to shaded area $PJHP_1$.

The profit earned by the monopolist is at the cost borne by consumer and the cost of consumer surplus. Consumers are paying a higher price than the in a competitive market for the same product. The problem is that the production of output is intentionally low to create stringent supply and hence increase in prices.

Impediment to Innovation

Monopoly impedes innovation and cost minimization because the seller has no incentive to do so. When an industry is monopolized, price rises above and output falls below the competitive level. Those who continue to buy the product at the higher price suffer a loss, but this loss is exactly offset by the additional revenue that the monopolist obtains by charging the higher price. Other consumers, who are deflected by the higher price to substitute goods, suffer a loss that is not offset by gains to the monopolist. This is the "deadweight loss" from monopoly, and in conventional analysis the only social cost of monopoly. The loss suffered by those who continue to buy the product at the higher cost is regarded merely as a transfer from consumers to owners of the monopoly seller and has not previously been factored into the social costs of monopoly.[1]

However, Joseph Schumpter argues that economic welfare is maximized over time as a result of succession of monopolies, a process of dynamic competition that he called "the gale of creative destruction".
The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.[2]

It means that Each monopolist wrests control of the market from his predecessor by cost reducing and improving and innovating, that give him a temporary monopoly that enables him to recoup the

[1] Social Costs of Monopoly and Regulation, Richard A. Posner available at: http://www.nber.org/papers/w0055 last accessed on January 01, 2018.
[2] Joseph A. Schumpter, *Capitalism, Socialism, and Democracy* (1942) 81- 106.

expense of his innovation with a sufficient profit to compensate for the risk of failure.

However, another approach can be, firms in a competitive market try to become a monopolist by innovation. The only argument in favour of monopoly being the starting point of innovation is that the monopolist would be able to reap maximum benefits of the innovation, whereas in the competitive market the benefits will be shared by the other competitors as well. On the other hand, arguments against monopoly are innumerable. In a monopoly there is inertia to innovate if the firm is already earing a profit. It also depends on the ability of the monopolist to innovate and to improve the efficiency as a result. Odds of coming up with a better method are in a market where there are more firms trying to find it.

OLIGOPOLY AND CARTELIZATION

Oligopoly is a market structure in which a small number of firms has the large majority of market share so much so that a change in the output of any one of these firms will discernibly affect the market price which would have to be maintained over a significant period of time. It is said that Oligopoly is the inception of cartelization.

GAME THEORY

One of the very prevalent instruments for analyzing oligopolistic behaviour is Game Theory. It deals with searching for a combination of strategies that represent the best strategy for every competitor or player who is presumed to make a rational decision in order to maximize profits after taking into account possible reactions of the other players.

There are several approaches to game theory. In reality however, the market game is played infinitely or indefinitely. Firms can choose to price low, to compete vigorously, to the detriment of all the sellers or choose to reduce the competition. The best strategies of each firm to maximize its profits, given the strategies chosen by the other competitors is known as 'Nash equilibrium'. There exist plethora of different equilibria, amongst which collusive one is possible.[3]

There is always an incentive to cheat in case of collusion by charging low prices to earn profits. The cost of ensuring that the colluded price is maintained includes cost of detection, monitoring and punishing the deviant. If such cost outweighs the loss arising from deviating from the colluded price then collusive equilibrium could not be maintained.

Many economists contend that oligopoly market structure creates the market price of the commodity inelastic, i.e. the market price doesn't change freely in response to deviations in demand. The main reason for this lies in the manner in which oligopoly firms respond to a change in price commenced by any firm.

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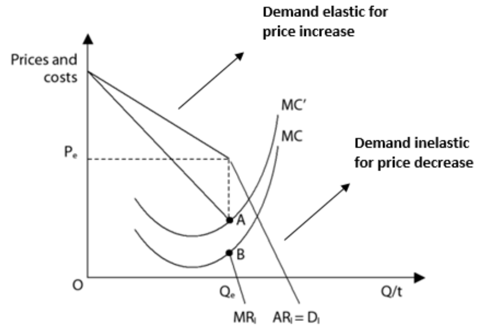
[3] Sigrid Stroux Economics of Oligopoly , European University Institute, Italy (2002) available at: http://cadmus.eui.eu/bitstream/handle/1814/184/law02-6.pdf last accessed on January 02, 2018.



The graph shows the kinked demand curve model. It depicts that in an oligopoly firms are reluctant to change prices and indulge in non- price competition.

When an individual firm increases the price of the product, other firms will not respond with subsequent increase in price. As a result, there is availability of the same product at lower prices so the consumers shift to other sellers. This leads to substantial loss of earnings for the firm who increased the price in the first place.

On the other hand, if a firm wants to maximize its revenue by selling a larger quantity of output and therefore lowers the price at which it sells the commodity, other firms would subsequently lower their price as well to retain their customers. The rise in the total quantity sold due to the lowering of price is consequently shared mutually by all the firms, and the firm that had initially lowered the price is only able to reach only a small rise in the quantity it sells. A moderately large dropping of price by the first firm usually leads to a moderately small rise in the quantity sold.

Any firm therefore finds it irrational to change the prevailing price, leading to prices that are more rigid compared to perfect competition.[4]

The postulation is that firms in an oligopoly are eyeing to guard and maintain their market share and that competitor firms are unlikely to match another's price increase but may match a price fall.

CARTEL

Competition Act, 2002 under section 2(c) defines cartel as follow:

"cartel" includes an association of producers, sellers, distributors, traders or service providers who, by agreement amongst themselves, limit, control or attempt to control the production, distribution, sale or price of, or, trade in goods or provision of services;

Section 3(3) of the Competition Act identifies four types of horizontal agreements (i.e., cartel agreements), which are presumed to cause an appreciable adverse effect on competition in India:

- Price fixing agreements
- Agreements between competitors that seek to limit or control production, supply or markets;
- market sharing agreements between competitors either by way of allocation of products, geographies or source of production
- Bid-rigging agreements which have the effect of eliminating or reducing competition for bids or adversely affecting or manipulating the process of bidding.

[4] Introductory Microeconomics, Class XII Economics Textbook, NCERT.

Economic Methods to detect Cartels.

- Screening

Screening refers to a cost-effective method for identifying industries whose behavior is sufficiently suggestive of collusion so as to warrant verification; that is, an intense investigation that directly contrasts collusion and competition as competing explanations of market behavior. Structural approach identifies markets with traits conducive to cartel formation like homogenous products, stable demand and no large buyers, excess capacity whereas the behavioural approach focuses on the market impact of that coordination, studying the pattern of firms' prices, quantities or other aspects.

- Inconsistency of firm's behaviour with Competition:

There are certain properties which hold true in a competitive market. For example independence and exchangeability. So, first a model is created which will hold true in competitive condition and then it is seen whether the sellers in the relevant market are deviating from that model. If yes, then subsequently, it will be seen whether they are colluding or not.

- Structural break in firm behaviour

This method basically focuses on change in pricing methods. It can indicate either formation of a cartel or its demise.

Appropriate events for identifying a candidate breakpoint are those which either are conducive to cartel formation (that is, make collusion easier or more profitable) or are observed along with cartel formation (for example, events that allow the cartel to operate more effectively).[5]

It would also be helpful to test for a break in the relationship among firms' bids around the time of the creation of the association. However, it is possible that there is a structural change even when there is no collusion.

The main object is to identify transition from non-collusion to collusion or from collusion to non-collusion which entails change in price or market share generating process.

Though it must be used cautiously, another method is to use one feature of the data to identify a possible breakpoint for structural change in some other feature of the data. For example, one may plot the average price series and "see" a date at which it begins to follow a rising trend. That date could then be used as a breakpoint to test whether there is a break in, say, the correlation between firms' prices.[6]

RESALE PRICE MAINTAINENCE

While cartel is a horizontal agreement, the term "resale price maintenance" (RPM) refers to a particular type of vertical agreement in which an upstream firm controls or restricts the price (or on occasion the terms and conditions) at which a

[5] Joseph E. Harrington, Jr. Detecting Cartels, Department of Economics Johns Hopkins University (2004) available at: https://www.competitionpolicyinternational.com/assets/Uploas/Detecting-Cartels.pdf last accessed on January 02, 2018.
[6] ibid

downstream firm might on-sell its product or service, generally to final consumers.

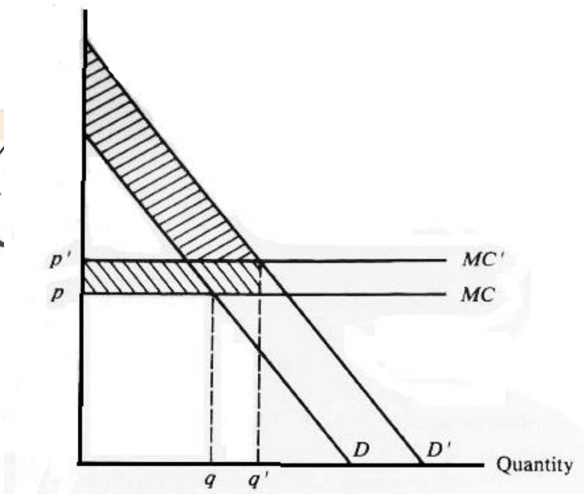
Resale price maintenance arises when an upstream firm – usually the manufacturer, producer, or importer of a good or service – limits or restricts the ability of a downstream firm – usually a distributor or retailer – to set the prices at which it on-sells the products of the upstream firm.[7]

In such agreements, manufacturer may prohibit the retailer to sell its product below a set price. In *Dr. Miles* case[8], the Supreme Court held that since the result is the same as if the retailers got together and agreed to set a higher price, which would amount to illegal price fixing, resale price maintenance, too, is illegal per se.

However, in State Oil Company v. Khan[9], the court adopted rule of reason approach in evaluating vertical price fixing agreements.

Sometimes, the manufacturer might be interested in increasing the quality of the presale services provided for its product. Suppose, if one retailer undertakes voluntarily to provide such services, he would be undercut by a competing retailer. The latter could free ride the efforts of the former. Once, the customers have availed presale service at the first retailers shop like a well-stocked showroom, pleasing salesman etc. they would be attracted to the second retailer who would be willing to offer at a lower price. This in turn would discourage even the first retailer to provide presale service.

Therefore, to eliminate such intra brand price competition the manufacturer may set a minimum price which would sufficiently ensure profits for the retailers at the same time would enable them to improve their services. This would promote intra brand non price competition.



In the above graph p' is the Minimum price fixed by the manufacturer. The demand curve shifts to D' because of the increase in demand due to better services. This increase in corresponding increase in revenue. In the above graph, shaded area between the marginal cost curves is the loss and the shaded area between the demand curves is the benefit derived by setting a price higher than the competitive price. In this figure, benefits are shown to outweigh the cost, but, the reverse effect can be easily shown too. That is, when due to increase in prices and thereby subsequent improvement in services, demand curve might not shift in the

[7] ROUNDTABLE ON RESALE PRICE MAINTENANCE, Organisation for Economic Co-operation and Development available at: https://www.oecd.org/daf/competition/43835526.pdf last accessed on January 02, 2018.
[8] Dr. Miles Medical Co. v. John D. Park & Sons Co. 220 U.S. 373 (1911)
[9] State Oil Company v. Khan 522 U.S. 3 (1997).

desired manner, if the consumer value the services less than the price increment.

Therefore, Resale price maintenance need not be abusive to the spirit of competition altogether. It promotes inter brand competition. It helps in increasing the quality of the product and also establishes a trust amongst the retailers as the manufacturer is guaranteeing profit margin.

ABUSE OF DOMINANT POSITION

Dominant position is always seen with respect to the relevant market. Explanation to Section 4 of the Competition Act, 2002 defines 'dominant position' as follow:

(a) "dominant position" means a position of strength, enjoyed by an enterprise, in the relevant market, in India, which enables it to— (i) operate independently of competitive forces prevailing in the relevant market; or (ii) affect its competitors or consumers or the relevant market in its favour.

Dominant position in itself is not prohibited. Abuse of dominant position is prohibited. In the Competition Act, 2002, section 4(2) lays down the situations in which abuse of dominant position takes place. These include situations where an enterprise

- imposes unfair or discriminatory condition or price in purchase or sale of goods or service which includes predatory pricing which is also a form of abuse because it amounts to selling the goods at a price below the cost of production to acquire market share if it is done with a view to eliminate competitors or reduce competition.
- limits or restricts production or technical or scientific development of goods or provision of services
- Restricts market access
- creates conclusion of contracts subject to recognition by other parties of
- imposing supplementary obligations which have no nexus with the object of the contract
- uses its leading position in one significant market to enter into, or safeguard, other relevant market.

Market Definition

A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit maximising firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a "small but significant and non-transitory increase in price," assuming the terms of sale of all other products are held constant.[10]

The Small but Significant and Non transitory Increase in Price (SSNIP) is either taken to be 5 % or 10 %. As a result, it is also well-known, occasionally, as 5-10 per cent test. The managing principle of Hypothetical Monopolist (HM) test is "a relevant market is something worth monopolising".

It has been noted by the European commission that demand side

[10] US Horizontal Merger Guidelines, 1992, issued jointly by the Department of Justice and the Federal Trade Commission.

substitutability is of prime importance and this is a matter to be examined when determining whether there is market power. The SSNIP test was developed through judicial pronouncements to see whether particular products are within the same market or not.

In a market if a particular firm was to introduce a SSNIP and such change leads to sufficient number of consumers shifting their demand to other markets then the price rise would be unprofitable and the market is wide and competitive.

In case a HM knows that if he is affecting a SSNIP, either all the customers would take the products offered by him or take the substitute products which would be also below his control, he is more probable to affect a SSNIP. Hence, the HM would affect a SSNIP only if he is convinced that the consumers would not move out of this picked basket of products.

MARKET POWER

Market power refers to the ability of a firm (or group of firms) to raise and maintain price above the level that would prevail under competition is referred to as market or monopoly power. The exercise of market power leads to reduced output and loss of economic welfare.[11]

Three factors affect the market power: market share and concentration, barriers to entry and expansion, buyer power. Market power varies through various forms of market. In perfect competition no single firm is able to determine the price, sellers are price takers. In a Monopoly the firm has considerable market power.

In India, Sections 5 & 6 of the Competition Act, 2002 deals with Regulation of Combinations. These sections were introduced with a view to examine the potential effect of a combination (mergers and acquisitions) of shares/assets of enterprises in the markets and to prevent firms which may affect the competition in markets in India before gaining substantial market power than to control such market power after its creation. While deciding the application for approval following factors are considered: increase in prices of goods, innovation and the impact on consumer choice.

CONCLUSION

Competition law is concerned with those markets in which there is improvement in consumer welfare. The law protects competition on the premise that it provides more goods to consumer at lower prices and increases the efficiency. It is very important to curb anti-competitive practice for a healthy economy. However, at the same time a balance has to be struck between the competition law and other industrial and social policy. So, a stringent approach placing a blanket ban on all restrictive trade practices or anti-competitive markets is not feasible because sometimes dynamic efficiency can be enhanced only in a non-competitive market. There are certain goods and services which are provided in a better and more efficient manner in a non-

[11] Glossary of Industrial Organisation Economics and Competition Law, compiled by R. S. Khemani and D. M. Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993. Available at: http://www.oecd.org/regreform/sectors/2376087.pdf last accessed on January 03, 2018.

competitive market. The thing which needs to be considered is the maximization of consumer welfare as well as overall efficiency achieved through scrupulous and lawful practices. The most anti-competitive market would be where a monopoly thrives. It is very important to understand a monopoly or other forms of non-competitive market in order to formulate laws to regulate them. Economic analysis helps in understanding the impact of an existing market on the prices and output level thereby influencing the demand. It is of utmost importance that consumers are not deprived of goods or services because of exorbitant prices. Economic analysis can help in ensuring that the demands of the consumers can be fulfilled and there is free access to the market. It can also help to detect cartels and unfair trade practices. Competition is said to be harmed when prices in the market prevail at the level higher than the competitive level. Economic analysis can easily help in firstly identifying the relevant market and thereafter determining whether the market is competitive or detriments the consumer welfare.

REFERENCES

- Richard A Posner,Economic Analysis of Law (Aspen Casebook), Wolters Kluwer (2014)
- Dr. Bimal N Patel and others, Economic Analysis of Law, Lexis Nexis (2013)
- Social Costs of Monopoly and Regulation, Richard A. Posner available at: http://www.nber.org/papers/w0055 last accessed on January 01, 2018.
- Joseph A. Schumpter, Capitalism, Socialism, and Democracy (1942) 81- 106.
- Sigrid Stroux, Economics of Oligopoly , European University Institute, Italy (2002) available at: http://cadmus.eui.eu/bitstream/handle/1814/184/law02-6.pdf last accessed on January 02, 2018.
- Introductory Microeconomics, Class XII Economics Textbook, NCERT.
- Joseph E. Harrington, Jr. Detecting Cartels, Department of Economics Johns Hopkins University (2004) available at: https://www.competitionpolicyinternational.com/assets/Uploas/Detecting-Cartels.pdf last accessed on January 02, 2018.
- ROUNDTABLE ON RESALE PRICE MAINTENANCE, Organisation for Economic Co-operation and Development available at: https://www.oecd.org/daf/competition/43835526.pdf last accessed on January 02, 2018.
- Dr. Miles Medical Co. v. John D. Park & Sons Co. 220 U.S. 373 (1911)
- State Oil Company v. Khan 522 U.S. 3 (1997).
- US Horizontal Merger Guidelines, 1992, issued jointly by the Department of Justice and the Federal Trade Commission.
- Glossary of Industrial Organisation Economics and Competition Law, compiled by R. S. Khemani and D. M. Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993. Available at: http://www.oecd.org/regreform/sectors/2376087.pdf last accessed on January 03, 2018.

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